Annals of Behavioral Medicine, 2023, **57**, S1–S646
https://doi.org/10.1093/abm/kaad011
Abstract

Wednesday
April 26th, 2023
8:30 AM
Recorded Research Spotlights

Abstract citation ID: kaad011.0001

RECORDED SPOTLIGHT 1: A REMOTE GROUP-MEDIATED INTERVENTION PROMOTING PHYSICAL ACTIVITY ACROSS THE DAY IN OLDER ADULTS WITH CHRONIC PAIN

Jason Fanning, PhD[1], Sherri A. Ford, MA[2], W. Jack Rejeski, PhD[1], Justin Robison, BS Kinesiology[1], Amber K. Brooks, MD, MS[3]

[1]Wake Forest University, Winston Salem, NC; [2]Wake Forest University, Kernersville, NC; [3]Wake Forest School of Medicine, Winston Salem, NC

Chronic pain is a common and burdensome chronic health condition in the United States that disproportionately affects older adults. Chronic pain often causes and is caused by low levels of physical activity and high levels of sedentary time; a dysfunctional cycle that has profound effects on quality of life and independence. One promising approach for managing chronic pain involves accumulating steps via frequent bouts of movement throughout the day in order to increase activity and reduce the presence of sustained sitting bouts (i.e., a day-long movement [DLM] program). We present the results of the *Mobile Intervention to Reduce Pain and Improve Health II* (MORPH-II) pilot randomized controlled trial, wherein older adults (55-85 years) with chronic pain and obesity were randomized either to a 12-week remote and theory-based group-mediated DLM intervention supported by a custom mHealth toolset and trained pre-health student coaches or to a low-contact control. The focus of MORPH-II was on refining the DLM coaching model through the addition of student coaches, as the initial MORPH pilot revealed heterogeneous changes in steps and sedentary time. Participants attended weekly group meetings to acquire the skills necessary to adhere to their DLM prescription. Between meetings, participants aimed to increase daily steps each week with an emphasis on distributing steps throughout the day and avoiding sustained sitting. This was supported by an mHealth app that visualized Fitbit-collected steps and inactive bouts on a daily timeline bar. The app also subdivided daily steps into morning, midday, and evening periods wherein participants could achieve up to 40% of their daily goal, necessitating steps within each period. In total, 44 participants with a mean (SD) age of 68.85±7.91 years were randomized with 40 completing the trial (n=22 intervention, n=18 control). ANCOVA models revealed a large-magnitude difference in baseline-adjusted ActivPAL-recorded steps (η^2 =.23) such that MORPH participants engaged in 1367 additional daily steps at week 12. Likewise, there was a large-magnitude difference in ActivPAL-recorded sedentary breaks (η^2 =.24) such that MORPH participants engaged in 5 additional daily breaks at week 12. Regarding pain intensity, there was a small magnitude effect (η^2 =.01) favoring MORPH at 12 weeks, though both conditions improved during the study period. Taken together, these results suggest a remote DLM program may be effective for improving physical activity and sedentary behaviors in older adults with chronic pain. Additional long-term research in a larger sample is warranted.

CORRESPONDING AUTHOR: Jason Fanning, PhD, Wake Forest University, Winston Salem, NC; fanninjt@wfu.edu

Abstract citation ID: kaad011.0002

RECORDED SPOTLIGHT 2: ALCOHOL CONSUMPTION TRAJECTORIES IN ADULT IN RELATION TO ALL-CAUSE AND CANCER MORTALITY USING GROUP-BASED TRAJECTORY MODELING

Shikha Kukreti[1], Carol Strong, PhD[2]

[1]National Cheng Kung University, Tainan, Tainan, Taiwan (Republic of China); [2]Department of Public Health, College of Medicine, National Cheng Kung University, Tainan, Taiwan, Tainan, Tainan, Taiwan (Republic of China)

Introduction: A total of three million deaths occurred worldwide due to alcohol consumption in 2016, accounting for 5.3% of all deaths and 400 000 deaths from cancer (4.2% of all cancer deaths) (WHO, 2018). In the past literature, however, it has also been demonstrated that behavior and physiological responses to alcohol differ between men and women. It is also likely that an individual's alcohol consumption changes over time and overall consumption over time is more likely to predict chronic outcomes than intake at a single point in time. Therefore, the present study aimed to explore the associations between sex-specific alcohol intake trajectories with cancer risk and all-cause mortality using a longitudinal MJ dataset.

Methods: For this study, the data were obtained from a Taiwan-based prospective cohort on individuals between 1998 and 2017, which was linked to National Death Registry for all-cause and cause-specific mortality. A total of 290,279 participants born before 1977 were included in the database. 89,886 participants with at least two repeated alcohol consumption measures were included after excluding those who were younger than 40 in 1998 and had self-reported cancer at baseline. Information on volume, frequency and concentration of alcohol drinking were harmonized across the cohorts. A group-based trajectory model was used to identify clusters of individuals following similar long-term sex-specific alcohol intake trajectories. Cox's proportional hazard regression was used to determine the associations between alcohol consumption trajectories.

Results: Of all 89,886 participants, 50.69% were male and 49.31% females with a mean age of 48 years at baseline. Two distinct alcohol intake trajectories for men (*Regular moderate drinker, Light/none drinker*) and two trajectories for women (*light/nondrinker, decreasing regular drinker*) were identified. For men compared with *light/none drinker*, *the regular moderate drinker* (HR = 1.30, 95% CI: 1.03 -1.65) was associated with an increased risk of all-cause mortality and (HR= 1. 55, 95% CI: 1.10 -2.18) cancer mortality. For women, compared with *light/nondrinker, decreasing regular drinker* (HR = 1.44, 95% CI: 0.64 -3.22) was associated with an increased risk of all-cause mortality and (HR= 1. 53, 95% CI: 0.49 -4.78) cancer mortality.

Conclusion: There is an increased risk of cancer mortality and all-cause mortality associated with regular drinking of alcohol in both men and women. It is imperative to implement effective interventions to reduce the amount of regular alcohol consumption so that more individuals can live long and healthy life.

CORRESPONDING AUTHOR: Shikha Kukreti, National Cheng Kung University, Tainan, Tainan, Taiwan (Republic of China); shikha.kukreti10@gmail.com

Abstract citation ID: kaad011.0003

RECORDED SPOTLIGHT 3: BEYOND GENERALIZED ANXIETY: THE EFFECT OF ANXIETY SENSITIVITY ON DISORDERED EATING

Maria Bazo Perez, MS[1], Timothy Hayes, PhD[1], Leslie D. Frazier, PhD[1]

[1]Florida International University, Miami, FL

Anxiety and eating disorders (ED) represent a growing health concern in the population worldwide. Although these two prevalent mental health disorders are often co-morbid, the factors influencing their co-morbidity are not well understood. Given that both anxiety and EDs can involve heightened awareness of one's bodily sensations we sought to examine the role of anxiety sensitivity (AS) as a potential mechanism contributing to the high co-morbidity among anxiety and EDs. Anxiety sensitivity is the belief that anxious symptoms can be harmful and has been called the 'fear of fear.' Our aim was to determine the role of AS in predicting disordered eating in a large sample of college students controlling for the influences of generalized anxiety. We examined the factor structure to test the pathways and relative influence from the dimensions of anxiety sensitivity (ASI-3) and generalized anxiety (BAI) to disordered eating factors (EAT-26). Our sample consisted of 815 undergraduate students with an average age of 21 (SD = 4.02), they were predominantly female (71%), and Hispanic (71.8%). On average, the sample reported body mass index (BMI, M = 24.96, SD = 5.13) at the ceiling of the normal range. The results of our structural equation model (SEM) analyses indicated that AS subscales significantly predicted dimensions of the EAT-26, even when controlling for the generalized anxiety (BAI). Interestingly, the ASI cognitive concerns and social concerns factors provided the most consistent prediction of ED. Whereas reporting more cognitive concerns was associated with more reported ED symptoms (e.g., feeling the urge to vomit after a meal), reporting more social concerns was associated with fewer reported ED symptoms, suggesting a protective or buffering effect. These findings extend extant literature by highlighting the role of AS in the co-morbidity of anxiety and EDs. Moreover, our model provides empirical and therapeutic potential to reduce the risk of EDs by demonstrating the strong predictive effect of AS in ED pathology. Therefore, these findings provide targets for transdiagnostic therapeutic intervention in order to reduce the risk of EDs.

CORRESPONDING AUTHOR: Maria Bazo Perez, MS, Florida International University, Miami, FL; mbazo002@fiu.edu

---

Abstract citation ID: kaad011.0004

RECORDED SPOTLIGHT 4: CENTERING LGBTQ+ PERSPECTIVES IN CANCER FINANCIAL BURDEN RESEARCH

Cindy Turner, BA[1], Austin R. Waters, MSPH[2], Caleb Easterly, BA[2], Kristin G. Cloyes, PhD, MN, RN[3], Anne C. Kirchoff, PhD, MPH[4], Stephen A. Rains, PhD[5], Echo L. Warner, PhD, MPH[1]

[1]University of Utah; Huntsman Cancer Institute, Salt Lake City, UT; [2]University of North Carolina, Salt Lake City, UT; [3]Oregon Health & Science University, Portland, OR; [4]University of Utah/Huntsman Cancer Institute, Salt Lake City, UT; [5]University of Arizona, Tucson, AZ

Introduction: LGBTQ+ populations are more likely to experience cancer health disparities and economic instability, which increases risk of financial hardship for LGBTQ+ cancer survivors. The magnitude of this issue remains unknown due to a lack of sexual orientation and gender identity (SOGI) data collection in cancer research and patterns of LGBTQ+ discrimination in healthcare. A community-based approach to LGBTQ+ cancer health research bridges these gaps by amplifying LGBTQ+ voices. We formed a study advisory board (SAB) to evaluate the equity of LGBTQ+ cancer crowdfunding campaigns.

Methods: Through community outreach and referrals from an NCI-designated cancer center in the Intermountain West, we convened a national study advisory board containing eight members who self-identified as LGBTQ+ cancer professionals, patients, caregivers, and/or survivors. Upon invitation, the SAB was told they would be compensated for their time and would have an active role in proposing board activities. The research team proposed potential board activities and emphasized that board members could choose their level of engagement and prioritize activities that would also be beneficial for their own professional or personal development.

Results: Members of the SAB are primarily young LGBTQ+ cancer survivors and are early in LGBTQ+ academic or professional careers. The co-creation of board activities resulted in a plan where the SAB will be involved in every step of the research – a mixed methods study using web-scraping and technology-assisted textual content analysis to identify differences in LGBTQ+ cancer campaign funding amounts compared to non-LGBTQ+ cancer campaigns. To date, seven of the eight SAB members provided feedback on the research design and objectives, shared their own experiences with cancer crowdfunding and provided suggestions for terms to be used for identifying campaigns made by or for LGBTQ+ cancer patients and caregivers. The level of engagement of SAB members in data analysis, interpretation and dissemination will be documented throughout the study.

Conclusions: LGBTQ+ cancer patients are underrepresented in research given that SOGI is typically not documented. Nonetheless, including a SAB in LGBTQ+ cancer research studies increases rigor and acceptability of research in this field. Describing the extent to which LGBTQ+ SAB members engaged in research activities may inform strategies for improving representation of underrepresented community members.

CORRESPONDING AUTHOR: Cindy Turner, BA, University of Utah; Huntsman Cancer Institute, Salt Lake City, UT; cindy.turner@nurs.utah.edu

Abstract citation ID: kaad011.0005

RECORDED SPOTLIGHT 5: DRIVING REAL WORLD CHANGE THROUGH ORGANIZATION-LEVEL DESTIGMATIZATION EFFORTS: INTERNATIONAL OVERDOSE AWARENESS DAY

Laura Harrison, MPH[1], Lauren Dolinski, MPH, CHES, CHWC, LMC[1], Stephen Butkus, MS[1], Linda DeMasi, MBA[1], Alana Wellington[1], Monica Shekher-Kapoor, MD[2], Patricia Flynn[1], Karen Kline[1], Sandeep Kapoor, MD, MS-HPPL[1]

[1]Northwell Health, New Hyde Park, NY; [2]Cohen Children's Medical Center, Glen Oaks, NY

Over 107,000 individuals died of a drug overdose in the United States in 2021, with over 80,000 of those deaths involving an opioid. This is a 15% increase from 2020, largely attributable to the presence of fentanyl in illicit drugs, including within non-opioid drugs such as cocaine. Overdose prevention programs and naloxone are effective in reducing fatal opioid overdoses; harm reduction measures such as fentanyl testing can further reduce morbidity and mortality. However, ***stigma*** persists, and serves as a barrier to dissemination and utilization of naloxone and harm reduction measures.

To normalize, destigmatize, and harmonize messaging and awareness, our health system hosted ***International Overdose Awareness Day*** on August 31, 2022. Emergency Medicine Addiction Services and Employee Wellness teamed up prior to the event to launch a ***"Share Your Story"*** campaign and encourage 80,000 employees to participate by visiting a table, wearing purple on the day of the event, changing their profile picture to the purple ribbon logo, or becoming a Certified Naloxone Educator by completing an online training. Volunteers wore customized purple t-shirts, and stories were shared on an internal site and on the employee Facebook page as part of a "Facebook Takeover". On the day of the event, resources included naloxone rescue kits, information on fentanyl, treatment, family treatment, local harm reduction resources (fentanyl testing, syringe exchange), employee wellness resources, chaplaincy, and remote Screening, Brief Intervention, and Referral to Treatment services.

On August 31, **155 volunteers** across **31 sites** provided overdose prevention education and dispensed **1,560 naloxone rescue kits**. Sites included 19 hospitals, 3 addiction treatment locations, 2 ambulatory sites, our research institute, our medical school, and 5 swing office locations. Of those who received a naloxone kit, 90.0% were employees, 5.5% community members, 2.2% students, 0.3% patients, and 2.0% family/friends. 81.9% of participants reported this was their first time receiving a kit. Of reasons for taking a naloxone rescue kit, 80.7% of participants checked just in case, 19.6% were worried someone they know will overdose, 1.1% were worried they would overdose, and 8.1% work with individuals who use drugs. Additionally, **238 employees** have completed the Certified Naloxone Educator online training since messaging began. **40 individuals** shared their story through an online platform, either anonymously or with their name.

By approaching the topic with compassion and empathy, we empowered over 1,560 individuals with education, resources, and naloxone. Furthermore, we aimed to ***empower*** and ***motivate*** individuals to raise awareness and amongst their colleagues, family, friends, and neighbors, and ***utilize*** resources provided. ***Humanism*** is key to motivating utilization of evidence-based interventions to have a ***real-world impact***.

CORRESPONDING AUTHOR: Laura Harrison, MPH, Northwell Health, New Hyde Park, NY; lharrison1@northwell.edu

Abstract citation ID: kaad011.0006

RECORDED SPOTLIGHT 6: ECOLOGICAL MOMENTARY ASSESSMENT OF DELAY DISCOUNTING, REWARD VALUATION AND CRAVING IN VERY LIGHT DAILY SMOKERS

Melinda Furer, PhD[1], Siyuan Huang, MS[2], Joshua M. Smyth, PhD[2], Stephen Wilson, PhD[2]

[1]The Pennsylvania State University, Altoona, Port Matilda, PA; [2]The Pennsylvania State University, University Park, University Park, PA

Very light daily smoking (1-5 cigarettes/day) is associated with poor health. Individual differences in delay discounting have been linked to smoking behavior, but findings have been equivocal. Delay discounting may inform how smokers behave while abstinent, but few studies have demonstrated that discounting relates to smoking behavior in ecologically valid settings. To address this, the current study examined how individual differences on a baseline delay discounting task moderated the time-varying within-person relationship between momentary valuation of cigarettes and urge to smoke among very light daily smokers (aged 18-25) engaged in a naturalistic incentivized abstinence attempt.

Forty very light daily smoking young adults participated in an ecological momentary assessment study. Participants completed a baseline measure of delay discounting. During a 10-day incentivized abstinence attempt, at five pseudorandom times per day, subjects self-reported their current willingness to pay (WTP) for a single cigarette ("How much would you pay right now?") and urge to smoke. A descending monetary reinforcement schedule for abstinence was used ($20/day for abstinence on day 1 descending to $2.5/day on day 10). Multilevel models with momentary smoking urge as the outcome variable were used. Predictor variables included willingness to pay for a single cigarette (survey-level), monetary reinforcement possible for abstinence (day-level), and delay discounting (person-level).

There was a significant positive within-person association between urge to smoke and WTP ($p < .001$). Participants also reported higher urge to smoke on days when their potential reward for abstinence was higher (earlier in the abstinence attempt; $p < .001$). Several significant cross-level interactions were found. Reinforcement amount moderated the relationship between urge to smoke and WTP such that on days when participants could earn more for abstinence, the association was weaker ($p < .001$). Baseline delay discounting moderated the relationship between urge to smoke and WTP; surprisingly, among those with higher discounting scores the association was weaker ($p < .001$). Unexpectedly, with higher discounting scores also demonstrated a weaker positive association between reinforcement amount and urge to smoke ($p < .05$).

Results found that acute increases in valuation of cigarettes are concomitant with experiences of stronger urge to smoke, and this association may be influenced by monetary incentives for abstinence and/or phase of abstinence attempt. These relationships were most apparent among those with low levels of delay discounting. So, baseline discounting rates may be a useful tool in treatment selection. Findings also suggest the proposed mechanism of the link between heightened discounting and (re)lapse may not generalize to naturalistic settings. More research testing this is needed.

CORRESPONDING AUTHOR: Melinda Furer, PhD, The Pennsylvania State University, Altoona, Port Matilda, PA; melindafurer@gmail.com

Abstract citation ID: kaad011.0007

RECORDED SPOTLIGHT 7: EFFECTS OF THE COVID19 PANDEMIC ON DEPRESSION AND ANXIETY IN PRIMARY CARE AND STRATEGIES FOR FEASIBLE, ACCESSIBLE TREATMENT

Emily Fu, MPH, MS[1], Allison J. Carroll, PhD[1], Lisa J. Rosenthal, MD[1], Jeffrey Rado, MD, MPH[1], Inger Burnett-Zeigler, PhD[1], Neil Jordan, PhD[1], Andrew D. Carlo, MD, MPH[2], C. Hendricks Brown, PhD[1], JD D. Smith, PhD[3]

[1]Northwestern University Feinberg School of Medicine, Chicago, IL; [2]Northwestern University Feinberg School of Medicine, Evanston, IL; [3]Spencer Fox Eccles School of Medicine, Salt Lake City, UT

Background: The COVID-19 pandemic greatly impacted the healthcare system and population mental health. Integrating mental health services into primary care can improve access to mental health services. This qualitative study examines the first-hand experiences of staff in multiple roles in primary care regarding the pandemic's effects on their patient's mental health, clinical operations, and mental health resources.

Methods: We interviewed primary care leadership (n=17), physicians (n=13), and clinical social workers (n=21) in one academic medical system during the COVID19 pandemic. All clinics had launched the Collaborative Care program for depression and anxiety, which involves a clinical social worker who provides individual therapy and/or medication recommendations and follow-ups after consultation with an off-site psychiatrist. Interviewees were asked how the pandemic affected primary care patients' mental health, treatment of depression and anxiety, primary care operations, and suggestions for feasible integrated resources. Interviews were coded using Framework-Guided Rapid Qualitative Analysis. Key themes were identified by trained study team members.

Results: Five themes emerged across the three primary care roles: 1) an increase in patient depression, anxiety, and stress; 2) patients are more open to talking about mental health during primary care appointments; 3) a strain on primary care, particularly staffing and insufficient time; 4) a need for more in-clinic mental health resources; 5) telemedicine can provide accessible mental health care. Primary care physicians (PCPs) reported difficulty addressing both physical and mental health during appointments. PCPs and leadership agreed that integrated primary care services allow patients to seek mental health care in a familiar system while offloading responsibility from PCPs. All positions agreed that the long waitlist for therapy decreased enthusiasm, and it would be beneficial to hire more on-site therapists.

Discussion: Results signaled the COVID19 pandemic as a critical time with increased depression and anxiety and openness to talking about mental health during primary care appointments. At the same time, the overburdened health system has led to staff shortages and insufficient time to address all patient needs. Integrating more mental health services can help feasibly meet patient needs while offloading responsibility from the PCPs.

CORRESPONDING AUTHOR: Emily Fu, MPH, MS, Northwestern University Feinberg School of Medicine, Chicago, IL; emilyfu2024@u.northwestern.edu

---

Abstract citation ID: kaad011.0008

RECORDED SPOTLIGHT 8: EMPOWERING WOMEN TO ENGAGE WITH A WELL-WOMAN VISIT: AN INDUSTRY USE CASE

Ashley B. West, PhD[1], E. Susanne Blazek, PhD[2], Amy Bucher, PhD[3]

[1]Lirio, LLC, Knoxville, TN; [2]Lirio, Pine Island, MN; [3]Lirio, Boston, MA

Background: A well-woman visit provides a multitude of health-related benefits, in addition to sexual and reproductive health support, yet many women remain unaware of the diversity of benefits this visit can offer. Furthermore, various barriers exist for women who are trying to schedule and attend a well-woman visit. To address these barriers and build awareness around the comprehensive nature of the well-woman visit, a digital health intervention was developed to encourage scheduling and attendance of a well-woman visit.

Objective: This work highlights how a digital health intervention encouraging women to schedule and attend a well-woman visit can be designed within industry.

Methods: The behavioral design process consisted of (1) an extensive review of the literature to investigate common barriers to scheduling and attending a well-woman visit, (2) mapping of behavior change techniques, and (3) development of the intervention content items. The intervention content was created for health communication emails and focused on a variety of benefits of the well-woman visit including getting advice on reproductive/sexual health, energy, mood, weight. Personalized health messages were composed and delivered using Precision Nudging—an application of behavioral science and reinforcement learning to create tailored health messaging at scale that matches the right person to the right message at the right time. The intervention was developed and launched between the Summer and Fall of 2021.

Results: Over 500 possible health communication messages were developed to address 16 behavioral determinants (barriers and facilitators) that ranged from interpersonal factors such as self-efficacy, trust, anxiety about the pandemic, fear of pain or discomfort, to environmental factors such as access and cost. A library of intervention content items leveraging a suite of behavioral economic principles/cognitive biases and behavior change techniques were created and consisted of 18 different subject lines, 16 body copy and visuals, and 2 calls to action.

Conclusions: Preventive care such as the well-woman visit may by underutilized by patients due to a gap in awareness around what health benefits are provided. Providing knowledge and awareness of the diversity of services provided by a well-woman visit (outside of sexual and reproductive health) in addition to addressing barriers spanning across intrapersonal, interpersonal and environmental factors may increase the acceptability of this type of preventive care across diverse, at-risk populations.

CORRESPONDING AUTHOR: Ashley B. West, PhD, Lirio, LLC, Knoxville, TN; awest@lirio.com

Abstract citation ID: kaad011.0009

RECORDED SPOTLIGHT 9: EXAMINING COGNITIVE, EMOTIONAL, AND BEHAVIORAL RESPONSES TO MESSAGE FRAMING OF PROACTIVE COMMUNITY TESTING OF COVID-19

Lingzi Zhong, PhD[1], Anila Katragadda, BS[2], Erin Donovan, PhD[3]

[1]University of Utah, WEST JORDAN, UT; [2]Kansas City University College of Osteopathic Medicine, Kansas City, MO; [3]University of Texas at Austin, Austin, TX

Since the onset of COVID-19, higher institutions across the U.S. have taken various approaches to constantly monitor the spread of COVID-19 and to safely resume in-person instruction modes. Among these approaches, proactive community testing (PCT), or asymptomatic rapid testing, has been adopted by some institutions, despite that the uptake of PCT has been relatively low. It is thus essential to design effective communication strategies to promote regular participation in PCT by enhancing individuals' knowledge and positive perceptions about PCT. To this goal, we conducted an online factorial experiment to examine the effects of three message features: benefit target framing (self-focused benefit or community-focused benefit), description of PCT accuracy (verbal format, numerical format, no accuracy description), and narrative framing of testing procedure (non-narrative or narrative), in fall 2021. A valid final sample of 179 college students from a Southwestern university participated in the online experiment. A series of ANOVAs indicated that the three message features did not have significant main effects on respondents' knowledge, positive attitudes, emotional responses, or information seeking intentions. However, a few two-way interaction effects were significant. Specifically, description of PCT accuracy significantly moderated the effects of benefit-target framing and narrative framing on respondents' attitudes towards PCT. No description of PCT accuracy combined with self-benefit framing ($F = 3.444$, $p = .03$) and non-narrative framing ($F = 4.13$, $p = .02$) generated greater positive attitudes towards PCT. Additionally, narrative framing moderated the association between benefit-target framing and emotions, as narrative framing engendered greater negative emotions ($F = 6.34$, $p = .01$) and less positive emotions ($F = 3.96$, $p = .05$), when the messages focused on the community benefits of PCT. These findings suggested that individuals would prefer messages that concisely describe the testing procedure and convey the personal benefits of testing during times of crises like COVID-19. These findings contrast with previous health communication policy recommendations that indicate the advantages of highlighting community benefit and social norms of health behaviors, which speaks to the unique challenges of effective health communication during COVID-19.

CORRESPONDING AUTHOR: Lingzi Zhong, PhD, University of Utah, WEST JORDAN, UT; lingzi.zhong@hci.utah.edu

---

Abstract citation ID: kaad011.0010

RECORDED SPOTLIGHT 10: FACIAL EMG STARTLE AND SELF-REPORT OF AROUSAL AND VALENCE IN RESPONSE TO SEVERE UNDERWEIGHT AND SEVERE OBESE BODY IMAGES

Aubrey Dauber, MA[1], Abby L. Braden, PhD[2]

[1]Bowling Green State University, Perrysburg, OH; [2]Bowling Green State University, Bowling Green, OH

Background: Significant differences in appetitive and avoidance behaviors between people with and without eating disorders have been found, suggesting differences in reward and punishment sensitivity. Furthermore, eating disorder pathology is associated with intense fear of weight gain and over-evaluation of body shape and weight. The present study evaluated subjective and objective responses when viewing body images ranging from severely underweight to severely overweight to evaluate motivational behaviors.

Methods: In this cross-sectional design, female, adult participants ($n = 45$) were sorted into DE or healthy control (HC) groups based on scores from the Eating Disorder Examination Questionnaire (EDE-Q). EDE-Q scores that were one standard deviation above and below female undergraduate norm scores were enrolled into DE ($n = 22$) and HC ($n = 23$) groups, respectively. Participants viewed eight computer generated body pictures for each of the following three groups: severely underweight (BMI < 16.0), average (BMI 18.5-24.99), and severely obese (BMI > 40.0). Two versions of the experiment were created with different image sequences (24 images total) to control for order effects. For each trial, a startle noise probe was delivered randomly through headphones to elicit an eyeblink startle response. Facial EMG equipment captured participants' eyeblink startle when viewing body image pictures. Valence and arousal scores were collected with 9-point Likert scales. Options ranged from 1 (sad/calm) to 9 (happy/anxious), respectively. An ANCOVA was used to examine EMG startle for picture and group type, whilst controlling for psychotropic medications, which could impact eyeblink. ANOVAs were used to examine arousal and valence scores for picture and group type.

Results: EMG startle responses did not differ between groups. There was a significant main effect for body picture type ($p < .001$). While not significant at post-hoc ($p = 0.13$), EMG startle responses were higher for the severe underweight body images compared to the severe obese body images. The DE group reported higher levels of arousal and sadness when viewing severe obese bodied compared to the HC group.

Conclusions: Participants in DE and HC groups had similar physiological responses to all body image types. Group differences in arousal and valence scores could be due to the DE group experiencing more fear of weight gain, which could reflect aspects of core eating disorder pathology.

CORRESPONDING AUTHOR: Aubrey Dauber, MA, Bowling Green State University, Perrysburg, OH; adauber@bgsu.edu

Abstract citation ID: kaad011.0011

RECORDED SPOTLIGHT 11: FOOD INSECURITY AND IMMUNIZATION RATES FOR VACCINE-PREVENTABLE DISEASES: A SYSTEMATIC REVIEW

Nahian R. Khan, PhD, FSBM[1], Ariana Khan[2], Hillary Alamene, BA[3], Kelseanna Hollis-Hansen, PhD, MPH[4]

[1]UT Southwestern Medical Center, Waco, TX; [2]UT Southwestern Medical Center, Plano, TX; [3]UT Southwestern Medical Center, Irving, TX; [4]UT Southwestern Medical Center, Dallas, TX

Background: Vaccinations are one of the most important public health measures for preventing hospitalization and death. Literature on the relationship between food insecurity and vaccination is scarce, however, other social determinants of health (SDOH, e.g., income, insurance) have been associated with vaccine uptake. People experiencing food insecurity may be more susceptible to vaccine-preventable diseases due to impaired immune response caused by poor nutrition and living or working in areas of high disease transmission. Therefore, it may be particularly important to ensure adequate vaccine coverage among this population. The goal of this review is to identify what is known about food insecurity and vaccination rates.

Methods: A comprehensive search was conducted utilizing electronic databases: Medline, PsycINFO, PubMed, Scopus, and Embase for relevant publications written in English. A total of 23 Medical Subject Headings (MeSH) were used and included variations of the words "food insecurity" and "vaccination". After deduplication, 12503 articles were imported into Covidence. Two reviewers screened all titles and abstracts independently, and discrepancies were reconciled by a third reviewer.12342 articles were deemed irrelevant, 161 required full-text review, and of those 152 were excluded.

Results: 9 studies met criteria and were included. Studies were conducted in the United States (n=6), Mexico (n=1), Papua New Guinea (n=1), and Pakistan (n=1). There were a range of vaccines analyzed: COVID-19, Influenza, Pneumonia, BCG, HepB, DTP, Polio, HiB, and Measles. 67% of articles reported a negative association (n=6), such that greater food insecurity was associated with lower vaccine uptake or coverage. 22% of studies resulted in a null association (n=2), 11% had a mixed association (n=1), and no studies reported a positive association.

Conclusion: There is a dearth of literature on food insecurity and vaccination rates, but of the studies that met criteria, most suggested greater food insecurity was associated with fewer immunizations, even after controlling for other SDOH. Future research could contribute studies that determine whether these findings are replicable and whether results vary by age, vaccine type, location, and access to government programs that provide food assistance and/or free immunizations. Food insecurity is a unique SDOH because it can be directly addressed through federal and charitable food assistance programs. Subsequent studies could also explore whether leveraging or expanding these programs to hold vaccine clinics and promote vaccination among people experiencing food insecurity could improve vaccine coverage.

CORRESPONDING AUTHOR: Kelseanna Hollis-Hansen, PhD, MPH, UT Southwestern Medical Center, Dallas, TX; kelseanna@gmail.com

---

Abstract citation ID: kaad011.0012

RECORDED SPOTLIGHT 12: HEALTH INFORMATION-SEEKING BEHAVIORS IN WOMEN. RESULT FROM THE 2012-2019 HEALTH INFORMATION NATIONAL TRENDS SURVEY

Kobi V. Ajayi, MBA, MPH, PhD Candidate[1], Elizabeth Wachira, PhD, MPH, BSN[2], Folakemi Ezenwanne, MBBS[1], Sara Flores, PhD Candidate[1], Qiping Fan, PhD Candidate[1], Whitney Garney, PhD, MPH[1]

[1]Texas A&M University, College Station, TX; [2]Texas A&M University, Commerce, Commerce, TX

Introduction: Although research on health-information-seeking behaviors (HISB) abounds, much regarding HISB patterns among women in the United States is unknown. For instance, previous research often reports aggregated data on sex and gender, which obscures important information about women's health. HISBs can empower patients to seek and utilize necessary health care, leading to informed health decision-making and improved health outcomes. Thus, understanding women's HISBs can guide and inform health promotion and policies and ensure programs are responsive to women's unique health care needs. Based on the Andersen Behavioral Model, this study investigated the five-year prevalence and correlates of HISB among women.

Methods: We obtained data from the 2012, 2014, and 2017-2019 Health Information National Trends Survey (HINTS) and measured five binary HISB outcome measures. Women responded to whether they had ever sought health information from any source. Subsequently, those who answered in the affirmative were grouped into four HISB sources: health care providers (HCP), the internet, family and friends, and traditional media. Weighted descriptive statistics and multivariate logistic regression models were performed, adjusting for control variables based on the predisposing, enabling, and need factors.

Results: Across survey years, 83% (9345/11289) of women had sought health information from any source. However, health information seeking declined from 85.2% in 2012 to 82.4% in 2019. Most women utilized the internet to seek health information (72%; 5588/8093) compared to 15% (1381/8093) who relied on their HCP. In the adjusted models, significant associations were found between some of the predisposing (e.g., women aged 18-34 years had five-fold odds of using the internet than those aged 65+), enabling (e.g., women with a college degree or more had a four-fold likelihood of seeking health information than their counterparts with a high school degree or less), and need factors (e.g., reporting poor health status was associated with decreased odds of using the internet by 38% compared to those who reported an excellent health status) and the HISB measures.

Conclusions: Our study demonstrates variations in the sources and patterns of HISBs across women subgroups. Specifically, women prefer to seek health information from the internet compared to their HCP. This finding provides implications for public health strategies aimed at improving HISBs in women. For example, improving patient-provider communication might elicit positive HISBs, enhancing women's health outcomes.

CORRESPONDING AUTHOR: Kobi V. Ajayi, MBA, MPH, PhD Candidate, Texas A&M University, College Station, TX; omo_debare@tamu.edu

Abstract citation ID: kaad011.0013

RECORDED SPOTLIGHT 13: LESSONS LEARNED FROM MEASURING PARENT-CHILD WELLBEING USING SMARTPHONE EXPERIENCE-SAMPLING WITH UNDERSERVED FAMILIES

Amanda L. McGowan, PhD[1], David M. Lydon-Staley, PhD[2]

[1]Concordia University, Montréal, PQ, Canada; [2]University of Pennsylvania, Philadelphia, PA

Objectives: COVID-19 has highlighted the importance of considering digital literacy and equity when recruiting and enrolling vulnerable groups in digital health research.

Methods: The Activities and Behaviors in Children's Daily Lives study was a 14-day ecological momentary assessment (EMA) study conducted from February to December 2021 that aimed to measure everyday wellbeing in parents and children. Eligibility criteria included adults aged 18+ with a child ages 3-8 years old living in the household majority of the time, access to smartphone, and ability to read and speak English. Over 14-days, wearable devices measured parent and child physical activity and sleep; parents reported on their and their child's physical activity, sleep, screen time, and emotions 10 times per day; and parents recorded and shared a video of their child brushing their teeth in the evening.

Results: Of the 71 parent-child dyads, 34% were African American/Black, 38% were white, 12% endorsed multiple race/ethnicities, 6% were Asian/Asian American, and 10% were Hispanic/Latino. Parents reported a modal family income ≤ $34,999, with a range of $5000 to $200,000 and greater. Parents' education spanned less than high school (10%), high school or GED (26%), associate degree (21%), bachelor degree (16%), master degree (15%), doctorate (5%), and professional degree (5%). Parents' employment spanned not employed (37%), part-time employed (16%), and full-time employed (47%). The mean age of parents was 35.9 years old (SD = 6.6) and children was 5.6 years old (SD = 1.7). Participants experienced difficulties independently installing the smartphone app. Technical challenges included smartphone storage space, reliable internet access, and finding the smartphone app in the app stores. To overcome these barriers, our study team implemented the following: 1) a home visit at the beginning and end of the 14-day EMA period to assist with app installation; 2) a shared electronic document with instructions on app installation, recording a high-quality toothbrushing video, and uploading the video to cloud storage; 3) a phone call and text message "check-in" after the first day of the study to troubleshoot any technical difficulties. 97% of parent-child dyads completed the 14 days of the study, with overall response rate to EMA prompts of 80%.

Conclusions: Our response rate was high and multiple sources of communication helped to overcome digital literacy barriers when conducting digital health research with underserved families. Lessons learned in our 14-day EMA study may provide critical and timely implications for other behavioral researchers seeking ways to design their studies for recruiting and retaining underserved families in digital health research.

CORRESPONDING AUTHOR: Amanda L. McGowan, PhD, Concordia University, Montréal, PQ, Canada; amanda.mcgowan@concordia.ca

---

Abstract citation ID: kaad011.0014

RECORDED SPOTLIGHT 14: MODELLING ENGAGEMENT WITH A DIGITAL BEHAVIOR CHANGE INTERVENTION (HEARTSTEPS II): A SYSTEMS IDENTIFICATION APPROACH

Steven De La Torre, MPH[1], Mohamed El Mistiri, BSE[2], Eric Hekler, PhD[3], Donna Spruijt-Metz, MFA, PhD[4], Misha Pavel, PhD[5], Predrag Klasnja, PhD[6], Karine Tung[7], Rachael Kha, MS[8], Rebecca De Braganca, BS[9], Daniel E. Rivera, PhD, FSBM[2]

[1]Keck School of Medicine of USC, Covina, CA; [2]Arizona State University, Tempe, AZ; [3]UC San Diego, San Diego, CA; [4]USC Dornsife Center for Economic and Social Research, Los Angeles, CA; [5]Northeastern University, Boston, MA; [6]University of Michigan, Ann Arbor, MI; [7]University of Massachusetts Amherst, Amherst, MA; [8]Massachusetts Institute of Technology, Cambridge, MA; [9]Keck School of Medicine of USC, Los Angeles, CA

Introduction: Digital behavior change interventions (DBCIs) are effective tools for addressing physical activity. However, long-term, in-depth knowledge of participant engagement with DBCIs remains sparse. Since the effectiveness of DBCIs to impact behavior change is dependent upon participant engagement, there is a need to better understand engagement as a dynamic process, in response to an individual's ever-changing biological, psychological, social, and environmental states.

Methods: The year-long micro-randomized trial (MRT) HeartSteps II provides an unprecedented opportunity to investigate DBCI engagement among ethnically diverse participants. We combined data streams from mobile sensors (Fitbit Versa; i.e. walking behavior and wear time), the HeartSteps II app (i.e. prompts sent, page views, and weather), and ecological momentary assessments (EMAs; i.e. exercise commitment, perceived busyness, perceived restedness) to build the idiographic models. A systems identification approach and a fluid analogy model were used to conduct autoregressive with exogenous input (ARX) analyses that tested hypothesized relationships between psychological and contextual variables with DBCI engagement through time. This unique approach allows for the identification of relevant factors for both individual participants in their respective context, and for identifying similar patterns among specific groups.

Results: Data from 10 participants, 50% (n=5) of whom identified as Hispanic, were included. The average age was 46.33 (SD= 7.4) years and the average steps per day at baseline was 5,507 steps (SD=6,239). Overall, the idiographic models explained 35.99% (SD=11) of the variance in daily application page views. Across individuals, the number of daily notification prompts received by the participant (burden) was positively related to increased app page views. Weekend vs. weekday and perceived daily busyness were also found to be key predictors of daily application page views, daily exercise commitment, and daily Fitbit step count. Among Hispanic participants, the individual models explained on average 43.81% (SD=6.1) of the variance in objectively measured application page views per day compared to only 25.52% (SD=7.4) among non-Hispanic Whites. Lastly, the models explained 25% (SD=4.7) of the variance in walking behavior among Hispanics compared to 18.35% (SD=3.9) in non-Hispanic Whites.

Conclusions: This novel approach has significant implications for both personalized and adaptive DBCIs by identifying factors that foster or undermine engagement in an individual's respective context. Once identified, these factors can be tailored to promote engagement and support sustained behavior change over time.

CORRESPONDING AUTHOR: Steven De La Torre, MPH, Keck School of Medicine of USC, Covina, CA; sdelator@usc.edu

Abstract citation ID: kaad011.0015

RECORDED SPOTLIGHT 15: MOTIVATORS & BARRIERS FOR GREEN PHYSICAL ACTIVITY IN ADULTS IN THE UNITED STATES

Amanda L. Folk, MS[1], Chelsey M. Thul, PhD, MA[1], Mark A. Pereira, PhD[1], Daheia J. Barr-Anderson, MSPH, PhD[1]

[1]University of Minnesota, Twin Cities, Minneapolis, MN

One of American Public Health Association's goals is to advise the public about the benefits of green physical activity (GPA), or physical activity performed in green spaces. GPA participation rates suggest that there is room for improvement; only 49% of all the United States population participated in outdoor recreation activities at least once in the last year. Existing literature regarding motivators and barriers to GPA often excludes historically minoritized groups; much of the literature largely features cis-white, able-bodied European males.

Purpose: Assess motivations and barriers for GPA and examine differences by domains of identity (i.e., race/ethnicity, gender, sexual identity, and ability).

Methods: A survey queried participants (N=205) on domains of identity, motivations for GPA (via the Physical Activity Leisure and Motivation Scale modified for GPA), and barriers for GPA (via the Outdoor Recreation Leisure Constraint Survey). Using SAS 9.4, overall and subscale motivation and barrier scores were summarized. One-way ANOVAs compared differences in motivations and barriers by identity domain variables.

Results: Across the entire sample (age = 33.5 ± 9.2; 85.4% non-cis-gender male; 32.2% identify as lesbian, gay, bisexual, transgender, queer, intersex, or asexual (LGBTQIA+); 34.1% Black, Indigenous, or Person of Color (BIPOC); 10.7% disabled), highest motivation subscale scores (out of a possible 5-25) were related to enjoyment of GPA (22.3 ± 2.9; e.g., it makes me happy), psychological condition (21.6 ± 2.9; e.g., it helps me relax), and physical condition (21.3 ± 3.3; e.g., because it helps maintain a healthy body). The greatest barriers to GPA sample-wide were structural (e.g., transportation, facility availability). LGBTQIA+ respondents reported lower motivation scores (p = 0.02) and significantly more barriers to GPA (p = 0.01) than heterosexual respondents. Similarly, barriers were greater for individuals with disabilities than those without (p = 0.02).

Conclusion: Identifying motivators and removing barriers to GPA may increase GPA participation, particularly among historically minoritized groups. Public health efforts should be created to motivate individuals who identify as LGBTQIA+, but perhaps more importantly, policies should address barriers faced by LGBTQIA+ and non-able bodied groups. Future analyses should consider intersectionality and the multiple factors of advantage and/or disadvantage across domains of identity.

CORRESPONDING AUTHOR: Amanda L. Folk, MS, University of Minnesota, Twin Cities, Minneapolis, MN; folk0039@umn.edu

---

Abstract citation ID: kaad011.0016

RECORDED SPOTLIGHT 16: PILOT STUDY OF SHARED HEALTHCARE ACTIONS & REFLECTIONS ELECTRONIC SYSTEMS IN SURVIVORSHIP (SHARE-S)

Stephanie J. Sohl, PhD[1], Rajani S. Sadasivam, PhD, FSBM[2], Carol Kittel, MA[1], Emily Dressler, PhD[1], Kathryn Weaver, PhD[1], Rebecca Dellinger-Johnston, MA[1], Nicole Puccinelli-Ortega, MS, NBC-HWC[1], Sarah L. Cutrona, MD, MPH[3], Kristie Foley, PhD[1], Thomas K. Houston, MD, FSBM[1]

[1]Wake Forest University School of Medicine, Winston-Salem, NC; [2]University of Massachusetts Chan Medical School, Worcester, MA; [3]University of Massachusetts T.H. Chan Medical School, Worcester, MA

Background: Cancer survivorship care planning efforts focused on information sharing have demonstrated limited impact on patient health outcomes. We designed the Shared Healthcare Actions & Reflections Electronic Systems in survivorship (SHARE-S) program to enhance survivorship guideline implementation by transitioning some effort from clinicians to technology and patients through supporting health self-management (e.g., healthy lifestyles).

Methods: We conducted a one-arm implementation effectiveness pilot, which included: 1) an e-referral from the clinical team for patient engagement, 2) three health self-management coach calls, and 3) text messages to enhance coaching. Coaches supported autonomy by guiding patients to select their own health goals. Our primary implementation measure was the proportion of cancer survivors e-referred who enrolled in SHARE-S (a priori target >30%). Secondary implementation measures assessed patient engagement. We also measured effectiveness and described changes in patient health outcomes to inform future studies.

Results: Of the 118 cancer survivors e-referred, 40 engaged in SHARE-S (recruitment proportion=0.34, 95% confidence interval [CI]: 0.25, 0.43). Those enrolled had a mean age of 57.4 years (SD=15.7), 73% were female, and 23% were Black or African American. Patient-level adherence was >90% for all 3 coach calls and 75% responded to at least one text message. Ninety percent of patients set a goal. The most common goal topics selected were: Eat Wisely (36%) and Be Physically Active (31%). Examples of specific goals included: to attend 7 alcohol anonymous meetings and to meditate 5 minutes before bed. Overall, PROMIS Profile-29 scores improved following the intervention (follow-up vs. baseline, Cohen's d for change): PROMIS Profile 29 - ability to participate in social roles (d=0.48), depression (d=-0.27), physical function (d=0.18), fatigue (d=-0.17), pain interference (d=-0.15), anxiety (d=-0.14), sleep disturbance (d=-0.04). Quality of life scores also improved (Quality of Life in Adult Cancer Survivors [QLACS]): Cancer-Specific quality of life (d=-0.37), QLACS positive feelings (d=-0.29), and QLACS benefits of having cancer (d=-0.20).

Conclusions: The SHARE-S implementation program successfully engaged cancer survivors. Once enrolled patients showed promising improvements in health outcomes. We speculate that allowing patients to autonomously select their own goals contributed to the success of this program.

CORRESPONDING AUTHOR: Stephanie J. Sohl, PhD, Wake Forest University School of Medicine, Winston-Salem, NC; ssohl@wakehealth.edu

Abstract citation ID: kaad011.0017

RECORDED SPOTLIGHT 17: PRESCRIBER PERSPECTIVES ON SCREENING OPIOID-NAÏVE PATIENTS FOR RISK

Margie Skeer, ScD, MPH, MSW[1], Jier Yang, MA, MA[1], Evan Robison, MPH[1], Michael Booth, BS[1], Rachael Sabelli, MSc[1], Tamar Boyadjian, MPH[1], Thomas Stopka, PhD, MHS[1]

[1]Tufts University School of Medicine, Boston, MA

Background: Little is known about how clinical providers assess risk for opioid use disorder (OUD), especially when considering prescriptions for opioid-naïve patients with acute pain. While formal screening tools exist [e.g., Opioid Risk Tool (ORT); Screener and Opioid Assessment for Patients with Pain (SOAPP)], they are not widely used by providers; moreover, while these tools provide an important mechanism for identifying higher-risk patients, they may not be sensitive enough to identify those at lower risk. Therefore, we sought to understand opioid prescribers' perspectives on screening practices for this population.

Methods: We conducted qualitative interviews with 32 providers (physicians, dentists, nurse practitioners, physician associates) who prescribed opioids across Massachusetts (June 2020 through May 2021). Providers were interviewed about their risk screening practices before prescribing opioids, their management of high-risk patients, and their perspectives on barriers and facilitators to effective risk screening. The study team coded and analyzed the qualitative data for themes using a deductive content analytic approach with NVivo qualitative analysis software.

Results: Providers used formal screening tools infrequently, which, at least in part, was due to various barriers, such as additional time and procedures screening required. Yet, most participants employed at least an informal screening process by talking to patients and emphasizing different aspects of the medical records that they examined for "red flags", including medication, substance use, psychosocial, and family history; however, almost none of the participants evaluated patients for subclinical risk factors known to increase the risk of OUD (e.g., lower levels of anxiety, social anxiety, etc.). Additionally, most participants discussed using the required Prescription Drug Monitoring Program and how they engaged with the state-mandated program, yet there were many inconsistencies across providers with respect to how it was utilized. Suggestions for reducing barriers to using screeners included incorporating more standardized screening methods; improving communication across healthcare providers; and streamlining technology around opioid screening and prescribing.

Conclusion: The results of this research will be incorporated into a larger-scale survey to be administered to providers who prescribe opioids in Massachusetts. Results will inform the development of recommendations and potential interventions for providers around screening practices.

CORRESPONDING AUTHOR: Margie Skeer, ScD, MPH, MSW, Tufts University School of Medicine, Boston, MA; margie.skeer@tufts.edu

---

Abstract citation ID: kaad011.0018

RECORDED SPOTLIGHT 18: THE ASSOCIATION BETWEEN DISCRIMINATION AND ALCOHOL CONSUMPTION AMONG SOUTH ASIANS IN THE US: A CROSS-SECTIONAL STUDY

Vandana Venkat, MPH[1], Mahathi Vojjala, MPH[2], David Isaacs, MPH[2], Lamiya Hussain, MPH[2], Fahad Farooqui, MPH[2], Farhan M. Mohsin, MPH[3], Pooja Yerram, MPH[2], Nina Parikh, PhD, MPH[2]

[1]New York University, North Brunswick Township, NJ; [2]New York University, New York, NY; [3]NYU Langone Health, Jamaica, NY

Background: South Asian Americans (SAAs) are an underserved population in the United States (US). Previous research focused on alcohol consumption and discrimination among Asian Americans have found significant associations between discrimination and alcohol consumption, but little is known about this among SAAs.

Objective: To examine the association between discrimination and alcohol consumption among SAAs.

Methods: A cross sectional study was conducted among 222 participants over the age of 18 and of SA descent through online surveys. Snowball sampling and social media were used for recruitment. Descriptive and bivariable analyses are presented. Validated measures used include major and everyday discrimination scales. Alcohol consumption was measured in three categories: no drinks, 1-30 drinks, and more than 30 drinks consumed in the past month. Covariates include age, education, employment, marital status, religion, smoking, immigration, and depression symptomology assessed using the Patient Health Questionnaire (PHQ-9).

Findings: One-fifth (20%) of participants reported everyday discrimination; 8.7% indicated major discrimination. Over half (51 .41%) of participants reported not drinking in the past month; 38.98% reported having 1-30 drinks, and 9.60% reported consuming more than 30 drinks. No association was found between discrimination and alcohol consumption. However, several covariates resulted in significant association with alcohol consumption, including years in the US (p = 0.04).

Conclusions: Preliminary results suggest that there is no association between alcohol consumption and discrimination (everyday and major) among SAAs. Future research should focus on immigration-related and culturally competent measures to understand association between discrimination and alcohol consumption among SAAs.

CORRESPONDING AUTHOR: Vandana Venkat, MPH, New York University, North Brunswick Township, NJ; vv829@nyu.edu

Abstract citation ID: kaad011.0019

RECORDED SPOTLIGHT 19: THE RELATIONSHIP BETWEEN LYMPHEDEMA AND PATIENT CHARACTERISTICS IN WOMEN WITH BREAST CANCER AND MODERATE PAIN

Grace H. Amaden, BS[1], Shannon N. Miller, BPH[1], Allison K. Diachina, BA[1], Hannah M. Fisher, PhD[1], Joseph G. Winger, PhD[2], Sarah A. Kelleher, PhD[1], Tamara J. Somers, PhD[2], Mei R. Fu, PhD[3]

[1]Duke University Medical Center, Durham, NC; [2]Department of Psychiatry and Behavioral Sciences, Duke University School of Medicine, Durham, NC; [3]Rutgers University, Camden, NJ

Introduction: Women with breast cancer often experience pain. Lymphedema is a common painful diagnosis related to breast cancer that can exacerbate pain-related challenges. Interventions have been developed that can improve lymphedema symptoms. Identifying factors that are uniquely related to lymphedema can help target intervention strategies to women most in need and improve outcomes. We examined the relationships between lymphedema and demographic, medical, and pain-related variables.

Methods: Participants (N=327) were women (M_{Age}=57(12); minority racial status=37%) with stage I-III breast cancer reporting pain at $\geq$ 5/10. These secondary analyses of a behavioral pain intervention trial examined baseline trial data (lymphedema status, age, race, cancer stage, surgical history, pain medication use, pain severity, self-efficacy for pain management, pain catastrophizing). Point-biserial correlations and chi-square analyses were used to examine relationships between lymphedema and demographic, medical, and pain-related variables.

Results: Lymphedema was reported by 26% of women. It was associated with race χ^2 (1,321)=6.72, *p*=0.01; participants of racial minority status were more likely to report lymphedema (35%) than white participants (21%). Lymphedema was also associated with surgical history χ^2 (1,324)=7.86, *p*=0.005. Lymphedema was related to higher pain severity (r=0.15, *p*=0.007) and pain catastrophizing (r=0.14, *p*=0.015). Lymphedema was not associated with age, cancer stage, pain medication use, or self-efficacy for pain management.

Discussion: We identified variables related to lymphedema in a sample of women with breast cancer and moderate pain. Importantly, lymphedema was associated with minority racial status indicating a potential health disparity in women with breast cancer. Women with lymphedema reported higher pain severity even among women with at least moderate pain. Lymphedema was also related to pain catastrophizing which is a critical pain-related variable that is associated with poor outcomes in patients with pain. Our findings may help identify women at risk for lymphedema and help target interventions to improve symptoms (i.e., pain) related to lymphedema. For example, The-Optimal-Lymph-Flow (TOLF) - a mobile based intervention that has shown efficacy for managing pain and other lymphedema-related symptoms. Addressing critical cognitive pain-related factors (i.e., pain catastrophizing) may also be important intervention component for improving lymphedema outcomes.

CORRESPONDING AUTHOR: Grace H. Amaden, BS, Duke University Medical Center, Durham, NC; grace.amaden@duke.edu

---

Abstract citation ID: kaad011.0020

RECORDED SPOTLIGHT 20: UNMOORED AND ADRIFT: THE ASSOCIATIONS BETWEEN SOCIAL RHYTHMICITY, MOOD, AND SLEEP BEFORE AND DURING THE COVID-19 PANDEMIC

Morgan P. Reid, MS[1], Sahar M. Sabet, MS[2], Natalie D. Dautovich, PhD[2]

[1]Virginia Commonwealth University, Chesterfield, VA; [2]Virginia Commonwealth University, Richmond, VA

Introduction: Regularity of daily routines, or social rhythmicity, is associated with better sleep and mood outcomes. According to the social zeitgeber theory, routines may become particularly irregular during times of social disruption, with potential implications for sleep and mood. The COVID-19 pandemic significantly disrupted the daily routines of college students, a population already at risk for sleep and mood disturbance. The present study examined associations between social rhythmicity, sleep, depression, and anxiety symptoms in college students before and after the onset of the COVID-19 pandemic.

Methods: Participants (*N* = 89; *M*age = 22.77; 85.2% women; 33.0% white) completed self-reported measures in May-July 2020. Measures assessed participants' retrospective regularity, sleep quality, and psychological symptoms before the COVID onset as well as their current psychological symptoms and sleep quality. Participants also completed a daily diary of social activities (Social Rhythm Metric) for seven days.

Results: Results suggest that social rhythmicity was linked to depression both before (*b* = .085) and during the pandemic (*b* = -1.27). Both associations were mediated by sleep quality (*b* = .023 and -1.27, respectively). Social rhythmicity was not associated with anxiety before the pandemic; however, it did predict anxiety after the pandemic (*b* = -.951), mediated by sleep quality (*b* = -.480).

Conclusions: Findings highlight the continued importance of regular daily routines for both sleep and mood outcomes, especially in times of social disruption. Results suggest that rhythmicity may be more strongly linked to depression than anxiety.

CORRESPONDING AUTHOR: Morgan P. Reid, MS, Virginia Commonwealth University, Chesterfield, VA; reidmp@vcu.edu

Abstract citation ID: kaad011.0021

RECORDED SPOTLIGHT 21: USING NUDGES TO ENHANCE APPOINTMENT REMINDERS AND REDUCE NO-SHOWS: A PRAGMATIC TRIAL

Alan R. Teo, MD, MS[1], Robert Handley, PhD[2], Brian Zikmund-Fisher, PhD[3], Meike Neiderhausen, PhD[4], Emily Metcalf, MA[2], Aaron Call, EdM[2], Steve K. Dobscha, MD[5], Peter J. Kaboli, MD, MS[6]

[1]VA Portland Health Care System, HSR&D Center to Improve Veteran Involvement in Care (CIVIC); Department of Psychiatry, Oregon Health & Science University; School of Public Health, Oregon Health & Science University and Portland State University, Portland, OR; [2]VA Portland Health Care System, HSR&D Center to Improve Veteran Involvement in Care (CIVIC), Portland, OR; [3]Department of Health Behavior of Health Education, School of Public Health, University of Michigan; Department of Internal Medicine, School of Medicine, University of Michigan; Center for Bioethics and Social Sciences in Medicine, University of Michigan, Ann Arbor, MI; [4]VA Portland Health Care System, HSR&D Center to Improve Veteran Involvement in Care (CIVIC); School of Public Health, Oregon Health & Science University and Portland State University, Portland, OR; [5]VA Portland Health Care System, HSR&D Center to Improve Veteran Involvement in Care (CIVIC); Department of Psychiatry, Oregon Health & Science University, Portland, OR; [6]Comprehensive Access and Delivery Research and Evaluation Center, Iowa City Veterans Affairs Healthcare System; Division of General Internal Medicine, Department of Internal Medicine, University of Iowa Carver College of Medicine, Iowa City, IA

Background: No-shows, or missed visits, are a persistent and costly problem in all healthcare systems. In the Veterans Health Administration (VHA), there are over 8 million no-shows annually, representing approximately 12% of all outpatient clinic appointments. Recent insights from the behavioral sciences have been used to enhance appointment reminders and encourage appointment attendance, and several studies have found promising results from including "nudges"—relatively simple messages added to appointment reminders. However, there have been no large-scale trials of nudges in appointment reminders in the U.S. To help translate behavioral insights into practice, the current study was envisioned as a pragmatic trial to evaluate the effect of nudges on outpatient appointment attendance.

Methods: This cluster randomized controlled pragmatic trial included 231 primary care clinics and 215 mental health clinics in one VHA medical center and its satellite clinics. Patients with appointments scheduled between October 15, 2020 and October 14, 2021 were eligible for analysis. Clinics were randomized to one of five study arms using equal allocation, four nudge arms and one control arm. The four nudge arms included varying combinations of brief messages developed with veteran input and based on concepts in behavioral science, including social norms around attending appointments, specific behavioral instructions for canceling appointments, and consequences to the Veteran and others for missing an appointment.

Results: There were 27,540 patients with 49,598 primary care appointments, and 9,420 patients with 38,945 mental health appointments. The no-show rates for the treatment group (all four nudge arms combined) and control group, respectively, were 11.1% and 11.9% in primary care, and 20.1% and 18.0% in mental health. There was no effect of nudges on no-show rate in primary care (OR=1.14, 95%CI=0.96-1.36, p=0.15) or mental health (OR=1.20, 95%CI=0.90-1.60, p=0.21) clinics, when comparing the treatment groups to the control group. When comparing individual study arms, no differences in no-show rates were observed, nor were there significant differences in cancellation rates.

Conclusion: Appointment reminder letters incorporating brief behavioral nudge messages were not effective in reducing no-shows in primary care or mental health clinics in VHA. More complex or intensive interventions may be necessary to reduce no-shows for outpatient appointments.

CORRESPONDING AUTHOR: Alan R. Teo, MD, MS, VA Portland Health Care System, HSR&D Center to Improve Veteran Involvement in Care (CIVIC); Department of Psychiatry, Oregon Health & Science University; School of Public Health, Oregon Health & Science University and Portland State University, Portland, OR; teoa@ohsu.edu

---

Abstract citation ID: kaad011.0022

RECORDED SPOTLIGHT 22: DIAPERS OR DINNER? TRADEOFFS BETWEEN DIAPERS AND OTHER BASIC NEEDS AMONG FAMILIES WITH YOUNG CHILDREN

Emily H. Belarmino, PhD, MPH[1], Carollyne Conway, BS[1], Kaya Daylor[1], Jane Kolodinsky, PhD, MBA[1], Emma Spence, MS[1]

[1]University of Vermont, Burlington, VT

Background: Diapers represent a unique financial burden for those with young children. Pre-pandemic, approximately 1/3 of U.S. households with young children reported diaper need. A growing body of literature links diaper need with adverse health outcomes, including increased pediatric visits for diaper dermatitis and urinary tract infections and poor maternal mental health. Households with young children have been disproportionately impacted by the COVID-19 pandemic, but no study has examined diaper need during the pandemic in a national sample. Using data collected in 2021, we examined which groups most commonly faced diaper need and the tradeoffs that caregivers made to diaper their children.

Methods: We fielded an online survey to a national research panel of caregivers with at least one child aged 0-4 years. Questions asked about diaper need, diaper access, tradeoffs made, and demographic characteristics. We received 878 usable responses and used survey weights to assure national representativeness. We summarized the data with descriptive statistics and used bivariate tests to examine differences between those with and without diaper need. Multivariable logistic regression was used to identify demographic factors associated with diaper need.

Results: 44.0% of respondents reported diaper need. Diaper need was higher among Hispanic respondents and was negatively associated with increasing age, income, education, and the number of children in diapers. Associations with income, number of children in diapers, and ethnicity persisted in multivariable models. Those with diaper need were significantly more likely to utilize a range of social and community resources to access diapers (compared to exclusively purchasing diapers) and to stretch their diaper supply. The most common tradeoffs to obtain diapers were reducing use of utilities (25.4%); purchasing lower cost foods (24.7%); cutting back on clothing purchases (24.2%); cutting back on home or car repairs (22.8%); and cutting back on the amount of food purchased (18.1%). Those with diaper need were significantly more likely to report making all 20 tradeoffs queried.

Conclusions: This study suggests a level of diaper need higher than what was documented pre-pandemic, identifies groups at elevated risk, and finds caregivers with diaper need using inventive strategies to cope. Diapers may be an important target for interventions aimed at improving the health of families with young children.

CORRESPONDING AUTHOR: Emily H. Belarmino, PhD, MPH, University of Vermont, Burlington, VT; emily.belarmino@uvm.edu

Abstract citation ID: kaad011.0023

RECORDED SPOTLIGHT 23: PERCEPTIONS OF PLANT-BASED DIETARY PATTERNS IN RURAL AMERICA: A QUALITATIVE STUDY OF VERMONT AND TEXAS

Emily H. Belarmino, PhD, MPH[1], Emma Spence, MS[1], Michelle Leonetti, RDN[1], Emma Fetridge[1]

[1]University of Vermont, Burlington, VT

Background: Rural populations experience higher rates of diet-related chronic diseases than their non-rural counterparts. Poverty, environmental factors, and social and cultural norms unique to rural areas may create barriers to healthy eating. Plant-based dietary patterns (i.e., those that emphasize increased intake plant foods and reduced intake of animal-source foods) are associated with reduced risk of chronic disease, yet little research has investigated their adoption among rural populations. This study examined perceptions of plant-based diets among rural residents in two geographically and culturally diverse states.

Methods: We recruited adults in Vermont and Texas, who had lived in a rural area for ≥ 10 years and reported eating ≥ 1 serving of meat per week. Semi-structured interviews explored knowledge, attitudes, social norms, and perceived behavioral control to eat a plant-based diet. Transcribed interviews were coded and analyzed using template analysis based on the Theory of Planned Behavior. Additional coding sought to identify each respondent's stage of change in the Transtheoretical Model. Key ideas were summarized in code memos and discussed among the team.

Results: Participants (n = 27) ranged in age from 24-96 years and were predominantly non-Hispanic white. Two-thirds were female. Most understood a plant-based diet to be high in vegetables and fruit, and many considered it to be synonymous with vegetarian or vegan. After hearing our definition, most had positive attitudes towards plant-based diets, but concerns were raised about protein and iron adequacy, the time needed to plan and prepare meatless meals, and the ability of those meals to be filling and satisfying. Respondents with high family and social expectations to consume meat were more often at the pre-contemplation stage of change than those with social networks encouraging of plant-based diets. While eating local produce was common during peak harvest times, cost and lack of access at local grocery stores were identified as barriers during other times of the year.

Conclusions: The findings suggest issues of availability, access, perceived time costs, and acceptability are key obstacles to broader adoption of plant-based diets among rural populations, especially among those with limited incomes and strong social expectations. Understanding rural perspectives can inform the development of nutrition interventions seeking to reduce rural disparities in diet-related chronic disease.

CORRESPONDING AUTHOR: Emily H. Belarmino, PhD, MPH, University of Vermont, Burlington, VT; emily.belarmino@uvm.edu

---

Abstract citation ID: kaad011.0024

RECORDED SPOTLIGHT 24: YOUTH MOBILE CRISIS RESPONSE TEAMS: ACCESSING TREATMENT RESISTANT AND ETHNIC MINORITY YOUTH

Morica Hutchison, PhD, LMFT[1], Kenneth Conner, PsyD, MPH[2]

[1]University of Rochester Medical Center, Painted Post, NY; [2]University of Rochester Medical Center, Rochester, NY

During 2020, youth saw a 31% increase in mental-health related emergency department visits,[1] yet only one-third followed through with outpatient referrals.[2] Factors influencing the low rate of mental health service utilization among youth include: Black and/or Hispanic ethnicity, socioeconomically disadvantaged, and stigma associated with mental health care.[3] Over 2,700 communities nationwide have implemented mobile crisis response teams (MRTs) into their behavioral health systems.[4] MRTs access youth most vulnerable to health inequities, whereas many other behavioral health programs underserve these youth.[5] Despite their wide scope, the majority of research utilizing MRTs focuses on adults. Thus, exploration of youth serving MRTs patient population and mental health treatment history is needed to understand the health disparities faced by this population and barriers to treatment engagement to inform future intervention development.

We conducted a secondary analysis of electronic health records (EHR) of youth living in Monroe County, New York who utilized MRT services from July 2019 to March 2022.

EHR resulted in 2,641 patients (m = 15.10, range = 5-21 years old), 58% female, 57.5% White, 23.5% Black, and 13.4% Latinx. The most common mental health diagnosis was 'mood disorders' (n = 1588, 80.7%), followed by adjustment disorders (n = 606, 30.8%), and ADHD-related disorders (n = 340; 17.3%). Just under 9% (n = 175) indicated a history of suicide-related behavior. Following the treatment recommendations of the MRT clinicians, nearly one-third of the sample (n = 795, 30.1%) had no other mental or behavioral health treatment engagement, while 330 (12.5%) attended intakes only with no further engagement, and 1516 (57.4%) attended multiple visits.

Analysis of the EHR data indicate the MRT serves higher rates of ethnic-minority groups (23.5% Black and 13.4% Latinx in the sample versus 14% Black and 8% Latinx population in Monroe County). Further, over 40% of the sample who utilize MRT services do not follow through with treatment recommendations, highlighting a significant gap in our care system to modify mental health treatment beliefs and practical barriers to improve engagement. Future studies are needed to investigate the beliefs and barriers faced by this population, particularly those identifying as ethnic and racial minorities to alter their treatment seeking beliefs and barriers to increase engagement and ultimately mitigate mental health adversities.

CORRESPONDING AUTHOR: Morica Hutchison, PhD, LMFT, University of Rochester Medical Center, Painted Post, NY; morica_hutchison@urmc.rochester.edu

Abstract citation ID: kaad011.0025

RECORDED SPOTLIGHT 25: TREATMENT SEEKING BELIEFS AMONG TREATMENT RESISTANT ADULTS WITH SEVERE ALCOHOL USE DISORDER

Morica Hutchison, PhD, LMFT[1], Tracy Stecker, PhD[2], Beau Abar, PhD[3], Kenneth Conner, PsyD, MPH[3], Stephen A. Maisto, PhD[4], Aileen Aldalur, PhD[3]

[1]University of Rochester Medical Center, Painted Post, NY; [2]Medical University of South Carolina, Charleston, SC; [3]University of Rochester Medical Center, Rochester, NY; [4]Syracuse University, Syracuse, NY

A number of interventions target practical barriers to accessing treatment, yet over 50% of individuals with behavioral health problems do not receive treatment. New strategies and interventions are needed to address unmet treatment needs by focusing on factors that promote treatment-seeking behaviors. Cognitive Behavioral Therapy for Treatment-Seeking (CBT-TS) was designed to address unmet treatment needs by increasing treatment-seeking behavior and has been implemented among veterans, active military, and community adults presenting with a range of diagnoses (e.g., depression, alcohol use disorder, suicidal ideation). We assessed participant baseline characteristics and treatment seeking beliefs elicited during the CBT-TS intervention session that influence their decision to seek treatment.

Data are drawn from 400 individuals enrolled and randomized to a phase-II RCT of community-based adults with severe but untreated alcohol use disorder. We focused analyses on the 194 participants who completed with CBT-TS intervention.

Participants were about half male (46%), White (80%), an average age of 40.3 years old, and an average score of 22.6 on the AUDIT. In total, 578 beliefs were discussed by the 194 participants and categorized as 16 individual beliefs. The most prevalent beliefs reported were, “I don’t want AA, group, Inpatient or Meds” (42.3%), “Therapy is positive” (40.7%), and “There are logistical barriers (time, childcare, transportation)” 37.6%). The next four beliefs reported are more challenging to modify, and include, “I don’t have a problem or need help” (30.4%), “I can handle it on my own” (28.9%), “I don’t want to give up drinking” (25.8%), and “It's hard to open up in therapy and can be scary” (19.6%).

The most prevalent beliefs reported were also the easiest to modify through CBT-TS whereas the next four beliefs require further discussion and exploration on how these beliefs interfere with treatment seeking, such as the influence of fear of withdrawal that underly their beliefs. It necessary to understand beliefs about treatment in order to appropriately target and modify them to increase initiation among high-risk treatment resistant groups. Findings point to the need to modify underlying beliefs related to cognitive barriers, particularly among those with severe alcohol use disorder. Forthcoming results will highlight which beliefs were associated with treatment initiation at 1 and 3 months post-intervention.

CORRESPONDING AUTHOR: Morica Hutchison, PhD, LMFT, University of Rochester Medical Center, Painted Post, NY; morica_hutchison@urmc.rochester.edu

Wednesday
April 26th, 2023
8:30 AM – 10:30 AM
Pre-Conference Courses

Abstract citation ID: kaad011.0026

COURSE 1: INTRODUCTION TO TIME-VARYING MEDIATION ANALYSIS FOR INTENSIVE LONGITUDINAL DATA

Donna L. Coffman, PhD[1]

[1]University of South Carolina, Philadelphia, PA

Time-varying effect models have been increasingly used in behavioral medicine to accommodate intensively measured longitudinal data such as that arising from ecological momentary assessments and they allow the *effects* of an intervention to vary as a function of time. These models have recently been extended to mediation analysis and allow the mediation effects to vary as a function of time. For example, a pharmacological smoking cessation intervention may have an effect on abstinence via decreased cravings and this indirect effect through cravings may vary as a function of time since quitting. That is, the indirect effect might be stronger shortly after quitting and diminish over time or vice versa. The application of time-varying mediation in behavioral medicine has the potential to result in a more thorough understanding of the processes by which interventions influence smoking, addiction, craving, and other relevant outcomes and how time influences such processes. Time-varying mediation analysis may be useful in examining the effects of interventions on many health behaviors, such as physical activity, diet, and alcohol or other substance use. This workshop will illustrate methods for both an end-of-treatment (i.e., distal) outcome measured once as well as intensively measured longitudinal outcomes such as daily smoking using data from the Wisconsin Smoker’s Health Study 2. We have implemented the methods in two R packages, *tvmediation* and *funmediation*, and will provide attendees with the code. Attendees do not need to be familiar with R or with time-varying effect models. The workshop will begin with a brief overview of time-varying effect models prior to extending them to mediation. Attendees are expected to be familiar with basic regression and mediation analysis.

CORRESPONDING AUTHOR: Donna L. Coffman, PhD, University of South Carolina, Philadelphia, PA; dcoffman@mailbox.sc.edu

Abstract citation ID: kaad011.0027

COURSE 2: HINTS @ 20: NEW SURVEY DATA AND RESOURCES TO SUPPORT YOUR RESEARCH AND INCREASE YOUR SCIENTIFIC IMPACT

Richard P. Moser, PhD, FSBM[1], Kelly D. Blake, ScD[2], Ashley B. Murray, PhD[3], Heather D'Angelo, PhD[4]

[1]National Cancer Institute -, Rockville, MD; [2]National Cancer Institute, Bethesda, MD; [3]National Cancer Institute | National Institutes of Health, Bethesda, MD; [4]National Cancer Institute, Rockville, MD

The National Cancer Institute (NCI) administers the Health Information National Trends Survey (HINTS), a probability-based, nationally representative survey of the US adult population that was created to monitor changes in the field of health communication, and measure health- and cancer-related knowledge, perceptions, attitudes and associated behavioral outcomes. These include assessing sources of trusted information, patient-provider communication, cancer-related risk and worry; and smoking, physical activity, and alcohol intake. HINTS data have been used by researchers and cancer control practitioners and advocates to test hypotheses and identify areas of need. The HINTS program has several new data resources that can be used by these stakeholders to support their efforts.   The purpose of this course is to familiarize SBM attendees with several recently developed HINTS-related data resources and facilitate their ability to utilize these data sources and increase the impact of their research.

This course will begin with an overview of the HINTS program and then describe in detail several relevant cancer-related data resources, all of which can be accessed or applied for through the HINTS website. These resources include the HINTS data linkage project, the HINTS-SEER project, and HINTS 6. The HINTS linkage project includes HINTS data that have been linked by county geocodes to several external variables that can be used as predictors, mediators, moderators, or covariates in models to answer novel research questions, and an applied use case will be presented. The data contain county-level measures curated from data sources including the American Community Survey (ACS), County Health Rankings, and the United States Department of Agriculture (USDA). Examples of county level measures linked to HINTS (2020) include demographics, SES, Social Vulnerability Index, internet access and usage, the built environment, segregation, and other social determinants of health-related measures. This will be followed by an overview of the HINTS-SEER project, a study where cancer survivors from three SEER cancer registries were administered a recent HINTS survey and the data include several SEER-related measures such as site, histology, and SEER summary stage. Sample code, analytic opportunities and any caveats when using these data will be discussed. An overview of the HINTS 6 data (2022), available in 2023, will follow along with information about the upcoming HINTS Data Users Conference (September 2023) and how to submit an abstract. Lastly, attendees' questions will be answered during a final discussion period.

CORRESPONDING AUTHOR: Richard P. Moser, PhD, FSBM, National Cancer Institute -, Rockville, MD; moserr@mail.nih.gov

---

Abstract citation ID: kaad011.0028

COURSE 3: AN INTRODUCTION TO THE MULTIPHASE OPTIMIZATION STRATEGY (MOST): BASIC PRINCIPLES AND INTERDISCIPLINARY APPLICATIONS

Heather Wasser, PhD, MPH, RD[1], Linda M. Collins, PhD, FSBM[2]

[1]University of North Carolina at Chapel HIll, Carrboro, NC; [2]New York University, Jersey City, NJ

The Multiphase Optimization STrategy (MOST) is a comprehensive, principled, engineering-inspired framework for optimizing and evaluating multicomponent behavioral, biobehavioral, biomedical, and social-structural interventions. Presented by the Optimization of Behavioral and Biobehavioral Interventions Special Interest Group (OBBI SIG) this course is designed to provide an overview of the basic principles, definitions, and utilities of MOST from an interdisciplinary perspective.

During this "basic principles" course, attendees will learn the key tenets of MOST (the *continuous optimization principle* and the *resource management principle*) and the three phases: 1) *preparation*, 2) *optimization*, and 3) *evaluation*. The purpose of the *preparation* phase is to lay the groundwork for optimization and key activities to be discussed include how to derive and revise a conceptual model, identify a set of candidate components, conduct necessary pilot work, and identify the optimization objective. The purpose of the *optimization* phase is to build the optimized intervention, which includes conducting the optimization trial and identifying the intervention that meets the optimization objective. The array of possible experimental designs will be presented in brief, with emphasis placed on the factorial experiment. Finally, the purpose of the evaluation phase is to confirm the effectiveness of the optimized intervention using the standard randomized controlled trial (RCT) and an appropriate control condition. Given the longstanding use of the RCT in behavioral intervention research, the emphasis of this course will be placed on activities that occur during the first two phases of MOST, *preparation* and *optimization*, as well as the critical decision point that occurs after *optimization* in which researchers must decide whether to proceed to the *evaluation* phase or return to the *preparation* phase. The course will be interactive with time allotted for open discussion and application of concepts. Attendees will be given a link to the Power Point slides and a list of articles, resources, and opportunities for obtaining additional information and training in the MOST framework.

This "basic principles" course is highly recommended for attendees who are unfamiliar or newly familiar with MOST and who want to participate in future courses or conference sessions covering more advanced topics in MOST.

CORRESPONDING AUTHOR: Heather Wasser, PhD, MPH, RD, University of North Carolina at Chapel HIll, Carrboro, NC; wasser@email.unc.edu

Abstract citation ID: kaad011.0029

COURSE 4: ADVANCED TOPICS IN INTERVENTION OPTIMIZATION: MATCHING THE RIGHT RESEARCH DESIGN TO YOUR RESEARCH QUESTION

Kate Guastaferro, PhD, MPH[1], Jacob Szeszulski, PhD[2], Angela Pfammatter, PhD, FSBM[3]

[1]New York University, New York, NY; [2]Texas A&M AgriLife Institute for Advancing Health through Agriculture, Dallas, TX; [3]University of Tennessee, Knoxville, Knoxville, TN

The process of intervention optimization, specifically the multiphase optimization strategy (MOST), allows behavioral scientists to increase the effectiveness, affordability, scalability, and efficiency of multicomponent interventions. This process is inherently linked to selecting the appropriate research design to answer specific research questions. For example, a factorial trial can test the individual and interaction effects of multiple intervention components over a specific duration, whereas a SMART trial may be better suited for determining the timing and order in which components are delivered. Failing to select the appropriate design may lead to dangerous or inappropriate conclusions. For example, an intervention component may be found to be ineffective, when in fact, it is synergistic with another intervention component and they need to be delivered together (i.e., interaction effect that was not tested).

This session will serve as an extension of introductory MOST offerings, delving specifically into the advanced topic of matching the right research design to the research question in the optimization phase of MOST. There are multiple designs that a scientist could select, including: the factorial or fractional factorial experiment, the sequential multiple assignment randomized trial (SMART), the microrandomized trial (MRT), and others. The selection of the research design is guided by the research question and the intervention component(s) being tested (e.g., behavior change technique(s), implementation strategy). Outcomes, whether proximal behavioral, clinical endpoints, and/or implementation metrics, must also be considered in the choice of design. In this preconference workshop, we will provide an overview of the different research questions that may be answered by various experimental designs.

Attendees will leave the workshop with the knowledge of what type of research questions may be answered with each research design. Additionally, attendees will have the opportunity to match a design to their question and get feedback on it from presenters.

This workshop is designed to be for an advanced audience and will complement introductory materials/events offered by the Optimization of Behavioral and Biobehavioral Interventions Special Interest Group and the freely available Coursera course. Attendees of this workshop are those who are familiar with intervention optimization and are seeking additional training in the critical considerations to design an optimization trial. This workshop will set the stage for other MOST presentations throughout the conference.

CORRESPONDING AUTHOR: Kate Guastaferro, PhD, MPH, New York University, New York, NY; kate.guastaferro@nyu.edu

---

Abstract citation ID: kaad011.0030

COURSE 5: EXTENDING OUR REACH: KNOWLEDGE MOBILIZATION FOR DISSEMINATION OF EVIDENCE-BASED TREATMENTS

Simona Bujoreanu, PhD[1], Rachael Coakley, PhD[2], Amy Hale, PhD[3]

[1]Boston Children's Hospital/Comfort Ability Program/Harvard Medical School, Cambridge, MA; [2]Boston Children's Hospital/ Harvard Medical School, boston, MA; [3]Boston Children’s Hospital/Harvard Medical School, Boston, MA

Across pediatric care, there remain significant gaps between scientific knowledge and routine clinical practice. Currently, it is estimated to take 17 years—-an entire childhood—for evidence-based interventions to trickle into practice (Chambers, 2018). While many evidence-based psychological interventions have been developed in pediatrics, few have been systematically disseminated and access to evidence-based care remains limited. The challenges that thwart the knowledge-to-practice pipeline are related to the lack of connectivity between the evidence producers (scientists and researchers) and the evidence consumers (practitioners and healthcare institutions). Behavioral health providers who commonly straddle the two worlds of research and direct patient care may be particularly well-poised to develop, evaluate, and disseminate interventions that can effectively help to close this gap.

This presentation will teach knowledge mobilization and translational research procedures, using a well-established group-based cognitive behavioral therapy (CBT) intervention as a case study. This group-based CBT intervention for adolescents living with chronic pain and their parents began at one institution and, over the last seven years, has been disseminated and implemented at 25+ children’s hospitals in three countries. This intervention has a demonstrated record of success of cross-institutional implementation and sustainability, providing a framework for knowledge mobilization. This presentation will review the six dynamic and iterative phases of research and development based on the Knowledge-to-Action Cycle (Graham, Logan, Harrison, et al, 2006) that have guided the implementation and dissemination research for this program as a roadmap for knowledge mobilization. The phases of this cycle include: 1) identifying knowledge and clinical gaps in care, 2) generating knowledge assets and implementation procedures, 3) evaluating clinical outcomes and systems-level processes, 4) developing and testing dissemination procedures, 5) expanding partnerships and monitoring knowledge use, and 6) sustaining knowledge use and continued innovation.

Participants will learn theory, practical applications, and strategies for navigating complex academic and healthcare settings. Specifically, participants will learn about essential features of the knowledge mobilization process, such as development of training and transfer procedures, protecting treatment fidelity, engaging patient partners, and maintaining institutional-level support. There will also be a specific focus on health equity, by showcasing how the Knowledge-to-Action cycle supported a systematic adaptation of this group-based CBT intervention to address the unique needs of under resourced youth with chronic illness.

CORRESPONDING AUTHOR: Simona Bujoreanu, PhD, Boston Children's Hospital/Comfort Ability Program/Harvard Medical School, Cambridge, MA; simona.bujoreanu@childrens.harvard.edu

Abstract citation ID: kaad011.0031

COURSE 6: EMOTION REGULATION AND HEALTH

Changiz Mohiyeddini, PhD[1]

[1]Oakland University William Beaumont School of Medicine, Rochester, MI

Adequate emotion regulation seems to be an important precursor for psychological health and well-being, performance, and social relations. Empirical evidence suggests that deficits in emotion regulation skills are relevant to the etiology, development, treatment, and prevention of most prevalent forms of psychopathology such as mood disorders, substance-use disorders, eating disorders, and somatoform disorders. However, despite a growing interest in emotion regulation, there is little consensuses with regards to theoretical conceptualization, assessment, and clinical relevance of emotion regulation. In addition, there is a confusion between emotion regulation habits and skills as a risk factor, mediating factor or symptom consequence. Therefore, the aim of this Pre-Conference Course is to provide an overview of leading theories and conceptualizations of emotion regulation, emotion regulation strategies, and emotion regulation efficacy. Furthermore, assessment related challenges will be discussed and different approaches regarding mechanism of change of emotion regulation habits and skills will be introduced. In addition, it will be highlighted why more clinically focused research is needed to understand the link between emotion regulation, mental health, and psychopathology.

CORRESPONDING AUTHOR: Changiz Mohiyeddini, PhD, Oakland University William Beaumont School of Medicine, Rochester, MI; chmohiyeddini@gmail.com

Wednesday
April 26th, 2023
11:00 AM – 1:00 PM
Pre-Conference Courses

Abstract citation ID: kaad011.0032

COURSE 7: INTRODUCTION TO COMMUNITY ENGAGEMENT STUDIOS: STRATEGIES AND LESSONS LEARNED FOR ELICITING COMMUNITY INPUT FOR RESEARCH

Adrijana Gombosev, MS[1], Dara Sorkin, PhD[2], Robynn Zender, MS[1]

[1]University of California, Irvine, Irvine, CA; [2]University of California Irvine, Irvine, CA

The Vanderbilt Community Engagement Studio (CE Studio) model has been disseminated across the country as part of their NCATS award. The National Center for Advancing Translational Sciences (NCATS) provides funding to universities and medical centers via their CTSA (Clinical and Translational Awards) to accelerate research findings into practice. The University of California Irvine (UCI) Institute for Clinical Translational Science (ICTS), which is funded in part by the CTSA, hosted a Vanderbilt training session in 2017 with 22 attendees from 13 CTSA hubs across the US. Since the completion of the training, the UCI ICTS has been conducting CE Studios for UCI investigators. CE Studios are one-time consultative meetings where community members provide input for research teams to optimize research success, relevance, and impact. The consultative meetings can be sought by researchers at any stage of the research project from informing grant applications to improving recruitment and study methods, to dissemination of research findings. CE Studios provide a structured forum to gain valuable patient or community member insight and has the potential to transform the way community and academic researchers work together.

The UCI ICTS is offering a practical training, including comprehensive methods and tools for bringing CE Studios to your institution. We will share lessons learned about conducting CE Studios in this pre-conference workshop, covering topics including the following: the benefits of conducting a CE Studio; the difference between a CE Studio and focus group; components of a CE Studio; virtual vs. in-person meetings; the facilitator role and selecting a facilitator; compensation for community participants; non-English-speaking CE Studios; evaluation of CE Studios and their impact over time; post-Studio reporting; and budgeting. Talking points will be illustrated with CE Studio examples along with a dynamic PowerPoint presentation. Resources such as templates, worksheets, and sample budgets will be provided to attendees.

CORRESPONDING AUTHOR: Dara Sorkin, PhD, University of California Irvine, Irvine, CA; dsorkin@uci.edu

Abstract citation ID: kaad011.0033

COURSE 8: HOW TO CULTIVATE INDUSTRY/ACADEMIC PARTNERSHIPS

Jennifer Huberty, PhD, FSBM[1], Cynthia M. Castro Sweet, PhD, FSBM[2], Emanuela Offidani, PhD[3]

[1]Fit Minded LLC, Phoenix, AZ; [2]Modern Health, Chimacum, WA; [3]Lumos Labs Medical (Lumosity), Brooklyn, NY

Digital health is a growing industry in the US and a competitive market due to rising health care costs and unmet patient needs. Digital health companies are scaling behavioral interventions for widespread use, and clinical/behavioral research serves a variety of purposes for a digital health company. Establishing successful academic/industry collaborations help enrich and accelerate research and can be mutually beneficial to both the company and the academic collaborator. During this pre-conference workshop we will review the purpose of science in industry and how to position science across the company. This will include (but not limited to) product development, content, sales, marketing, and regulatory approval. We will also explore the key elements that companies look for in academic partners, and provide practical advice for researchers to best prepare/position themselves for a successful partnership. Finally we will teach participants how to make connections/find industry partners and explore the mechanisms to fund academic/industry partnerships. Overall, this workshop will give participants useful strategies and action items to develop academic/industry partnerships, and help academic researchers explore options to further their program of research while contributing to the larger translation of science into impact.

CORRESPONDING AUTHOR: Jennifer Huberty, PhD, FSBM, Fit Minded LLC, Phoenix, AZ; jenhubertyphd@gmail.com

Abstract citation ID: kaad011.0035

COURSE 10: A PRIMER IN MACHINE LEARNING: APPLYING THE CONCEPTS TO YOUR BEHAVIORAL RESEARCH, COLLABORATIONS, AND GRANT PROPOSALS

Stephanie P. Goldstein, PhD[1], Olga Perski, PhD[2], Predrag Klasnja, PhD[3], Tianchen Qian, PhD[4], Nabil Alshurafa, PhD[5]

[1]The Miriam Hospital/Alpert Medical School of Brown University, Cranston, RI; [2]University College London, London, England, UK; [3]University of Michigan, Ann Arbor, MI; [4]University of California Irvine, Irvine, CA; [5]Northwestern University, Chicago, IL

Machine learning (ML), a subfield of artificial intelligence, is a type of analytical approach that uses algorithms to automatically and repeatedly learn from incoming data in order to classify inputs (e.g., determine if the user is at risk of a relapse) and make predictions or decisions with minimal human input. ML is gaining traction in behavioral science, in which it is typically used to characterize and predict behavior (including the detection of nuanced behavioral patterns), deliver tailored feedback and just-in-time support, and guide clinical practice. Foundational knowledge in ML is a necessity for behavioral scientists to actualize the benefits of this analytical approach, lead rigorous ML studies, and engage in effective interdisciplinary collaboration with ML experts.

The goal of this workshop is to provide foundational knowledge in ML that will prepare behavioral scientists to use ML in their own research. Speakers include SBM members with expertise in statistics, engineering, health informatics, and health psychology. Presentations and discussions will focus on common applications of ML in behavioral science, as well as strategies for seeking the necessary collaborators and funding to use ML in behavioral research. The workshop will begin with brief presentations on 3 common applications of ML (i.e., optimizing interventions, predicting behaviors/outcomes, and clinical decision support). Each presentation will include information about best practices, selecting appropriate ML techniques, recommended readings, and suggested software as applicable. Following the presentations, there will be 3 breakout round tables corresponding to each type of ML application. Attendees will have the opportunity to have their technical, conceptual, and practical questions answered during these round table discussion groups. Given the interdisciplinary and resource intensive nature of this work, the latter portion of the workshop will feature brief presentations focused on fostering successful cross-disciplinary collaborations and obtaining funding for ML-focused projects. The session will finish with an interactive panel. Researchers at all stages will have opportunities to ask questions and receive guidance on incorporating ML into their research. Attendees will be given a copy of the Power Point slides, as well as a list of resources recommended by the presenters. This pre-conference workshop aligns with the conference theme of the "translating science into impact" in that it provides foundational knowledge for researchers to conduct highly interdisciplinary, innovative research with a direct real-world impact.

CORRESPONDING AUTHOR: Stephanie P. Goldstein, PhD, The Miriam Hospital/Alpert Medical School of Brown University, Cranston, RI; stephanie_goldstein@brown.edu

---

Abstract citation ID: kaad011.0036

COURSE 11: GRADUATE STUDENT AND EARLY CAREER SCHOLAR PRE-CONFERENCE: TRANSLATING SCIENCE INTO IMPACT

Courtney L. Scherr, PhD[1], Sara Fleszar-Pavlovic, PhD[2], Callie S. Kalny, MA[1], Marleah Dean, PhD[3], Michael A. Diefenbach, PhD, FSBM[4], Kara Hall, PHD[5]

[1]School of Communication, Northwestern University, Chicago, IL; [2]Sylvester Comprehensive Cancer Center, University of Miami, Miami, FL; [3]University of South Florida, Tampa, FL; [4]Northwell Health, New York, NY; [5]National Cancer Institute, Rockville, MD

The primary purpose of the Health Decision Making (HDM) and Climate Change and Health (CCH) SIG's Graduate Student and Early Career Scholar Pre-Conference Course is to provide structured networking, mentorship, and professional development opportunities for graduate students, postdoctoral fellows, and early career scholars. The secondary purpose of the preconference is to create connections between members of the HDM SIG and the newly created CCH SIG. We deliberately focus on the conference theme, *Translating Science into Impact* as a call to come together and examine ways we can overcome barriers and increase the impact of our own work. To this end, the pre-conference will facilitate discussions about key career and disciplinary opportunities while exemplifying the translation of science into impact through the context of climate change and health. HDM members and the newly established CCH SIG are poised to play a pivotal role in ensuring the translational nature of their research improves population health outcomes. As such, the pre-conference will provide a forum for conversations about moving science "beyond the bench" during one's career. Several activities will achieve this goal, including an opening lecture delivered by [LECTURER 1] and [LECTURER 2] on the state-of-the-science of these topics and multiple small-group break-out/roundtable sessions. The opening lecture will cover vital topics such as inclusion in research and the field, innovation in methods and funding, and public influence and impact. The break-out sessions will be led by distinguished scholars who will facilitate small group discourse on how to translate behavioral science into real-world impact while also advancing one's career. Roundtable topics, informed by student and trainee SIG member feedback, will include the following: crafting and sharing your scholarly narrative, publishing and promoting your research findings, preparing for the job market, making the most in your time as a postdoc, succeeding at team science, and writing policy briefs. This pre-conference provides a venue for us to come together as members of the behavioral medicine community and explore how we can empower the next generation of HDM and CCH scholars as researchers, educators, policymakers, public spokespersons, and SBM members while examining and discussing future directions for the field.

CORRESPONDING AUTHOR: Courtney L. Scherr, PhD, School of Communication, Northwestern University, Chicago, IL; courtney.scherr@northwestern.edu

Abstract citation ID: kaad011.0037

COURSE 12: HARNESSING THE POWER OF FLUCTUATION: NEW HORIZONS IN MODELING INTRAINDIVIDUAL VARIABILITY WITH INTENSIVE LONGITUDINAL DATA

Genevieve F. Dunton, PhD, MPH, FSBM[1], Wei-Lin Wang, PhD[2], Donald Hedeker, PhD[3]

[1]University of Southern California, Los Angeles, CA; [2]University of Southern California, South Pasadena, CA; [3]University of Chicago, Chicago, IL

Intensive longitudinal data (ILD) are increasingly being obtained in behavioral medicine research studies as real-time smartphone and sensor modalities can supply novel insights into health risk and protective behaviors. In such studies, many repeated assessments (e.g., hundreds and thousands per participant) are captured at high density on a micro-timescale (e.g., every second, minute, hour). Time-varying variables collected through ILD can tell us about subject-level means (e.g., how unhappy is a subject, on average, across occasions?), variances (e.g., how much does a subject's mood fluctuate across occasions?), and slopes (e.g., is a subject's mood related to feelings of energy across occasions?). In this workshop, we will demonstrate cutting-edge statistical approaches to testing how these subject-level means, variances, and slopes can predict behavioral and health outcomes. For example, we may be curious to know whether experiencing greater fluctuations in self-control across the day is associated with steeper trajectories of smoking uptake during adolescence, whether night-to-night variability in sleep moderates the effects of a physical intervention on stress, or whether the strength of the momentary association between eating sweets and positive mood mediates the effects of an intervention on change in body mass index. We will show workshop participants how to access and use a freeware software program with a user-friendly interface, called MixWILD, that allows researchers to model subject-level means, variances, and slopes of time-varying variables as predictors, mediators, and moderators of health and behavioral outcomes in epidemiological and intervention studies. Specifically, the 1st stage of the program estimates subject-level means, variances, and slopes as random effects, which can then be used as regressors in a 2nd stage analysis to influence a subject-level or time-varying outcome. This approach greatly extends the kinds of research questions one can address with ILD. The workshop will begin by describing the types of applied research and conceptual problems that these statistical models can address. It will then review the statistical equations and computations that underlie the program and conclude by demonstrating how to use the program with examples from ecological momentary assessment (EMA) and ambulatory sensor monitoring studies.

CORRESPONDING AUTHOR: Genevieve F. Dunton, PhD, MPH, FSBM, University of Southern California, Los Angeles, CA; dunton@usc.edu

---

Abstract citation ID: kaad011.0038

COURSE 19: BRIDGING THE DIGITAL DIVIDE: APPLYING UNIVERSAL DESIGN PRINCIPLES TO ENHANCE INCLUSIVITY FOR PEOPLE WITH DISABILITIES

Sharon L. Manne, PhD[1], Christine M. Lehane, PhD[2], Natalina martiniello, Ph.D.[3], Michelle Y. Martin, PhD[4], Rebecca E. Lee, PhD[5], Robert J. Ferguson, PhD[6], Carissa A. Low, PhD[6]

[1]Rutgers Cancer Institute of New Jersey, new york, NY; [2]Meta, Woodinville, WA; [3]Concordia University, Montreal, PQ, Canada; [4]The University of Tennessee Health Science Center, Memphis, TN; [5]Center for Heath Promotion & Disease Prevention, Edson College, Arizona State University, Phoenix, AZ; [6]University of Pittsburgh, Pittsburgh, PA

A universal goal for behavioral medicine research is to optimize participation representing diverse and underserved populations. Although this is a stated goal, unfortunately, many online consents, announcements, surveys, and interventions are not designed to be accessible by people with disabilities. Accessibility and inclusion are vital to ensure that colleagues and leaders with disabilities have equitable opportunities to advance research, policy, and practice. In this workshop, three experts in universal design and accommodative approaches to optimize inclusion of persons with sensory and/or physical disabilities will discuss their methods to create universally accessible materials and interventions. This workshop will have three presenters with expertise in designing research studies that increase accessibility to people with disabilities. First, **Dr. Christine Lehane** will present a framework to elucidate the importance of designing observational and intervention research with accessibility and inclusion in mind. This presentation will also include a practical demonstration on identifying "Axes of Inaccessibility" in research and intervention design. Second, **Dr. Natalina Martiniello**, through her unique lens as a blind researcher with lived experience, will discuss her research and provide practical strategies to ensure that digital information is accessible and inclusive to participants and colleagues with visual impairments, including those with dual sensory impairment (deafblindness), and how proactive universal design within research and practice ultimately benefits all. Third, **Dr. Rebecca Lee** will present lessons learned working with women with mobility impairing disabilities in the design and implementation of physical activity and nutrition intervention programming using virtual worlds, wearable telemetry assessment technology, and digital communication platforms. In each workshop presentation, experiential learning, personal narratives, and research challenges and solutions will be integrated into a set of individual and group exercises. At the end, the panel will have an interactive question and answer panel discussion. Accessibility for persons with disabilities is understudied and essential if behavioral medicine research is to be truly inclusive.

CORRESPONDING AUTHOR: Sharon L. Manne, PhD, Rutgers Cancer Institute of New Jersey, new york, NY; sharon.manne@rutgers.edu

Wednesday
April 26th, 2023
1:30 PM – 3:30 PM
Pre-Conference Courses

Abstract citation ID: kaad011.0039

COURSE 13: ADAPTING SYSTEMATIC REVIEW METHODS FOR RAPID EVIDENCE NEEDS

Nora B. Henrikson, PhD MPH[1], Paula R. Blasi, MPH[1], Ruben G. Martinez, PhD[1]

[1]Kaiser Permanente Washington Health Research Institute, Seattle, WA

Scientists interact with empirical literature regularly. Evidence synthesis, most commonly systematic reviews, has evolved as the standard for guiding decisions about clinical and preventive care. Increasingly, behavioral medicine scientists use evidence synthesis when implementing evidence-based interventions, measures, and methods. However, full systematic reviews require substantial time and resources to complete. Further, not all evidence needs require the rigor of a full systematic review. In recent years there has been increasing interest and writing about “rapid” evidence synthesis methods, but best practices for these methods are still evolving.

Our team of experienced systematic reviewers works with two NIH-funded implementation methods-focused centers (OPTICC, in the NCI-funded Implementation Science Centers in Cancer Control (ISC3) program; and IMPACT, a NIMH-funded ALACRITY center). We have consulted with 8 pilot projects to recommend rigorous methods for identifying evidence on a range of implementation topics, such as barriers to breast cancer screening among Black women and mechanisms of peer-support interventions in behavioral health settings. We have developed a toolkit for adapting systematic review methods to support behavioral and implementation-focused evidence needs within 1-4 months.

The toolkit includes an overview of evidence synthesis products and the types of evidence needs they are designed to address; guidance for selecting the evidence synthesis product that best fits your purpose; strategies for refining your research questions and scope for a 1-4 month timeline; step by step instructions for conducting evidence syntheses, including tips for literature searching; guidance on ways to disseminate evidence syntheses; ways to maintain a focus on health equity; and a compilation of resources, including links to other evidence review resources and case examples.

We propose an interactive, skills-based workshop that includes a mix of didactic and interactive practice sessions. The goal of the proposed workshop is to provide actionable guidance and hands-on practice for attendees looking to incorporate systematic review methods into behavioral medicine research and implementation.

CORRESPONDING AUTHOR: Nora B. Henrikson, PhD MPH, Kaiser Permanente Washington Health Research Institute, Seattle, WA; nora.b.henrikson@kp.org

---

Abstract citation ID: kaad011.0040

COURSE 14: PHOTOVOICE: A NOVEL STRATEGY FOR DEVELOPING COMMUNITY PARTNERSHIPS

Amanda M. Marin-Chollom, PhD[1], Jayme Hannay, PhD, MPH[2], Valerie Cammarota, MPH[3]

[1]Central Connecticut State University, South Salem, NY; [2]YWCA New Britain, Longmeadow, MA; [3]YWCA New Britain, New Britain, CT

This course will explore how a New Britain Connecticut-based coalition, led by the YWCA and Central Connecticut State University, used Photovoice (PV) to engage the community in research and advocacy by building and sustaining multi-sectoral partnerships. Using PV’s community based participatory research approach, residents and youth from disadvantaged neighborhoods collaborated with community leaders and academic mentors on projects that translate research into action. The coalition’s diversity and active community engagement secured local and national funding that has sustained the initiative since 2009.

In the first hour presenters will trace PV’s evolution into a “magnet” for stakeholders from academia, city government, and healthcare who coalesce around a shared action agenda. They will show how the PV approach—empowering youth to document inequities and present their findings to policymakers and stakeholders—results in a continuous stream of new partnerships, program innovations, and funding. For example:

- Park improvement: Teens’ research data—their photos of neglected parks and pools--drew the attention of the city’s mayor and parks director, who joined the coalition and pushed for tangible improvements. Projects on crime, vacant buildings, mental health have resulted in partnerships with police, healthcare, and education, as stakeholders see opportunities to empower youth and benefit the community.
- Integration with CCSU community practice course: Teens present their PV project to CCSU students and faculty, who mentor them in implementing their action agenda
- Community Health Worker Training: The advocacy, research and assessment strengths nurtured by Photovoice align with skills and competencies required for CHWs. Recognizing this, the YWCA developed a CHW curriculum and training program giving high school youth a pipeline to this promising career. To date, 12 youth have been trained and deployed in their neighborhoods. A grant from the CDC Foundation is enabling them to address inequities in vaccination rates.

The second hour will be an interactive walk-through of a recent project on vacant buildings that will enable our audience to assess PV’s potential as a partnership building strategy in their communities. Presenters will review implementation steps (topic selection, research questions, photo taking, reflection writing, action agenda, presentation of findings) and share lessons learned, examples of PV products and evaluation data.

CORRESPONDING AUTHOR: Amanda M. Marin-Chollom, PhD, Central Connecticut State University, South Salem, NY; amarin-chollom@ccsu.edu

Abstract citation ID: kaad011.0041

COURSE 15: THE "NUTS AND BOLTS" OF DEVELOPING HEALTH-RELATED BEHAVIORAL INTERVENTIONS: UNDERSTANDING AND APPLYING THE ORBIT MODEL

Susan M. Czajkowski, PhD[1], Lynda H. Powell, PhD, FSBM[2], Sylvie Naar, PhD[3], Kenneth E. Freedland, PhD, FSBM[4]

[1]Behavioral Research Program, Division of Cancer Control and Population Sciences, National Cancer Institute, Bethesda, MD; [2]Rush University Medical Center, Chicago, IL; [3]Florida State University College of Medicine, Tallahassee, FL; [4]Washington University School of Medicine, Saint Louis, MO

This course will provide investigators who are interested in the design and preliminary testing of health-related behavioral interventions an opportunity to (1) learn about the ORBIT model, a framework for developing, refining and testing behavioral treatments for chronic diseases (see http://psycnet.apa.org/psycinfo/2015-039 38-001/); (2) identify the defining features and appropriate study designs and methods for each phase of the framework; and (3) apply knowledge about relevant designs, methodologies and funding opportunities for early-phase behavioral intervention research to their own behavioral treatment development projects.

The speakers will present an overview of the ORBIT model and its phases, addressing important topics such as the concept of clinical significance and the role of stakeholder engagement in the early phases of behavioral intervention development. Detailed information will be provided about key features, questions, objectives, and methodologies most applicable to the early phases of behavioral intervention development, and examples will be provided to illustrate the unique features of each phase of the ORBIT model and differences and similarities with other intervention development frameworks such as the experimental medicine framework and the multiphase optimization strategy (MOST) framework. These presentations will be followed by a panel discussion aimed at identifying the defining features of each phase of the ORBIT model and providing advice on obtaining funding and publishing research using the model. The presenters will describe their own experiences in designing behavioral intervention development studies, bringing these "lessons learned" to bear in providing guidance to course attendees to help them design their own behavioral intervention development projects. The speakers will also walk participants through specific examples of successful grant applications and publications that have used the ORBIT model and provide advice and tips for maximizing success in grant submissions and publications that are based on this model.

Participants will be asked to submit in advance a synopsis of a behavioral intervention development project they have or are considering submitting for funding, and/or specific questions they may have regarding the ORBIT model and the process of behavioral intervention development. The information and questions they submit will help to shape the presentations to match the participants' interests, and they will also be brought into the discussion during the panel and question and answer sessions.

CORRESPONDING AUTHOR: Susan M. Czajkowski, PhD, Behavioral Research Program, Division of Cancer Control and Population Sciences, National Cancer Institute, Bethesda, MD; susan.czajkowski@nih.gov

---

Abstract citation ID: kaad011.0042

COURSE 16: CULTIVATING RESILIENCE, MAINTAINING FORWARD MOMENTUM AND OPTIMIZING CAREER FULFILLMENT FOR MID/SENIOR LEVEL SCIENTISTS

Elyse R. Park, PhD[1], Shelby Langer, PhD, FSBM[2], Lynne I. Wagner, PhD[3], Aimee S. James, PhD, MPH[4], Kristi Graves, PhD, FSBM[5], Felicity K. Harper, PhD, FSBM[6], Catherine M. Alfano, PhD[7]

[1]Harvard Medical School & Massachusetts General Hospital, Boston, MA; [2]Arizona State University, Phoenix, AZ; [3]Wake Forest School of Medicine, Winston Salem, NC; [4]Washington University in St Louis School of Medicine, St Louis, MO; [5]Georgetown University, Alexandria, VA; [6]Karmanos Cancer Institute/Wayne State University, Detroit, MI; [7]Northwell Health, Washington, DC

This practical and interactive workshop has been designed by senior level behavioral scientists to address unspoken challenges related to address career advancement, leadership, mentoring, and enhance career satisfaction among those who are already established in their careers. This will be a 2-hour session in which we share ideas and 'life-tested' strategies to manage issues that we tackle on a day-to-day basis. Through vignette based learning and interactive discussions, panelists will create a learning environment to facilitate a supportive atmosphere to answer previously unaddressed questions and share our collective wisdom with an emphasis on cultivating resilience, maintaining forward momentum and optimizing career fulfillment. Breakout topics will include: (1) continued learning and support: exploring peer mentoring, leadership coaching, and training opportunities; (2) evolving relationships and expectations with mentees and colleagues; (3) work-life flow decisions; (4) from perennial associate professor to full professor and after: (5) goals, identity and role satisfaction; (6) navigating institution and leadership changes; and (7) position and compensation advances. Audience members will have ample opportunity to ask questions and participate in the discussion. This session is being organized by the Cancer SIG.

CORRESPONDING AUTHOR: Elyse R. Park, PhD, Harvard Medical School & Massachusetts General Hospital, Boston, MA; epark@mgh.harvard.edu

Abstract citation ID: kaad011.0043

COURSE 17: WHAT YOU NEED TO KNOW ABOUT NIH FELLOWSHIP GRANTS (F31, F32): HOW TRAINEES AND MENTORS CAN MAKE THE MOST OF THIS FUNDING OPPORTUNITY

Lara Traeger, PhD[1], Maija Reblin, FSBM[2], Felicity K. Harper, PhD, FSBM[3], Suzanne C. O'Neill[4], Giselle K. Perez[5]

[1]Massachusetts General Hospital/Harvard Medical School, Boston, MA; [2]University of Vermont, Burlington, VT; [3]Karmanos Cancer Institute/Wayne State University, Detroit, MI; [4]Georgetown University, Washington, DC; [5]Massachusetts General Hospital, Boston, MA

We think you have what it takes to apply! This workshop is designed to help trainees and their mentors successfully apply for, and execute, NIH individual fellowship grants including F31 and F32. These grants uniquely position doctoral students and postdoctoral fellows to conduct externally funded research. Accordingly, F31 and F32 grants also support mentors to enrich the training opportunities for their mentees. During the workshop, experts including grant reviewers, awardees, and their mentors will provide an inside view into why these grants matter and how they can serve as a critical foundation for a trainee's research career. For both mentors and mentees, we will clarify the application process, discuss the scope of successful proposals, and differentiate the mentor and mentee roles in preparing the proposal and conducting the research. This information will be relevant to anyone interested in F31 or F32 grants as a mentor or applicant. Takeaways may also be applied to other fellowship mechanisms. Questions and examples will be solicited from attendees prior to the workshop, and attendees will have ample opportunity during workshop roundtables to discuss key issues related to taking advantage of this funding mechanism.

CORRESPONDING AUTHOR: Lara Traeger, PhD, Massachusetts General Hospital/Harvard Medical School, Boston, MA; ltraeger@mgh.harvard.edu

---

Abstract citation ID: kaad011.0044

COURSE 18: LEVERAGING ONLINE TECHNOLOGY FOR RAPID QUALITATIVE ANALYSIS AND ADVISORY BOARD ENGAGEMENT

Leslie R M Hausmann, PhD, MS, FSBM[1], Johanne Eliacin, PhD[2]

[1]University of Pittsburgh, Pittsburgh, PA; [2]Roudebush VA Medical Center/Regenstrief Institute/ National Center for PTSD, Boston VA Healthcare System, Indianapolis, IN

The COVID-19 pandemic sparked a new era of online learning and remote collaboration. At the same time, there has been a rising need to engage patients, community organizations, members of the healthcare workforce, and other potential consumers of research as partners and/or advisors throughout the research lifecycle. The overarching goal of this course is to demonstrate how to leverage online technology to foster both remote collaboration and engagement of diverse perspectives in research. Using a recently-completed study on developing cross-sector partnerships to address social determinants of health as an example, this course will demonstrate how online technology was leveraged to rapidly synthesize qualitative data and engage a diverse advisory panel to produce a set of recommendations to guide medical center participation in community-based social service networks to address unmet needs of Veterans that fall outside the scope of medical care provided by the Veterans Health Administration (VHA). The objectives of this course are to: 1) Review techniques for engaging a research team in synchronous and asynchronous online collaboration to rapidly synthesize qualitative data; 2) Demonstrate the use of an online collaboration platform to engage diverse advisory panels in prioritizing and distilling key qualitive findings into corresponding actionable policy recommendations and future research questions; and 3) demonstrate how the platform was also used to generate and prioritize outcomes to focus on in a follow up study. The techniques demonstrated in this workshop have broad applicability to engaging diverse perspectives throughout all stages of research.

The course will begin with a didactic overview of a mixed-methods pilot study designed to characterize the barriers to and facilitators of current involvement of VHA medical facilities in military-centric community-based social service networks. The facilitators will describe how the research team rapidly summarized and synthesized qualitative interview data in preparation for further processing by an Advisory Panel consisting of Veterans, representatives from community-based social service organizations, and a broad array of VHA operations partners. They will then introduce Mural, a flexible online collaboration platform, and demonstrate how it was used to facilitate a series of discussions with the Advisory Panel to translate the findings into policy recommendations and identify research priorities to be pursued in a subsequent study. The course will include interactive activities with participants that demonstrate how to use Mural to facilitate concept mapping, brainstorming and prioritizing ideas, identifying areas of agreement, and efficiently reaching a shared understanding of complex processes among diverse groups.

CORRESPONDING AUTHOR: Leslie R M Hausmann, PhD, MS, FSBM, University of Pittsburgh, Pittsburgh, PA; leslie.hausmann@gmail.com

Wednesday
April 26th, 2023
5:00 PM – 5:50 PM
Poster Session A

Abstract citation ID: kaad011.0045

POSTER SESSION A: RACIAL DISPARITIES IN COGNITIVE PERFORMANCE PERSIST IN THE US: EXAMINING TEMPORAL CHANGES AND MODIFIABLE RISK FACTORS

Rifat B. Alam, MBBS, MS[1], Nilufer Jahan, MBBS, MD[2], Andiara Schwingel, PhD[3]

[1]University of Illinois at Urbana-Champaign, Urbana, IL; [2]National Institute of Mental Health, Dhaka, Bangladesh, Dhaka, Dhaka, Bangladesh; [3]University of Illinois Urbana Champaign, Champaign, IL

Introduction: Addressing racial disparities in dementia, cognitive health and aging is critical to advance health equity in the US. This study examines the temporal changes in cognitive performance and health-related modifiable risk factors and subsequent racial disparities among a representative US-sample.

Methods: A total of 2,833 older individuals ≥60 years from Hispanic, non-Hispanic Black (NHB) and non-Hispanic White (NHW) backgrounds from the National Health and Nutrition Examination Survey 1999-2000 and 2013-2014 cycles were examined cross-sectionally. Cognitive performance was assessed with Digit Symbol Substitution Test (DSST). Health-related modifiable risk factors included cardiovascular diseases (CVDs), diabetes, obesity, hypertension, and high cholesterol. Covariates included age, sex, education, socioeconomic status, health insurance status and access to the routine place for healthcare. Descriptive statistics and linear regressions were performed for analysis purposes.

Results: The overall mean DSST score significantly increased in 2013-2014 compared to 1999-2000 (difference: 6.29; *p*-value < .001). However, the Hispanics had significantly lower mean DSST scores compared to the NHWs both in 1999-2000 (difference:14.38; *p*-value < .001) and 2013-2014 (difference:12.14; *p*-value < .001). The NHBs also had significantly lower mean DSST scores compared to the NHWs in 1999-2000 (difference:18.66; *p*-value < .001) and 2013-2014 (difference:10.87; *p*-value < .001). Having CVDs was associated with lower DSST scores among the NHBs in 2013-2014 (*p*-value 0.01). No other health-related modifiable risk factor was associated with DSST scores among the Hispanics or NHBs for any of the time periods.

Conclusions: The disparity in cognitive performance among the African American and Hispanic populations persisted over the period of 14 years and no health-related modifiable risk factor significantly contributed to this racial disparity for both time periods. The results emphasize investigating the social determinants of health to better understand the systematic racial disparities in cognitive health and dementia.

CORRESPONDING AUTHOR: Rifat B. Alam, MBBS, MS, University of Illinois at Urbana-Champaign, Urbana, IL; rifata2@illinois.edu

---

Abstract citation ID: kaad011.0046

POSTER SESSION A: PERSPECTIVES OF HOME HEALTH CARE STAFF ON THE DAILY ENGAGEMENT IN MEANINGFUL ACTIVITY-PROFESSIONAL INTERVENTION (DEMA-PRO)

Katelyn E. Webster, PhD, RN[1], Pei-Shiun Chang, PhD, RN[2], Victoria Hayes, BSN, RN[3], Rebecca Winton, PhD, RN, CCRN-K[3], Jennifer Ellis, PhD, PT, DPT, MS[4], Laurie Otis, PT, MBA, MHA[4], Joan Haase, PhD, RN[1], Susan Hickman, PhD[5], Yvonne Lu, PhD, RN[1]

[1]Indiana University School of Nursing, Indianapolis, IN; [2]Indiana University School of Nursing, Bloomington, IN; [3]CenterWell Home Health, Atlanta, GA; [4]Aveanna Healthcare, Atlanta, GA; [5]Indiana University School of Nursing; IU Center for Aging Research, Indianapolis, IN

Over 3 million older adults receive home healthcare services following discharge from a hospital or other facilities. Nearly 70% of this population experience subjective cognitive decline (SCD) with diminished activity performance, poor quality of life, and emotional distress. Individuals with SCD often need more time, structure, and guidance to complete tasks and adjust to new skills and environments. The Daily Engagement in Meaningful Activities Professional (DEMA-Pro) intervention aims to restore patients' engagement in self-identified meaningful activities and empower patients and their caregivers with problem-solving, self-management, and communication skills. The evidence-based DEMA program was adapted for delivery by home health nurses and tested as DEMA-Pro through a pragmatic pilot study. DEMA-Pro was delivered through six weekly one-hour phone calls to patients and their informal caregivers. The goal of the current analysis was to understand home health associates' experiences with training and implementation of DEMA-Pro. Twenty-nine home health associates of various disciplines (nursing, therapy, social work) completed a DEMA-Pro training course and an online post-training evaluation survey. Three nurses were additionally trained as DEMA-Pro interveners; training included videos, discussion, and role-playing. Nurse interveners completed an implementation survey and participated in a 60-minute focus group. Focus group data were analyzed using content analysis. Training surveys indicated that home health associates and interveners were satisfied with their training and had high levels of confidence in their ability to implement DEMA-Pro. Interveners highly rated the helpfulness of DEMA-Pro materials and their satisfaction with their role as intervener during implementation. Focus group data aligned with implementation survey results and provided additional information on interveners' perspectives. Interveners expressed that role-playing and receiving feedback on call sessions were very helpful training components. Interveners suggested minor changes to DEMA-Pro materials to ensure consistent wording. They described how they adapted the intervention to meet their patients' needs with varying levels of cognitive decline. In summary, the results indicate that training processes of home health associates and interveners prepared them to confidently fulfill their roles in the DEMA-Pro intervention and that interveners were satisfied with DEMA-Pro.

CORRESPONDING AUTHOR: Katelyn E. Webster, PhD, RN, Indiana University School of Nursing, Indianapolis, IN; katwebst@iu.edu

Abstract citation ID: kaad011.0047

POSTER SESSION A: AMBULATORY ASSESSMENT OF COGNITION IS ASSOCIATED WITH WITHIN-PERSON CHANGES IN DAILY SLEEP QUALITY AND DURATION IN OLDER ADULTS

Chih-Hsiang Yang, PhD[1], Christine Pellegrini, PhD, FSBM[1], Daniela Friedman, PhD[1], Jennifer Fillo, PhD[1], Matthew Lohman, PhD[1], Jongwon Lee, MPH[1], Jonathan Hakun, PhD[2]

[1]University of South Carolina, Columbia, SC; [2]Penn State University, Hershey, PA

Background: The prevalence of neuropsychological diseases in older adults exacts a toll on well-being, quality of life, and healthcare costs. However, work to date supporting the beneficial role of sleep on cognition has been predominantly from cross-sectional surveys or lab-based studies that provided limited ecological validity. These approaches cannot capture the temporal associations between sleep and cognitive function from day to day. This study addresses the gap by applying ambulatory assessment to investigate the day-level associations of sleep quality and duration with cognitive function in older adults at risk for neuropsychological diseases.

Methods: Older adults (n=41, M=69.8 yrs, M_{BMI}=27.3, 37% male) with neuropsychological disease risk factor(s) but without dementia (e.g., high BMI, memory complaints) were recruited between January and April 2021. Participants reported bedtime and wake time and completed brief cognitive tests (symbol search) at four random waking times for 14 consecutive days. The symbol search test is validated as part of the NIH mobile toolbox that targets processing speed as a critical domain sensitive to cognitive aging. Older adults' previous-night sleep quality and duration were used to predict their daily averaged processing speed (ms) during waking time. Multilevel modeling was used to differentiate the between- and within-person associations between both sleep outcomes and cognition at the day level. We controlled for age, sex, living alone or not, and bedtime each night.

Results: Participants provided 514 total days of data for both sleep and cognitive outcomes. Results indicated that, compared to an individual's usual sleep duration and quality, an additional hour of sleep at night (b=-48.76, $p<$ .05) and better sleep quality (b=-2.49, $p<$ .05) were associated with faster processing speed the next day (i.e., within-person). However, participants' mean (overall) sleep time and quality did not predict their next day cognition (i.e., between-person).

Conclusion: Our preliminary findings suggest that the day-to-day variations in sleep duration and quality may play a critical role in sustaining older adults' daily cognition. Having shorter sleep time and reduced quality than one's typical may impair mental processing speed. Future studies with a larger sample and a longer monitoring period are needed to establish evidence-based recommendations for sleep behavior to promote cognitive health in older adults' daily life.

CORRESPONDING AUTHOR: Chih-Hsiang Yang, PhD, University of South Carolina, Columbia, SC; CY11@mailbox.sc.edu

---

Abstract citation ID: kaad011.0048

POSTER SESSION A: "WHAT IF I DIE AND NO ONE HAD EVER ROMANTICALLY LOVED ME?": SEXUALITY AND DATING AMONG A SAMPLE OF YOUNG ADULT SURVIVORS OF CANCER

Megan R. Wirtz, BA[1], Zeba Ahmad, PhD, EdM, MA[2], Diana Kaziyev, BA[3], Jennifer S. Ford, PhD, FSBM[4]

[1]The Graduate Center, City University of New York, New York, NY; [2]Massachusetts General Hospital/Harvard Medical School, Boston, MA; [3]CUNY Hunter College, Rego Park, NY; [4]Hunter College, City University of New York and The Graduate Center, City University of New York, New York, NY

Background: Among adolescent and young adult (AYA) cancer survivors, the phrase "sexual health" is often exclusively thought of as sexual functioning or the completion of sexual tasks. As such, functioning is often impaired during and after the cancer experience. However, it has become clear that there is another element of sexual health, sexual self-concept – how one views themselves as a sexual being – that may be just as impaired as sexual functioning. In this study, we sought to elucidate potential themes that AYA cancer survivors experience that cross *both* sexual functioning and self-concept, thus encouraging more comprehensive sexual health education among those diagnosed with cancer.

Methods: Semi-structured interviews were conducted as part of a larger qualitative study surrounding future-oriented thoughts, beliefs, coping strategies, and emotions in this population. Transcribed interviews were uploaded to Dedoose software, where teams of coders achieved consensus on a codebook for thematic analysis. Three such codes – Social Isolation: Dating and Sex, Self-Evaluative Emotion: Shame in Dating and Relationships, and Self-Evaluative Emotion: Shame in Body Image/Physical Ability Concerns guided this secondary analysis. Excerpts were reviewed for codes that included both sexual functioning (completion of sexual tasks) and sexual self-concept (domains of sexual health knowledge, body image, and romantic relationships).

Results: Our sample consisted of thirty-five AYA cancer survivors, were predominately female (86%), and non-Latino White (77%). There were several themes that emerged included aging out/missing out in both sex and dating; inability to please partners and how well partners understood this inability; and body image and how partners reacted during sex, how partners reacted in dating, and the contrast between how one viewed their own body image in private versus in intimate settings.

Conclusion: While current research has identified sexual functioning as making up most of the sexual health education that cancer survivors receive, it is clear that there is an interrelationship between sexual functioning and sexual self-concept. The clinical ramifications are clear: more work must be done to address sexuality within both the couple *and* the individual survivor, and that work cannot be exclusively devoted to the sexual functioning.

CORRESPONDING AUTHOR: Megan R. Wirtz, BA, The Graduate Center, City University of New York, New York, NY; mwirtz@gradcenter.cuny.edu

Abstract citation ID: kaad011.0049

POSTER SESSION A: ADVERSE COVID-19 EXPERIENCES AND HEALTH-RELATED QUALITY OF LIFE IN CANCER SURVIVORS: PSYCHOSOCIAL RISK AND RESILIENCE FACTORS

Laura M. Perry, PhD[1], John D. Peipert, PhD[1], Sheetal Kircher, MD[1], Frank J. Penedo, PhD, FSBM[2], Sofia F. Garcia, PhD[1]

[1]Northwestern University Feinberg School of Medicine, Chicago, IL; [2]University of Miami, Miami, FL

Background: Cancer survivors are at greater risk for poor health outcomes during the COVID-19 pandemic. However, the pandemic's impact on patients' health-related quality of life (HRQoL) is poorly understood. This study hypothesized that (1) adverse COVID-19 experiences are associated with worse HRQoL, (2) this association is mediated by risk factors such as anxiety, depression, and health, financial and social concerns, and (3) this association is moderated by resiliency factors such as perceived social support, benefits, and ability to manage stress.

Methods: 1,043 cancer survivors at Northwestern Medicine completed a cross-sectional survey on COVID-19 practical and psychosocial concerns from 6/2021 to 3/2022. Participants reported on 15 adverse COVID-19 experiences (e.g., COVID-19 hospitalization, death of family/friends, loss of income, medical delays). A recently validated questionnaire assessed 9 psychosocial factors related to COVID-19: anxiety, depression; health care, financial, and social disruptions; health care satisfaction; and perceived social support, benefits, and stress management skills. The FACT-G7 assessed HRQoL. Hypotheses were tested in a structural equation model with Full Information Maximum Likelihood (FIML) estimation and bootstrapped standard errors. The number of reported adverse COVID-19 experiences was the primary (observed) independent variable. The dependent variable of HRQoL, and the proposed mediating and moderating factors, were entered as latent variables indicated by their respective survey items. Latent interaction terms between the independent variable and each resiliency factor tested moderation effects. Analyses controlled for age, gender, race, ethnicity, time since diagnosis, and vaccination status.

Results: Participants were 58.07 years old on average, diagnosed a median of 3 years prior, and were majority female (73.3 %), non-Latino/a white (85.4%), college-educated (81.7 %), and vaccinated for COVID-19 (95.5%). Bivariate correlations indicated that those who reported more adverse COVID-19 experiences had worse HRQoL ($r = -.10$, $p = .007$). Results of the structural equation model (SRMR = .05, RMSEA = .04, CFI = .88, TLI = .87) demonstrated that the association between adverse COVID-19 experiences and HRQoL was explained by indirect effects through COVID-19-related depression ($\beta = -0.08$, bias-corrected 95% CI: -0.12 to -0.04) and financial concerns ($\beta = -0.04$, bias-corrected 95% CI: -0.07 to -0.02). Hypotheses testing moderation by resiliency factors were not significant.

Conclusions: Greater adverse COVID-19 experiences was associated with higher depression symptoms and financial concerns about COVID-19, and in turn, worse HRQoL. As the pandemic continues, oncology clinics should be cognizant of the experience of adverse COVID-19 events when allocating depression and financial support resources.

CORRESPONDING AUTHOR: Laura M. Perry, PhD, Northwestern University Feinberg School of Medicine, Chicago, IL; laura.perry@northwestern.edu

---

Abstract citation ID: kaad011.0050

POSTER SESSION A: PSYCHOSOCIAL RESOURCES AND HEALTH BEHAVIORS MODERATE IMPACT OF DISTRESS ON SURVIVORS' QUALITY OF LIFE DURING CANCER TREATMENT

Crystal L. Park, PhD[1], Keith M. Bellizzi, PhD, MPH[2], Zachary E. Magin, BA[1], Katherine E. Gnall, BA[1], Caroline Salafia, MA[3], Emily Fritzson, MA[4], Kaleigh Ligus, MA[5]

[1]University of Connecticut, Storrs, CT; [2]University of Connecticut, Berlin, CT; [3]University of Connecticut, Cromwell, CT; [4]University of Connecticut, Farmington, CT; [5]UCONN, Storrs, CT

Introduction: Cancer patients often experience many distressing emotions (e.g., anxiety, anger, and sadness); distress in turn can adversely affect survivors' physical health quality of life (QOL). To date, psychosocial and behavioral factors have been shown to predict subsequent physical health QOL, but whether they mitigate impacts of psychological distress on QOL is largely unknown. We tested four constructs—emotion regulation skills, social support, physical activity, and sleep—as potential buffers of effects of distress on subsequent physical health QOL.

Methods: Our sample of 505 breast, prostate, and colorectal survivors (64% female, *Mage* = 59.62, *SD* = 11.42) completed measures during (n = 193) or shortly after completing primary treatment (n = 312) (T1) and again three months later (T2). In these analyses, we examined T1 distress [anxiety (HADS; Zigmond & Snaith, 1983), PTSD symptoms (IES-R; Horowitz et al., 1979); fears of recurrence (CARS; Vickberg et al., 2003)}, T2 physical health QOL (SF-12 MCS; Ware et al., 1996) and T2 potential moderators [DERS-SF (Kaufman et al., 2016}; MOS Social Support (Sherbourne & Stewart, 1991) Godin Physical Activity (Shephard, 1997), and PROMIS sleep (Yu et al., 2012)].

Results: Correlations indicated that our three measures of distress (PTSD, anxiety, recurrence fears) were distinct. In a series of multiple regression analyses controlling for demographics, we examined the extent to which each of the proposed moderators buffered the impact of T1 self-reported distress on T2 physical health QOL. Results revealed a pattern whereby each of the distress variables predicted T3 physical health QOL, and most interactions were significant. For example, the association between T1 anxiety and T2 physical health QOL was moderated by difficulty in emotion regulation ($B = -.25$, $p < .05$) such that effects of distress were buffered by high emotion regulation ability. Findings for PTSD symptoms were most robust while findings for fears of recurrence were least robust.

Conclusion: Emotion regulation, social support, physical activity and sleep all moderated the impact of distress on physical health QOL, suggesting fruitful directions for future research to identify which constructs are most potent for which survivors. Findings may also guide treatment development efforts to best target the type of distress and psychosocial resources or health behaviors in this vulnerable group undergoing treatment and transitioning to survivorship.

CORRESPONDING AUTHOR: Crystal L. Park, PhD, University of Connecticut, Storrs, CT; crystal.park@uconn.edu

Abstract citation ID: kaad011.0051

POSTER SESSION A: ASSOCIATIONS BETWEEN HOUSEHOLD NET WEALTH AND COLORECTAL CANCER SCREENING BEHAVIORS AMONG U.S. MEN AGED 45–75 YEARS

Uchenna C. Ogbonnaya, PhD-c[1], Kevin M. Korous, PhD[2], Adolfo G. Cuevas, PhD[3], Jad Chahoud, MD, MPH[4], Ellen Brooks, MPH[5], Charles R. Rogers, PhD, MPH, MS, MCHES®[2]

[1]University of Utah School of Medicine, Salt Lake City, UT; [2]Medical College of Wisconsin, Milwaukee, WI; [3]New York Univeriosty, New York, NY; [4]H. Lee Moffitt Cancer Center & Research Institute, Tampe, FL; [5]Western Institute for Veterans Research, Salt Lake City, UT

Colorectal cancer (CRC) is the third leading cause of cancer-related death among men in the United States (U.S.), particularly among men aged 45 years and older. Early-detection screening remains a key method of decreasing CRC-related deaths, yet socioeconomic barriers exist to planning and completing CRC screening. While accumulating evidence shows income disparities in CRC screening prevalence, a dearth of research has investigated wealth disparities. This study aimed to determine whether household net wealth was associated with CRC screening uptake and future screening intent. In February 2022, we sent an online survey to potential participants; U.S. men aged 45 to 75 years were eligible to participate. We examined four CRC screening behaviors as outcomes: ever completing a stool-based or exam-based screening test, current screening status, and future screening intent. Household net wealth, determined by self-reported household wealth and debt, was the primary predictor. We used logistic regression to estimate odds ratios (ORs) and their 95% confidence intervals (CIs). Of the study participants ($N = 499$), most self-identified as Non-Hispanic White, were aged 50 to 64 years, and had previously completed a CRC screening test. Results revealed that, among men aged 45 to 49 years, higher net wealth decreased the odds of ever completing a stool- or exam-based test (OR = 0.58, 95% CI: 0.33, 0.98; OR = 0.55, 95% CI: 0.31, 0.94, respectively). By contrast, among men aged 50 to 75 years, higher net wealth increased the odds of being current with CRC screening (OR = 1.40, 95% CI: 1.03, 1.92). Net wealth was unassociated with CRC screening intent. These findings suggest that household net wealth, rather than income, is an important socioeconomic factor to consider in relation to uptake of CRC early-detection screening. The financial and social cognitive mechanisms linking household wealth to CRC screening behaviors merit future research and intervention.

CORRESPONDING AUTHOR: Uchenna C. Ogbonnaya, PhD-c, University of Utah School of Medicine, Salt Lake City, UT; Uchenna.Ogbonnaya@utah.edu

---

Abstract citation ID: kaad011.0052

POSTER SESSION A: PERCEIVED ECONOMIC PRESSURE AND COLORECTAL CANCER-RELATED PERCEPTIONS AMONG U.S. MALES (AGED 45-75 YEARS)

Kevin M. Korous, PhD[1], Uchenna C. Ogbonnaya, PhD-c[2], Mary A. De vera, BSc, MSc, PhD[3], Ellen Brooks, MPH[4], Justin X. Moore, PhD, MPH[5], Charles R. Rogers, PhD, MPH, MS, MCHES®[1]

[1]Medical College of Wisconsin, Milwaukee, WI; [2]University of Utah School of Medicine, Salt Lake City, UT; [3]University of British Columbia, Vancouver, BC, Canada; [4]Western Institute for Veterans Research, Salt Lake City, UT; [5]Augusta University, Augusta, GA

Despite differences in colorectal cancer (CRC) screening utilization across levels of socioeconomic status, limited research has adequately integrated socioeconomic status to examine ways of increasing CRC screening uptake. The aim of this study was to examine whether a greater perception of economic pressure would be associated with more-negative attitudes, greater perceived barriers, and lower subjective norms regarding CRC and CRC screening among males aged 45–75 years. We recruited 492 self-identified males aged 45–75 years living in the United States. We operationalized perceived economic pressure as a latent factor with three subscales: *can't make ends meet*, *unmet material needs*, and *financial cutbacks*. Our dependent variables were attitudes toward CRC and CRC screening, perceived barriers to completing a CRC screening exam, and subjective norms regarding CRC screening. We used structural equation modeling with maximum-likelihood estimation, adjusting for covariates, and made post-hoc modifications to improve model fit. Greater perceived economic pressure was associated with more-negative attitudes toward CRC and CRC screening ($\beta = 0.47$, 95% CI: 0.37,0.57) and with greater perceived barriers to CRC screening ($\beta = 0.22$, 95% CI: 0.11, 0.34), but was not significantly associated with subjective norms ($\beta = 0.07$, 95% CI: -0.05, 0.19). Perceived economic pressure was an indirect pathway by which lower income and younger age were associated with more-negative attitudes and greater perceived barriers. Our study is one of the first to show that, among males, perceived economic pressure is associated with two social-cognitive mechanisms (i.e., negative attitudes, greater perceived barriers) that are known to influence CRC screening intent and, ultimately, CRC screening completion. This work has implications for informing targets and strategies for improving CRC screening uptake among males.

CORRESPONDING AUTHOR: Kevin M. Korous, PhD, Medical College of Wisconsin, Milwaukee, WI; kevinkorous@hotmail.com

Abstract citation ID: kaad011.0053

POSTER SESSION A: PALLIATIVE CARE KNOWLEDGE AND ATTITUDES AMONG PATIENTS WITH ADVANCED OVARIAN CANCER

Claire C. Conley, PhD[1], Andrea L. Buras, MD, MHA[2], McKenzie McIntyre, MPH, CPH[3], Waleska Santiago-Datil, MPH, CPH[3], Diana English, MD, FACOG[4], Robert M. Wenham, MD, MS, FACOG, FACS[3], Susan T. Vadaparampil, PhD, MPH[3]

[1]Georgetown University, Washington, DC; [2]Mercy Health Lacks Cancer Center, Grand Rapids, MI; [3]Moffitt Cancer Center, Tampa, FL; [4]University of South Florida, Tampa, FL

Background: Palliative care is focused on providing relief from the symptoms and stress of serious illness. Despite experiencing significant treatment side effects, palliative care is under-utilized by patients with advanced ovarian cancer (OC). The present study aimed to: (1) characterize palliative care knowledge and attitudes among patients with advanced OC; and (2) identify demographic and clinical characteristics associated with palliative care knowledge and attitudes.

Methods: Palliative care naïve patients with advanced OC (N=38) were recruited from an NCI-designated Comprehensive Cancer Center between October 2020-December 2021. They self-reported sociodemographic and clinical characteristics, palliative care knowledge (range=0-13, higher=greater), and palliative care attitudes (range=9-60, higher=more positive). Descriptive statistics characterized survey responses. One-sample t-tests compared palliative care knowledge and attitudes scores to the validation sample mean. Multivariable linear regression models examined associations between sociodemographic (age, race/ethnicity, insurance type, education level) and clinical characteristics (time since OC diagnosis) and palliative care knowledge and attitudes.

Results: On average, participants were 66 years old (*SD*=6) and had received their OC diagnosis 7 years ago (*SD*=8). Most were non-Hispanic White (95%) and insured by Medicare/Medicaid (79%); 39% had a college degree or higher level of education. Means for palliative care knowledge (*M*=9.8) and attitudes (*M*=42.7) did not significantly differ from the validation samples (*p*s ≥ 0.08). Palliative care attitudes were significantly associated with age, such that older participants had more negative attitudes towards palliative care (β=-0.51, *p*=0.03). No other sociodemographic or clinical variables were significantly related to palliative care knowledge or attitudes (all *p*s ≥ 0.06).

Conclusions: Although they may particularly benefit from palliative care, patients with advanced OC reported levels of palliative care knowledge and attitudes similar to validation samples of healthy controls. Patients with advanced OC may benefit from educational interventions highlighting the value of palliative care for them specifically. To address more negative attitudes towards palliative care, interventions focused on older adults might incorporate motivational interviewing techniques. Future studies including larger, more diverse samples are needed to replicate these findings.

CORRESPONDING AUTHOR: Claire C. Conley, PhD, Georgetown University, Washington, DC; claire.conley@georgetown.edu

Abstract citation ID: kaad011.0054

POSTER SESSION A: OPTIMISM, COPING, AND BENEFIT FINDING AMONG WOMEN PRESENTING WITH BREAST CANCER BEFORE AND DURING THE COVID-19 GLOBAL PANDEMIC

Emily A. Walsh, MS[1], Gabriella Trujillo, BA[2], Molly Ream, MS[3], Paula Popok, BA[4], Estefany Saez-Clarke, PhD[1], Michael H. Antoni, PhD, FSBM[5]

[1]University of Miami, Coral Gables, FL; [2]University of Miami Miller School of Medicine, Miami, FL; [3]University Of Miami, South Miami, FL; [4]University of Miami, Miami, FL; [5]Sylvester Comprehensive Cancer Center, Coral Gables, FL

Background: The COVID-19 pandemic prompted the delays of medical treatments at unprecedented rates, which may have compounded patient stress across medical populations. Accordingly, studies have shown that since the beginning of the COVID-19 pandemic, patients with cancer experienced elevated anxious and depressive symptoms. However, few studies have investigated differences in positive psychology skills that accompanied the initiation of the pandemic. This study assessed whether women presenting shortly after a diagnosis of breast cancer differed in optimism and benefit finding before versus during the COVID-19 pandemic. Differences in adaptive and maladaptive coping strategies were also assessed.

Methods: Participants included women ≥ 50 yrs. with early-stage breast cancer presenting post-surgery for a randomized controlled trial testing cognitive behavioral stress management. The Life Orientation Test captured optimism, and the Benefit Finding Scale measured benefit finding. The BRIEF-Cope assessed coping styles (i.e., positive reframing, planning, humor, acceptance, denial, self-blame, behavioral disengagement). General linear modeling tested differences in patients recruited pre- versus during pandemic controlling for age, stage, race/ethnicity, and days since surgery.

Results: Women (N=102) were primarily Hispanic (31.4%) or non-Hispanic white (38.2%), ~61 years old (SD=7.73) with stage 1 breast cancer (48%) and averaged 44 days post-surgery. Most women enrolled prior to the COVID-19 pandemic (March 11, 2020; 69.6%). COVID-19 pandemic status (before versus during) did not significantly predict differences in optimism, benefit finding, and positive coping strategies (positive reframing, planning, humor, acceptance). Similarly, no maladaptive coping strategies (denial, self-blame, behavioral disengagement) exhibited differences before versus during the pandemic.

Discussion: Overall, our sample displayed similar levels of positive psychology indicators, regardless of timing of the pandemic. The similarities of patients before and during the pandemic exist in contrast to literature demonstrating marked differences of negative outcomes for patients with cancer since the start of COVID-19 but support some studies showing that cancer patients did not necessarily show a diminution of benefit finding during the pandemic. Women with breast cancer may turn to positive psychology strategies at similar rates regardless of the added burden due to the pandemic.

CORRESPONDING AUTHOR: Emily A. Walsh, MS, University of Miami, Coral Gables, FL; eaw99@miami.edu

Abstract citation ID: kaad011.0055

POSTER SESSION A: "CANCER IS TRAUMA:" CHARACTERIZING SYMPTOMS OF POST-TRAUMATIC STRESS AMONG YOUNG ADULT CANCER SURVIVORS

Zeba Ahmad, PhD, EdM, MA[1], Carly D. Miron, BA[2], Jennifer S. Ford, PhD, FSBM[3]

[1]Massachusetts General Hospital/Harvard Medical School, Boston, MA; [2]Hunter College, City University of New York and The Graduate Center, City University of New York, Brooklyn, NY; [3]Hunter College, City University of New York and The Graduate Center, City University of New York, New York, NY

Background and Aims: Research has consistently identified symptoms of post-traumatic stress syndrome (PTSS) among a significant minority of young adult (YA) survivors of cancer through surveys. Findings indicate that PTSS can substantially worsen health-related quality of life in survivorship. In order to better diagnose and treat PTSS among cancer survivors, researchers have proposed identifying what distinguishes cancer-related PTSS from PTSS following non-medical trauma. However, few studies to date have explored the subjective experience of PTSS among YA cancer survivors, such as identifying which aspects of diagnosis/treatment they experienced as traumatic. Without a better understanding of symptoms and diagnostic considerations, evidence-based psychological care may be stymied. This study describes the symptoms and unmet needs for psychological treatment which distinguish YA survivors from older adult survivors and from other trauma survivors.

Methods: PTSS was investigated as part of a larger qualitative study using semi-structured interviews of YA survivors' psychosocial functioning. Participants (N=35) were aged 18-39 at time of study participation and had completed cancer treatment within the past four years. Team coding of transcribed interview data was conducted through Dedoose software, and thematic analysis was used to identify themes in the data.

Results: Half of the participants (n=18) explicitly described their experience of cancer as traumatic, without prompting from the interview questions. Some described the moment of diagnosis, or physically taxing treatments, as traumatizing; others described the impact of cancer treatment on sex/intimacy, their chronic physical symptoms, or tolerating financial toxicity during active treatment as traumatic. Some participants reported symptoms consistent with non-medical PTSS, such as nightmares, dissociation, flashbacks, and panic attacks. Unique to cancer, some also reported hypervigilance to physical indicators that may suggest cancer recurrence, and 'triggering' of psychological symptoms based on reminders of cancer, such as medical care, upon re-initiating intimacy, and in cancer-peer support groups. Participants described struggles to understand their acute PTSS without a formal diagnosis, and the difficulty of locating appropriate psychotherapy.

Discussion: It was not a goal of the larger study to diagnose or measure PTSS; however, these findings provide a foundation for understanding YA survivors' subjective PTSS. YA survivors may face more post-traumatic stressors than older adults, such as more peer-to-peer contact, more financial toxicity, and a longer duration of chronic symptoms and follow-up medical care. Findings suggest that this population may thereby differ both from individuals with non-medical PTSD and from older adult cancer survivors, warranting targeted treatment.

CORRESPONDING AUTHOR: Zeba Ahmad, PhD, EdM, MA, Massachusetts General Hospital/Harvard Medical School, Boston, MA; zahmad2@mgh.harvard.edu

---

Abstract citation ID: kaad011.0056

POSTER SESSION A: DETERMINANTS AND CLINICAL IMPACT OF UNMET PRACTICAL NEEDS IN AMBULATORY ONCOLOGY

Sara Fleszar-Pavlovic, PhD[1], Akina Natori, MD, MSPH[2], VANDANA D. SOOKDEO, MD, EMBA[3], Liz M. Rivera, BA[4], Matthew Schlumbrecht, MD, MPH[5], Carmen L. I. Calfa, MD[6], Jessica MacIntyre, DNP, MBA[7], Tracy E. E. Crane, PhD, RDN[8], Frank J. Penedo, PhD, FSBM[9]

[1]Sylvester Comprehensive Cancer Center, University of Miami, Miami, FL; [2]University of Miami, Pinecrest, FL; [3]University of Miami, Sylvester Comprehensive Cancer Center, Miami, FL; [4]University of Miami Sylvester Comprehensive Cancer Center, Miami, FL; [5]Sylvester Comprehensive Cancer Center, Miami, FL; [6]University of Miami, Plantation, FL; [7]University of Miami/Sylvester Comprehensive Cancer Center, Miami, FL; [8]Miller School of Medicine, University of Miami, Miami, FL; [9]University of Miami, Miami, FL

Background: Cancer patients face multiple practical needs (e.g., coping support, financial concerns, cancer education/information, childcare) that, if not adequately addressed, may result in poor clinical outcomes. Limited work has assessed factors associated with unmet needs in large, diverse samples of ambulatory oncology patients. This study explored factors associated with unmet practical needs and whether such needs were related to clinical outcomes, including ER visits and hospitalizations.

Methods: A retrospective analysis was performed in ambulatory cancer patients via *My Wellness Check*, an electronic health record (EHR)-based practical needs, nutrition and patient-reported outcomes (PROs) screening and referral program. Patient demographics, clinical characteristics, and clinical outcomes were extracted from the EHR. PROs (PROMIS computerized adaptive tests for anxiety, depression, and physical function), health-related quality of life (HRQoL; FACT G7), and practical needs assessments were collected. Logistic regression models examined factors predicting unmet practical needs, and whether practical needs were associated with ER visits and hospitalizations via Cox proportional hazards regression models adjusting for covariates.

Results: A total of 5,236 cancer patients were identified; 940 (17.9%) had one or more unmet practical needs. Black race (adjusted odds ratio [aOR]=2.00, $p< 0.0001$), Hispanic ethnicity (aOR=1.37, $p=0.0005$), anxiety (aOR=2.77, $p< 0.0001$), depression (aOR=1.78, $p< 0.0001$), poor physical function (aOR=1.38, $p=0.03$), and low HRQoL scores (aOR=2.05, $p< 0.0001$) were associated with having greater unmet practical needs. Patients with unmet practical needs had a higher risk of ER visits (adjusted hazard ratio [aHR]=1.48, $p< 0.0001$) and hospitalizations (aHR=1.48, $p< 0.0001$) relative to patients without unmet practical needs.

Conclusions: Unmet practical needs were associated with worse clinical outcomes. Cancer patients from racial or ethnic minority groups and those who reported greater emotional or physical burden were more likely to have one or more unmet practical needs. These findings suggest that addressing unmet practical needs may be imperative for improving clinical outcomes and efforts to address these unmet needs should target specific at-risk populations.

CORRESPONDING AUTHOR: Sara Fleszar-Pavlovic, PhD, Sylvester Comprehensive Cancer Center, University of Miami, Miami, FL; sef144@med.miami.edu

Abstract citation ID: kaad011.0057

POSTER SESSION A: THE EFFICACY AND ACCEPTABILITY OF AN INCREMENTAL STEP COUNT-PROMOTION STRATEGY FOR CANCER SURVIVORS

Emily Erlenbach, BS, MS[1], Veronica Garcia, BS, MS[2], Neha P. Gothe, BA, MA, MS, PhD[3]

[1]University of Illinois at Urbana-Champaign, Urbana, IL; [2]University of Illinois Urbana-Champaign, Urbana, IL; [3]University of Illinois at Urbana Champaign, Urbana, IL

Background: Although physical activity (PA) is an evidence-backed behavior to reduce morbidity and mortality risk among cancer survivors (CS), only about 15% of CS meet the federal PA guidelines that emphasize moderate-vigorous intensity PA (MVPA). It is not surprising that CS struggle to meet the guidelines considering their fatigue and pain, and shifting focus away from the *intensity* of the activity to *overall volume* of accumulated PA may be one way to divert CS from sedentary lifestyles. Monitoring daily activity volume using step counting may be a more attainable approach for CS who may be limited in their ability to engage in MVPA. As part of a larger PA-based RCT, we piloted a new social cognitive theory-based strategy for increasing weekly step counts and investigated its efficacy and acceptability among CS.

Methods: N=18 CS (M_{age}=56.17) were randomized into either an intervention (IG) or control (CG) group. Participants in the IG were instructed to develop weekly SMART goals to meet their step goals and attended workshops targeting self-efficacy beliefs. Participants in the CG were not given any support on how to meet their weekly step goals. Starting Week 1, all participants were instructed to add 5% of their mean baseline step count to set a slightly higher step count goal for that week. At the end of the week, and every week thereafter, participants calculated their average daily step count for the week. If their average was *higher* than their goal, participants increase their goal by 5% for the following week. If their average was *less than* their goal, they repeated that target for an additional week. At the end of the program, participants were asked if they believed this 5% strategy was too easy, appropriate, or too challenging.

Results: At baseline and 12-weeks, mean daily step counts were 5792 and 7599 for the IG, and 3875 and 5271 for the CG. However, across the study period, no significant effects of time (F(1,16)=2.76,*p*=.09) or group*time (F(1,16)=.05,*p*=.96) were observed. Nevertheless, 66.67% of participants reported this weekly 5% step goal approach to be “appropriate.”

Conclusions: Both groups saw positive increases in their mean daily step counts across the study, suggesting our 5% approach to be a palatable strategy to increase PA volume among CS. The lack of significance between the two groups suggests that this population may not need additional “nudges” to promote increased PA, and that simply having concrete step goals is sufficient.

CORRESPONDING AUTHOR: Emily Erlenbach, BS, MS, University of Illinois at Urbana-Champaign, Urbana, IL; emilyde2@illinois.edu

---

Abstract citation ID: kaad011.0058

POSTER SESSION A: EXCESSIVE ALCOHOL USE DURING THE HEMATOPOIETIC STEM CELL TRANSPLANT EVALUATION PERIOD

Janae L. Kirsch, PhD[1], William Hogan, MB, BCh[1], Shawna L. Ehlers, PhD[1]

[1]Mayo Clinic, Rochester, MN

Introduction: Alcohol use is highly prevalent in the United States with 85.6% of the population reporting they have consumed alcohol in their lifetime and 69.5% reporting use in the past year. Although alcohol use is predictive of increased risk of certain cancers, little is known regarding concurrent alcohol use and cancer treatment.

Methods: Patients with diverse hematologic conditions who were undergoing hematopoietic stem cell transplant (HSCT) evaluation were invited to participate in a research study exploring health behaviors. Self-reported alcohol use was used to calculate whether patients met American Cancer Society (ACS) alcohol guidelines (1-2 alcoholic drinks in one sitting and absence of binge drinking). Patients not meeting ACS guidelines were included in this study.

Results: Of the original study sample, 180 patients (20.7%) undergoing HSCT evaluation did not meet ACS alcohol guidelines. Individuals were primarily middle aged (M age = 50.5 ± 12.6 years), male, and White. The most common diagnoses included multiple myeloma (34%), non-Hodgkin’s lymphoma (27%), and acute leukemia (14%). In a typical drinking day, approximately 43% reported consuming 3-4 drinks whereas 11% reported consuming 5 or more drinks. In terms of binge drinking frequency (6 or more drinks in a sitting), 64% reported binge drinking less than monthly, 16% reported monthly binge drinking, and 6% reported weekly binge drinking. Approximately 9% reported guilt or remorse following drinking as well as the inability to remember the night before. Fifty one percent of patients reported decreased alcohol use since diagnosis, while 17% reported that they have not consumed any alcohol since diagnosis. An additional 30% of patients reported that their excessive alcohol use remained the same after diagnosis. The most cited reasons to reduce alcohol use were to improve health (93%), set an example for children (28%), and relieve illness symptoms (27%). Most patients (73%) reported the best time to reduce alcohol use was at the time of diagnosis, while 9% and 4% believed the best time to reduce alcohol use was after recovery from HSCT and after deciding to pursue HSCT, respectively. Among those with excessive alcohol use, the primary barriers were wanting to enjoy life as it is now (35%) and stress (32%).

Conclusions: This study highlights the high prevalence of alcohol use in HSCT candidates. Furthermore, the HSCT evaluation period may be a key timepoint to implement psychosocial intervention to reduce excessive alcohol use and optimize treatment and treatment-related outcomes possibly associated with alcohol use.

CORRESPONDING AUTHOR: Janae L. Kirsch, PhD, Mayo Clinic, Rochester, MN; kirsch.janae@mayo.edu

Abstract citation ID: kaad011.0059

POSTER SESSION A: A PROSPECTIVE EXAMINATION OF PERCEIVED NEGATIVE AND POSITIVE LIFE CHANGES ON WELLBEING AMONG NEWLY DIAGNOSED ADULTS WITH CANCER

Emily Fritzson, MA[1], Keith M. Bellizzi, PhD, MPH[2], Crystal L. Park, PhD[3]

[1]University of Connecticut, Farmington, CT; [2]University of Connecticut, Berlin, CT; [3]University of Connecticut, Storrs, CT

Background: While cancer can have significant negative effects on the lives of survivors, they often also report experiencing positive changes. It remains unclear whether cancer survivors' reported positive and negative life changes are associated with health-related quality of life (HRQoL), anxiety, and depression. Few studies have concurrently assessed the association between perceived positive and negative life and HRQoL. The current study analyzed data from an ongoing longitudinal study of adult cancer survivors as they transition from active treatment into early survivorship to examine whether perceived positive and negative life changes reported at baseline assessment predict HRQoL, anxiety, and depression at 6-month follow-up.

Methods: 428 recently diagnosed breast (59.3%), prostate (30.8%), and colorectal (9.8%) cancer survivors completed an adapted version of the Benefit Finding Scale to assess concurrent perceived positive and negative life changes, the SF-12 to measure physical and mental functioning, and the Hospital Anxiety and Depression Scale to capture anxiety and depression at both baseline and 6-month follow-up. Participants provided demographic information at baseline. Four linear regression models were conducted to test whether perceived negative change and positive change at baseline predict (1) mental functioning, (2) physical functioning, (3) anxiety, or (4) depression at 6-month follow-up.

Results: On average, participants (*Mage* = 59.3 years; 35% male) were seven months post-diagnosis at baseline. After controlling for demographic, disease-related, and related psychosocial variables (e.g., optimism, self-efficacy, social support, etc.) as well as the baseline score of the dependent variable, neither perceived positive nor negative change was associated with physical or mental functioning six months later. However, perceived negative change was significantly related to levels of anxiety (p = .004) and depression (p < .001).

Conclusion: Findings from the current study revealed that cancer's perceived negative but not positive effects on participants' lives were linked to later reports of elevated anxiety and depression. This suggests that the mitigation of negative perceptions may be a useful method of managing emotional distress in cancer survivors.

CORRESPONDING AUTHOR: Emily Fritzson, MA, University of Connecticut, Farmington, CT; emily.fritzson@uconn.edu

---

Abstract citation ID: kaad011.0060

POSTER SESSION A: THE RELATIONSHIP BETWEEN ENDURING SOMATIC THREAT SEVERITY AND MINDFULNESS IN LONG-TERM CARDIAC ARREST SURVIVORS

Alex Presciutti, MA, MSCS[1], Mary M. Newman, MS[2], Jolin Yamin, PhD[3], Robert Parker, ScD[1], Jonathan Elmer, MD, MS[4], Ona Wu, PhD[5], Sarah Perman, MD, MSCE[6], Michael Donnino, MD[7], Ana Maria Vranceanu, PhD, FSBM[8]

[1]Massachusetts General Hospital/Harvard Medical School, Boston, MA; [2]Sudden Cardiac Arrest Foundation, Wexfield, PA; [3]Beth Israel Deaconess Medical Center, Detroit, MI; [4]University of Pittsburgh Medical Center, Pittsburgh, PA; [5]Massachusetts General Hospital/Harvard Medical School, Charlestown, MA; [6]University of Colorado, Aurora, CO; [7]Beth Israel Deaconess Medical Center/Harvard Medical School, Boston, MA; [8]Harvard Medical School, Boston, MA

Background: Surviving cardiac arrest (CA) is continuously traumatic, as survivors must contend with chronic multi-system sequelae (e.g., cognitive, functional, emotional) and enduring somatic threats (ESTs) (i.e., recurring somatic traumatic reminders of the event), such as the daily sensation of an implantable cardioverter defibrillator (ICD), ICD-delivered shocks, pain from rescue compressions, fatigue, weakness, loss of motor function, etc. Mindfulness, non-judgmental present-moment awareness, is a teachable skill that CA survivors can utilize to cope with ESTs. The purpose of this study was two-fold: first, to describe the severity of ESTs in a sample of long-term CA survivors, and second, to explore the cross-sectional relationship between mindfulness and severity of ESTs and in long-term CA survivors.

Methods: We conducted a secondary analysis of survey data of long-term CA survivors who were members of the Sudden Cardiac Arrest Foundation (collected 10-11/2020). We assessed ESTs through the 4 cardiac threat items from the Anxiety Sensitivity Index-revised (items range from 0 "very little" to 4 "very much") which we summed to create a total EST score. We assessed mindfulness using the Cognitive and Affective Mindfulness Scale-Revised. First, we ran frequency data to identify the proportion of CA survivors who scored ≥8 (midpoint) and ≥12 (average response of 3) on the EST score. Second, we ran a linear regression to explore the relationship between mindfulness and severity of ESTs, adjusted for age, gender, time since arrest, COVID-19-related stress, and loss of income due to COVID.

Results: We analyzed data of 145 CA survivors (mean age: 52 years, 52% male, 98% white, mean time since arrest: 6 years); 44% scored above the midpoint on the EST score and 24% scored ≥12. Greater dispositional mindfulness was associated with lower EST severity (β: -34, $p < 0.001$).

Conclusions: ESTs are common even in a sample of long-term CA survivors. Mindfulness may be a potential protective skill that CA survivors can use to cope with ESTs, though further study is needed to better understand this relationship. Identifying potential coping skills, like mindfulness, will be important in making an impact in improving emotional distress post-CA.

CORRESPONDING AUTHOR: Alex Presciutti, MA, MSCS, Massachusetts General Hospital/Harvard Medical School, Boston, MA; apresciutti@mgh.harvard.edu

Abstract citation ID: kaad011.0061

POSTER SESSION A: INFLUENCES ON DIET QUALITY AMONG BLACK ADULTS WITH HYPERTENSION: A QUALITATIVE STUDY

Loneke T. Blackman Carr, PhD, RD[1], Christie I. Idiong, MS[2], Snehaa Ray, MS[3], Dori Steinberg, PhD, RD[4], Gary G. Bennett, PhD[5]

[1]University of Connecticut, Storrs, CT; [2]University of Connecticut, East Hartford, CT; [3]University of Connecticut, Willington, CT; [4]Equip Health, Inc., Chapel Hill, NC; [5]Duke University, Durham, NC

Background: Death from cardiovascular disease (CVD) is greatest among Black men and women. Hypertension, a CVD risk factor, is disproportionately high among Black versus White adults (42.1% verses 28.7%, respectively). The DASH (dietary approaches to stop hypertension) dietary pattern is proven to treat hypertension through the increased consumption of fruit, vegetables, low fat dairy, and reduced consumption of red meat, sugar and processed food. However, adherence to DASH is limited in the general population and lower in Black versus White adults even after intervention. Thus, understanding how to improve diet quality among Black adults with hypertension is necessary to reduce CVD risk.

Study objective: The purpose of this study was to understand the motivations, facilitators and barriers to improving diet quality in Black adults with hypertension, and the role of race as a factor.

Methods: We conducted individual interviews with Black adults (men (n=16), women (n=14)) with hypertension (age = 54.1 ± 11.5 years, body mass index = 33.8 ± 7.0). Questions solicited participants' responses on strategies to increase diet quality and examined motivations, barriers, and facilitators to consuming the DASH diet pattern. Interviews were audio-recorded, transcribed, coded independently by two research team members in Dedoose (version 4.12), and analyzed to identify themes.

Results: Several major themes emerged pertaining to participants' motivation to consume a high-quality diet including positive quality of life, family history, hypertension, weight loss, and other ailments that may result from poor diet quality. Meal planning and increasing fruit/vegetable intake were key strategies participants would employ to improve diet quality. The influence of family and friends and food access were main facilitators of eating high quality. Barriers included the negative influence of family or friends, the cost of food, and lack of availability. Participants also reported that their race impacted food choices and eating habits.

Conclusion: To improve diet quality among Black adults with hypertension future research should center on their motivations. Subsequent research should also examine skill-building through meal preparation plus examine how interpersonal relationships may be leveraged to increase diet quality. Contextual factors such as food availability, cost, and cultural influences on food choice and eating habits must also be addressed to achieve adoption of better diet quality.

CORRESPONDING AUTHOR: Loneke T. Blackman Carr, PhD, RD, University of Connecticut, Storrs, CT; loneke.blackman_carr@uconn.edu

---

Abstract citation ID: kaad011.0062

POSTER SESSION A: CARDIOMETABOLIC OUTCOMES AMONG RESPONDERS VS NON-RESPONDERS OF A WEIGHT MANAGEMENT TRIAL FOR YOUNG ADULTS

Caitlin P. Bailey, MS[1], Loretta DiPietro, PhD, MPH[2], Steven K. Malin, PhD[3], Laura L. Hayman, PhD, MSN, FAAN, FAHA, FPCNA[4], Melissa A. Napolitano, PhD[2]

[1]The George Washington University, Arlington, VA; [2]The George Washington University, Washington, DC, DC; [3]Rutgers University, New Brunswick, NJ; [4]UMass Boston Manning College of Nursing & Health Sciences & UMass Medical School, Braintree, MA

Background: While variability in weight outcomes among participants of weight management interventions is widely recognized, little is known about what differentiates those who successfully lose weight (responders) from those who gain weight (non-responders) or who remain weight stable.

Objective: The objective of this secondary analysis was to describe weight loss variability in a sample of young adults participating in an 18-month 3-arm randomized controlled weight management trial, and to identify demographic and cardiometabolic differences in the sample among responders (>2.5% weight loss), weight stable individuals (±2.5% weight change), and non-responders (>2.5% weight gain).

Methods: Young adults aged 18-35 (n=459) enrolled in a randomized controlled weight management trial completed baseline demographics and 18-month follow-up clinical cardiometabolic measurements (weight, abdominal circumference, blood pressure, HbA1c, HDL, glucose, insulin). Chi-square and ANOVA assessed differences in baseline demographics by responder status. ANCOVA was performed to determine differences in cardiometabolic outcomes at month-18, adjusting for treatment group and sex.

Results: Of the 281 participants with data at 18-months, 96 (34%) were responders (weight change -6.97±4.47kg); 73 (26%) were weight stable (0.36±1.25kg); and 112 (40%) were non-responders (6.39±3.74kg). We observed no differences in baseline factors (age, sex, race, BMI, study group) by responder status. In contrast, after adjustment for treatment group and sex, there were significant group differences at month-18 in abdominal circumference (93.14±1.35 cm vs 100.29±1.50 cm vs 106.16±1.33 cm, p< 0.001), diastolic blood pressure (71.21±0.95 mmHg vs 75.57±1.06 mmHg vs 75.61±0.93 mmHg, p< 0.001), and HDL (52.22±1.34 mg/dL vs 46.86±1.53 mg/dL vs 46.70±1.35 mg/dL, p=0.002), for responders, weight stable, and non-responders, respectively.

Implications: In young adults with overweight/obesity, weight loss responsiveness was associated with lower abdominal circumference and blood pressure, and higher HDL compared with those who were weight stable or gained weight. These findings suggest that being a weight loss responder impacts cardiometabolic health. However, there were no baseline demographic factors predictive of being a weight loss responder. Thus, more research is needed to identify what factors at trial commencement are predictive of responder/non-responder status at follow-up. Such information would enable programs to be tailored to participant needs from the outset.

CORRESPONDING AUTHOR: Caitlin P. Bailey, MS, The George Washington University, Arlington, VA; cpbailey@gwu.edu

Abstract citation ID: kaad011.0063

POSTER SESSION A: ASSOCIATIONS BETWEEN BODY IMAGE DISTURBANCE AND EMOTIONAL DISTRESS IN TEENS AND YOUNG ADULTS WITH CONGENITAL HEART DISEASE

Victoria R. Grant, BS[1], Kristen R. Fox, PhD[1], Jamie L. Jackson, PhD[1]

[1]Abigail Wexner Research Institute at Nationwide Children's Hospital, Columbus, OH

Background: Cardiac surgery is necessary for many congenital heart disease (CHD) survivors. However, cardiac surgery results in scarring on the chest and/or torso that may lead to symptoms of body image disturbance (BIDsxs). BIDsxs are associated with heightened emotional distress, particularly among younger individuals. Despite the potential for BIDsxs and elevated rates of emotional distress among CHD survivors, BIDsxs related to cardiac scarring has not been described among CHD survivors. The present study aims to (1) identify differences in BIDsxs by gender and CHD severity, (2) assess the relationship between BIDsxs and emotional distress, and (3) determine if age moderates the relationship between BIDsxs and emotional distress.

Methods: Adolescents and young adults aged 15-25 years with moderate to complex CHD (N=110; M_{age}=18.9±3.3; 56% male; 86% White) who reported having a scar from cardiac surgery completed the Body Image Disturbance Questionnaire (e.g., "Are you concerned about the appearance of your cardiac surgery scar(s)?") and measures of emotional distress (i.e., cardiac anxiety, general anxiety, depression). T-tests determined if BIDsxs differed by gender and CHD severity. Bivariate correlations identified the association between BIDsxs and emotional distress. Linear regression analyses examined whether the association between BIDsxs and emotional distress differed by age. Significant interactions were probed with the Johnson-Neyman technique.

Results: Females reported greater BIDsxs than males (*p*=.038), but BIDsxs did not vary by CHD severity. Greater BIDsxs were associated with increased cardiac anxiety (r=.32, *p*=< .001), general anxiety (r=.31, *p*=.001), and depression (r=.37, *p*=< .001). For CHD survivors aged < 22 years, the positive association between BIDsxs and cardiac (*p*=.045) and general anxiety (*p*=.022) decreased as age increased. BIDsxs were not associated with cardiac or general anxiety among CHD survivors aged ≥22 years. More BIDsxs were associated with greater depression regardless of age (*p*=.029).

Conclusion: Younger CHD survivors may be more influenced by societal ideals of body image. Therefore, psychosocial support for young CHD survivors may be enhanced by including strategies for promoting positive adjustment to cardiac scarring. Future work should investigate other factors that may impact BID in a more diverse sample of CHD survivors, such as perceived social expectations for gender across the lifespan.

CORRESPONDING AUTHOR: Victoria R. Grant, BS, Abigail Wexner Research Institute at Nationwide Children's Hospital, Columbus, OH; Victoria.Grant@nationwidechildrens.org

---

Abstract citation ID: kaad011.0064

POSTER SESSION A: EFFECTS OF CHILDHOOD LOSS EXPERIENCES ON ADULT LIFE SATISFACTION THROUGH THE MEDIATOR OF CHRONIC SORROW

Linda C. Mefford, PhD, APRN, NNP-BC, RNC-NIC[1], Misook L. Chung, PhD, RN, FAHA, FAAN[2]

[1]Bellarmine University, Louisville, KY; [2]University of Kentucky, Lexington, KY

Background: Children and adolescents navigate many loss experiences, including traumatic Adverse Childhood Experiences (ACE). Although there is strong evidence about how ACE influence adult health, less is known about how other types of childhood loss influence adult life satisfaction.

Purpose: Based on the theory of healing from childhood loss, we proposed a hypothesis that chronic sorrow is a key mediator of the association between childhood loss experiences and life satisfaction.

Method: In this cross-sectional study, adults within a university community in the southeastern United States were recruited using convenience sampling. Participants completed the Satisfaction with Life Scale, Kendall Chronic Sorrow Instrument, and ACE Study Questionnaire. Perceived childhood loss (PCL) was assessed by a question asking if they had a childhood experience that caused a significant loss for them (with yes or no response). Type of childhood loss was then categorized into 4 groups based on PCL and ACE: (1) no PCL or ACE; (2) ACE without PCL; (3) PCL without ACE; (4) both PCL and ACE. Mediation analysis was conducted using SPSS PROCESS macro with 5000 bootstrap samples controlling for age, gender, marital status, and race.

Findings: Of the 107 adults (mean age 33.8 years, 85% female), only 13 participants (12.1%) reported no PCL or ACE; 24 (22.4%) had ACE without PCL; 24 (22.4%) had PCL without ACE; and 46 (43.0%) had both PCL and ACE. There were no significant differences in sex and race among the 4 groups, but the group with both PCL and ACE was about 12 to 14 years older than the other groups (p < .001). Type of childhood loss had no direct effect on adult life satisfaction. Compared to the reference group with no PCL or ACE, adults reporting PCL without ACE had 2.6 points higher chronic sorrow, which in turn lowered adult life satisfaction (indirect effect= -2.626, 95% CI= -5.641, -.0502). Adults reporting *both* PCL and ACE had 3.7 points higher chronic sorrow (indirect effect = -3.688, 95% CI= -7.721, -.692). There was no indirect effect for the adults who had ACE without PCL.

Conclusions: Chronic sorrow played a key mediator role in adult life satisfaction when strong perception of loss was reported. Behavioral health clinicians can support healing through interventions to reduce development of chronic sorrow while children are navigating significant loss events, then to minimize the effects of chronic sorrow for adult survivors of childhood loss.

CORRESPONDING AUTHOR: Linda C. Mefford, PhD, APRN, NNP-BC, RNC-NIC, Bellarmine University, Louisville, KY; lmefford@bellarmine.edu

Abstract citation ID: kaad011.0065

POSTER SESSION A: ACCEPTABILITY OF EXTENDED REALITY RELAXATION TRAINING IN PEDIATRIC MIGRAINE

Mark A. Connelly, PhD[1], Madeline Boorigie, MS, CCRP[1], Klanci McCabe, PhD[1]

[1]Children's Mercy Kansas City, Kansas City, MO

Background: Effective preventive treatment of migraine attacks for youth with migraine is critical to prognosis, as each migraine increases the risk of worsening episode frequency and associated disability. Promoting regulation of the stress response is thought to have an important role in pediatric migraine prophylaxis by modulating the neurovascular changes that trigger migraine attacks. However, challenges with access to and engagement with behavioral approaches to stress management can limit reach and efficacy of this type of treatment. Advances in extended reality (XR) and wearable sensor technologies offer new scalable options to engage youth in self-directed relaxation training and to potentially impact migraine outcomes, but acceptability data from youth with migraine are first needed to inform the development of a preventive treatment protocol.

Objective: To determine the acceptability in youth with migraine of using XR to support relaxation training.

Methods: Fifteen participants (ages 10-17, 8 females and 7 males) with migraine were instructed in three XR-based relaxation training conditions, the order of which was counterbalanced: (1) immersive virtual reality, with audiovisual content modified in real-time by data from a wearable electroencephalogram (EEG) headset (VR+bio); (2) immersive virtual reality without the use of EEG neurofeedback (VR-bio); and (3) augmented reality with EEG neurofeedback (AR+bio). After trying each condition, patients completed measures of acceptability and side effects. Patients then took their choice of XR condition home for 1 week to support relaxation practice and again completed measures of acceptability and side effects following the home trial. Acceptability and side effect data were compared against predefined acceptable minimum/maximum thresholds and were evaluated for association with participant characteristics.

Results: Aggregate acceptability scores during in-clinic and at-home testing of the XR conditions were favorable overall and exceeded our predefined minimum acceptable score threshold, with both VR-bio and VR+bio preferred over AR+bio. Participants completed a relaxation session with the XR equipment at home on a median of 5/7 days, with 93% of participants "strongly agreeing" that home use was associated with an increase in well-being. Endorsed side effects were rated by all but one participant as mild, with the most common side effect being lightheadedness. Acceptability ratings were not reliably associated with age, sex, typical hours per day of technology use, or technology attitudes but were inversely related to side effect scores.

Conclusions: The use of XR technology has promise for being an acceptable and engaging approach to relaxation training for at least some youth with migraine, supporting further intervention development work and future testing of efficacy in preventing migraine episodes.

CORRESPONDING AUTHOR: Mark A. Connelly, PhD, Children's Mercy Kansas City, Kansas City, MO; mconnelly1@cmh.edu

---

Abstract citation ID: kaad011.0066

POSTER SESSION A: SYSTEMATIC REVIEW OF FAMILY-BASED INTERVENTIONS INTEGRATING RESILIENCE COMPONENTS TO IMPROVE BLACK YOUTH HEALTH OUTCOMES

Mary Quattlebaum, BA, MA[1], Dawn K. Wilson, PhD, FSBM[2], Pamela Martin, PhD[2]

[1]University of South Carolina, Cayce, SC; [2]University of South Carolina, Columbia, SC

Black youth and families are disproportionately exposed to experiences of racial stress and discrimination that can hinder physical and mental health outcomes. As such, it is critical that families develop adaptive coping skills for racial stressors to build more capacity for engaging in health promotion programs. Growing evidence shows the potential of strengths-based culturally salient resilience interventions for developing such coping skills and capacity, however, few existing resilience interventions have targeted health promoting behaviors as outcomes. Thus, the purpose of the current review was to evaluate the efficacy, rigor, and integration of cultural and family resilience intervention components of family-based interventions for improving health behavior outcomes, as well as psychological and family-related outcomes, among Black youth (ages 10-17) and their parents. We used the PRISMA guidelines and pre-registered with PROSPERO. Following in-depth screening procedures, a total of 21 studies met inclusion criteria. Of these, 17 studies showed intervention effects primarily on risk-taking health behaviors (sexual activity, substance use) and family functioning (connectedness, functioning) outcomes with effect sizes ranging from 0.029 to -0.90. Most studies (65%) showing effects received strong methodological scores based on established criteria. However, no studies addressed health promotion (physical activity, diet) or mental health outcomes (depression, well-being). Key resilience components included cultural assets (spirituality, verve and rhythm), ethnic-racial socialization (racial coping, cultural pride), ethnic-racial identity (self-concept, role models), and family resilience (communication, routine). Several studies identified resilience components (supportive parenting, ethnic-racial socialization) as key mechanisms driving intervention effects. These findings demonstrate preliminary support of the importance of integrating family-based resilience intervention components to address risk-taking health behaviors and family functioning outcomes among Black youth and families. This review is novel in that it leverages a strengths-based approach to highlight resilience resources unique to Black families. Leaning on past studies to adapt more salient methods to health promotion for Black families, future interventions should integrate a strength-based resilience approach and address health promoting behaviors and mental health outcomes.

CORRESPONDING AUTHOR: Mary Quattlebaum, BA, MA, University of South Carolina, Cayce, SC; mjq@email.sc.edu

Abstract citation ID: kaad011.0067

POSTER SESSION A: PROCESS EVALUATION FOR THE LEADS FAMILY-BASED FEASIBILITY TRIAL TO ASSESS PROGRAM DOSE AND FIDELITY OF IMPLEMENTATION

Dawn K. Wilson, PhD, FSBM[1], Colby J. Kipp, MA[2], Mary Quattlebaum, BA, MA[3], Timothy Simmons, BA[1], Haylee M. Loncar, MA[4], Sydney M. Levine[1], Allison M. Sweeney, PhD[1], Pamela Martin, PhD[1], Nicole Zarrett, PhD[1]

[1]University of South Carolina, Columbia, SC; [2]University of South Carolina, Oklahoma City, OK; [3]University of South Carolina, Cayce, SC; [4]University of South Carolina, Columbus, IN

Considering the high levels of chronic stress among African American adolescents, it may be beneficial to target stress in health promotion programs as a modifiable factor to improve health outcomes. The Linking Exercise for Advancing Daily Stress (LEADS) Management, 10-week feasibility trial, integrates stress management (i.e., mindfulness, deep breathing) and health behavior components to improve physical activity (PA), body mass index (BMI), and well-being among African American adolescents and their parents. The intervention incorporates stress management using a relapse prevention framework to exand on our prior trial, The Families Improving Together (FIT) for weight loss randomized controlled trial, which incorporated behavioral strategies and positive parenting techniques to reduce BMI and improve PA and diet. African American parent/adolescent dyads ($n = 24$) were randomized to either an online LEADS family-based intervention or an online health education program (Adolescents: Mage=14.5±1.7; M BMI Percentile = 97.7; 56% female; Parents: Mage=46.5±7.7; BMI = 42.1 ± 6.8; 100% female). LEADS incorporated a comprehensive process evaluation to assess program dose and fidelity of implementation. The process data were assessed by trained, independent process evaluators using systematic observation of recorded group sessions (kappa = 0.81). The intervention and comparison groups met the a priori goal of > 70% of families in attendance each week when makeup sessions were included. For the intervention group, dose and fidelity were assessed for essential programmatic elements (e.g., health behavioral skills, family skills, stress management skills, cultural components) delivered by program facilitators. Facilitator dose of session content delivered (0=no, 1= yes, criteria= ≥75%) was high (100%), and fidelity (1= none to 4= all, criteria= ≥3) was adequate overall (M=3.69±0.52). Regarding specific program elements, dose remained high (>90%) for all essential elements, while fidelity varied slightly (health behavioral skills [M=3.68±0.52]; family skills [M=3.32±0.69]; stress management skills [M=3.54±0.64]; cultural components [M=3.04±0.85]). Additionally, fidelity for positive participant group climate was found to be high (M=3.66±0.47). Results show successful implementation of an integrated stress and health promotion family-based intervention, which may inform future strategies for implementing effective health promotion programs for racial-ethnic minority families.

CORRESPONDING AUTHOR: Dawn K. Wilson, PhD, FSBM, University of South Carolina, Columbia, SC; wilsondk@mailbox.sc.edu

---

Abstract citation ID: kaad011.0068

POSTER SESSION A: FEASIBILITY OF THE HERE PROGRAM FOR RURAL FAMILY CHILDCARE HOMES EARLY CHILDHOOD EDUCATION PROFESSIONALS

Danae Dinkel, PhD[1], Cynthia Lujan, BS[2], Dana Dyksterhuis, BS[3], Jen Armstrong, MSc[3], Matthew Bice, PhD[4], Jolene Johnson, EdD[5]

[1]University of Nebraska at Omaha, Omaha, NE; [2]University of Nebraska - Omaha, Omaha, NE; [3]Here For You For Them, Omaha, NE; [4]Baker University, Baldwin City, KS; [5]University of Nebraska Medical Center, Munroe Meyer Institute, Omaha, NE

Background: Early childhood education professionals experience a variety of mental and physical wellbeing challenges. Certain practices, such as mindfulness, can mitigate the severity of these challenges. The HERE For You For Them (HERE) program provides evidence-based mindfulness tools to aid in emotional resilience for early childhood education professionals and the children in their care. While the HERE program has been used in childcare centers, it is unclear whether the program is feasible in family childcare homes due to limited staff and differing care structures (i.e., mixed age groups). Further, rural early childhood education professionals typically have less access to trainings and resources compared to their urban counterparts.

Objective: The purpose of this study was to explore the feasibility of the HERE program by early childhood education professionals within rural family childcare homes.

Methods: The 16-week HERE program consisted of monthly trainings delivered via Zoom with additional material sent out via e-mail and the HERE app. Each month early childhood education professionals were provided a monthly topic, mantra, breathing technique, yoga poses, and related activities. Bi-weekly surveys were sent to capture which activities early childhood education professionals were using and the length of time to implement. Feasibility was assessed through a post semi-structured interview. Descriptive statistics were calculated for survey data and interview data were analyzed using a directed content analysis approach.

Results: In the bi-weekly surveys, meditation, yoga, and breathing were the most often reported daily activities used. Meditation and yoga poses were reported to take 5-10 minutes to implement and breathing < 5 minutes to implement. 76% of early childhood education professionals said all activities were easy to implement. The semi structured interviews revealed that most early childhood education professionals felt breathing was their favorite activity to implement because it didn't take much time. While half of early childhood education professionals enjoyed the yoga poses, the other half found it challenging to implement due to the wide age range or behavior of the children. Suggested changes included providing physical copies of the training material and more time in trainings to discuss with other participants tips for implementing the program. Overall, a majority of early childhood education professionals felt the HERE activities provided a sense of calmness or relaxation for the children in their care and/or themselves.

Conclusion: Early childhood education professionals implemented activities that required little time, material, and the least amount of mastery. Future research should examine the effectiveness of the HERE program in improving early childhood education professionals wellbeing in family childcare homes.

CORRESPONDING AUTHOR: Danae Dinkel, PhD, University of Nebraska at Omaha, Omaha, NE; dmdinkel@unomaha.edu

Abstract citation ID: kaad011.0069

POSTER SESSION A: TRANSLATION OF A FAMILY-BASED BEHAVIORAL INTERVENTION FOR ADOLESCENT OBESITY USING RE-AIM & COMMON ADAPTATION FRAMEWORK STEPS

Bridget K. Biggs, PhD, LP, ABPP[1], Kristi Rodgers, MA, LP[1], Nayman Samuel, PhD[1], Kumar Seema, MD[1], Lynch Brian, MD[1], Tamim Rajjo, MD, MPH[1], Daniel Gaz, MS[1], Rose Prissel, MS, RDN, LD[1], Dawn K. Wilson, PhD, FSBM[2]

[1]Mayo Clinic, Rochester, MN; [2]University of South Carolina, Columbia, SC

Interventions for adolescent weight management that are ready to use in service delivery settings are sorely needed to address the obesity epidemic and improve the health and wellbeing of affected adolescents. This presentation demonstrates application of the RE-AIM framework and common steps from leading adaptation frameworks (Escoffery et al., 2019, *TBM*) to translate the Families Improving Together (FIT) for Weight Loss intervention for delivery in a medical center via telehealth (FIT-T). Adaptations resulting from the RE-AIM framework included telehealth delivery and broader inclusion criteria (Reach), separate clinical and research evaluation protocols (Effectiveness), adaptations to fit the clinical practice (Adoption), and practical fidelity checklists to guide and record session delivery (Implementation). Continuous quality improvement processes were established to facilitate longevity of the program as a clinical service and to increase family engagement (Maintenance). Steps from leading adaptation frameworks identified key elements to maintain, including target behaviors informed by national recommendations for youth health, behavior modification strategies, assigned practice outside of session, elicitation, and provision of social support, and focus on autonomy support. Adaptations resulting from this process included changes to session flow for group telehealth delivery (e.g., check-in processes, digital materials), reduced focus on calories and weight with increased focus on behavioral targets, modifying target behavior language to emphasize behaviors to increase over behaviors to limit, and updated and expanded health education content (e.g., serving sizes, MyPlate, recreational screen time, and benefits of physical activity). The process culminated in a package of adapted intervention materials deemed by expert stakeholders as appropriate to the practice and congruent with key content and theoretical basis of the original FIT. Our demonstration is unique in that it was initiated by clinicians within a practice setting and included a collaboration between clinical practice stakeholders and the original EBI developer. It provides a much-needed example and implications valuable to clinicians, scientists, and the field of implementation science as we work toward increasing reach of scientifically sound, clinically relevant, and effective interventions for adolescent weight management.

CORRESPONDING AUTHOR: Bridget K. Biggs, PhD, LP, ABPP, Mayo Clinic, Rochester, MN; biggs.bridget@mayo.edu

---

Abstract citation ID: kaad011.0070

POSTER SESSION A: EVALUATION OF A COMMUNITY ADVISORY BOARD ADDRESSING PSYCHOLOGICAL WELLBEING AND CARDIOVASCULAR HEALTH IN CHICAGO

Allison J. Carroll, PhD[1], Diana Ingram, PhD, MPH[2], Michelle McCullough, MPH, MBA[2], Rebecca Johnson, PhD[2], Rachelle Paul-Brutus, MPH[3], Simon Gordon[2], Paris Davis, PhD[2]

[1]Northwestern University Feinberg School of Medicine, Chicago, IL; [2]Pastors4PCOR, Chicago, IL; [3]Chicago Department of Public Health, Chicago, IL

Background: Partnering with community members and organizations is critical for implementing effective, sustainable behavioral interventions. Too often, partnership occurs after a research project is initiated and limits the potential impact on communities. To prioritize the community voice from the outset, we convened a community advisory board (CAB) through a partnership development grant. We evaluated the CAB's progress in preparing to implement a behavioral intervention to promote psychological wellbeing and cardiovascular health among African American residents of Chicago's South Side.

Methods: Our community-academic partnership (Pastors4PCOR and Northwestern University) invited community and academic members from diverse backgrounds and invested in psychological wellbeing to join the CAB. We convened four meetings (Oct 2021-Sept 2022) via videoconference to 1) learn about each other and determine CAB priorities, 2) discuss the concept of psychological wellbeing in the community, 3) identify community resources for mental health, and 4) review progress and determine next steps in the research process. CAB members provided sociodemographic data and completed an assessment of the CAB's Collaborative Work (ie, purpose, membership, processes, leadership, communication, sustainability). CAB members received an honorarium for their time.

Results: The CAB comprised nine members: 78% women, 78% African American, and 55 years old on average. CAB members indicated they wanted to learn about mental health and cardiovascular disease as well as engage and support the community in these areas. Primary outcomes of the meetings included 1) shared language around psychological wellbeing, 2) a list of diverse mental health resources and services for residents, and 3) an identified gap in services to fill with an evidence-based behavioral intervention. The Collaborative Work assessment identified the most successful areas as the CAB purpose (eg, "I understand the vision and goal of our CAB"; 46% strongly agree) and communication (eg, "CAB meeting activities are conducted in language everyone understands"; 42% strongly agree). Relative areas for improvement were the CAB processes (eg, "Our CAB has an agreed upon decision-making process"; 87% did NOT strongly agree) and sustainability (eg, "CAB members have support of local institutions and formal policy bodies"; 80% did NOT strongly agree).

Conclusions: The CAB engaged in foundational research activities with tangible outcomes to develop, support, and implement a behavioral intervention to promote psychological wellbeing and cardiovascular health in the community. In the next phase, CAB members' roles will be expanded to leverage their expertise and skills to engage in study activities (eg, developing recruitment materials, facilitating focus groups) to increase the odds of effective, sustainable implementation.

CORRESPONDING AUTHOR: Allison J. Carroll, PhD, Northwestern University Feinberg School of Medicine, Chicago, IL; allison.carroll@northwestern.edu

Abstract citation ID: kaad011.0071

POSTER SESSION A: EMPOWERING STAKEHOLDERS IN DEVELOPING A SCHOOL-BASED HEALTHY HYDRATION INITIATIVE

Kristina L. Tatum, PsyD[1], Danyel I. Smith, MS[1], Justine L. Blincoe, MSW[2], Jessica G. LaRose, PhD, FSBM[3], Alisa E. Brewer, MSPH[4], Tegwyn Brickhouse, DDS, PhD[5], Melanie K. Bean, PhD[1], Hsin-Ling (Sonya) Hung[6]

[1]Virginia Commonwealth University, Richmond, VA; [2]Greater Richmond Fit4Kids, Richmond, VA; [3]Virginia Commonwealth University School of Medicine, Richmond, VA; [4]Center on Health Disparities, Virginia Commonwealth University, Richmond, SC; [5]Virginia Commonwealth University School of Dentistry, Richmond, VA; [6]Center on Health Disparities, Virginia Commonwealth University, Richmond, VA

Background: Over 50% of U.S. youth are under-hydrated. Adequate hydration is vital to cognitive performance, fine motor skills, and visual attention—foundational skills for academic success. Children spend considerable waking hours in school, yet do not consume enough water during the school day. In response to this public health concern, and given the importance of the school environment in shaping health behaviors, federal mandates require schools to increase the availability and accessibility of clean drinking water. Yet numerous barriers to equitable water access remain, particularly among children with marginalized racial/ethnic identities and in lower-resourced school districts. This study explored perspectives from stakeholders in a central Virginia school district on current hydration policies and ideas to improve hydration initiatives.

Methods: Semi-structured key-informant interviews were conducted with a purposeful sample of stakeholders (n=15) from 3 categories: 1) school/nutrition wellness leaders and teachers; 2) community organization leaders active in wellness efforts; and 3) individuals involved in health policy. Interviews were conducted via zoom or phone, recorded, and transcribed verbatim. First-level coding was performed by two coders based on both deductive and inductive reasoning in an iterative manner during interview collection to develop and refine the codebook. This was followed by second-level categorizing that included a third coder. Thematic analysis was used for deriving findings.

Results: Several major themes and subthemes emerged: Perceived importance of hydration (e.g., improves overall health, enhances cognitive functioning); students' motivation to drink water (e.g., water temperature); current hydration policies (e.g., awareness, support, communicating policy efforts); school district's access to resources (e.g., availability of water filling stations, ability/frequency of drinking vessel distribution); barriers to hydration efforts (e.g., competing school priorities); classroom management strategies (e.g., water filling breaks); role in student hydration (e.g., role modeling); and providing education on healthy hydration. The implementation of future hydration programming efforts was perceived as feasible and key people were identified (e.g., school staff, community leaders) to help sustain programming efforts designed to enhance the effects of the policy.

Discussion: Findings highlighted the strengths and existing resources, as well as needs and perceived barriers to hydration efforts within this Virginia school district. These formative data will guide the development and implementation of school-based hydration initiatives that promote and support healthy hydration.

CORRESPONDING AUTHOR: Kristina L. Tatum, PsyD, Virginia Commonwealth University, Richmond, VA; kristina.tatum@vcuhealth.org

---

Abstract citation ID: kaad011.0072

POSTER SESSION A: INTERGENERATIONAL APPROACH TO UNDERSTANDING PHYSICAL ACTIVITY INTERESTS AMONG A HISPANIC/LATINO COMMUNITY

Danae Dinkel, PhD[1], John P. Rech, MAE[2], Julie Boron, PhD[1], Marcela Carvajal-Suarez, PhDc[3], Natalia Trinidad, MPH[3], Karen Schmeits, MPH[3], Athena Ramos, PhD, MBA, MS, CPM[4]

[1]University of Nebraska at Omaha, Omaha, NE; [2]University of Nebraska - Omaha, Omaha, NE; [3]University of Nebraska Medical Center, Omaha, NE; [4]University of Nebraska Medical Center, omaha, NE

Introduction: Within the United States, individuals who are Hispanic/Latino have been found to be at an increased risk for physical inactivity, often linked to inequities in community-based physical activity (PA) opportunities. Intergenerational programming may be an innovative community-based approach to increase PA amongst the Hispanic/Latino population. However, little is known about if PA perceptions are consistent across generations. The purpose of this study was to explore the perceived barriers, benefits, and facilitators of PA of an intergenerational sample of Hispanic/Latino community members and explore their interests for an intergenerational PA program.

Methods: Eight focus groups were conducted with children (n=2), parents (n=2), older adults (n=2), and community stakeholders (n=2). A total of 41 individuals participated from August-October 2020. Focus groups were conducted over Zoom in Spanish or English based on participant preference and lasted 30-60 minutes. All focus groups were recorded and transcribed, then translated to English for analysis. Data were analyzed using the framework method and validated through the use of data triangulation.

Results: The primary barriers of PA mentioned by all groups was limited access to resources that are close to their homes, along with personal responsibilities (e.g., work, school), lack of transportation, unsafe neighborhoods, and COVID-19 restrictions. While the specific examples of benefits varied, all groups mentioned PA benefited physical, mental, and social health. The primary facilitators of PA mentioned by all groups was access to resources that promoted PA, such as public recreation amenities, as well as social support and safe neighborhoods. Overall, participants were interested in an intergenerational PA program. Participants in all groups felt this would be a place where individuals could meet and socialize with the community and their family members. Older adults were specifically interested in developing positive relationships with others to improve their enjoyment of PA. To facilitate socialization, participants desired group challenges and interactive activities including dancing. Finally, groups mentioned ensuring the host facility be easily accessible and transportation provided to those who need it.

Discussion: Similar barriers, benefits, and facilitators were found among an intergenerational sample of Hispanic/Latino community members. Further, an intergenerational PA program seemed of interest to all participants. Results provide key details to the development of an intergenerational PA program including assuring programming occurs within local and accessible areas, such as public parks or community centers, focuses on socialization, and includes enjoyable activities such as dance.

CORRESPONDING AUTHOR: Danae Dinkel, PhD, University of Nebraska at Omaha, Omaha, NE; dmdinkel@unomaha.edu

Abstract citation ID: kaad011.0073

POSTER SESSION A: QUESTION PROMPT LISTS AND PARENTAL QUESTION ASKING IN PEDIATRIC SPECIALTY APPOINTMENTS: A RANDOMIZED CONTROL TRIAL

Haoyang Yan, PhD[1], Margaret Waltz, PhD[2], Jean Cadigan, PhD[2], Feng-Chang Lin, PhD[2], Laura Farnan, PhD[3], Courtney Canter, MA[4], Ann Katherine M. Foreman, MS, CGC[2], Tracey L. Grant, MS[5], Julianne O'Daniel, MS, CGC[2], Suzanne C. O'Neill, PhD, FSBM[6], Madeline Mahla[2], Chad Haldeman-Englert, MD[7], Bradford Powell, MD, PhD, FACMG[2], Christine M. Rini, PhD[1]

[1]Northwestern University, Chicago, IL; [2]University of North Carolina at Chapel Hill, Chapel Hill, NC; [3]University of North Carolina at Chapel Hill, CHAPEL HILL, NC; [4]University of North Carolina at Chapel Hill, Miami Beach, FL; [5]LUNGevity Foundation, Durham, NC; [6]Georgetown University, Washington, DC; [7]Mission Health Fullerton Genetics Center, Asheville, NC

Background: For families of pediatric patients undergoing genomic sequencing to diagnose a suspected genetic condition, family-provider communication is critical for supporting shared decision making. Question prompt lists (QPL) have been effective at increasing patient involvement and question asking, which is especially important for underserved and underrepresented families who are less likely to ask questions in clinical appointments.

Purpose: To determine whether a pre-visit preparation intervention (PVP) consisting of an educational booklet and a QPL, would increase question asking. To examine whether the intervention effect would be moderated by indicators of underserved or underrepresented status (race/ethnicity: non-Hispanic white vs. caregivers of color; child's insurance status: Medicaid or no insurance vs. insurance other than Medicaid).

Methods: Caregivers of pediatric patients with a new clinical appointment to evaluate a suspected genetic condition were recruited for the North Carolina Genomic Evaluation by Next-generation Exome Sequencing 2 study. They were randomized (1:1) to receive the PVP before their appointment (n=59) or not to receive it (control, n=53). The clinical consultations were audio-recorded, transcribed verbatim, and analyzed by study team members to characterize the number of total questions (including questions on the QPL) caregivers asked during their appointment. Possible confounders were controlled.

Results: Caregivers in the PVP group asked more questions (M_{PVP}=4.36, SD_{PVP}=4.66 vs. Mcontrol=2.83, SDcontrol=3.03, p=0.045), including QPL questions (M_{PVP}=1.05, SD_{PVP}=1.39 vs. Mcontrol=0.36, SDcontrol=0.81, p=0.002). The interaction between group and race/ethnicity was nonsignificant for prediction of total and QPL questions (ps=0.409 and 0.266). However, further analysis showed that among non-Hispanic white caregivers, those in the PVP group asked more total and QPL questions than their counterparts in the control group (ps=0.030 and < 0.001); there was no intervention effect among caregivers of color (ps=0.426 and 0.840). The interaction between group and child's insurance status significantly predicted total and QPL questions (ps=0.005 and 0.027). Among caregivers whose child had insurance other than Medicaid, those in the PVP group asked more total and QPL questions than their counterparts in the control group (ps=0.005 and 0.002); there was no intervention effect among caregivers of children with Medicaid or no insurance (ps=0.775 and 0.166).

Conclusion: While the PVP intervention increased question asking, this increase was not equal across all groups and may be impacted by additional factors such as verbal/non-verbal clinician responses that were not captured. More research is needed to support shared decision making in traditionally underserved and underrepresented groups.

CORRESPONDING AUTHOR: Haoyang Yan, PhD, Northwestern University, Chicago, IL; haoyang.yan@northwestern.edu

---

Abstract citation ID: kaad011.0074

POSTER SESSION A: USING DIFFUSION OF INNOVATION THEORY TO CHARACTERIZE WILLINGNESS TO RECEIVE A COVID-19 BOOSTER AMONG VACCINATED ADULTS

Sarah B. Bass, PhD, MPH, FSBM[1], Whitney V. Cabey, MD, MSPH[2], Caseem Luck, MA[1], Patrick J. Kelly, MPH[3], Ariel Hoadley, MPH[1], Maria Rincon, MPH[1], Heather Gardiner, PhD, MPH[1]

[1]Temple University College of Public Health, Philadelphia, PA; [2]Temple UniversityLewis Katz School of Medicine, Philadelphia, PA; [3]Temple University, Providence, RI

Background: Uptake of COVID-19 booster doses among the fully vaccinated remains persistently low, leaving many vulnerable to infection and the potential for serious illness. Understanding why booster uptake is low is important to ensuring community level immunity and inform communication efforts.

Methods: In-depth interviews (n=30; 9 boosted; 21 unboosted) were conducted with adults 18+ in Philadelphia who self-reported being fully vaccinated against COVID-19. Participants were recruited via COVID-19 vaccination clinics, a targeted Facebook advertisement, and a newspaper advertisement. Interviews were audio recorded, and transcribed. A Rapid Qualitative analysis was used to map to the five Diffusion of Innovation (DoI) theory adopter groups, with an additional group added called "refusers".

Results: Participants were mostly non-White (66.67%) and 53.4% had less than a college education; mean age was 38. Intent to accept a booster dose was assessed on a 0 to 10 Likert scale and dichotomized 0-5 as hesitant and 6-10 as not hesitant. Seventeen (81%) were grouped as not hesitant based on the intent measure but had not followed through with being boosted. DoI adopter group characterization indicated that of those boosted (n=9), 4 (44%) were boosted without reservation (innovators) while 1(11%) was altruistically motivated to get boosted after discussion with others (early adopter). Four (44%) participants were boosted only after their questions were addressed and others they trusted (e.g., friends, family) were boosted (early majority). Among the unboosted (n=21), 11(52%) participants deprioritized the decision and reported low COVID-19 risk perception coupled with concerns over side effects and long-term effects but articulated the merit of testimonials or the appeal of reformulated boosters as potentially moving them towards uptake (late majority). Five (24%) shared that they would only be boosted if it were mandated for work (laggards), and 5 (24%) indicated they would refuse a booster entirely (refusers), no matter the circumstances.

Conclusion: Using DoI theory elucidates differences in perceptions of COVID-19 vaccine boosters among those who are fully vaccinated, indicating that the decision and rationale for the primary vaccines often did not apply to booster decisions. This has significant implications for messaging and interventions aimed at increasing booster uptake.

CORRESPONDING AUTHOR: Sarah B. Bass, PhD, MPH, FSBM, Temple University College of Public Health, Philadelphia, PA; sbass@temple.edu

Abstract citation ID: kaad011.0075

POSTER SESSION A: THE IMPACT OF A DIABETES DIGITAL APP TO IMPROVE SELF-MANAGEMENT BEHAVIORS IN A COHORT OF ADULTS LIVING WITH TYPE 2 DIABETES

Sebastian C. Sujka, BSc[1], Matteo Carli, MSc, MBus[1], Sarah Gosten, BSc[1], Florenz M. Sanne, MA[2], Evdokia Kazimirova, PhD[3], Christian Pisetta, MSc[1], Thea Rechner, MFA[1], Monika Kotus, MS[1], Sanaz Nosrat, PhD[4], Valerie H. Myers, PhD, FSBM[5]

[1]Glooko GmbH, Berlin, Berlin, Germany; [2]Glooko GmbH, Friedrichshain-Kreuzberg - Kreuzberg, Berlin, Germany; [3]Glooko GmbH, Palo Alto, CA; [4]Glooko, Inc., New York, NY; [5]Glooko, Inc., LITTLETON, CO

Introduction: Type 2 diabetes (T2D) is one of the most common chronic diseases worldwide. Approximately 7 million German adults have T2D. T2D requires significant effort to manage. Technology approaches such as digital health apps can help reduce self-management burden.

Purpose: The primary objective of this early evidence, single cohort, pre-post design study was to examine whether a smartphone app, *Flavia*, improved diabetes self-management behaviors in a sample of German adults with T2D aged 40 years and older.

Methods: *Flavia* allows users to log information regarding their blood glucose, food, physical activity, medication, A1c, weight, and other lifestyle-related data such as step counts. An e-learning plan of 40 lessons covering multiple diabetes-related topics is also provided. Participants were recruited via social media and physician networks. Participants (n = 50, M ± SD = 64.18 ± 9.71 years, 40% women) used *Flavia* for 4 weeks and completed the Diabetes Self-Management Questionnaire-Revised (DSMQ-R) at baseline and after 4 weeks of *Flavia* use. The DSMQ-R has four subscales (glucose management, physical activity, dietary control, and physician contact) and a Total Score. Higher scores indicate better self-management.

Results: A total of 50 participants (out of 85 consented) completed the 4-week post-test assessment. Parametric t-tests were performed on values that met normality assumptions otherwise a Wilcoxon signed-rank test was performed. Average delta values (Ø□∓σ = average delta +/- SD) and the statistical and clinical significance for each subscale and Total Score were calculated. For all subscales and the Total Score, post-test scores were significantly greater than pre-test scores (all $p < .05$) suggesting improved diabetes self-management. A large effect size was demonstrated for the Total Score (0.767). Clinical significance was statistically demonstrated using the Minimal Clinically Important Differences (MCID) approximation and the Minimal Detectable Change (MDC).

Discussion: This early evidence study demonstrated that *Flavia* resulted in statistically significant and clinically relevant improvement in diabetes self-management after only 4 weeks of use. Participant retention was 58.8% which far exceeds the industry average with regards to app use retention. Additional analyses for presentation will examine user motivations and other engagement behaviors which may impact user readiness to engage in the *Flavia* diabetes program.

CORRESPONDING AUTHOR: Valerie H. Myers, PhD, FSBM, Glooko, Inc., LITTLETON, CO; valerie.myers@glooko.com

---

Abstract citation ID: kaad011.0076

POSTER SESSION A: WHAT'S WORSE THAN DIABETES? CORRELATES OF COMORBIDITY BURDEN AMONG ADULT MEDICAID BENEFICIARIES WITH TYPE 2 DIABETES

Amy McQueen, PhD[1], David von Nordheim, MA[1], Darrell J. Broussard, MBA[2], Rachel E. Smith, MSN, RN, CCM[2], Niko Verdecias, DrPH, MPH[3], Matthew W. Kreuter, PhD, MPH[1]

[1]Washington University in St. Louis, St. Louis, MO; [2]Louisiana Healthcare Connections, Baton Rouge, LA; [3]Arizona State University, Phoenix, AZ

Diabetes self-management and health outcomes are complicated by comorbid conditions. Some conditions that share treatment goals (e.g., hypertension) may be less disruptive than discordant conditions (e.g., depression, arthritis) that create barriers to lifestyle intervention and self-management behaviors. Understanding the factors associated with patients' perceptions of comorbidity burden may inform patient-centered healthcare services and community supports. We conducted a secondary data analysis of perceptions and correlates of chronic disease burden using baseline survey data from an ongoing social needs intervention trial involving adult Medicaid beneficiaries with Type 2 diabetes. Descriptive statistics characterize participants: The sample (N=473) was 21-68 years old (M=51.55, SD=9.52), mostly female (75.9%), African American (65.5%) or White (29.0%), had a mean of 7.59 (SD=3.03) of the 21 comorbidities assessed including diabetes. All conditions were rated by participants for impact on their daily activities (1=not at all; 5=a lot). Sum scores reflect cumulative burden (M=21.7, SD=13.0). The top 5 comorbidities were hypertension, vision problems, obesity, high cholesterol, and back pain. The top 5 with highest burden were back pain, rheumatoid arthritis, rheumatic disease, circulation problems, and osteoarthritis. Diabetes burden was ranked 14 of 21 conditions. Bivariate correlations (continuous) and mean differences (categorical) identified significant correlates of diabetes-specific and cumulative burden scores. Few correlates differed by outcome: African Americans reported greater diabetes burden (M=3.11, SD=1.61) than Whites (M=2.65, SD=1.50) and years since diabetes diagnosis was related to greater diabetes burden ($r= .17$, $p < .001$), but neither were associated with cumulative burden. Older age, no children living at home, less assistance from government programs, and less future time orientation were significantly associated with greater cumulative burden, but not diabetes burden. For both outcomes, burden was positively associated with stress, diabetes distress, depression, sleep problems, executive function problems, and inversely associated with diabetes self-efficacy and quality of life. Of 9 items assessing diabetes self-management in the past 7 days, three were *positively* associated with burden (eating fruits & vegetables, testing blood sugar, checking inside shoes). These results provide new understanding about how adults perceive the burden of type 2 diabetes compared to comorbid conditions, and which factors could be targeted in interventions to address specific and/or cumulative disease burden. Future longitudinal analyses can examine the direction of effects between health behaviors and burden scores, and identify mediators of factors influencing diabetes burden specifically to reduce age and race disparities.

CORRESPONDING AUTHOR: Amy McQueen, PhD, Washington University in St. Louis, St. Louis, MO; amcqueen@wustl.edu

Abstract citation ID: kaad011.0077

POSTER SESSION A: PEER SUPPORT THROUGH COMMUNITY HEALTH CENTERS IN SHANGHAI INTEGRATION MODEL: SUSTAINED BENEFITS OVER 18 MONTHS

Yuexing Liu, PhD[1], Chun Cai, MD, MPH, MsC[1], Xiaoyu Wu, MPA[2], Patrick Y. Tang, MPH[3], Muchieh M. Coufal, MPH, MA[4], Hongli Chen, BS[1], Li Shen, MPH[1], Yiqing Qian, MPH[3], Samantha L. Luu, MPH[3], Edwin B. Fisher, PhD, FSBM[3], Weiping Jia, MD, PhD[1]

[1]Shanghai Jiao Tong University Affiliated Sixth People's Hospital, Shanghai, Shanghai, China; [2]Shanghai Municipal Health Commission, Shanghai, Shanghai, China; [3]University of North Carolina at Chapel Hill, Chapel Hill, NC; [4]Asian Center for Health Education, Plano, TX

As a progressive disease, diabetes presents challenges to maintenance of clinical benefits, with biological and psychosocial differences between genders. Aging and diabetes duration often accentuate these challenges. Previous reports from a community-based diabetes peer support program in China documented beneficial changes after 12 months. This study aimed to evaluate their persistence to 18 months.

In conjunction with the Shanghai Integration Model of diabetes care, 9 Community Health Centers established peer support through one-year active program implementation with follow up at 18 months. Peer leaders co-led meetings on diabetes management, led various neighborhood activities, and followed up with individuals and families. Linear mixed-effects models examined whether changes were sustained at 18 months and analyzed changes stratified by gender, age and diabetes duration through interactions of time with group.

Among all 1,009 participants, overall changes from baseline to 18 months showed significant improvements for blood glucose (HbA1c), systolic and diastolic blood pressure (SBP, DBP), and depressed mood (PHQ8) in the entire sample ($ps \leq 0.0088$) and for those elevated at baseline ($ps < 0.001$), e.g., HbA1c ≥ 8%. Regarding sustainability from 12 to 18 months, no significant changes were found for HbA1c, SBP and DBP, while depressed mood further improved significantly ($p = 0.0411$) for all participants. LDLc, however, showed return toward baseline levels for the whole sample (115.5 reduced to 111.7 then returning to 115.2 mg/dl, $p = 0.0002$) and those elevated at baseline (133.8 to 123.0 to 125.7 mg/dl, $p = 0.0447$, but still reduced from baseline, $p < 0.0001$). Far from being diminished, effects in analyses by age, duration, and gender were generally comparable. Females showed greater reductions of SBP and LDLc than males. Those ≥ 65 years old had higher baseline SBP and PHQ8 but reduced them more than others. Those with diabetes duration ≥ 11 years had higher HbA1c at baseline but reduced it more than others.

Summarizing, improvements through a community-based peer support intervention for diabetes were generally sustained, especially among those with initially elevated levels. Rather than diminished, females, those ≥ 65 years and with longer diabetes duration showed equal, and in some cases, greater benefits.

CORRESPONDING AUTHOR: Edwin B. Fisher, PhD, FSBM, University of North Carolina at Chapel Hill, Chapel Hill, NC; edfisher@unc.edu

---

Abstract citation ID: kaad011.0078

POSTER SESSION A: FRUIT AND VEGETABLE PRESCRIPTION (F&V RX) VOUCHER REDEMPTION IN PATIENTS WITH TYPE TWO DIABETES

Kayla Rutt, MS[1], Lisa Weaver, BS[2], Christina Scartozzi, MD[3], Susan Veldheer, DEd, RD[1]

[1]Penn State College of Medicine, Hershey, PA; [2]Penn State Health, Hershey, PA; [3]Penn State St. Joseph's, Hershey, PA

Objective: Fruit and vegetable prescription programs (F&V Rx) for patients with type two diabetes (T2DM) are associated with better diabetes outcomes. However, these outcomes are predicated on voucher redemption which may be mediated by reasons such as access to transportation, distance to retailers, or household size. This analysis explores potential meditators of voucher redemption in a F&V Rx program.

Design: Single-arm-pre-post study

Setting: Penn State Health St. Joseph's Veggie Rx program, located in a low-income, primarily Latinx community in Reading, Pennsylvania

Participants: Enrollment is ongoing with a target enrollment of 150 participants. This preliminary analysis includes 50 adults (aged 18+) who were enrolled in the Veggie Rx program between December 2022 and June 2022. Participants were eligible for Veggie Rx if they had an HgbA1c $\geq$7 and a $\geq$BMI of 25.

Intervention: F&V vouchers were provided to participants contingent on monthly attendance at 1-hour long diabetes self-management education sessions over six months. Vouchers could only be used to purchase F&V at local retailers. Monthly voucher amounts were based on the number of family members ($9 and $45).

Analysis: Total and individual voucher distribution and redemption was tracked. Distance traveled was calculated from participant's home address to their most frequently used vendor. Simple linear regression models assessed the association between voucher redemption rates and distance traveled to redeem vouchers, family size, and access to transportation (own car v. all others).

Results: Participants (n=50) had a mean family size of 3.2, 66% (n=33) were Latinx ethnicity, 92% (n=42) had a high school degree or less, and 48% (n=24) used their own car as transportation for food shopping. The overall voucher redemption rate was 84.7% (4904 redeemed/5785 given). Participants traveled an average of 4.2 miles from their home to the market. Voucher redemption was positively associated with each mediator though they were not statistically significant (distance traveled β=.119, p=.411; family size β=.260, p=.068; and participant-owned car for transportation β=.016, p=.913).

Conclusions: In this preliminary analysis, there were no significant associations with voucher redemption and mediators evaluated. Future analyses with the complete sample will consider additional socio-demographic characteristics, co-variates, and potential interactions that may mediate voucher redemption.

CORRESPONDING AUTHOR: Susan Veldheer, DEd, RD, Penn State College of Medicine, Hershey, PA; sveldheer@psu.edu

Abstract citation ID: kaad011.0079

POSTER SESSION A: A SCALABLE WEIGHT MANAGEMENT PROGRAM TAILORED FOR ADULTS WITH TYPE 2 DIABETES: EFFECTS ON PSYCHOSOCIAL OUTCOMES

Jessica G. LaRose, PhD, FSBM[1], John W. Apolzan, PhD[2], Stephen D. Anton, PhD[3], Robbie Beyl, PhD[2], FRANK L. GREENWAY, MD[2], Edmond P. Wickham, MD, MPH[1], Autumn Lanoye, PhD[4], Melissa N. Harris, MPA, BS[2], Tiffany Bullard, PhD[5], Gary Foster, PhD[6], Michelle I. Cardel, PhD, MS, RD, FTOS[7]

[1]Virginia Commonwealth University School of Medicine, Richmond, VA; [2]Pennington Biomedical Research Center, Baton Rouge, LA; [3]University of Florida, Gainesville, FL; [4]Virginia Commonwealth University Massey Cancer Center, Richmond, VA; [5]Medpace, Denver, CO; [6]WeightWatchers (WW(, Newtown Square, PA; [7]WW International, Inc.; University of Florida College of Med, Gainesville, FL

Background: Clinical weight management programs can improve glycemic control in adults with type 2 diabetes (T2D) but are often costly and have limited accessibility. We previously demonstrated that a scalable diabetes-tailored, widely available weight management program, WeightWatchers (WW), promoted significant improvements on glycemic control and anthropometrics. Our objective in this report was to examine intervention effects on psychosocial outcomes.

Methods: This was a 24-wk single arm, three-site clinical trial. Participants (n= 136) had T2D, a BMI between 27-50 kg/m^2, and a baseline HbA1c between 7-11%. All participants received the 24-wk WW intervention, which consisted of a diabetes-tailored WW digital + workshop program and included weekly virtual workshops and use of the WW App. Assessments occurred at 0, 12, and 24 weeks. HbA1c and anthropometrics were objectively measured in clinic. Psychosocial outcomes were assessed using validated surveys: impact of weight on quality of life (IWQOL-Lite), diabetes distress (DDS), self-compassion (SCS), and well-being (WHO-5 WBI). Generalized linear effects models were used to analyze changes at 12 and 24 weeks (MAR) and used an intent-to-treat analysis.

Results: Participants were 56.8 ± 0.8 y (Mean ± SEM), 80.2% Female, 62.2% non-Hispanic White. Baseline BMI was 36.2±0.6 kg/m^2. HbA1c decreased at 12 weeks [0.6±0.1 (p< .0001)] and 24 weeks [0.8±0.1 (p< .0001)]. Body weight also decreased at 12 weeks [4.6±0.5% (p< .0001)] and 24 weeks [5.7±0.5% (p< .0001)]. Impact of weight on quality of life decreased at 12 weeks [7.4±1.1 (p< .0001)] and 24 weeks [11.1±1.5 (p< 0001)], with improvements observed for all subscales (p's< .01). Diabetes related distress decreased at 12 weeks [0.23±0.08 (p=.003)] and 24 weeks [0.03 + 0.1 (p< .001)], with improvements on the emotional burden (p=.004) and regimen related (p< .001) subscales. Self-compassion increased at 12 weeks [0.74±0.3 (p=.03)] and 24 weeks [1.03±0.4 (p=.02)], with improvements on both self-kindness and self-judgment subscales (p's< .05). Well-being increased at 12 weeks [4.9±1.7 (p=.003)] but improvements waned by 24 weeks [2.2 + 2.1 (p=.30)].

Conclusions: The diabetes-tailored WW digital program had favorable effects on a host of psychosocial outcomes, in addition to promoting clinically meaningful improvements in glycemic control and weight. Findings underscore the multi-faceted benefits of this scalable and accessible WW program for adults living with type 2 diabetes.

CORRESPONDING AUTHOR: Jessica G. LaRose, PhD, FSBM, Virginia Commonwealth University School of Medicine, Richmond, VA; jessica.larose@vcuhealth.org

---

Abstract citation ID: kaad011.0080

POSTER SESSION A: ROBOT-ENHANCED DIABETES CARE FOR MIDDLE-AGED AND OLDER ADULTS LIVING WITH DIABETES IN THE COMMUNITY

Ching-Ju Chiu[1], Lin-Chun Hua[1]

[1]Institute of Gerontology, College of Medicine, National Cheng Kung University, Tainan, Tainan, Taiwan (Republic of China)

Objective: The aim of this study is to develop a health care robot prototype that can be integrated into current community pharmacies.

Methods: Three user-centered approaches were used: (1) Review of the literature about elderly technology use, (2) reference to guidelines for diabetes care by the American Association of Diabetes Educators 7 (AADE7) and, (3) meeting with health care providers in the community. Field investigations and interviews were conducted at community pharmacies and diabetes health education centers to determine the content, function, interface and appearance of the robot.

Results: The results show that diabetes health care prototype robots can be established through user-centered design. Important features were revealed: (1) perceived ease of use is considered as a friendly operating interface, therefore, less than 3 buttons in one interface; (2) minimization of the interface between blue and yellow, which is unfriendly to the elderly; (3) the health education mode was most welcome with sound, image, and video presentation; (4) the main functions are health education resources and health records, and that patient data can be easily collected through health education games and dialogue with robots; (5) due to the instability of the internet system, touching the screen is the main operation mode.

Conclusions: It was concluded that an evidence-based care robot can be developed through user-centered design, an approach in which a model that connects medical needs to people with health conditions can be built, to facilitate the sustainable development of technology in the diabetes care field.

CORRESPONDING AUTHOR: Ching-Ju Chiu, Institute of Gerontology, College of Medicine, National Cheng Kung University, Tainan, Tainan, Taiwan (Republic of China); cjchiu@mail.ncku.edu.tw

Abstract citation ID: kaad011.0081

POSTER SESSION A: WHAT MOTIVATE CHANGE?: QUALITATIVE INQUIRY AMONG RURAL AFRICAN AMERICANS DIAGNOSED WITH DIABETES

Idethia S. Harvey, DrPH[1], Ifeolu J. David, MD, MPH[2]

[1]Department of Health Sciences/University of Missouri, Columbia, MO; [2]University of Missouri, Columbia, Columbia, MO

Diabetes self-management behaviors refer to activities individuals engage in to promote a healthy lifestyle and prevent long- and short-term deleterious health outcomes. Self-management behavior requires considerable effort that must be sustained over the life course of the condition and across the individual's lifespan. Self-determination theory (SDT) states that social context plays a key role in how individuals are motivated to change their behavior. SDT posits that social contexts that support a person's perceived competence, autonomy, and relatedness will foster more motivation and thus contribute to one behavior change. However, research on diabetes self-management behavior and SDT is lacking among older rural-dwelling African Americans. Therefore, this qualitative study aimed to describe the differences in motivation for behavioral changes and psychological needs, and to determine the differences in these factors among older African Americans living in rural communities. Using SDT as a conceptual framework, we analyzed interviews from rural and micropolitan older (x = 75.7 years, SD = 6.7) African Americans (n = 18) diagnosed with diabetes (x= 16 years, SD = 12). Transcripts were analyzed using the Sort and Sift, Think and Shift approach that focused on the target population's psychological need satisfaction (autonomy, competence, relatedness). The three major themes that emerged were motivational determinants of disease management (autonomy), confidence from social and physical environments (competence), and supportive relationships (relatedness). Motivated respondents lost weight and improved glucose levels compared to unmotivated ones whose glucose control continued to decline over time. Our findings suggest that rural and micropolitan older African Americans need positive psychological satisfaction (autonomy, competence, and relatedness) to sustain behavioral change over time.

CORRESPONDING AUTHOR: Idethia S. Harvey, DrPH, Department of Health Sciences/University of Missouri, Columbia, MO; isharvey@health.missouri.edu

---

Abstract citation ID: kaad011.0082

POSTER SESSION A: DIET QUALITY INDICES AND CHANGES IN COGNITION DURING CHEMOTHERAPY

Sylvia L. Crowder, PhD, RDN[1], Taylor Welniak, BS[1], Aasha I. Hoogland, PhD[1], Brent J. Small, PhD[2], Yvelise Rodriguez, MS[1], Kristen M. Carpenter, PhD[3], Stacy M. Fischer, MD[4], Daneng Li, MD[5], Anita Y. Kinney, PhD[6], Daniel Rotroff, PhD[7], Arshiya Mariam, PhD[7], Naomi Brownstein, PhD[1], Richard Reich, PhD[1], Tim Hembree, PhD, DO[1], Mary Playdon, PhD[8], Martine Extermann, MD[1], Richard Kim, MD[9], Donna Berry, PhD, RN[10], Heather S. Jim, PhD, FSBM[1]

[1]Moffitt Cancer Center, Tampa, FL; [2]University South Florida, Tampa, FL; [3]The Ohio State University, Columbus, OH; [4]University of Colorado Anschutz Medical Campus, Aurora, CO; [5]City of Hope, Duarte, CA; [6]Rutgers, New Brunswick, NJ; [7]Cleveland Clinic, Cleveland, OH; [8]The University of Utah, Salt Lake City, UT; [9]Moffitt Cancer Center, tampa, FL; [10]University of Washington, Seattle, WA

Background: Cancer-related cognitive decline (CRCD) incidence rates range from 17 to 75% for patients during chemotherapy. No evidence-based prevention strategies currently exist for CRCD, although patients reporting CRCD are often advised to engage in healthy lifestyle activities (e.g., nutritious diet). More data are needed regarding whether diet is helpful in preventing CRCD. The purpose of this secondary analysis was to evaluate the association of pre-treatment diet quality indices on change in self-reported cognition during chemotherapy.

Methods: Chemotherapy-naïve cancer patients completed the Block Brief Food Frequency Questionnaire (FFQ), cued over the past year, before their first infusion. Diet quality indices were calculated and included the Dietary Approaches to Stop Hypertension (DASH), Alternate Mediterranean Diet (aMED), and a low carbohydrate diet index and their components. Participants completed the cognitive function, cognitive abilities, fatigue, and depression questionnaires before infusion and again five days later (i.e., when symptoms after chemotherapy were expected to be at their worst). Residualized change models were computed to examine whether diet predicted change in cognitive function and cognitive abilities, controlling for fatigue and depression.

Results: Study participants n=96 had a mean age of 59 ± 10.8 years and 69% were female. Although total diet quality index scores did not predict change in cognitive function or cognitive abilities, higher pre-treatment ratio of aMED monounsaturated/saturated fat was associated with less decline in cognitive function and cognitive abilities at five-days post-infusion ($P < .001$).

Conclusions: Higher pre-treatment ratio of monounsaturated/saturated fat intake was associated with less CRCD early in chemotherapy. Results suggest greater monounsaturated fat and less saturated fat intake could be protective against CRCD during chemotherapy. Future studies are warranted, particularly during active treatment when burden of CRCD is highest.

CORRESPONDING AUTHOR: Sylvia L. Crowder, PhD, RDN, Moffitt Cancer Center, Tampa, FL; sylvia.crowder@moffitt.org

Abstract citation ID: kaad011.0083

POSTER SESSION A: TEMPORAL PATTERNS IN FRUIT AND VEGETABLE INTAKE AMONG RACIALLY/ETHNICALLY DIVERSE YOUTH IN CALIFORNIA

Maria E. Acosta, MPH[1], Emma V. Sanchez-Vaznaugh, MPH, ScD[2], Nancy Barba, MPH[2], Mika Matsuzaki, PhD[3], Brisa N. Sánchez, PhD[4]

[1]San Francisco State Univeristy, San Francisco, CA; [2]San Francisco State University, San Francisco, CA; [3]Johns Hopkins Bloomberg School of Public Health, Baltimore, MD; [4]Drexel Dornsife School of Public Health, Philadelphia, PA

Background: Childhood diet behaviors tend to persist into adulthood and are associated with health outcomes. US dietary guidelines recommend 5 or more servings of fruits and vegetables per day. However, most children do not meet the daily recommendations. Less is known about temporal patterns in fruit and vegetable intake among school age children overall and across race/ethnicity.

Objective: To investigate temporal patterns in fruit and vegetable intake among California school age children overall and across racial/ethnicity.

Methods: Using the child and adolescent samples from the California Health Interview Survey waves 2011-12 through 2019-2020, logistic regression models estimated odds of consuming five or more fruit and vegetables yesterday in 2013-2016 and 2017-2020 compared with 2011-2012, for the overall sample, controlling for age, sex, nativity, family income and youth caregiver's education. The models also tested for potential differential trends in fruit and vegetable intake by race/ethnicity.

Results: A total of 16,638 children ages 5-11 and 8,759 adolescents ages 12-17 comprised the samples. Among children overall, after controlling for age, sex, socioeconomic factors and nativity, the odds of fruit and vegetable intake were higher in 2013-2016 (OR:1.38, 95%CI: 1.16, 1.65) and 2017-2020 (OR:1.19, 95%CI:0.98, 1.44) compared to 2011-2012, though significant among the former. Among adolescents, we observed no changes in fruit and vegetable consumption. Further, we found no evidence of a differential association by race/ethnicity.

Conclusion: Among children, but not adolescents in California, intake of 5 or more fruits and vegetables appear to have increased in 2013-2016 compared with 2011-12, though smaller non-significant increases were seen in the period of 2017-2020.

Implications for Practice and Policy: The upward trends in fruit and vegetable consumption among children have the potential to reduce the risk of obesity and related diseases, as well improve future population health. Continued efforts in programs and policies are needed to promote healthy dietary behaviors, especially among middle and high school age youth. Additional research is needed to better understand possible reasons for the apparent lack of temporal changes in fruit and vegetable consumption among adolescents. The findings from this study can inform current and future policies to improve nutrition standards for children and youth across schools.

CORRESPONDING AUTHOR: Maria E. Acosta, MPH, San Francisco State Univeristy, San Francisco, CA; macosta3@sfsu.edu

---

Abstract citation ID: kaad011.0084

POSTER SESSION A: MINDFUL EATING IMPROVES DASH DIET QUALITY IN FULL-TIME WORKING ADULTS: FINDINGS FROM THE MIND YOUR HEART PILOT STUDY

Anita M. Reina, PhD[1], Heather M. Padilla, PhD[1], Donglan Zhang, PhD[2], Jenay M. Beer, PhD[1], Lisa M. Renzi-Hammond, PhD[1]

[1]University of Georgia, Athens, GA; [2]New York University Long Island School of Medicine, Mineola, NY

Background: The DASH diet is efficacious in reducing blood pressure, but dietary adherence in the controlled trials exceeds that of the general public. Although nutrition education is the default to improve adherence, evidence supports that education alone scarcely affects dietary adherence. Behavioral interventions to address maladaptive eating behaviors may improve long-term adherence. Mindful eating effectively increases adaptive eating behaviors to improve adult dietary habits but has rarely been applied to improve dietary adherence.

Purpose: The purpose of this quasi-experimental, pseudo-randomized controlled trial was to examine if mindful eating training improves DASH diet adherence and blood pressure beyond DASH diet education alone.

Methods: A sample of 30 full-time working adults (M=47.10±12.22; 93.3% female; 13.3% non-white) were enrolled in a six-week asynchronous e-learning diet program called Mind Your Heart. Participants were pseudo-randomized based on matched baseline trait mindfulness scores into either a virtual, asynchronous DASH education-only (n=15) or a DASH education + mindful eating training (n=15). Blood pressure, anthropometrics, and diet adherence (DASH diet score) changes from pre- to post-test were examined using the Mann-Whitney U test between groups and Wilcoxon signed-rank tests for within-group changes.

Results: Participants in the DASH education + mindful eating group diet quality improved their overall DASH diet score (Z= 1.79; p < .05; r= .33) from pre to posttest. Specifically, saturated fat (Z= 2.24; p< .05; r= .41), calcium (Z= 2.33; p < .05; r= .43), fiber (Z= 1.90; p < .05; r= .35) and BMI (Z= – 2.86; p < .05; r= .52) improved with mindful eating training. The DASH education-only group increased calcium (Z=3.04; p< .05; r=.55), protein (Z=1.89; < .05; r=.35), dietary cholesterol (Z= –1.93; p < .05; r= .35) and sodium (Z= –1.65; p=.05; r= .30). The results show significant decrease from pre- to posttest in the diet education-only group for systolic blood pressure (Z= –2.78; p < .05; r=.51), diastolic blood pressure (Z= –2.16; p < .05; r=.39), pulse pressure (Z= –2.44; p < .05; r= .45), and BMI (Z= –2.77; p < .05; r= .51). Though blood pressure changes were not significant after mindful training, more participants in the mindful training group were taking blood pressure medication (n=6; 40%).

Conclusions: Mindful eating may be an effective behavioral tool for improving DASH diet quality, particularly for fiber, saturated fat, and calcium.

CORRESPONDING AUTHOR: Anita M. Reina, PhD, University of Georgia, Athens, GA; anita.reina@uga.edu

Abstract citation ID: kaad011.0085

POSTER SESSION A: ATYPICAL ANOREXIA NERVOSA VERSUS HEALTHY WEIGHT LOSS IN A NATIONAL SAMPLE OF U.S MILITARY VETERANS

Robin M. Masheb, PhD[1], Eugenia Buta, PhD[2], Lindsay M. Fenn, MS, RDN[3], Christine M. Ramsey, PhD[4], Jennifer L. Snow, MSc[5], Sally Haskell, MD[6], Cynthia A. Brandt, MD, MPH[7]

[1]Yale School of Medicine, New Haven, CT; VA Connecticut Healthcare System, West Haven, CT, West Haven, CT; [2]Yale School of Public Health, New Haven, CT, New Haven, CT; [3]VA Connecticut Healthcare System, West Haven, CT, West Haven, CT; [4]Yale School of Medicine, New Haven, CT; Corporal Michael J. Crescenz VA Medical Center, Philadelphia, PA; University of Texas, Austin, Texas, New Haven, CT; [5]VA Connecticut Healthcare System, West Haven, CT; [6]VA Connecticut Healthcare System; Yale School of Medicine, West Haven, CT; [7]Yale School of Medicine; VA Connecticut Healthcare System, West Haven, CT

Objective: Little is understood about Atypical Anorexia Nervosa (AAN) which presents similarly to Anorexia Nervosa (AN). AAN, however, is defined by a weight loss of at least 10% of highest body weight (i.e., weight suppressed) but not a weight loss resulting in severe underweight as is the case for AN. A growing body of evidence suggests Veterans may be at greater risk for eating disorders than the general population, and specifically for AAN. Little is known about how AAN differs from cases of healthy weight loss (i.e., weight suppression without eating disorder features) and cases of eating disorder features without weight loss. The aim of the current study was to determine differences between AAN and these groups.

Method: Iraq and Afghanistan war era Veterans (N = 1,119, 51.6% female) completed the Eating Disorder Diagnostic Scale-5 for probable AAN diagnosis and validated measures of eating behavior, mental health (stress and sleep), and psychiatric diagnostic screening (anxiety, PTSD and depression) between July 2014-September 2019. These measures were used as part of a study of gender differences in healthcare utilization and health outcomes for Veterans. Participants who met criteria for one of these four groups were included: AAN, Cognitive Only, Weight Loss (WL) Only, and no eating disorder features or AAN diagnosis (None). To compare the groups, we used regression models adjusted for age, gender, and BMI.

Results: N = 882 of the sample met criteria for one of the four groups: n = 106 for AAN, n = 208 for Cognitive Only, n = 144 for WL Only, and n = 424 for None. The AAN group differed the most from other groups, was most similar to the Cognitive Only group, and differed from the Cognitive Only group for dietary restraint. The AAN group differed from the WL Only group on measures of eating behavior and psychiatric diagnostic screening, but not sleep or stress. The AAN group differed from the None group on all measures except stress. For all significant differences, the AAN group fared worse than the other groups.

Discussion: AAN presents with worse mental health compared to weight loss in the absence of eating disorder symptoms (i.e., healthy weight loss). Results support that AAN is a distinct group with clinically significant eating pathology, and potentially serious psychiatric comorbidity. Findings highlight the importance of screening for AAN and more research is needed to better understand how to address this clinical entity.

CORRESPONDING AUTHOR: Robin M. Masheb, PhD, Yale School of Medicine, New Haven, CT; VA Connecticut Healthcare System, West Haven, CT, West Haven, CT; Robin.Masheb@yale.edu

---

Abstract citation ID: kaad011.0086

POSTER SESSION A: SEVERAL FACETS OF SLEEP QUALITY PREDICT OUTCOME FROM COGNITIVE BEHAVIORAL TREATMENT FOR BINGE-SPECTRUM EATING DISORDERS

Stephanie Manasse, PhD[1], Elizabeth W. Lampe, MS[2]

[1]Drexel University, Wynnewood, PA; [2]Drexel University, Philadelphia, PA

Outcomes from cognitive behavioral treatment (CBT) for binge-spectrum eating disorders (EDs) leave room for improvement, and thus new treatment targets need to be identified. One potential treatment target is dysregulated sleep. Dysregulated sleep is known to impact self-regulation abilities, such as inhibitory control and emotion regulation, can contribute to binge eating. CBT does not explicitly target sleep, and thus dysregulated sleep may influence treatment outcomes. The present study sought to test whether baseline levels of sleep dysregulation predicted outcomes from CBT for binge-spectrum EDs. We administered the Pittsburgh Sleep Quality Inventory (PSQI) at baseline to adults (n=49) who received 12 weeks of CBT. Outcomes were measured at post-treatment and 3-month follow-up. The strongest predictor of outcome was number of hours in bed (regardless of amount of time slept), with greater number of hours being moderately negatively associated with changes in binge eating at post-treatment (r=-.27, p=.06) and follow-up (r=-.278, p=.05) and with decreased chance of remission (p=.02). Frequency of sleep disturbances (e.g., discomfort with temperature, going to the bathroom) was strongly negatively associated with changes in binge eating (r=-.461, p=.02). Interestingly, sleep duration and sleep latency (time to fall asleep) were only very weekly associated with treatment outcomes. Results suggest that some facets of sleep dysregulation (particularly time in bed and disrupted sleep) could influence treatment outcomes. Future research should aim to test whether targeting sleep in treatment for binge eating could improve outcomes and the mechanisms through which sleep impacts eating behavior.

CORRESPONDING AUTHOR: Stephanie Manasse, PhD, Drexel University, Wynnewood, PA; smm522@drexel.edu

Abstract citation ID: kaad011.0087

POSTER SESSION A: PREVALENCE AND RECURRENCE OF PICA BEHAVIORS IN CHILDHOOD: FINDINGS FROM THE ALSPAC BIRTH COHORT

Natalie M. Papini, MA[1], Samuel Chawner, PhD[2], Nadia Micali, MD, PhD[3]

[1]Northern Arizona University, Flagstaff, AZ; [2]MRC Centre for Neuropsychiatric Genetics and Genomics Cardiff University, Cardiff, England, UK; [3]Les Hôpitaux Universitaires de Genève, Geneva, Geneve, Switzerland

Pica prevalence is not well understood due to few epidemiological studies. Further, no studies have examined the longitudinal stability of pica throughout childhood. The current study aimed to examine pica prevalence and stability in early childhood with prospective cohort data collected in the Avon Longitudinal Study of Parents and Children (ALSPAC) cohort. Differences in pica behaviors were examined between child sex at birth, children with and without autism spectrum disorder, and children with and without development delays (DD).

Data on 14,015 participants from ALSPAC were included. Participants were mothers who reported on child pica behavior at 36, 54, 66, 77, and 115 months. Child autism diagnosis was obtained through clinical and education records, and to index child developmental delay a cutoff of 10th percentile was applied to the total development score at 30 months on the Denver developmental screening test.

Chi square goodness of fit and Fisher's exact tests were used to examine associations between pica behaviors and child sex at birth, autism, and DD. Pica frequency was the highest at 36 months (N=226; 2.29%) and decreased in prevalence across childhood; including 54 months (0.78%), 65 months (0.62%), 77 months (0.55%) and 115 months (0.33%). Pica prevalence did not differ by child sex at 36, 54, 65, 77 months, but was greater in males than females at 115 months (0.49% vs 0.18%), X^2 (1, N = 6,330) = 6.01, p = .01).

Fisher's exact test was applied to determine if proportions of pica are different based on autism diagnosis. A significant association was found between pica and autism at all five waves (p < .001). There was a significant relationship between pica and developmental delay, with individuals who had DD more likely to experience pica than those without DD at 36 months, X^2 (1, N = 7,992) = 6.83, p = .01, and 54 months, X^2 (1, N = 7,755) = 16.00, p < .001. Fisher's exact test indicated significant relationships between pica and DD at 65 (p=.04), 77 (p < .001) and 115 months (p=.006). Of the 251 recorded cases of pica, 19.55% were longitudinally stable (n=61).

Few children experienced pica at four timepoints or all five time points and 19.55% of pica behaviors were longitudinally stable. This suggests heterogeneity in the trajectories of pica behaviors from ages 36 to 115 months. Ultimately, more research is needed to understand how pica behaviors present and persist throughout the lifespan and its co-occurring conditions.

CORRESPONDING AUTHOR: Natalie M. Papini, MA, Northern Arizona University, Flagstaff, AZ; Natalie.Papini@nau.edu

---

Abstract citation ID: kaad011.0088

POSTER SESSION A: EFFECTS OF A UNIVERSITY HEALTH COACHING PROGRAM ON BODY APPRECIATION AND EATING COMPETENCE

Natalie M. Papini, MA[1], Nikole Squires, MS, CHES[1], Nanette V. Lopez, PhD, MS/MS[1], Denise A. White, MPH[1], Dawn Clifford, PhD, RDN[1]

[1]Northern Arizona University, Flagstaff, AZ

Background: Health coaching programs have been shown to help people implement health behaviors associated with improved cardiovascular health. However, much of the health coaching research focuses on weight loss outcomes. Few studies have examined the effects of weight-inclusive health coaching. It was hypothesized that a six-session weight inclusive health coaching program offered to university students, faculty and staff would lead to significant improvements in body appreciation (accepting, holding favorable opinions toward, and respecting one's body) and eating competence (being positive, comfortable, and flexible with eating).

Method: Participants (n = 31; median age = 20 years; non-Hispanic White = 28, 90.3%; female = 26, 84%) signed up for six health coaching sessions through University Coaching for Activity and Nutrition (UCAN), a novel weight-inclusive and anti-diet campus-based program. Health coaches received over 8 weeks of training in health coaching and motivational interviewing (MI) training prior to meeting with participants. Coaches and participants met once per week for a 45-60 minute session where they engaged in the following four processes of MI to identify and support meaningful health behavior changes: 1) engage to build rapport with the client, 2) focus on a behavior change topic, 3) evoke client reasons for change, and 4) plan for change. Participants completed a survey that included the Body Appreciation Scale-2 (BAS-2) and the Satter Eating Competence Inventory (ecSI 2.0) prior to the first session (pre-intervention) and after the sixth session (post-intervention). Paired samples t-tests were conducted to determine changes in body appreciation and eating competence from pre to post intervention.

Results: As hypothesized, there was a significant increase in body appreciation from pre-intervention (M=34.53 ± 7.76) to post intervention (M=36.77 ± 8.98); t(29)=-2.30, p=.02. As expected, participants reported significantly improved eating competence from pre-intervention (M=29.03 ± 10.01) to post-intervention (M=32.70 ± 9.53); t(28)=-3.46, p<.001.

Conclusion: A weight-inclusive health coaching program was successful in improving both eating competence and body appreciation among university students and faculty. Future work should include larger samples and determine specific aspects of these programs that facilitate client change.

CORRESPONDING AUTHOR: Natalie M. Papini, MA, Northern Arizona University, Flagstaff, AZ; Natalie.Papini@nau.edu

Abstract citation ID: kaad011.0089

POSTER SESSION A: SCALE-UP COUNTS: PRELIMINARY REACH OF AN INFORMATION TECHNOLOGY APPROACH SUPPORTING COVID-19 TESTING IN K-12 SCHOOLS

Tammy Stump, PhD[1], David W. Wetter, PhD[2], Tatyana V. Kuzmenko, PhD[3], Brian Orleans, PhD[4], Leighann Kolp, MPH[5], Jennifer Wirth, MS[6], Guilherme Del Fiol, MD, PhD[3], Jonathan Chipman, PhD[3], Benjamin Haaland, PhD[3], Kimberly A. Kaphingst, ScD[3], Adam Hersh, MD, PhD[3], William J. Tanguy, BS[3], Malynne Cottam, CPH, MPH[4], Sarah DeSantis, MPH[4], Yelena P. Wu, PhD[7]

[1]University of Utah, Salt Lake CIty, UT; [2]Huntsman Cancer Institute/U of Utah, SALT LAKE CITY, UT; [3]University of Utah, Salt Lake City, UT; [4]Huntsman Cancer Institute, Salt Lake City, UT; [5]University of Utah, Glen Ellyn, IL; [6]University of Utah, SALT LAKE CTY, UT; [7]Huntsman Cancer Institute, University of Utah, Salt Lake City, UT

Background: During the COVID-19 pandemic, K-12 schools have become hubs for accessing and reporting COVID-19 testing. Uptake of this service at schools is often limited by an understaffed workforce, which may be addressed through the integration of population health management (PHM) methods. For example, text messages (TM) are an inexpensive, effective approach to impact health behaviors, and health navigators (HN) can provide personalized support for health behaviors. Little is known, however, about the impact of these PHM methods on COVID-19 testing. SCALE-UP Counts aims to increase COVID-19 testing rates and decrease missed days of school among K-12 students. Our objective for the reported analysis was to evaluate the preliminary reach of SCALE-UP Counts' PHM interventions among parents/guardians of K-12 students.

Methods: We identified parents and/or guardians who served as the primary contact for at least one student within 6 participating schools. Participants were randomized to receive TM, TM+HN, or usual care (UC). The TM and TM+HN groups received bidirectional texts providing symptom screening as well as guidance and reminders to obtain and use tests. If parents/guardians in the TM+HN group were advised to test a member of their household but either did not test or did not respond to texts, they qualified to receive a call from a health navigator. UC participants had access to free, at-home COVID-19 tests through their school, but did not receive bidirectional TMs.

Results: Enrolled schools served a student population that was 33% non-White, with 50% of students eligible to receive free lunches. Overall, 99% of parents/guardians had a valid cell phone, of which 4% (n=132) opted out. Among the 2,323 parents/guardians enrolled, 80% (n=1849) were randomized to receive TM, and 19% (n=354) engaged with TM (i.e., responded to at least one message). Within the TM+HN group (40.1%, n=932), 1% (n=12) qualified for HN at least once, of which, 42% (n=5) talked to an HN.

Discussion: TM and HN are feasible methods to promote COVID-19 testing among this population. Results suggest a need to improve engagement with TM and HN, which will be essential for determining the full potential of the interventions. Additionally, because this is an ongoing study, the engagement outcomes reported are likely to change over time. Still, we reached over 2,000 parents/guardians, indicating that TM and HN are effective methods to reach parents/guardians to provide guidance and support for COVID-19 testing.

CORRESPONDING AUTHOR: Tammy Stump, PhD, University of Utah, Salt Lake CIty, UT; tammy.stump@hci.utah.edu

---

Abstract citation ID: kaad011.0090

POSTER SESSION A: A LONGITUDINAL EXAMINATION OF DEPRESSIVE SYMPTOMS IN A DIGITAL DIABETES PREVENTION PROGRAM

Lisa A. Auster-Gussman, PhD[1], Mohit Rikhy, MS[1], Sarah A. Graham, PhD[1], Kimberly G. Lockwood, PhD[2], OraLee H. Branch, PhD[1]

[1]Lark Health, Mountain View, CA; [2]Lark Health, El Cerrito, CA

Introduction: National survey data from 2021 showed more than 30% of US adults had Patient Health Questionnaire-9 (PHQ-9 ≥ 10) scores consistent with clinical diagnosis of depression (Ettman et al., 2022), more than three times more than before the COVID-19 pandemic (Brody et al., 2018). Involvement in lifestyle interventions has been shown to be associated with decreases in depressive symptoms (Fabricatore et al., 2011). This study presents self-reported data on depressive symptoms over time among individuals using a mobile app-based Diabetes Prevention Program (DPP) for 6 months during 2021. We also examine differences by initial BMI category and among those who did and did not lose weight during the program.

Methods: We used three repeated measures ANOVAs to examine longitudinal self-reported depressive symptoms using the Patient Health Questionnaire 2 (PHQ-2) at months 0, 2, 4, and 6 of the DPP (m0, m2, m4, and m6). We examined depressive symptoms over time as well as differences by initial BMI category and weight change.

Results: The sample included 3,268 individuals. Mean age was 53.7 years, 80.8% were female, and mean initial BMI was 35.5 kg/m^2. Mean nadir weight loss after 9 weeks was 5.36%. 30.4% of the sample scored at high risk for depression (PHQ-2 score ≥ 3) at m0, 24.5% at m2, 25.7% at m3, and 25.3% at m4. Results from repeated measures ANOVAs showed 1) a significant effect of time on depressive symptoms (F(2.95, 9,926.48) = 41.14, $p < 0.001$) where m2, m4, and m6 were not significantly different (ps = 0.82-0.97) but were all significantly lower than m0 ($p < 0.001$); 2) a significant effect of initial BMI category (F(2,3066) = 15.96, $p < 0.001$) where higher initial BMI was associated with higher depressive symptoms; and 3) a significant effect of weight loss (F(2,3037) = 4.28, $p < 0.02$) where those who lost weight had lower depressive symptoms than those who gained weight.

Discussion: Results from this study align with prior research suggesting that participation in lifestyle interventions is associated with decreases in depressive symptoms (Fabricatore et al., 2011). Our results demonstrated decreases in depressive symptoms, regardless of initial BMI, and that those who lost weight experienced greater decreases. This research indicates that reductions in depressive symptoms may be one benefit of participation in digital lifestyle change programs. Future research could explore the causal relationship between weight loss and depressive symptoms.

CORRESPONDING AUTHOR: Kimberly G. Lockwood, PhD, Lark Health, El Cerrito, CA; kimberly.lockwood@lark.com

Abstract citation ID: kaad011.0091

POSTER SESSION A: PSYCHOMETRIC PROPERTIES OF A THEORY-BASED ASSESSMENT OF MHEALTH ACCEPTABILITY IN A FAITH-BASED COVID-19 SMS INTERVENTION

Frank T. Materia, PhD, MHS[1], Jannette Y. Berkley-Patton, PhD[2], Jenifer Allsworth, PhD[3], Carole Bowe Thompson, BS[4], Turquoise Templeton, BA[5], Cassandra Wainright, BA[6], Makayla Patton[7], Kathy Goggin, PhD[8], Delwyn Catley, PhD, FSBM[1]

[1]Children's Mercy Kansas City, Kansas City, MO; [2]University of Missouri-Kansas City School of Medicine, Kansas City, MO; [3]UMKC School of Medicine, Kansas City, MO; [4]University of Missouri-Kansas City, Kansas City, MO; [5]University of MIssouri-Kansas City, Kansas City, MO; [6]Calvary Community Outreach Network, Kansas City, MO; [7]University of Kansas, Lee's Summit, MO; [8]Children's Mercy Hospital Kansas City / University of Missouri Kansas City, Kansas City, MO

Design and implementation of mobile health (mHealth) interventions that are usable and acceptable requires assessment of end-users' perspectives, but theory-based validated measures are scant.

Objective: To examine the internal consistency of a novel measure of mHealth acceptability that is being utilized in a COVID-19 testing intervention with African American church members.

Methods: Participants completed a novel mHealth acceptability survey measure based on the Theory of Planned Behavior and the Technology Acceptance Model before receiving a religiously-tailored text messaging intervention component to encourage COVID-19 testing. The 7-item scale assessed multiple dimensions of acceptability of text messaging: interest, difficulty, enjoyment, confidence, utility, worry, and likelihood of reading the text messages. Difficulty and worry items were reverse coded.

Results: 1040 participants (79% Female, *M* age=50.5 yrs, 96.8% African American, 26.1% with Bachelor's degrees) completed the scale. Internal consistency was acceptable (Cronbach's α=.76), and removing the "difficulty" and "worry" items increased α to .89. Acceptability ratings (utilizing a 5-point scale, with 1=not at all, 5=very) were above the midpoint for all dimensions. Means and standard deviations (±) were: interest (3.27±1.28), difficulty (4.20±1.18), enjoyment (3.05±1.22), confidence (3.80±1.29), utility: (3.43±1.24), worry (4.19±1.20), and likelihood (3.60±1.27). Principal components analysis revealed two components; with the two negatively worded items ("difficulty" and "worry") forming the second factor.

Conclusion: The measure demonstrates promise for assessing baseline acceptability of mHealth intervention components. Generalizability of these findings to other groups and mHealth tools, and future direction for measure development and dissemination, are discussed.

CORRESPONDING AUTHOR: Frank T. Materia, PhD, MHS, Children's Mercy Kansas City, Kansas City, MO; ftmateria@cmh.edu

---

Abstract citation ID: kaad011.0092

POSTER SESSION A: PROVIDER CHARACTERISTICS ASSOCIATED WITH TELEHEALTH USE IN INTEGRATED PRIMARY CARE AT THE US DEPARTMENT OF VETERANS AFFAIRS

Claudia Der-Martirosian, PhD[1], Caroline Yoo, MPH[1], Neil W. Steers, PhD[1], Karen Chu, MS[1], Cynthia Hou, MPH[2], Maia Carter, MD[3], Leonie Heyworth, MD, MPH[4], Lucinda Leung, MD, PhD[5]

[1]CSHIIP US Department of Veterans Affairs, North Hills, CA; [2]CSHIIP US Department of Veterans Affairs, Los Angeles, CA; [3]US Department of Veterans Affairs, North Las Vegas, NV; [4]US Department of Veterans Affairs, San Diego, CA; [5]US Department of Veterans Affairs, Los Angeles, CA

Background: Much research has been done to understand patient characteristics associated with telehealth use. However, less is known about patterns of telehealth use among interdisciplinary primary care (PC) team members, such as in patient-centered medical homes. An examination into the Veterans Health Administration (VA) may provide insights on exercised preference for visit modality among different PC team members, which can inform successful hybrid (virtual/in-person) care coordination. This study examined provider characteristics of telehealth use (phone/video) among interdisciplinary PC team members, including VA physicians, nurses, mental health (MH) specialists, social workers (SW), and pharmacists, over the past three years.

Methods: We used VA administrative and clinical data to examine patient, provider, and site-level predictors of any video and phone-based PC visit from 67 VA healthcare systems nationwide, which included both the highest and lowest video-using sites. The study sample consisted of 34,259 PC providers, 36,186,201 visits, and 2,789,064 patients during the 36-month study period (3/16/2019-3/15/2022). We used multilevel mixed-effects logistic regression models on repeated yearly observations, predicting any video and phone-based care visit, accounting for patient and provider-level clustering and adjusted for patient, provider, and site-level characteristics.

Results: Overall, the mean age of providers was 45.2 (SD=11.6); 23.8% were male. Younger providers were more likely to use video. Male PC providers were less (OR=0.86,95%CI:0.85-0.86) likely to use video compared to female PC providers. MH providers (OR=6.46,95%CI:6.31-6.61) and SWs (OR=1.22,95%CI:1.20-1.25) were more likely to use video compared to MD/NP/PA, whereas nurses (OR=0.67,95%CI:0.66-0.68) and pharmacists (OR=0.79,95%CI:0.77-0.80) were less likely to use video. Regarding phone, male PC providers were less likely (OR=0.82,95%CI:0.81-0.83) to use phone compared to female PC providers. Compared to MD/NP/PA, pharmacists (OR=12.31,95%CI:12.06-12.57), SWs (OR=4.93,95%CI:4.83-5.03), MH (OR=2.41,95%CI:2.36-2.45), and nurses (OR=2.30,95%CI:2.28-2.31) were more likely to provide phone-based care.

Discussion: Findings from this national study indicate that male PC providers, are less likely to use telehealth (either phone or video) compared to female PC providers. Additionally, MH providers and SWs are more likely to use video, while nurses and pharmacists are more likely to use phone. These findings might have several implications, including the provider's choice of visit modality, preference for teleworking, appropriateness of telehealth use for the different types of PC services, and optimal balance of in-person and telehealth visits for coordination of integrated PC.

CORRESPONDING AUTHOR: Claudia Der-Martirosian, PhD, CSHIIP US Department of Veterans Affairs, North Hills, CA; claudia.der-martirosian@va.gov

Abstract citation ID: kaad011.0093

POSTER SESSION A: DESIGNING A HEALTH-PROMOTING DIGITAL HEALTH INTERVENTION FOR MIDLIFE WOMEN USING CO-PRODUCTION AND BEHAVIOUR CHANGE THEORY.

Hana Sediva, PhD candidate[1], Danielle Arigo, PhD[2]

[1]University of Westminster, London, England, UK; [2]Rowan University, Glassboro, NJ

Background: Digital health interventions (DHIs) are efficacious in promoting health behaviours (e.g., healthy eating and regular physical activity) in midlife women. However, generalising designs of DHIs is not feasible across different contexts and populations and therefore including the insights and views of midlife women through the public/patient involvement (PPI) is needed.

Objectives: The aim of the study is to use participatory research approach (co-production) to systematically co-design theory-and-evidence-based DHI to improve healthy eating and regular physical activity in midlife women (aged 40 – 65 years) living in the UK. Using the Behaviour Change Wheel (BCW) framework, the Capability, Opportunity, Motivation, Behaviour (COM-B) model, and the Theoretical Domains Framework (TDF) to guide the development of a DHI. Additionally, to describe and organise components of the BCI using the Behaviour Change Techniques Taxonomy (BCTTv1).

Methods: Co-designing the DHI with a group of midlife women (n = 7) in three 2-hr long group workshops. The intervention design workshops were informed by the BCW guide's worksheets. The group tasks were to 1) select target behaviours for healthy eating and regular physical activity, 2) identify what needs to shift for the target behaviours to be achieved (using COM-B), and 3) identify how to bring about that change. Individual intervention prototype usability testing was completed to establish usefulness and ease of use of the prototype. TDF and BCTs were mapped to the solutions generated by the co-production group.

Results: Thirteen physical activity and eleven healthy eating target behaviours were identified (e.g., reducing alcohol intake, eating regularly, adding healthy snacks, reducing ultra-processed foods, increasing walking, incorporating strength training). On average 30 BCTs were mapped to each target behaviour, with 39% of the BCTs targeting capability, 41% motivation, and 20% opportunity. The most frequently used behaviour change categories included ‘social support’, ‘self-belief’, ‘shaping knowledge’, ‘repetition and substitution’, and ‘natural consequences’. BCTs were mapped to the co-designed intervention content and assigned to the intervention 'if-then' flows, consisting of five steps (i.e., pre-condition, review tasks, assess, counselling, assign tasks, and post-condition).

Conclusions: The findings of this qualitative study indicate that co-designing DHIs with midlife women through co-production is feasible and acceptable. The BCW guide, COM-B model, TDF, and the BCTTv1 can be applied successfully in the context of designing a DHI to improve healthy eating and regular physical activity. Thus, systematically co-designing theory and evidence-based interventions with midlife women provide an opportunity to improve the design of lifestyle health-enhancing interventions targeting women in midlife.

CORRESPONDING AUTHOR: Hana Sediva, PhD candidate, University of Westminster, London, England, UK; hana.sediva@my.westminster.ac.uk

---

Abstract citation ID: kaad011.0094

POSTER SESSION A: PILOT RANDOMIZED CONTROLLED TRIAL OF A VIRTUAL REALITY EXPERIENCE TO ADDRESS CHILDHOOD OBESITY

Lauren A. Fowler, PhD[1], Melissa M. Vázquez, BA[2], Bianca DePietro, BA[3], Denise E. Wilfley, PhD[4], Ellen E. Fitzsimmons-Craft, PhD[4]

[1]Washington University School of Medicine, Charlotte, NC; [2]Washington University School of Medicine in St. Louis, St. Louis, MO; [3]Washington University School of Medicine, Tulsa, OK; [4]Washington University School of Medicine, St Louis, MO

Introduction: Virtual reality (VR) has the potential to augment treatment for childhood obesity. This pilot randomized controlled trial evaluated acceptability and preliminary efficacy of a VR experience intended to translate key tenets of a well-established pediatric obesity intervention, family-based behavioral treatment (FBT), for children (6-12y) with overweight/obesity and their caregivers.

Method: User-centered design informed the development of the 10-minute VR experience, which underwent usability testing and refinement prior to the pilot trial. The experience incorporated FBT psychoeducational content using voiceover and an interactive go-kart game, related to concepts of “food as fuel,” episodic future thinking, and the traffic light diet. Twenty-seven children with body mass index (BMI) ≥ 85th percentile for age and sex (mean age = 10.4 ± 1.9y; 52% female; mean BMI percentile = 95.9 ± 4.3) and one caregiver per child with BMI ≥ 25 (82% female, mean BMI = 34.1 ± 7.4) were randomly assigned to VR or control (i.e., short video and computer game with similar psychoeducation), and completed surveys pre- and post-intervention on acceptability and theory of planned behavior constructs related to eating and activity behaviors. At pre- and two weeks post-intervention, children and caregivers reported on child behavior, and caregivers reported on their stage of change in relation to promoting their child’s health (e.g., readiness and length of time implementing changes). Repeated-measures general linear models, with time as the within-subjects factor, tested the effect of the VR intervention on eating and activity behaviors (pre to two-weeks) and cognitions (pre to post).

Results: Caregivers reported good usability, acceptability, and excellent immersion in the virtual environment, and children reported significantly greater acceptability of VR vs control ($p < .05$). There were significant main effects of time such that child-reported vegetable intake and child attitudes towards eating fruits and vegetables increased over time across both conditions ($ps < .05$). There were significant time by condition interactions for child attitudes toward eating fruits and vegetables, with attitudes increasing positively and better sustained caregiver readiness to change in VR vs control at two-weeks ($ps < .05$). No other behavioral or cognitive outcomes were significant.

Conclusion: A VR program designed to augment childhood obesity treatment has high potential to increase access, engagement, and outcomes, with our data showing preliminary promise for improving child attitudes towards healthful eating, and caregiver readiness to support these changes.

CORRESPONDING AUTHOR: Lauren A. Fowler, PhD, Washington University School of Medicine, Charlotte, NC; lauren.alina.fowler@gmail.com

Abstract citation ID: kaad011.0095

POSTER SESSION A: DOES ADHERENCE TO DIET SELF-MONITORING ALWAYS PREDICT WEIGHT LOSS? FINDINGS FROM AN APP-BASED WEIGHT LOSS INTERVENTION

Brooke T. Nezami, PhD[1], Deborah F. Tate, PhD[2]

[1]University of North Carolina at Chapel Hill, Apex, NC; [2]University of North Carolina at Chapel Hill, Chapel Hill, NC

Dietary self-monitoring (DSM) is a key component of behavioral weight loss interventions, and adherence declines over time. While early adherence to DSM is hypothesized to be predictive of long-term DSM adherence and weight loss, few studies have distinguished between adherence to DSM and adherence to the specified dietary goals.

Data were from the PATH study, a 6-month randomized trial that compared the effect of two DSM methods, tracking only high-calorie “red” foods (Simplified) and calorie tracking (Standard), on 6-month percent weight loss (PWL) among adults in a smartphone app-based behavioral weight loss intervention. Both groups had a dietary goal (red foods or calories), app-based dietary self-monitoring, lessons, text messages, and weekly personalized feedback. Participants (N=71, $M_{age}= 39.9 \pm 4.6$, $M_{BMI}= 34.0 \pm 6.1$ kg/m^2, 94% female) were grouped on dietary tracking and dietary goal adherence in month 1 (M1): tracked < 60% of days (Non-DSM), tracked ≥ 60% days and exceeded dietary goal ≥ 60% of those days (Not Met Goal), or tracked ≥ 60% days and met dietary goal ≥ 60% of those days (Met Goal). Linear regression models compared total DSM days in Months 2-6 and 6-month PWL across these tracking and goal adherence groups, controlling for treatment group, then with an interaction term for treatment group to determine if these relationships varied by DSM method.

On average in M1, participants tracked 20.6 ± 7.3 days, met their goal 12.0 ± 8.4 days, and tracked but exceeded the goal 8.6 ± 7.2 days, with no differences between groups. Overall, n=21 participants were categorized as Non-DSM, n=15 as Not Met Goal, and n=35 Met Goal. Compared to Non-DSM participants, Not Met Goal ($p < .01$) and Met Goal participants ($p < .0001$) had higher total DSM days in Months 2-6 (22.6 ± 31.8, 66.5 ± 44.6, 89.7 ± 40.0, respectively), with no interaction by treatment group. PWL at 6 months did not differ between Non-DSM participants and Not Met Goal participants (-2.2% ± 4.3, -1.8% ± 4.3, respectively; $p = .72$), while Met Goal participants had higher 6-month PWL (-7.6% ± 6.9, $p < .01$) compared to Non-DSM, with no interaction by treatment group.

Participants who adhered to DSM but exceeded their dietary goal most days in the first month continued some self-monitoring throughout the intervention but had 6-month weight loss that was not different from non-adherent DSM participants. Though difficulty adhering to dietary goals may not adversely impact continued DSM, interventions may need to provide unique behavioral support to adherent DSM participants who aren’t meeting their dietary goals.

CORRESPONDING AUTHOR: Brooke T. Nezami, PhD, University of North Carolina at Chapel Hill, Apex, NC; bnezami@unc.edu

Abstract citation ID: kaad011.0096

POSTER SESSION A: ACCEPTANCE AND USE OF ONLINE SYSTEMS FOR REPORTING MEDICATION SAFETY CONCERNS FROM HOME IN OLDER ADULTS WITH CANCER

Yun Jiang, PhD, MSc, RN, FAMIA[1], Xiaotao Dong, MSc[1], Ajsa Jasarevic, MSW[1], Misun Hwang, MSN[1], Youmin Cho, MSN, RN, AGPCNP-BC[1], Yang Gong, PhD, MD[2]

[1]University of Michigan, Ann Arbor, MI; [2]UT Health, Houston, TX

Older adults with cancer often face challenges in managing complex medication regimens at home. They may have multiple chronic conditions and lack support for self-managing their oral anticancer agents and concurrent medications. Online reporting systems support their timely communications with health care teams and can potentially improve their medication safety at home. However, not all older adults with cancer may feel comfortable reporting their medication concerns using the online platform.

This study aimed to explore factors associated with older adults with cancer’s acceptance and use of online reporting systems for reporting their medication safety events or concerns from home, guided by the extended Technology Acceptance Model (TAM).

Older adults with cancer (N=123) took a survey by phone, online, or mail. Their demographics, self-rated health, self-efficacy, perception of medication safety, technology use experience, and medication self-management ability were measured, in addition to their intention to use (IU) and actual use (AU) of online medication safety reporting systems. Descriptive statistics, chi-squared test, and multiple logistic regression were conducted using R programming.

Less than half of the participants (n=51, 41%) had previously used an online reporting system to report their medication-related safety issues or concerns. However, over half of the participants (n=74, 60%) expressed their intentions to use onward. Overall, 77% of participants (n=95) had positive attitudes towards the online reporting system, perceived usefulness (PU, n=91, 74%), and perceived ease of use (PEU, n=89, 72%). Based on the extended TAM, PU (OR=1.86, p=0.02) and PEU (OR=3.20, p< 0.01) were determinants of IU but did not significantly predict AU (p=0.24 and 0.89). Participants with perceived usefulness or ease of use were more likely to be those who had previous technology use experiences (ps< 0.01), better self-rated health (ps< 0.01), or better self-efficacy (ps< 0.01), felt safe during transitions of care (p=0.03 and 0.04) or safe about handling medication side effects at home (p< 0.01 and p=0.04), considered feedback very important for continuous reporting (p< 0.01 and p=0.02), or would like to accept system-generated self-management recommendations (ps< 0.01). Age was not associated with PU but negatively associated with PEU (p=0.02).

This study indicated that most older adults with cancer had an interest in using an online reporting system to report their medication safety events or concerns, even with no experience of use. They perceived the system as useful and easy to use, and their perceptions were strongly associated with their technology use experience, health status, self-efficacy, and expectations for the system. Future studies can further explore factors associated with these patients’ engagement in the actual use of online reporting systems.

CORRESPONDING AUTHOR: Yun Jiang, PhD, MSc, RN, FAMIA, University of Michigan, Ann Arbor, MI; jiangyu@umich.edu

Abstract citation ID: kaad011.0097

POSTER SESSION A: EXPLORING ENGAGEMENT WITH A BEHAVIOR CHANGE APP TO HELP IDENTIFY DEVELOPMENTAL DELAYS AND DISABILITIES IN YOUNG CHILDREN

Hannah Getachew-Smith, PhD, MPH[1], Mattie F. Wolf, MD[2], Courtney L. Scherr, PhD[3]

[1]Association of University Centers on Disabilities, Atlanta, GA; [2]Emory University School of Medicine, Atlanta, GA; [3]School of Communication, Northwestern University, Chicago, IL

Background: One in 6 children has a developmental delay or disability, however, most are not identified early and disparities exist in early identification. Developmental surveillance and screening are recommended to improve early identification. The CDC's Milestone Tracker (MT) is a behavior change app to help families identify and track developmental milestones and act if there are concerns. Evaluating engagement with the app is necessary, yet there is limited guidance for evaluating apps for diverse communities. This study explored engagement along three dimensions (behavior, cognition, and affect) with the MT app among parents and caregivers with young children (0-5 years) from groups experiencing social and economic disadvantages.

Methods: Two online surveys were conducted with parents and caregivers who were recruited via social media and other online platforms. Respondents completed a baseline survey that assessed app engagement, related constructs, behavioral intentions and then completed a one-month follow-up survey that assessed behavioral outcomes in addition to the baseline measures. Analyses consisted of inferential and descriptive statistics.

Results: Among the 72 respondents who completed the baseline and one-month follow-up surveys, 97% reported they would recommend the MT app to friends/family. Items along three dimensions of engagement assessed behavior (e.g., plans to use the app to track development [*M*=3.8 out of 5, *SD*=1.0] and use the app to share concerns with a doctor [*M*=3.9, *SD*=1.0]), cognition (e.g., trust in the app [*M*=4.0, *SD*=0.9]), and affect (e.g., the app was designed for someone like me [*M*=3.7, *SD*=1.1]). Respondents completed heat map activities where they were asked to click on the images of the app they found engaging along cognition and affect: 42% of respondents clicked on the videos as the feature that caught their attention. Among the 35 respondents (48.6% of total sample) who downloaded the app, 74% completed a milestone checklist, 34% shared their child's milestone summary with family/friends, and 14% identified a possible concern about their child's development. Open-ended responses for why respondents found the app engaging primarily focused on the videos embedded within the milestone checklists and ease of use.

Conclusions: This study provides insight into how diverse communities use the MT app and which features they find engaging. Findings underscore the importance of positioning engagement as multidimensional to evaluate engagement with behavior change apps and should be considered in future scale development.

CORRESPONDING AUTHOR: Hannah Getachew-Smith, PhD, MPH, Association of University Centers on Disabilities, Atlanta, GA; hannah.badal@gmail.com

Abstract citation ID: kaad011.0099

POSTER SESSION A: EXPERIENCES WITH TAILORED, DIABETES SELF-CARE TEXT MESSAGES IN A COMPARATIVE EFFECTIVENESS STUDY OF AFRICAN-AMERICAN ADULTS

Justin Gatwood, PhD, MPH[1], Ian Brooks, PhD[2], Rachel Allen, BS[3], Mary Lou Gutierrez, PhD[4], Ming Chen, MS[4], Sohul Shuvo, MS[4], Jerica Chambers, BS[4], James Bailey, MD, MPH[4]

[1]University of Tennessee Health Science Center, Nashville, TN; [2]University of Colorado, Aurora, CO; [3]university of Tennessee Health Science Center, Memphis, TN; [4]University of Tennessee Health Science Center, Memphis, TN

Background: An increasing number of researchers and health systems are investigating the applicability of mobile messaging to address diabetes management. As part of the Management of Diabetes in Everyday Life (MODEL) program in the Memphis, TN area, a pragmatic, randomized, comparative-effectiveness study, this project assessed engagement and experiences with a tailored text messaging intervention that aimed to improve diabetes self-care activities of African-American adults with diabetes.

Methods: For subjects in the text messaging arm of the study, data on preferences and interactions with the texting system were tracked using subjects' responses and metrics provided by the messaging vendor. Following study completion, subjects in all three arms were asked to participate in focus groups to provide feedback on experiences with their assigned intervention. Text message arm subjects were asked to read select messages from the library of messages received during the study. For each message, subjects indicated the likelihood the message motivated them to act on its focus (e.g., taking medication, healthy eating plan, 30 minutes of physical activity) using 5-point Likert-type response options. Descriptive and inferential statistics determined differences between message categories and subject characteristics, and correlations described relationships between level of program engagement and subjects' responses.

Results: Over the three years of the study, 229 subjects completed the 12-month texting intervention, and 84,984 messages were sent. The most common initial preferences were a focus on healthy eating (57.9%), messages framed for goal setting (47.9%), and a message frequency of one every other day (40.9%). This set of preferences remained the most popular throughout the intervention. In sum, 790 changes to individual preferences were made throughout the program (mean=3.3 [SD: 2.27]), 323 of which to focus alone, and this corresponded to per-subject mean changes of 1.3 (SD: 1.09) for focus, 1.2 (SD: 1.00) for frame, and 0.7 (SD: 0.80) for frequency. Participants rated physical activity-focused messages most favorably, with 80.9% indicating action was likely or extremely likely after message receipt, compared to 75.7% for medication messages and only 70.6% for health eating content. While the physical activity messages were consistently highly rated, significantly more variability was seen for the other combinations, with particularly low ratings observed for educationally-focused healthy eating messages.

Conclusions: Subjects of this comparative effectiveness study maintained a high level of engagement with a responsive, tailored text message intervention as part of diabetes self-management. Future programs should consider increasing the extent to which subjects can interact with the messaging system and incorporating more automated processes.

CORRESPONDING AUTHOR: Justin Gatwood, PhD, MPH, University of Tennessee Health Science Center, Nashville, TN; jgatwood@uthsc.edu

---

Abstract citation ID: kaad011.0100

POSTER SESSION A: ASSOCIATIONS BETWEEN SELF-WEIGHING ADHERENCE TRAJECTORIES AND WEIGHT LOSS AT 12 MONTHS IN A MHEALTH WEIGHT LOSS TRIAL

Lora E. Burke, PhD, MPH[1], Zhadyra Bizhanova, MBChB, MPH, PhD[1], Molly B. Conroy, MD, MPH[2], Britney Beatrice, MS, RD[1], Jacob K. Kariuki, PhD[1], Jessica Cheng, PhD[3], Susan M. Sereika, PhD[1]

[1]University of Pittsburgh, Pittsburgh, PA; [2]University of Utah School of Medicine, Salt Lake City, UT; [3]Harvard University School of Public Health, Boston, MA

Background: Using smart scales to promote sustained daily self-weighing might improve weight loss outcome in a mHealth behavioral intervention.

Objective: To identify self-weighing adherence trajectories over 12 mo and their association with weight loss at 12 mo.

Methods: The SMARTER trial randomized 502 adults to self-monitoring of diet, PA, and weight (SM, n=251) and self-monitoring and tailored feedback messages (SM+FB, n=251). We instructed participants to use study-provided smart scales to self-weigh daily in their home-setting. The primary analysis outcome was monthly percentage of days adherent to self-weighing (i.e., having any weight value). Percent weight loss was computed as percent weight change from baseline to 12 mo and categorized as < 5% vs. ≥5% weight loss. We used group-based trajectory modeling to identify distinct trajectories of percentage of days adherent to self-weighing over 12 mo and multinomial logistic regression modeling to examine the association between trajectory group memberships and percent weight loss at 12 mo.

Results: The sample (N=502) was predominantly white (84%), female (79%) with a mean age of 45.0±14.4 years and body mass index of 33.7±4.0 kg/m^2. Monthly percentage of days adherent to self-weighing was classified into 5 trajectory groups: low adherence to self-weighing with a gradual cubic decline (n=49, 10.0%; b±SE: *intercept* 88.94±4.56, *linear* -29.54±2.85, *quadratic* 4.31±0.50, and *cubic* -0.20±0.02), low adherence to self-weighing with a precipitous quartic decline (n=74, 14.6%; b±SE: *intercept* 103.03±5.86, *linear* -48.57±6.03, *quadratic* 9.57±1.85, *cubic* -0.91±0.22, and *quartic* 0.03±0.01), initially adherent to self-weighing with a precipitous quadratic decline (n=73, 14.4%; b±SE: *intercept* 101.24±2.46, *linear* -11.48±0.91, and *quadratic* 0.26±0.07), initially adherent to self-weighing with a sharp cubic decline (n=93, 18.7%; b±SE: *intercept* 92.16±3.25, *linear* -8.32±2.12, *quadratic* 1.11±0.38, and *cubic* -0.07±0.02), and sustained adherence to self-weighing with a slight quadratic decline (n=213, 42.3%; b±SE: *intercept* 90.11±1.28, *linear* 0.27±0.45, and *quadratic* -0.08±0.03). Compared to the group with low adherence to self-weighing with a precipitous quartic decline, being in the group with sustained adherence to self-weighing with a slight quadratic decline and the group that was initially adherent to self-weighing with a sharp cubic decline were associated with 6.5 [95% CI: 2.8, 14.8] and 3.0 [1.2, 7.4] higher odds of having ≥5% weight loss at 12 mo, respectively.

Conclusion: Over 40% of the sample demonstrated sustained adherence to self-weighing that was associated with better weight loss at 12 mo. These findings emphasize the need to develop additional strategies to promote sustained adherence to daily self-weighing and improve weight loss outcomes among adults participating in mHealth weight loss interventions.

CORRESPONDING AUTHOR: Lora E. Burke, PhD, MPH, University of Pittsburgh, Pittsburgh, PA; lbu100@pitt.edu

Abstract citation ID: kaad011.0101

POSTER SESSION A: SOCIAL SUPPORT ON EMERGING ADULTS ENGAGEMENT IN HEALTH SERVICES AND THEIR SELF-RATED HEALTH

Alexandra Wynn, MS[1], Kristina B. Hood, PhD[1]

[1]Virginia Commonwealth University, Richmond, VA

Emerging adulthood, individuals aged 18-25, is considered a period of exploration often dictated by independence from parental expectations and full adulthood responsibilities (Arnett, 2000). Fewer than 1 in 3 emerging adults (EAs) engage in an annual check-up with a primary care physician, a main source of EAs' preventive services (Adams et al., 2019). Prior research demonstrates that many challenges prevent EAs from engaging in health services, such as insurance access, discontinuities in care, and a lack of providers specifically trained to serve EAs (Adam et al., 2019). Social support is important to consider among EAs as social support could be coming from varying sources due to changes in education, residential status and employment. It is important to analyze how social support affects self-rated health as EAs are known for high risk behavior and low risk perception.

The aim of this study was to investigate the role of how social support influences the relationship between frequency of seeing their PCP for a checkup and their self-rated health in EAs. We hypothesized individuals with high social support would see their PCP more frequently, resulting in higher self-rated health. The researchers administered a questionnaire to 202 participants measuring demographics and modified questions from the MOS Social Support survey using Amazon's Mechanical Turk. A simple moderation using Hayes' (2020) PROCESS macro was conducted. There was a statistically significant interaction between social support and frequency of seeing their PCP on self-rated health. The results revealed that social support moderated the relationship between frequency of seeing their PCP and self-rated health, $b = -0.63$, $p = .0143$. Participants with low social support who saw their PCP for a checkup had higher self-rated scores than those who saw their PCP less. This interaction was not significant for participants with high social support.

Our hypothesis was not supported as the relationship between was only found to be significant for those with low social support. We speculate that this is because EAs may be going to the doctor more because they are seeking more resources. This highlights that EAs need more providers to be specifically trained to serve this population as researchers have noted that the transition from adolescence to emerging adulthood is challenging due to a myriad of factors. Social support could provide a way to target intervention towards getting EAs to engage more in the health care system and thus think better about their health.

CORRESPONDING AUTHOR: Alexandra Wynn, MS, Virginia Commonwealth University, Richmond, VA; wynna@vcu.edu

---

Abstract citation ID: kaad011.0102

POSTER SESSION A: DYADIC EXERCISE FOR DISTRESS AMONG LESBIAN, GAY, BISEXUAL, AND TRANSGENDER (LGBT) CANCER SURVIVORS AND THEIR CAREGIVERS

Charles S. Kamen, PhD, MPH[1], Luke J. Peppone, PhD, MPH[1], Michelle C. Janelsins, PhD, MPH[1], Lee Kehoe, PhD[1], Supriya G. Mohile, MD, MS[1], Karen M. Mustian, PhD, MPH[1]

[1]University of Rochester Medical Center, Rochester, NY

Background: Our pilot research shows that LGBT cancer survivors experience high rates of psychological distress, and that standardized aerobic and resistance exercise (EXCAP©®, Exercise for Cancer Patients) is efficacious in improving distress among lesbian, gay, and heterosexual survivors. We conducted an early Phase II cancer control trial testing the benefit of exercise on distress in a larger sample of LGBT cancer survivors as well as their caregivers (CGs).

Methods: 67 LGBT cancer survivors and their CGs were randomized as dyads to: Arm 1) dyadic EXCAP©®, involving both survivor and CG; or Arm 2) survivor-only EXCAP©®. Steps walked per day and minutes of resistance training (by patient report), distress (from the PHQ-9), and dyadic support (from the DSQ) were measured at baseline and post-intervention (6 weeks later). We used t-tests to assess exercise adherence, ANCOVA to assess the effect of dyadic vs. survivor-only exercise on distress and support, and Pearson correlations to assess associations between changes in distress and support.

Results: Participants were primarily non-Hispanic white (94%), cisgender (97%), and lesbian or gay (91%); survivors reported diverse cancer types and most (82%) brought their romantic partner as their CG. LGBT survivors in the dyadic arm reported more resistance training per day (35.3 minutes) than those in the survivor-only arm (24.3 minutes, $p < 0.05$); caregivers in the dyadic arm reported more steps walked per day (7,640 vs. 5,740, $p < 0.05$) than those in the survivor-only arm. CGs in the dyadic arm reported more distress at baseline than those in the survivor-only arm, but their distress decreased and their amount of support provided increased significantly by post-intervention (effect size d=0.29 and 0.19, respectively). ANCOVA models showed a trend toward dyadic exercise improving distress among survivors (p=.08); reduction in distress for both CGs and survivors was correlated with an increase in support provided.

Conclusions: This study offers preliminary support for the use of exercise in general and dyadic exercise in specific for addressing distress among LGBT survivors and their caregivers. Confirmatory research is needed to replicate these findings in more diverse samples, including with bisexual, transgender, and non-white LGBT participants. Additional efforts to tailor cancer control interventions to LGBT populations are also urgently needed in order to address disparities.

CORRESPONDING AUTHOR: Charles S. Kamen, PhD, MPH, University of Rochester Medical Center, Rochester, NY; charles_kamen@urmc.rochester.edu

Abstract citation ID: kaad011.0103

POSTER SESSION A: SEXUAL MINORITY WOMEN'S EXPERIENCES OF WEIGHT STIGMA AS A BARRIER TO ACCESSING HEALTHCARE

CHARLOTTE A. DAWSON, MS[1], Rachel I. MacIntyre, PhD[2], Kristin E. Heron, PhD[3]

[1]Virginia Consortium Program in Clinical Psychology, ASHEVILLE, NC; [2]Millersville University, Holmes, PA; [3]Old Dominion University, Norfolk, VA

Sexual minority women (SMW; i.e., queer, lesbian, bisexual) are at greater risk for a variety of physical and mental health concerns when compared to heterosexual women. In addition to experiencing these health disparities, SMW are also more likely than heterosexual women to report negative healthcare experiences and challenges accessing healthcare. However, there is limited research examining contributors to these experiences through the lens of SMW's lived experiences in healthcare settings. The aim of the current study was to identify barriers that SMW face when attempting to access healthcare. based on interviews. SMW who identified as cisgender and between the ages of 18-40 were eligible to participate; twenty completed semi-structured interviews with questions about barriers to seeking and accessing physical and mental healthcare. Interviews were transcribed and coded by two independent researchers. The results revealed that seven out of 20 participants (35%) identified weight stigma as a barrier to accessing care. Seven subthemes within weight stigma were identified: (1) *fear of judgment and discrimination*, (2) *concerns about health problems being attributed to weight*, (3) *concerns about health problems not being taken seriously due to weight*, (4) *fear of health professionals "fat shaming,"* (5) *concerns about weight being valued more than other indicators of health,* (6) *concerns about weight loss being overemphasized or prioritized over other treatments*, and (7) *identifying factors related intersectionality of weight stigma and other stigmas* (e.g. being both overweight and a sexual minority). Multiple key quotes were identified to illustrate each theme. These results suggest that weight stigma can impact SMW's relationships with their healthcare providers and their willingness to access appropriate care. Given that SMW experience disparities in health outcomes in addition to their healthcare, it is important to find ways to improve the healthcare experiences for this population. These findings suggest future research exploring ways for healthcare professionals to focus on the overall health of patients, rather than their weight and body size, may help to reduce these barriers to accessing care for SMW. This study may also help inform future research on the intersectionality of weight stigma and other stigmas and future research aimed at developing interventions to reduce weight stigma, particularly for SMW, among healthcare professionals.

CORRESPONDING AUTHOR: CHARLOTTE A. DAWSON, MS, Virginia Consortium Program in Clinical Psychology, ASHEVILLE, NC; cdaws001@odu.edu

---

Abstract citation ID: kaad011.0104

POSTER SESSION A: FEASIBILITY OF A DIGITAL NAVIGATION E-LEARNING CURRICULUM FOR INTEGRATED BEHAVIORAL HEALTH PROVIDERS

Margaret Emerson, DNP, APRN, PMHNP-BC[1], Danae Dinkel, PhD[2], David Johnson, PhD, LMFT[3], Shinobu Watanabe-Galloway, PhD[1]

[1]University of Nebraska Medical Center, Omaha, NE; [2]University of Nebraska at Omaha, Omaha, NE; [3]Mercer University School of Medicine, Atlanta, GA

Background: Despite effective treatment options, people who experience mental health conditions often do not receive needed care partially due to lack of access to mental health care providers. E-mental health, such as using mobile apps, is emerging as a way to increase access to and extend care. However, little formal training is available to increase the digital literacy level among healthcare providers. Therefore, the purpose of this study was to explore the feasibility of digital navigation training e-learning modules for behavioral health providers.

Methods: E-learning modules were adapted from an existing in-person digital navigation training. The training consisted of five main modules: 1) Basic Smartphone Skills for Android and iPhones; 2) Advanced Smartphone Skills for Android and iPhones, 3) Basic Technology Troubleshooting for Android and iPhones; 4) Shared Decision Making for Mobile Apps and Integrated Care and 5) Mobile App Evaluation. A purposeful sampling strategy was used to recruit behavioral health providers (n=8) to complete the modules. Feasibility was assessed via survey and semi-structured interviews. Surveys included the System Usability Scale and other questions regarding acceptability of aspects of the training guided by previous research. Interview questions were guided by Bowen and colleague's framework for designing feasibility studies. Descriptive statistics were calculated for survey data and qualitative data were analyzed using a content analysis approach.

Results: Survey data revealed behavioral health providers felt the modules were usable, they enjoyed the structure, and felt the amount of time to complete the modules was acceptable. Similarly, within the interviews, all of the participants thought the structure of the training worked well and they enjoyed learning new information such as skills to use both Android and IPhones and understanding the privacy information from apps. While participants' confidence in their digital navigation skills increased as a result of completing the modules, they desire more information and/or experience with screening apps prior to increasing their use of apps within their care.

Discussion: E-learning modules were a feasible method of educating behavioral health providers with digital navigation skills. Improvements may be needed to provide additional experience for behavioral health providers to screen apps for appropriate use within their care. Future research is needed on if participating in these modules can increase use of quality mobile apps within behavioral health providers treatment plans.

CORRESPONDING AUTHOR: Margaret Emerson, DNP, APRN, PMHNP-BC, University of Nebraska Medical Center, Omaha, NE; margaret.emerson@unmc.edu

Abstract citation ID: kaad011.0105

POSTER SESSION A: BUILDING INCLUSION INTO PLAY: EXPERIENCES OF PARENTS OF CHILDREN WITH AND WITHOUT DISABILITIES AT INCLUSIVE PLAYGROUNDS

Bianca Luna-Lupercio, BS[1], Celina H. Shirazipour, PhD[1], Amber Duong, BS[2], Ronald Buliung, PhD[3], Timothy Ross, PhD[4], Jennifer Leo, PhD[5], Amy E. Latimer-Cheung, PhD[6], Kelly Arbour-Nicitopoulos, PhD[7]

[1]Cedars-Sinai Medical Center, West Hollywood, CA; [2]University of California Irvine School of Medicine, Irvine, CA; [3]University of Toronto Mississauga, Mississauga, ON, Canada; [4]Holland Bloorview Kids Rehabilitation Hospital, Toronto, ON, Canada; [5]University of Alberta, Edmonton, AB, Canada; [6]Queen's University, Kingston, ON, Canada; [7]University of Toronto, Toronto, ON, Canada

Background: Playgrounds provide a space where children can develop critical social, emotional, and motor skills. However, due to design limitations, children with disabilities may be excluded from playgrounds and not experience these benefits. One solution may involve building inclusive playgrounds in the community. The design of inclusive playgrounds is influenced by the Principles of Universal Design, which provide guidelines for designing spaces that promote the participation of people of all abilities. From double-wide ramps to static-free slides, inclusive playgrounds aim to promote play for children of all abilities.

Purpose: This study explores the experiences of parents of children with and without disabilities at inclusive playgrounds created by a national children's charity in Canada.

Methods: Semi-structured interviews were conducted with 27 parents (19 mothers; 8 fathers) from four urban communities in Canada that had newly built inclusive playgrounds. Of the participants, 16 were parents of children with disabilities (e.g., diagnoses included Down syndrome, Duchenne Muscular Dystrophy, Cerebral Palsy, Autism Spectrum Disorder, Attention-deficit/Hyperactivity Disorder), while the remaining 11 were parents to children without disabilities. Children with disabilities were between the ages of 4 to 13 years old, while children without disabilities were between the ages of 2 to 14 years old. Data were analyzed using reflexive thematic analysis.

Results: Parents provided diverse accounts of their experiences at the inclusive playgrounds. Their input covered critical topics, including an appreciation for inclusive design, critical insights on ableism, and questions about the labor they may be asked to perform to educate their community on disability and inclusion. Three themes were identified encompassing these perspectives; (a) inclusive playgrounds as a platform for disability advocacy; (b) opportunities for children's social development within inclusive playgrounds; and (c) inclusive play may influence family dynamics, particularly by influencing intergenerational play opportunities.

Conclusion: This study provides insight into family experiences at playgrounds designed to be inclusive of individuals of all abilities. Findings contribute to the larger body of research on the value and limitations of inclusive design for overcoming barriers to community participation for people with disabilities.

Funding: Canadian Tire Jumpstart Charities

CORRESPONDING AUTHOR: Bianca Luna-Lupercio, BS, Cedars-Sinai Medical Center, West Hollywood, CA; bianca.luna@cshs.org

Abstract citation ID: kaad011.0106

POSTER SESSION A: SELF-REPORTED ALCOHOL, TOBACCO, AND MARIJUANA USE AND HIV OUTCOMES AMONG YOUNG PEOPLE LIVING WITH HIV

Mary M. Step, PhD[1], Eniolufolake Ayoade, MS[2]

[1]Kent State University, Westlake, OH; [2]Kent State University, Kent, OH

Background: Alcohol, tobacco, and marijuana, can present a significant barrier to HIV management by impairing medication adherence and suppressed viral load.[1-3] Though opiate use receives significant research attention, the impact of more mundane substance use on HIV outcomes is less studied among young people living with HIV (YPLH). This study explored differences in substance use (i.e., alcohol, tobacco, and marijuana) and HIV outcomes reported by a sample of YPLH from ten HIV clinics in the United States. We expected that frequent ATM use would be associated with less positive HIV outcomes.

Methods: Participants (n=955) were recruited as part of a demonstration project that used a common data collection methodology for a multisite prospective observational study.[4] Baseline participant self reports were used in this study. Study sample respondents (15-34 years) were either newly diagnosed with HIV or returning after being non-adherent to care for six months or more. Substance use was measured with single items referring to the frequency of use within the past six months (non-use/moderate/daily). HIV outcomes include: 1) antiretroviral therapy (ART) use (y/n), 2), ability to use prescribed medication (poor/good) and 3) detectable viral load (< 200vl/≥200vl). A Chi-square analysis was used to assess differences in HIV outcomes across substance use groups.

Results: Daily alcohol users were most likely to report not using ART ($\chi^2 = 33.3$; $p < .001$), a poor ability to maintain medication adherence ($\chi^2 = 36.3$; $p < .001$) and a detectable VL ($\chi^2 = 21.0$; $p = .012$). Daily tobacco users were significantly less likely to report good medication adherence ($\chi^2 = 18.014$; $p = .006$), and 2) an undetectable viral load ($\chi^2 = 22.9$; $p = .006$). People who did not use marijuana were similar to moderate users in ART use but more likely to report a good ability to adhere to medication ($\chi^2 = 16.3$; $p = .012$). Daily marijuana users were less likely to report using ART ($\chi^2 = 14.1$; $p = .028$) or good ability to maintain adherence if they did ($\chi^2 = 16.3$; $p = .012$). There is no significant difference in viral load detectability across marijuana use groups.

Conclusion: Less optimum HIV related outcomes were observed for daily ATM users compared to less frequent users. Though this study may be biased by self-reported data, it suggests that known cessation efforts for these substances among YPLH may contribute substantially to ending the epidemic initiatives.

CORRESPONDING AUTHOR: Mary M. Step, PhD, Kent State University, Westlake, OH; Mstep@kent.edu

Abstract citation ID: kaad011.0107

POSTER SESSION A: PILOT IMPLEMENTATION AND EVALUATION OF HIV SUPPORT SOURCE™ DISTRESS SCREENING AND REFERRAL PROGRAM FOR PEOPLE LIVING WITH HIV

Alexandra K. Zaleta, PhD[1], Kelseanna Hollis-Hansen, PhD, MPH[2], Kimberly W. Sargent, LCSW[3], Sara Bowsky, BScN, RN, MPH[4], Ron MacInnis[5], Hanna Tessema, DrPH, MPH, MSW[6], Erica E. Fortune, PhD[1], Caroline Lawrence[7], Melissa F. Miller, PhD, MPH[1], Susan K. Settergren, MS, MPD[8]

[1]Cancer Support Community, Philadelphia, PA; [2]UT Southwestern Medical Center, Dallas, TX; [3]CEMPA Community Care, Chattanooga, TN; [4]Palladium, Sacramento, CA; [5]Palladium, Washington DC, DC; [6]Palladium, Washington, DC; [7]Cancer Support Community, Washington, DC; [8]Palladium, Atlanta, GA

Background: Addressing the psychosocial well-being of people living with HIV (PLHIV) can impact health outcomes. While depression and substance use screening is practiced widely, few tools screen for and respond to broader distress and unmet needs. We evaluated the feasibility, acceptability, and short-term outcomes of HIV Support Source (HIVSS), an electronic psychosocial distress screening and referral program for PLHIV.

Method: 25 clients ages 18+ receiving HIV services at a community clinic in Chattanooga, TN, were invited to take part. Clients completed via tablet the psychometrically validated 17-item HIVSS, with items on physical well-being, emotional well-being (with embedded depression & anxiety risk subscales), financial & practical needs, HIV treatment & sexual health, and tobacco & substance use. Clients were offered an automated, tailored care plan and informational materials based on responses; staff received a report on noted concerns and depression/anxiety risk. Staff documented program delivery at time of screening and at clients' subsequent primary care visit. Clients were invited to complete an online feedback survey 1 month after screening; a subset (n=6) also completed interviews. Clinic staff (n=6) took part in a focus group.

Results: All invited clients participated (68% men; 64% Black). Most highly endorsed concerns (*moderately* to *very seriously*) included worrying about the future (64%), feeling too tired to do things you want/need (48%), feeling sad/depressed (48%), and money/finances (48%). Staff reviewed results with all but one client. HIVSS flagged 44% of clients (11/25) as at risk for clinical levels of depression and/or anxiety; all received immediate follow-up. During clinic visits, providers reviewed results with all but one client, followed up with 79% (15/19) who rated any concerns *seriously* or *very seriously*, and provided support for 69% (13/19) based on responses (e.g., pain management, antidepressant, emotional support, health behavior counseling). 53% (10/19) of clients were referred internally for additional support needs (e.g., housing, financial assistance, other resources). Among clients completing the feedback survey, 87% (13/15) reported the screener was easy to use, and 93% (14/15) agreed that HIVSS helped staff to better understand their concerns. In interviews, clients recommended administering HIVSS routinely. Staff reported feeling well-equipped to administer HIVSS and believed it gave providers insight into ways to tailor and improve care.

Conclusion: HIVSS administration was feasible, efficient, and highly acceptable to clients and staff. The multidimensional screener highlighted concerns that otherwise would not have been recognized, and clients received support services and referrals that corresponded with their needs. Benefits of HIVSS can be optimized when implemented with a strong case management system.

CORRESPONDING AUTHOR: Melissa F. Miller, PhD, MPH, Cancer Support Community, Philadelphia, PA; melissa@cancersupportcommunity.org

---

Abstract citation ID: kaad011.0108

POSTER SESSION A: ROLES OF STIGMA, DISCRIMINATION, AND HEALTHCARE EMPOWERMENT IN ART ADHERENCE AMONG PEOPLE WITH HIV IN THE DOMINICAN REPUBLIC

Jelani Kerr, PhD[1], Jiaying Hao, MPA[2], Henna Budhwani, PhD, MPH[3], Robert Paulino-Ramírez, MD[4], John Waters, MA (oxon), MSc, MD[5], Christyenne L. Bond, MPH[6], Ingrid Ruiz, MD[7], Dustin M. Long, PhD[8], Nelson Varas-Díaz, PhD[9], Sylvie Naar, PhD[10], Laura Nyblade, PhD[11], Janet M. Turan, PhD, MPH[12]

[1]University of Louisville, Louisville, KY; [2]University of Alabama at Birmingham, Vestavia Hills, AL; [3]Florida State University, Vestavia Hills, AL; [4]Universidad Iberoamericana, Santo Domingo, Azua, Dominican Republic; [5]Caribbean Vulnerable Communities Coalition, Santo Domingo, Distrito Nacional, Dominican Republic; [6]Florida State University, Trinity, AL; [7]Universidad Iberoamericana UNIBE Santo Domingo, República Dominicana, Santo Domingo, Distrito Nacional, Dominican Republic; [8]UAB, Birmingham, AL; [9]Florida International University, Miami, FL; [10]Florida State University College of Medicine, Tallahassee, FL; [11]RTI, International, Washington, DC; [12]University of Alababama at Birmingham School of Public Health, Birmingham, AL

Background: HIV-related stigma and intersecting sources of social marginalization undermine care, retention, and medication adherence among people with HIV (PWH). The impact of these stigmas may be exacerbated when perpetuated within healthcare settings. Biomedical interventions to improve survival prospects of PWH, reduce communal viral load, and reduce HIV incidence will not be successful without research to inform interventions to address stigma in healthcare facilities, particularly in resource-constrained environments.

Methods: Baseline data from the Finding Respect and Ending Stigma around HIV (FRESH) project in the Dominican Republic were used for this study. Survey data on demographics, perceived discrimination (HIV status, race/ethnicity, sexual orientation), healthcare empowerment, visit satisfaction, HIV-related stigma, experience with HIV stigma programing, and the outcome of interest, self-reported antiretroviral (ART) adherence, were collected from patients (N=155) at two HIV clinics in the Dominican Republic. Descriptive statistics were examined and pearson's correlations were calculated to assess associations between discrimination scales. Generalized multivariable linear regression analyses were used to assess predictors of ART adherence.

Results: The sample was principally comprised of persons identifying as male (90%), gay (79%), Mulatto, Mestizo, or Multiracial (82%), and Catholic (59%). Over half had more than a postsecondary education (55%); 29% reported engaging in sex work, and 12% were migrants. Most had been living with HIV five or more years (51%), and did not have prior experience with stigma reduction programs (67%). Correlational analysis revealed significant associations between all discrimination measures ($p< 0.0001$). While adjusting for other predictors, being involved in sex work was negatively associated with ART adherence. Concerns about HIV status disclosure and having experienced sexual orientation discrimination were positively associated ($p< 0.05$). Prior experience with stigma reduction programming and healthcare empowerment were positively associated with adherence ($p< 0.01$).

Conclusions: Results suggest that having HIV status disclosure concerns and perceiving sexual orientation discrimination may motivate some clients to have better ART adherence. In healthcare settings stigma reduction programs and promotion of healthcare empowerment have the potential to help clients to achieve optimal health outcomes.

CORRESPONDING AUTHOR: Henna Budhwani, PhD, MPH, Florida State University, Vestavia Hills, AL; hbudhwani@fsu.edu

Abstract citation ID: kaad011.0109

POSTER SESSION A: INTEGRATION OF SUBSTANCE USE AND MENTAL HEALTH SCREENING WITH HIV PREVENTIVE SERVICES IN AN EMERGENCY DEPARTMENT

Jennifer Brown, PhD[1], Dylanne Twitty, BA[2], Robert Braun, MPH[2], Brittany Punches, PhD, RN, CEN, FAEN[3], David Spatholt, MCP, MHI[4], Michael S. Lyons, MD, MPH[4]

[1]Purdue University, West Lafayette, IN; [2]University of Cincinnati, Cincinnati, OH; [3]Ohio State University, Columbus, OH; [4]Ohio State University Wexner Medical Center, Columbus, OH

Background: Persons with substance use disorders (SUDs) and co-occurring psychiatric disorders (CODs) utilize the emergency department (ED) at higher rates than those without. The ED is often a primary "safety net" source of healthcare for socio-economically disadvantaged populations; thus, the ED may be an optimal setting to screen for SUDs and CODs. We describe the implementation of SUD/COD screening within existing ED HIV preventive services and report on the frequency of problematic substance use and co-morbid elevated mental health symptoms among patients screened during a one-year period.

Methods: From March 1, 2019 through February 28, 2020, patients (*N*=1,924) receiving HIV preventive services at an urban, midwestern, Level I trauma center ED completed validated substance use and mental health screening measures. Patients completed measures assessing: (a) problematic alcohol use (AUDIT-C); and (b) problematic substance use across 10 substance types (ASSIST). Patients with positive alcohol and/or substance use screens completed measures assessing: (a) depressive symptoms (PHQ-9); (b) anxiety symptoms (GAD-7); and (c) PTSD symptoms (PCL-C).

Results: Patients were predominantly male (60.3%) with a mean age of 38.1 years (*SD* = 13.0; *Range:* 17-83); most identified as White (50.8%) or Black or African American (44.8%) with a minority who identified as Latinx or Hispanic (1.5%). Most patients had a positive screen for problematic alcohol and/or other substance use (58.5%); 29.6% had a positive alcohol use screen and 44.0% endorsed problematic use of one or more other substances. The most prevalent substances with positive screens were: alcohol (29.6%), marijuana (26.4%), street opioids (19.9%), cocaine (16.6%), and methamphetamine (11.7%). Of those with a positive substance use screen (*n* = 1,126), 47.0% endorsed elevated mental health symptoms; based on validated cut-off scores, 32.1% with elevated depressive symptoms, 29.6% with elevated PTSD symptoms, and 28.5% with elevated anxiety symptoms.

Discussion: A majority of those receiving ED infectious disease preventive services endorsed problematic alcohol and/or other substance use and co-morbid mental health symptoms. Interventions to facilitate linkage to substance use and psychiatric treatment within the ED are urgently needed. Such interventions should consider incorporating comprehensive treatment linkage, case management and peer support services coupled with initiation of appropriate medication treatments during the ED encounter (e.g., buprenorphine for opioid use disorder).

CORRESPONDING AUTHOR: Jennifer Brown, PhD, Purdue University, West Lafayette, IN; jenniferbrown@purdue.edu

---

Abstract citation ID: kaad011.0110

POSTER SESSION A: SELF-COMPASSION AS A BUFFER BETWEEN DEPRESSION AND MEDICATION ADHERENCE SELF-EFFICACY IN SEXUAL MINORITY MEN LIVING WITH HIV

Addam S. Reynolds, MSW[1], Shannon S. Gray, MA Clinical Psychology[2], Ashani A. Shah, BA[3], Carly Wolfer, MA[4], Aria Tilove, BA[5], Patrick George III, MSc[6], Hannah H. Park, Bachelor's[7], K. Marie Sizemore, PhD[1], Brett M. Millar, PhD[8]

[1]Rutgers University, New Brunswick, NJ; [2]Rutgers University Institute for Health, New York, NY; [3]Rutgers University, Bloomfield, NJ; [4]Graduate Center, City University of New York (CUNY), New Brunswick, NJ; [5]Hunter College, NEW YORK, NY; [6]Samaritan Village, New Brunswick, NJ; [7]Rutgers Institute for Health, Little Ferry, NJ; [8]Rutgers University, NEW YORK, NY

Background: Given the numerous health benefits of achieving and maintaining an undetectable viral load for people living with HIV, we need to better understand the various factors that can compromise adherence to antiretroviral (ART) medications. In addition to complex structural factors (e.g., stigma, discrimination, access to care) mental health distress is often cited as a barrier to adherence.

Growing evidence has linked depression with poorer medication adherence, with some studies identifying potential buffers in this association. Self-compassion has been identified as a buffer of this link in other health conditions—yet, no HIV-focused study to our knowledge has explored self-compassion as a buffer for HIV-related medication adherence.

Our study aimed to explore whether self-compassion buffers the link between depression and lower medication adherence self-efficacy among a sample of older sexual minority men living with HIV.

Methods: We recruited 81 participants who identified as sexual minority men, aged 50 or older, living in the NYC area, and on a daily ART regimen. Participants completed measures of Depression (PHQ-9) and Self-Compassion (SCS-Short form, 12 items) at baseline, and a daily diary for 21 days that asked 4 daily items on self-efficacy for taking ART medications, which were summed and averaged across the 21-day period. Demographic covariates of age, education, and race and ethnicity were entered in analyses run in Stata V17. Model 1 contained depression as a predictor of averaged adherence self-efficacy, and Model 2 added an interaction term between depression and self-compassion.

Results: In Model 1, higher depression was associated with lower medication adherence self-efficacy (*b* = -0.02; p< .01) as expected, but self-compassion was not. The interacted model showed that this association between depression and medication adherence self-efficacy was attenuated among those with higher self-compassion scores (*b* = 0.03; p< .01). A decomposition analysis confirmed the validity of our interaction results.

Discussion: Our findings point to the potential for enhancing self-compassion as a way to mitigate the negative effect of depression on ART adherence. Further study should explore which key elements of self-compassion might be most potent in their capacity to buffer this association and should be leveraged in interventions to improve and sustain medication adherence, as well as overall health and quality of life, for people living with HIV.

CORRESPONDING AUTHOR: Addam S. Reynolds, MSW, Rutgers University, New Brunswick, NJ; addam.reynolds@rutgers.edu

Abstract citation ID: kaad011.0111

POSTER SESSION A: STIGMA FOCUSED INTERVENTIONS TO IMPROVE HIV TESTING AND PRE EXPOSURE PROPHYLAXIS USE AMONG SEXUAL MINORITY MEN

Lisa A. Eaton, PhD[1], Ladectric Driver, PhD[2], Ryan J. Watson, PhD[3], Raymond L. Moody, PhD[4]

[1]University of Connecticut, Storrs, CT; [2]Columbia University, New York, NY; [3]UConn, Storrs, CT; [4]Columbia University, Brooklyn, NY

Background: Advances in HIV prevention tools have out-paced our ability to ensure equitable access to these tools. Novel approaches to reducing known barriers to accessing HIV prevention, such as stigma and logistical related factors, are urgently needed.

Purpose: To evaluate the efficacy of a randomized controlled trial with four intervention arms to address barriers to HIV/STI testing uptake (primary outcome) and PrEP use, depression, and HIV testing status (secondary outcomes). We tested a 2 x 2 research design: *main effect 1* – stigma-focused vs health information evaluation focused counseling, *main effect 2* – offering HIV/STI testing appointments in-person vs at-home with counselor via video chat, and *the interaction* of the main effects.

Methods: Participants (*N*=474) residing in the southeastern US were screened and enrolled into a longitudinal trial. Intervention efficacy was established using generalized linear modeling with binomial or Poisson distributions.

Results: Intervention efficacy demonstrated an increase in HIV/STI testing uptake when testing was made available at-home with a counselor via video chat vs in-person (83% vs 75% uptake), participants were also more likely to test positive for HIV over the course of the study in the at-home condition (14.5% vs 9.4%). Stigma-focused counseling resulted in lower depression scores and greater uptake of PrEP among participants < 30 years of age when compared with health information counseling (15.4% vs 9.6%).

Conclusions: In order to prevent further disparities between HIV prevention advances and access to HIV prevention tools we must prioritize improvements in linking people to care. Novel interventions, such as those proposed here, offer a practical, evidence-based path to addressing long-standing barriers to HIV prevention strategies.

CORRESPONDING AUTHOR: Lisa A. Eaton, PhD, University of Connecticut, Storrs, CT; lisa.eaton@uconn.edu

---

Abstract citation ID: kaad011.0112

POSTER SESSION A: MOOD AND DIET INDICATORS OF CHRONIC LIVER DISEASE FROM PATIENT REPORTED OUTCOMES (PROS)

Suzannah Gerber, MA[1], Jillian K. Price, PhD[2], Lynn H. Gerber, MD[2], Ali Weinstein, PhD[3], Zobair Younossi, MD, MPH[2]

[1]Inova Medical System, MEDFORD, MA; [2]Inova Medical System, Falls Church, VA; [3]George Mason University, Falls Church, VA

Background: Chronic liver disease (CLD) is increasing and known to be influenced by diet and eating behaviors. Using patient-reported outcomes (PROs) in an ongoing multi-factorial study, we explore the relationship between the diet indicators of the ability to eat enough food (EA), and reported satisfaction with diet (SWD) with mood-and-worry factors (MWFs) in CLD patients to explore comprehensive ways to help improve quality of life, prevent disease progression, and maintain transplant eligibility.

Purpose: To assess relationships between mood and diet symptoms and determine how they relate to CLD.

Methods: 354 CLD patients[age 50.4±11.2; 51% male; CLD diagnoses: 222 cirrhosis; 145 hepatitis; 45 primary sclerosing cholangitis; 6 NASH; 1 Wilson's; 1 Hepatoma; 2 Hemochromatosis; 1 Hepatocellular-carcinoma1; and 3 A-1-Antitrypsin] completed the validated Chronic Liver Disease Questionnaire(CLDQ). The CLDQ includes patient-reported outcomes(PROs) for 8 mood-and-worry Factors(MWFs): (feeling anxious(FA); feeling depressed(FD); mood swings(MS); worry about family impact(FI), symptoms worsening(SW), condition worsening(CW), never getting better(NGB), and transplant eligibility(TE), and two items about diet: satisfaction with diet(SWD) and ability to eat enough food(EA). Intra-instrument items were assessed for collinearity, Spearman correlation, and modeled using age and sex adjusted multivariable logistic regression.

Results: EA and SWD correlated to all MWFs without collinearity [EA: NGB(0.39), FD(0.37), FA(0.35), and MS(0.34), FI(0.33), SW(0.28), CW(0.33), TE(0.28)]; [SWD: FA(0.55), FD(0.55), MS(.55), NGB(0.53), FI(0.5), SW(0.47), CW(0.5), TE(.39); all p< 0.001].

The full EA multivariable model (p< 0.0001), MWFs of FI, SW, NGB, age and sex were significant (Wald CL 0.95). Worsening EA was associated with FI and NGB (OR:0.81; 0.83) and female sex (OR:0.61). Higher EA was associated with SW(OR:1.22) and age (OR:1.02). The model likelihood-ratio (L-R) did not improve with non-significant variables removed but did increase by +38.18 with SWD ((OR:0.64, p< 0.0001) causing all variables to lose significance except female sex(OR:0.62).

MS(OR: 0.71), FA(OR 0.77), FI(OR 0.83), CW(OR 0.81), and age (OR 1.02) were significant in the full SWD model (Wald CL 0.95). L-R increased +23.56(175.25, p< 0.0001) with only significant variables retained. Adding EA (OR: 0.69) increased L-R to 219.53(p< 0.0001); MWF ORs did not change substantially.

Conclusion: Mood and Worry Factors (MWFs) correlated strongly with Satisfaction with Diet (SWD). Lower Ability to Eat Enough Food (EA) was significant for females, and for those with lower SWD. Lower SWD was strongly associated with mood swings, anxious feelings, worries about family impact and condition worsening. Clinicians should assess EA, SWD, and MWF and consider these PROs important to the health management of CLD.

CORRESPONDING AUTHOR: Suzannah Gerber, MA, Inova Medical System, MEDFORD, MA; Suzannah.Gerber@tufts.edu

Abstract citation ID: kaad011.0113

POSTER SESSION A: MEASURING BEHAVIORAL HEALTH INTEGRATION: A STUDY TO IMPROVE THE CLARITY AND VALIDITY OF THE PRACTICE INTEGRATION PROFILE

Matthew Martin, PhD[1]

[1]Arizona State University, Tempe, AZ

Context: The Practice Integration Profile (PIP) is a reliable, valid, and broadly used measure of the integration of behavioral health (BH) into primary care. Since its release, PIP 1.0 has been completed by more than 1700 respondents from 995 unique practices spanning a broad range of practice types and locations across 48 states. Prior analyses of PIP data and feedback from users suggested the measure needed revision.

Objective: To improve PIP readability, clarity, and utility and report preliminary findings on the PIP 2.0.

Study Design and Analysis: Two rounds of structured cognitive interviews. Transcripts were coded using an iterative and consensus-driven process. Themes were identified based on codes. Themes and recommendations for revisions were reviewed and modified by committee.

Setting: All interviews took place over Zoom.

Population Studied: First round of interviews: 20 participants recruited from the Collaborative Family Healthcare Association, American Academy of Family Physicians National Research Network. Sample was 70% female and consisted of 11 BH clinicians, five BH directors or managers, three physicians, and one physician assistant

Second round: 10 clinicians, seven of whom had completed the first round of cognitive interviews. Sample was 20% female and consisted of five PhD psychologists and five physicians.

Intervention/Instrument: First round participants completed PIP 1.0 (30 questions, 6 domains). Second round participants completed PIP 2.0 (28 questions, 5 domains).

Outcome Measures: Semi-structured questions: 1) Is this item clear? What about the item was unclear? 2) What does the question mean to you? 3) What facts about your clinic lead you to the answer you selected?).

Results: Based on feedback and a prior factor analysis of the PIP, revisions were undertaken for 4 main reasons: 1) to eliminate redundant or overlapping items; 2) to clarify the meaning of items 3) to standardize the response categories, and 4) to place items in the most appropriate domains. The resulting measure has 28 items in five domains.

Conclusions: PIP 2.0 offers a concise set of five domain-specific assessments that can be summarized in a single score. Researchers can use the PIP 2.0 as a clinic-level summary of practice characteristics that reflect behavioral health integration. Future research should examine how the PIP 2.0 distinguishes between practices variable access to resources, providers, and patient populations.

CORRESPONDING AUTHOR: Matthew Martin, PhD, Arizona State University, Tempe, AZ; mpmarti6@asu.edu

---

Abstract citation ID: kaad011.0114

POSTER SESSION A: A REVIEW OF STRATEGIES UTILIZED TO IMPLEMENT BEHAVIORAL WEIGHT MANAGEMENT INTERVENTIONS INTO PRIMARY CARE

Jocelyn E. Remmert, PhD[1], Julie Gass, PhD[2], Jennifer Funderburk, PhD[3]

[1]Center for Integrated Healthcare, Philadelphia, PA; [2]Center for Integrated Healthcare, Buffalo, NY; [3]VA Center for Integrated Healthcare, Syracuse, NY

Introduction: Over 40% of Americans have obesity. Primary care clinics have implemented behavioral weight management interventions to mitigate the multiple medical impacts that obesity can have. This study aimed to review strategies utilized to implement weight management programs into primary care and identify key strategies for medical centers to consider when implementing weight management programs in the future.

Methods: Systematic literature review was conducted using various key words and literature was extracted from databases (e.g., PubMed); data extraction and analysis is ongoing. Articles in the review had to contain a behavioral weight management intervention located in adult primary care and the strategies utilized when implementing the intervention.

Results: 22 articles were extracted to date. The most common strategy utilized was education (e.g., materials for providers and patients, presentations to providers). Other common strategies include medical record support (e.g., smart phrases, templates), employment of multidisciplinary obesity treatment teams, stakeholder engagement, and supplementary technology resources to support providers (e.g., text messages, online portals). Innovative strategies included: feedback to providers regarding patient outcomes, and practicing intervention delivery (e.g., role plays).

Discussion: Implementation of weight management interventions into primary care is key to addressing the high number of Americans with obesity and the medical impacts of obesity. Most of the implementation strategies focused on education; missing is attention to cultural factors (e.g., leadership support, organizational readiness for change) that may impact overall facility engagement with the intervention. An emerging strategy was adding technology resources to improve efficiency for primary care providers to delivering interventions. Future studies should examine the most effective strategies for implementation in primary care.

CORRESPONDING AUTHOR: Jocelyn E. Remmert, PhD, Center for Integrated Healthcare, Philadelphia, PA; jeremmert@gmail.com

Abstract citation ID: kaad011.0116

POSTER SESSION A: TIME OF DAY PREFERENCES AND DAILY TEMPORAL CONSISTENCY PREDICT THE SUSTAINED USE OF A COMMERCIAL MEDITATION APP

Vincent Berardi, MS, PhD[1]

[1]Chapman University, Orange, CA

Background: Mobile health (mHealth) apps typically collect intensive data that allows researchers to investigate factors influencing the habit formation process. This study uses data from a commercial meditation app (n = 14,879; 899,071 total app uses) to assess the validity of commonly given habit formation advice to meditate at roughly the same time every day, preferably in the morning.

Methods: First, the change in probability of meditating in four non-overlapping time windows (morning, midday, evening, late-night) on a given day over the first 180 days after creating a meditation app account was calculated via a generalized additive mixed models. Second, users' time of day preferences were calculated as the percentage of all meditation sessions that occurred within each of the four time windows. Additionally, the temporal consistency of daily meditation behavior was calculated as the entropy of the timing of app usage sessions. Linear regression was used to examine the effect of time-of-day preference and temporal consistency on two outcomes: i.) short-term engagement, defined as the number of meditation sessions completed within the sixth and seventh month of an account's existence (M67) and ii.) long-term use, defined as the time until the last observed meditation session.

Results: Large reductions in the probability of meditation at any time of day were seen over the first 180 days after creating an account. However, this effect was smallest for morning meditation sessions (63.4% reduction vs. [67.8%, 74.5%] range for other times). A greater proportion of meditation in the morning was also significantly associated with better short-term (regression coefficient [B] = 2.76, $p< 0.001$) and-long-term (B=50.6, $p< 0.001$) outcomes. The opposite was true for late-night meditation sessions (Short-Term: B=-2.06, $p< 0.001$, Long-Term: B =-51.7, p=0.001), while a significant relationship was not found for long-term outcomes for midday and evening sessions. Additionally, temporal consistency in the performance of morning meditation sessions was associated with better short-term outcomes (B=-1.64,$p< 0.001$), but worse long-term outcomes (B=55.8, $p< 0.001$). Similar-sized temporal consistency effects were found for all other time windows.

Conclusions: Meditating in the morning was associated with higher rates of sustaining a meditation practice with the app, which is consistent with findings from other habit formation studies that have hypothesized that the strength of existing morning routines and/or circadian rhythms may make the morning more appropriate for building new habits. In the long term, less temporal consistency in meditation sessions was associated with more sustained app use, perhaps because this represents beneficial flexibility in behavior performance. These findings improve our understanding of the meditation habit formation process.

CORRESPONDING AUTHOR: Vincent Berardi, MS, PhD, Chapman University, Orange, CA; berardi@chapman.edu

Abstract citation ID: kaad011.0117

POSTER SESSION A: YOGA, MINDFULNESS, AND LOGIC OF USING GUIDED IMAGERY: A COMPARISON OF EXPERIENCED WITH LESS EXPERIENCED YOGA PRACTITIONERS

Suzanne E. Vogler, MS[1]

[1]West Virginia University, Morgantown, WV

Physical inactivity and sedentary behavior increase risk of many chronic and degenerative diseases. Given that nearly 50% of adults in most developed countries are insufficiently active, finding alternative activities that accrue positive health impacts is important. Mind body practices, and specifically yoga, have grown in popularity in recent decades as an adjunct for both a physical and mental health needs. Further, yoga has been shown to improve many clinical mental health concerns such as anxiety and depression. Yoga, as a mind body practice, combines movement with mindful awareness and guided imagery – both of which have been found to improve symptoms of mental health concerns. The purpose of this pilot study was to test hypothesized differences in trait mindfulness between yoga instructors (individuals trained and certified to teach yoga) versus yoga practitioners. A secondary purpose was to test differences between teachers versus practitioners on the logic of using guided imagery since this mind-body technique is widely used in yoga. We administered a cross-sectional survey using validated measures of trait mindfulness and imagery logic (n= 103). Descriptive statistics, reliability estimates, and tests of normality showed acceptable results to warrant inferential statistics. Independent samples t-tests with equal variances not assumed showed that yoga instructors (n=61) compared to students (n = 42) had significantly higher levels of dispositional mindfulness (t(97) = -2.67, P < .001) and a higher belief in the logic of mental imagery (t(101) = 3.46, P < .001) compared to students. These results suggest that yoga experience and teaching are associated with higher levels of mindfulness and the use of guided imagery. Research and practical implications of these findings discussed in this research include the enhanced applications of mindfulness and guided imagery practices that are embedded into yoga practice. Researchers should examine mechanisms of mindfulness and guided imagery that can lead to adherence in yoga practice while practitioners are encouraged to integrate both mindfulness and imagery into yoga practice.

CORRESPONDING AUTHOR: Suzanne E. Vogler, MS, West Virginia University, Morgantown, WV; sv00008@mix.wvu.edu

---

Abstract citation ID: kaad011.0118

POSTER SESSION A: DEPRESSION, ANXIETY, AND STRESS IN PREGNANCY AND POSTPARTUM: A LONGITUDINAL STUDY DURING THE COVID-19 PANDEMIC

Emily Rabinowitz[1], Lindsay Kutash, B.S[2], Alexis Richeson[2], MacKenzie Sayer, MA[2], Marielle Samii, MA[3], Douglas Delahanty, PhD[2]

[1]Kent State University, Cuyahoga Falls, OH; [2]Kent State University, kent, OH; [3]Kent State University, Kent, OH

Introduction: Symptoms of depression, anxiety, and stress in pregnant women are generally highest in the first trimester and then decrease throughout pregnancy, reaching their lowest point in the postpartum period. However, it is unclear whether the chronic stress of the COVID-19 pandemic may have led to a different trajectory of symptoms.

Methods: Women (N=127) who were pregnant or who had given birth one month prior were recruited via online advertising during the COVID-19 pandemic. Participants were assessed during each trimester and at 1-month postpartum for depression, anxiety, and stress. Random intercepts models examined symptom change over time as well as predictors of elevated postpartum psychopathology.

Results: Women reported mild-moderate levels of depression, anxiety, and stress throughout pregnancy. There was a significant change in symptoms of depression and anxiety over time which was best represented by a quadratic rather than linear trend: symptoms increased until week 23-25 and then decreased. Stress levels remained consistently elevated over time. Symptom levels at one-month postpartum were predicted by younger age, lower social support, and worry about going to a healthcare facility.

Conclusions: During COVID-19, symptoms of depression and anxiety increased from early to mid-pregnancy but then declined slightly while stress levels remained elevated. Observed reductions in symptoms were small, and providers should be aware that large-scale external stressors may result in consistently elevated symptoms throughout pregnancy and postpartum in a subset of women.

CORRESPONDING AUTHOR: Emily Rabinowitz, Kent State University, Cuyahoga Falls, OH; erabinow@kent.edu

Abstract citation ID: kaad011.0119

POSTER SESSION A: A PHENOMENOLOGICAL STUDY OF LIVED EXPERIENCES OF INDIVIDUALS WITH PERINATAL DEPRESSION AND TELEHEALTH GROUP INTERVENTIONS

Marcela Smid, MD, MS, MA[1], Marcia Williams, MS[1], Kritzia Merced-Morales, PhD[2], Ryoko Pentecost Kausler, MS, PhD[3], Gwen Latendresse, PHD[1]

[1]University of Utah, Salt Lake City, UT; [2]VA, Salt Lake City, UT; [3]Boise State University, Meridian, ID

Introduction: Perinatal depression is the most common sequelae of delivery. Group telehealth interventions (GTI) delivering evidence-based approaches may reduce symptom burden in this population. Our aim was to evaluate the experience of individuals with perinatal depression participating in a GTI randomized controlled trial (RCT) of mindfulness-based and cognitive behavioral therapy approach compared to an attention control (10 sessions in each arm).

Methods: We conducted a phenomenological qualitative study of participants in the parent RCT who also participated in two focus groups. Transcripts were coded and analyzed for patterns and themes in an effort to identify the lived experience of GTI.

Results: Two focus groups included 10 participants who were 27-36 years old. All were married, 90% were privately insured, and 70% identified as White and not Hispanic. Nine individuals participated in at least 70% of the GTI study session and median Edinburgh Postpartum Depression Scale score at study onset was 12 (interquartile range 10-14). Five important themes were identified including validation (experiences of perinatal depression shared among group members), community (creation of "face to face" relationships with others with similar experiences), connectedness (feelings of relationship to other group members), convenience (ability to participant in GTI) and diversity (relationship with other participants with different backgrounds).

Conclusions: Study findings provide obstetric and mental health professionals with an in-depth understanding of the complex experiences of individuals with perinatal depression who participated in GTI.

CORRESPONDING AUTHOR: Gwen Latendresse, PHD, University of Utah, Salt Lake City, UT; gwen.latendresse@nurs.utah.edu

---

Abstract citation ID: kaad011.0120

POSTER SESSION A: MIXED METHOD APPROACH TO UNDERSTANDING PARTICIPATION BARRIERS IN A PERINATAL DEPRESSION GROUP TELEHEALTH INTERVENTION TRIAL

Marcia Williams, MS[1], Marcela Smid, MD, MS, MA[1], Eli Iacob, PhD, MS[2], Ryoko Pentecost Kausler, MS, PhD[3], Sara Simonsen, PhD, MSPH[2], Gwen Latendresse, PHD[1]

[1]University of Utah, Salt Lake City, UT; [2]University of Utah, SAlt Lake City, UT; [3]Boise State University, Meridian, ID

Objective: Group telehealth interventions (GTI) may reduce perinatal depressive and anxiety (PDA) symptom burden among peripartum individuals. However, study participation for this population may be challenging. The objective of this study was to use a mixed methods approach to understand themes associated with completion of planned interventions in randomized controlled trial (RCT) assessing GTI efficacy on PDA.

Study Design: _Secondary analysis of RCT of mindfulness-based and cognitive behavioral therapy approach compared to attention control group (10 sessions in each arm over six months) (NCT03932760). We consented and enrolled peripartum (pregnant and 6 months postpartum) individuals > 18 years old with mild to moderate depression symptoms (defined as Edinburgh Postpartum Depression Scale > 9) from the electronic medical record. We compared participant characteristics, survey results and open-ended question between those who did and did not complete planned interventions. Qualitative results were coded and analyzed for themes on acceptance and barriers to RCT intervention participation. Focus group transcripts among those who completed interventions were coded and analyzed for similar themes.

Results: Of 81 consented individuals, 44 (54.3%) did not complete and 33 (45.7%) completed six months of planned interventions. Individuals who did not complete study interventions were younger, more frequently postpartum and single compared to those who did complete study interventions. At baseline, both groups identified similar initial barriers of RCT participation as fear of disclosure of PDA to others, lack of time or interest, and minimization of PDA symptom burden. Among those who completed interventions, participants reported that their initial concerns were mitigated by validation of their symptoms, connection within their intervention groups, and acceptance by diverse community with similar experiences.

Conclusion: Though GTI may be feasible, significant barriers to recruitment and retention in an RCT exist precluding the assessment of efficacy of these intervention among peripartum women with PDA.

CORRESPONDING AUTHOR: Marcia Williams, MS, University of Utah, Salt Lake City, UT; u1290074@utah.edu

Abstract citation ID: kaad011.0121

POSTER SESSION A: WEIGHT BIAS INTERNALIZATION AND PSYCHOLOGICAL OUTCOMES AMONG SEXUAL MINORITY AND HETEROSEXUAL BARIATRIC PATIENTS

Noelle Mastrili, MS[1], Kristin L. Schneider, PhD[2], Stephanie Cox, PhD, ABPP[3], Laura Aylward, PhD[4]

[1]Rosalind Franklin University of Medicine and Science, chicago, IL; [2]Rosalind Franklin University of Medicine and Science, North Chicago, IL; [3]West Virginia University, Morgantown, WV; [4]West Virginia University School of Medicine, Morgantown, WV

Sexual minority adults have elevated rates of obesity compared to their heterosexual peers. While minority stressors related to sexual orientation may confer risk for the development of obesity, having overweight or obesity is also a stigmatized identity. Adults with obesity may internalize negative weight-based stereotypes and blame themselves for their weight status (i.e., weight bias internalization (WBI)), which may lead to worse mental health outcomes. Sexual minority adults with obesity may experience the intersecting effects of weight bias and sexual orientation-based minority stress. The present study aims to examine whether the association of WBI with anxiety, depression, and binge eating is greater for sexual minority than for heterosexual adults seeking bariatric surgery.

Participants include 860 patients who presented for bariatric surgery at an academic medical center (M_{age}= 42.88 years, BMI M(SD)= 47.52 (8.51), sexual minority N(%)= 49 (6%), female N(%)= 686 (79.8%)). Self-reported data were collected as part of a standard psychological evaluation for bariatric surgical clearance. Separate regression analyses using PROCESS were conducted to test whether sexual orientation moderated the association of WBI with anxiety, depression, and binge eating. If the interactions were not significant, the main effects of WBI on anxiety, depression, and binge eating were examined.

Sexual orientation did not moderate the association of WBI with anxiety or depression (ps >.055), though WBI was positively associated with anxiety and depression (ps< .001). The WBI by sexual orientation interaction was significant for binge eating (F 1,856) = 4.84, p=.03), such that association between WBI and binge eating was significantly greater for sexual minority patients (b=0.54, SE=.09, 95% CI [.36, .70]) compared to heterosexual patients (b=0.33, SE=.02, 95% CI [.30, .38].

WBI is associated with worse mental health generally in bariatric surgery patients, and patients with other minoritized identities, like sexual minority patients, may experience a stronger relationship between WBI and maladaptive eating behaviors. Sexual minority bariatric patients may experience intersecting, minority stressors that contribute to binge eating as a coping strategy in response to stress. Stressors that threaten one's self-image, such as WBI, are unique correlates of dysregulated eating behaviors, like binge eating. Whether this pattern contributes to less weight loss or impaired weight maintenance following bariatric surgery for sexual minority patients deserves further study.

CORRESPONDING AUTHOR: Noelle Mastrili, MS, Rosalind Franklin University of Medicine and Science, chicago, IL; noelle.mastrili@my.rfums.org

Abstract citation ID: kaad011.0122

POSTER SESSION A: THE IMPACT OF COVID-19 ON WOMEN'S MENTAL HEALTH DURING PREGNANCY AND INTO THE FIRST POSTPARTUM YEAR

Leslie C. Johnson, PhD, MPH, MLitt[1], Joi Henry, N/A[2], Subasri Narasimhan, PhD, MPH[2]

[1]Emory University, STONE MOUNTAIN, GA; [2]Emory University, Atlanta, GA

Introduction: About one-fifth of women suffer from mood or anxiety disorders during and after pregnancy, with evidence demonstrating the added health risks of loneliness in pregnant persons and new parents. By restricting pregnant people's ability to maintain and develop new social connections during pregnancy and by introducing new stressors, the COVID-19 pandemic elevated symptoms of depression and anxiety among pregnant individuals. This pilot study explored how women experienced and coped with COVID-19 stressors during pregnancy and assessed postpartum depression and anxiety.

Methods: In-depth interviews using a phenomenological approach were conducted with 20 adult women who gave birth in Georgia after March 2020. Interviews were 60-minutes, audio-recorded over Zoom, transcribed, and de-identified to ensure anonymity. A thematic analysis was conducted to identify key mental health impacts of COVID-19 during pregnancy and employed coping strategies, using a constant comparative method to compare experiences across cases and between first time parents and women who were already parents. Participants completed validated depression and anxiety screeners (i.e., the patient health questionnaire and the general anxiety disorder questionnaire, respectively) following their interview. For each questionnaire, individual's total scores were calculated and categorically analyzed to assess symptom severity postpartum.

Results: Participants experienced emotional overwhelm and difficulties building communities of support during pregnancy. Three themes related to women's mental health during the COVID-19 pandemic were identified: feelings of loneliness and isolation were exacerbated by cancelations and care adaptations due to COVID-19, the pandemic psychologically immobilized women during an already difficult period of maternal decision-making, and an acute focus on having a healthy pregnancy made it difficult to seek out support. Women coped by using technology to find social connection, spending time outdoors, staying physically active, and getting support from counselors and doulas. Thirty percent of the women screened positive for mild depressive and/or anxiety symptoms postpartum, with roughly half reporting that their depressive (n=11) and anxiety (n=10) symptoms made it somewhat or very difficult to do work, take care of things at home, or get along with other people.

Conclusions: These findings demonstrate the importance of mental health screenings for pregnant and postpartum women and show that postpartum mental health support interventions may also benefit women with minimal symptoms of depression and/or anxiety. Clinical interventions to improve health communication and shared decision-making during pregnancy can help reduce causes of emotional distress in this population, while support groups can help people cope with psychological stressors.

CORRESPONDING AUTHOR: Leslie C. Johnson, PhD, MPH, MLitt, Emory University, STONE MOUNTAIN, GA; lmunoz@emory.edu

Abstract citation ID: kaad011.0123

POSTER SESSION A: MINDFULNESS AND SOCIAL SUPPORT MEDIATE IMPACT OF ALMA INTERVENTION ON IMPROVED MENTAL HEALTH IN LATINA IMMIGRANTS

India J. Ornelas, PhD, MPH[1], Adrianne Katrina Nelson, MPH, Msc[2], Cynthia J. Prince, PhD[1], Deepa Rao, PhD[1]

[1]University of Washington, Seattle, WA; [2]Tulane School of Public Health and Tropical Medicine, Seattle, WA

Introduction: Latina immigrants are at increased risk of depression and anxiety and limited access to mental health care. Amigas Latinas Motivando el Alma (ALMA) is a community-based intervention that reduces depression and anxiety among Latina immigrants. We hypothesized that increased mindfulness and social support would mediate the effect of the intervention on mental health outcomes.

Methods: ALMA was evaluated using a delayed intervention comparison group study design. Latina immigrants (N = 226) were recruited from community organizations in King County, Washington. The 8 week group-based intervention integrates aspects of mindfulness, social support and Latino culture. Participants completed surveys to assess changes in mediators post-intervention and mental health outcomes (depression and anxiety) at a two-month follow-up. Mindfulness measures included the MAIA, Freiburg, and a self-compassion scale. Social support measures included types of support, social network characteristics and social isolation. We grouped observed variables into two latent variable constructs for the mediation analysis. We estimated generalized estimating equation models to assess differences in outcomes across groups.

Findings: Both mindfulness and social support were strong mediators for depression, accounting for about 75% of the outcome each. When tested together, the effect of social support was lower than mindfulness with a borderline significant p-value of 0.06. For anxiety, mindfulness was a significantly stronger mediator both in the individual models and in the joint model, accounting for 84% of the relationship between the intervention at the outcome compared to 71.4% for social support. When tested jointly, social support no longer had a mediating effect, while mindfulness did.

Conclusion: Group mindfulness-based interventions can be effective in increasing mindfulness and social support, thereby reducing depression and anxiety symptoms among Latina immigrant women. Further research should evaluate the ALMA intervention among larger more diverse Latina immigrant populations.

CORRESPONDING AUTHOR: India J. Ornelas, PhD, MPH, University of Washington, Seattle, WA; iornelas@uw.edu

---

Abstract citation ID: kaad011.0124

POSTER SESSION A: THE SOCIAL SUPPORT FOR EATING HABITS SURVEY: PSYCHOMETRIC PROPERTIES WITH A COMMUNITY-BASED SAMPLE OF MEXICANS & PUERTO RICANS

Madeline Konsor, PhD[1], Kristin L. Schneider, PhD[2], Lisa Sanchez-Johnsen, PhD[3]

[1]Rush University Medical Center, Lake Zurich, IL; [2]Rosalind Franklin University of Medicine and Science, North Chicago, IL; [3]Rush University Medical Center, Chicago, IL

Hispanics/Latino/as in the United States contributed to more than half of the total population growth from 2000-2020 and experience higher rates of obesity compared to national averages. Identifying contributing factors to healthier eating habits, like social support, is warranted. The Social Support for Eating Habits (SSEH) survey evaluates perceived support from family and friends, specific to reducing salt and fat intake. While commonly used, the SSEH survey was developed and validated in a mostly White sample, limiting the conclusions drawn from studies including diverse samples. This study is a secondary data analysis examining the psychometric properties of the English and Spanish versions of the SSEH survey with a community sample of Mexican and Puerto Rican (PR) adults. A total of 402 participants (age M=40.34 yrs.; 50.5% men; 49.5% PR) were recruited across two parent studies. We hypothesized that the 2-factor model of the SSEH survey would replicate, measurement invariance would hold across language, ethnic background, and gender, and would demonstrate strong internal consistency and construct validity. Confirmatory factor analyses (CFA), multigroup CFA, coefficient omegas, and bivariate Pearson correlations were used to analyze the data. Results confirmed the 2-factor model of the SSEH survey for family and friends, and demonstrated configural, metric, and scalar invariance across ethnic background and gender. Only partial metric and partial scalar invariance were met across language. Coefficient omega values ranged from 0.772 -0.875 for all four subscales and demonstrated acceptable, but lower than hypothesized, levels of internal consistency. Analyses of convergent and divergent validity were not statistically significant. Overall, the SSEH survey can be used to examine differences between Mexicans and PRs, and men and women, but additional research is needed to compare scores between the English and Spanish versions. Additional tests of reliability (e.g., test-retest) and construct validity (e.g., using measures already validated with Latino/as) are necessary to be confident that the SSEH survey is a valid measure in Latino/a samples. Understanding the impact of language noninvariance on full scale scores is also needed to determine if the SSEH survey requires additional considerations or modifications when being used with community samples of Mexican and PR adults.

CORRESPONDING AUTHOR: Madeline Konsor, PhD, Rush University Medical Center, Lake Zurich, IL; madeline_konsor@rush.edu

Abstract citation ID: kaad011.0125

POSTER SESSION A: DIVERSITY AND INCLUSIVITY IN OBSERVATIONAL AMBULATORY ASSESSMENT: RECOMMENDATIONS FROM 21 INVESTIGATORS AND OVER 30 STUDIES

Deanna M. Kaplan, PhD[1], Colin A. Tidwell, MA[2], Joanne Chung, PhD[3], Rebecca N. Noga, ScM[4], Alessandra Macbeth, PhD[5], Shaminka Mangelsdorf, BBNSc(Hons), DPsych(Clin)[6], Jennifer Mascaro, PhD[1], Kyle S. Minor, PhD[7], Kelly E. Rentscher, PhD[8], Annie Resnikoff, BS[9], Eva Alisic, PhD[10], Matthias R. Mehl, PhD[11]

[1]Emory University School of Medicine, Atlanta, GA; [2]The University of Arizona, Tucson, AZ; [3]University of Toronto, Mississauga, ON, Canada; [4]Rhode Island Hospital, Carrboro, NC; [5]Azusa Pacific University, Azusa, CA; [6]University of Melbourne, Mount Waverley, Victoria, Australia; [7]IUPUI, Indianapolis, IN; [8]Medical College of Wisconsin, Milwaukee, WI; [9]Drexel University, Philadelphia, PA; [10]University of Melbourne, Carlton, Victoria, Australia; [11]University of Arizona, Tucson, AZ

Observational ambulatory assessment methods such as the Electronically Activated Recorder (EAR) have become increasingly popular in behavioral medicine research. The EAR (Kaplan et al., 2020; Mehl et al., 2017; Mehl et al., 2001) is an audio recording smartphone app worn by participants as they go about their daily lives. It silently and periodically records the sounds of participants' lives that are then quantified through behavioral coding and transcription of speech. The EAR has been used to investigate a wide range of behavioral medicine topics such as how couples cope with breast cancer (Robbins et al., 2014), how family environments impact adolescent suicidality (Nugent et al., in press), and behavioral manifestations of depression (Baddley et al., 2013), among many others.

Observational ambulatory assessment methods such as the EAR have the potential to help address some longstanding challenges to the inclusion of cultural and identity variables in research. By collecting behavioral data directly from people's natural daily environments, the EAR captures cultural context variables (e.g., lived religion), aspects of social identities (e.g., gender expression), and social stigmatization behaviors (e.g., expressions of prejudice) that can be difficult for people to report on, and thus are difficult to directly assess. However, these potential opportunities are equaled by methodological challenges that can constrain the data and insert bias from the perspective of diversity and inclusivity. For example, researcher's own cultural and identity biases can seep into the coding and analysis of soundbites collected from daily life.

Motivated by this observation, 21 researchers from 6 countries (12 of whom are co-authors on this presentation) who use the EAR and other observational methods for collecting audio from daily life created a workgroup to improve research practices in this regard. We pooled formally and informally documented challenges pertaining to diversity and inclusivity in EAR research, as well as how labs have attempted to address these challenges, from our collective experience on 30+ EAR studies in clinical and healthy populations ranging from children to older adults. In this presentation, we share the resulting initial recommendations for addressing diversity and inclusivity considerations in observational ambulatory assessment research. Recommendations are presented across five topics corresponding to phases of research in observational ambulatory assessment: recruitment of participants, coding system development, recruitment and training of coders, transcription of multilingual naturalistic speech, and data analytic and interpretation issues. These topics serve as a roadmap for other researchers interested in employing observational ambulatory assessment to better study diverse lived experiences in an inclusive and equitable manner.

CORRESPONDING AUTHOR: Deanna M. Kaplan, PhD, Emory University School of Medicine, Atlanta, GA; deanna.m.kaplan@emory.edu

---

Abstract citation ID: kaad011.0126

POSTER SESSION A: WHAT IS HEALTH IDENTITY?: A SYSTEMATIC REVIEW AND CONCEPTUAL FRAMEWORK FOR MEASURING HEALTH IDENTITY

Patrece Joseph, PhD[1], Chisom Ojukwu, BS[1]

[1]University of North Carolina-Chapel Hill, Chapel Hill, NC

Background: There is an acknowledgement that identity is involved in health decision-making and behavior as empirical research supports the health identity-behavior relationship. Yet, in this growing body of research, health identity is often operationalized differently across studies and within health behaviors. This makes it challenging to draw conclusions about the role of health identity in health behavior change and maintenance. The aim of this study was to systematically review health identity measures to (1) evaluate their content validity and (2) develop a shared conceptual framework for measuring health identity.

Method: For this study, health identity was defined as the consolidation of health-related attitudes, beliefs, and behaviors into schema that may be used to guide meaning-making and decision-making about health. The following electronic databases were used to identify studies: PsycInfo, Cumulative Index to Nursing and Allied Health Literature (CINAHL), and Education Resources Information Center (ERIC). Studies that (1) were in English, (2) focused on measure development or validation, and (3) measured a health-related identity were included. The content validity of measures was evaluated using the COnsensus-based Standards for the selection of health Measurement INstruments (COSMIN) initiative (Terwee et al., 2018). The concepts assessed in each measure were identified and defined to develop a shared conceptual framework for measuring health identity.

Results: Twenty-eight studies, representing 12 unique measures, met inclusion criteria. These measures assessed dietary (n = 2), exercise/athletic (n = 4), smoking (n = 3), diabetes (n = 2), multiple sclerosis (n =1), and breast cancer identity (n = 1). In most studies, theory-driven measure development was prioritized, and the measure development process did not include an assessment of face validity, or the extent to which respondents understood the concepts and items in the measure. Shared concepts across measures were self-identity, social identity, and centrality.

Conclusions: The face validity of most health identity measures has yet to be evaluated, undermining the extent to which these measures accurately assess health identity as well as findings regarding the health identity-behavior relationship. Future studies should (1) prioritize evaluating the face validity of existing health identity measures using methods such as cognitive interviews or surveys and, (2) develop or revise measures of health identity using the shared conceptual framework to clarify the concepts included in these measures. Conceptual clarity is needed to understand which facets of health identity are related to health behavior and behavioral change. This information is critical to determining how health identity can be targeted to encourage behavior change and maintenance in health interventions.

CORRESPONDING AUTHOR: Patrece Joseph, PhD, University of North Carolina-Chapel Hill, Chapel Hill, NC; patrece.joseph@unc.edu

Abstract citation ID: kaad011.0127

POSTER SESSION A: FINDING THE RIGHT WORDS TOGETHER: THE USE OF FOUND POETRY IN MEMBER-CHECKING FOR PARTICIPANT-CENTERED RESEARCH

Amanda Knepper, PhD, MSW[1], Jack Lu, PhD, MSW[2]

[1]University of Illinois Chicago/College of Medicine, Chicago, IL; [2]CHDI, Farmington, CT

Background: Member-checking, or the process of returning raw or analyzed data (e.g., interview transcripts, thematic summaries) back to a participant for feedback, is a widely recognized method of enhancing credibility in qualitative research. While varied forms of member-checking are commonly utilized in qualitative, behavioral research, the processes and interactions involved are rarely described beyond their utility as validation techniques. When research on the lived experience of illnesses incorporates phenomenological methods, member-checking may more closely align with patient-centered care principles by engaging the participant in their understanding of their illness experience and the *meaning* of that experience. When done well, this member-checking process provides an opportunity for both researcher and participant to share a co-creative process of meaning-making. In the present research, we describe a methodological process of member-checking using 'found poetry' in the context of a qualitative research study exploring mothers' lived experience with seeking help for postpartum Obsessive-Compulsive Disorder (ppOCD).

Methods: Following data collection and initial analyses, six 'found poems' (118-323 words) were constructed entirely from verbatim words and phrases from each participant's interview transcript. Found poems reflected an interpretation of each mother's lived experience with seeking help for ppOCD—using her own words. Decisions concerning word/phrase selection were made to portray the arc and emphasis of each mother's unique journey. Line breaks, emphases, and repetition were intentionally placed to reflect the tone, mood, and pacing of the mother's storytelling. After re-establishing contact and scheduling a follow-up phone call, a written form of each poem was delivered to participants. Follow-up phone calls (15-50 minutes) began with an open-ended invitation to discuss any reactions to the found poem.

Findings: Participants actively engaged with their found poems, quickly speaking to the pieces that felt most resonant. The found poem discussions re-established rapport between researcher and participants, and provided a foundation for a larger discussion on the current state of their ppOCD, several months past their initial interview. Sharing reflections on the process of constructing and reading found poems, both researcher and participant engaged in nuanced discussions on the emotional and psychological impact of each participant's illness and help-seeking experience.

Discussion: Incorporating found poetry into the member-checking process is one way to gain a more in-depth understanding, and promote the co-creation of meaning, in research seeking to understand the lived experience of illness. Five how-to strategies for incorporating found poetry into the member-checking process will be discussed.

CORRESPONDING AUTHOR: Amanda Knepper, PhD, MSW, University of Illinois Chicago/College of Medicine, Chicago, IL; alabas2@uic.edu

---

Abstract citation ID: kaad011.0128

POSTER SESSION A: IS THERE EVIDENCE THAT USE OF "DON'T KNOW" RESPONSES FOR ILLNESS RISK PERCEPTION QUESTIONS REPRESENTS SATISFICING?

Natasha C. Allard, MBA[1], Erika A. Waters, PhD, MPH[2], Jennifer L. Hay, PhD, FSBM[3], Marc T. Kiviniemi, PhD, CPH, FSBM[4], Malwina Lewicka, PhD[5], Heather A. Orom, PhD[6]

[1]University at Buffalo, School of Public Health and Health Professions, Buffalo, NY; [2]Washington University in St. Louis, St Louis, MO; [3]Memorial Sloan Kettering Cancer Center, Brooklyn, NY; [4]University of Kentucky, Lexington, KY; [5]Memorial Sloan Kettering Cancer Center, New York, NY; [6]University at Buffalo, Buffalo, NY

Item response researchers have debated the merits of including "don't know" (DK) response options to survey questions; some assert that allowing for DK responses encourages satisficing, or low cognitive effort responding. We tested this assertion, examining whether people respond more quickly to disease risk perception questions if they select the DK response compared to a scaled response option. Faster response times could indicate satisficing. Alternatively, if participants take longer to respond DK this may indicate that DK requires additional deliberative processes.

Participants (N=614) were recruited through Prolific Academic (N=203) and ResearchMatch (N=411) to complete a 5-minute health belief survey. Respondents completed four risk perception questions (likelihood, comparative, feelings of risk, and seriousness) about four diseases (colorectal cancer, liver disease, renal disease and peptic ulcers). Participants were randomly assigned 1:1 to receive options with DK listed first or last for each question. Each of the 16 questions were presented on its own page; we measured response time in milliseconds from when the page loaded until they clicked to the next page. To test the relationship between DK responses and response speed, we conducted a multilevel mixed-effects linear regression, controlling for DK placement, race, marital status, education, age, income and gender.

Participants responded DK to more questions on average if it was listed first (mean=3.77, SD=4.44) than if it was listed last (mean=1.99, SD=3.56). On average, participants chose DK responses in 4.9 seconds (SD=4.2) compared to non-DK responses in 5.7 seconds (SD=4.6). Participants responded significant more quickly when they chose DK compared to a non-DK response option (b = -653.6, 95% CI = -923.2, -384.0, $p < 0.001$). Stratified by disease category, people responded significantly faster using DK versus non-DK responses only for renal disease (b = -667.3, 95% CI = -1171.0, -163.6, p=0.009) and peptic ulcers (b = -911.0, 95% CI = -1387.2, -434.8, $p < 0.001$).

Results did not support the hypothesis that DK options require longer, more deliberative processing, yet the approximately half second reduction in time does not fully support a satisficing explanation. Quick DK responses might have been based on lack of familiarity with certain conditions. Pushing respondents who are uncertain to generate a scaled response may threaten survey validity and reliability.

CORRESPONDING AUTHOR: Natasha C. Allard, MBA, University at Buffalo, School of Public Health and Health Professions, Buffalo, NY; ncallard@buffalo.edu

Abstract citation ID: kaad011.0129

POSTER SESSION A: HOW SOON DO MOOD AND ANXIETY SYMPTOMS IMPROVE AFTER BARIATRIC SURGERY?

Laura Aylward, PhD[1]

[1]West Virginia University School of Medicine, Morgantown, WV

Depression and anxiety are prevalent among bariatric surgery candidates, but research shows they may improve after bariatric surgery. However, the timing for these improvements is unknown. Specifically, no study has investigated how soon after surgery improvements are observed. This study 1) examined when depression and anxiety symptoms significantly improved, with assessment as early as 2 weeks (wk) after bariatric surgery and 2) examined the association of baseline body mass index (BMI) and a health-related quality of life (HRQoL) measure in the change in depression and anxiety from before to after bariatric surgery.

Patients (N=27) were 88.9% female, mean age 40.37, 100% White, 59.3% married/partnered, and 92.6% employed full-time. Participants attended a pre-surgical psychological evaluation (baseline), completed bariatric surgery, and attended follow up visits with the bariatric medical providers (2 wk, 6 wk, 3 months, and 6 months postoperatively). Depression and anxiety symptoms were assessed at all time points by the Patient-Reported Outcomes Measurement Information System (PROMIS) Depression and Anxiety. Data for objective BMI were extracted from patient's electronic medical record. GERD HRQoL was assessed at postoperative visits.

Generalized estimating equations models with repeated measures by person over time were used to examine change in depression and anxiety across all time points. Depression significantly improved 19.69 wk after bariatric surgery, $B=-.262$, $p=.033$. Anxiety significantly improved 6 wk after bariatric surgery, $B=-.213$, $p=.046$. When controlling for baseline BMI, the change in depression ($B=-.248$, $p=.030$) and anxiety ($B=-.214$, $p=.042$) from before to after surgery remained significant. Change in BMI from before to after bariatric surgery was not significantly related to change in depression or anxiety. Finally, GERD HRQoL was not associated with change in depression or anxiety.

Anxiety and depression symptoms significantly improved 6 wk and 5 months after bariatric surgery, respectively. This is the first known study to show faster improvement in anxiety as compared to depression. Improvement in symptoms were independent of preoperative BMI, changes in GERD-HRQL, and not significantly associated with post-operative weight loss. Like other studied weight related co-morbidities, improvement in affective symptoms may be independent of weight loss after metabolic surgery and have greater response to biochemical changes from surgery.

CORRESPONDING AUTHOR: Laura Aylward, PhD, West Virginia University School of Medicine, Morgantown, WV; laura.aylward@my.rfums.org

---

Abstract citation ID: kaad011.0130

POSTER SESSION A: PRIVACY CONCERNS IN GROUP FORMAT LIFESTYLE INTERVENTIONS

Megan McVay, PhD[1], Man Chong Leong, MS[1], XiangYang Lou, PhD[1], Danielle E. Jake-Schoffman, PhD[1]

[1]University of Florida, Gainesville, FL

Background: Group format behavioral interventions for obesity may be more effective and offer potential for greater reach than individual format interventions. However, group formats tend to be less preferred by participants. This study examined the role of concerns about privacy and self-disclosure on attitudes towards group formats behavioral interventions for obesity.

Methods: In this study, adults with obesity and interest in losing weight were recruited nationally online and randomly assigned to view one of eight videos describing a hypothetical, group-based behavioral weight loss intervention. Based on three fully crossed factors, the videos varied on privacy features of intervention (e.g., privacy oath taken, explicit mention that sharing is optional; present or not); matching participants to group based on shared weight loss barriers (matched or not); and intervention modality (online or in-person). For the intervention presented in their video, participants completed measures of their willingness to join, privacy concerns, and perceived effectiveness. They further reported preference for individual or group format interventions and provided reason for preferences in open-ended questions.

Results: Participants (n=354) had a mean age of 48.0 years, were 74.6% female, 22.0% Black/African American, 20.9% Hispanic, and 51.1% had less than a bachelor's degree. Description of privacy features, matching of participants, and modality did not affect willingness to join, privacy concerns, or perceived effectiveness of the intervention. Men had lower willingness to join the intervention than women when participant matching was described, but did not differ by gender when no matching was described. Reported privacy concerns about the intervention were significantly associated with lower willingness to join the intervention and lower perceived intervention effectiveness. Privacy concerns about the intervention were also significantly associated with higher social anxiety and internalized weight stigma. Most participants (59.6%) preferred individual over group format and this preference was significantly associated with intervention privacy concerns. In open-ended questions, concerns about privacy/self-disclosure were raised for both individual and group format interventions.

Conclusions: Increasing uptake of group format interventions may result in greater reach of evidence-based treatments, but doing so may require developing and testing new strategies to address privacy and self-disclosure concerns.

CORRESPONDING AUTHOR: Megan McVay, PhD, University of Florida, Gainesville, FL; megan.mcvay@ufl.edu

Abstract citation ID: kaad011.0131

POSTER SESSION A: PATIENT-REPORTED DIET BEHAVIORS AND INDICATORS OF DISEASE SEVERITY FOR PATIENTS WITH NAFLD

Suzannah Gerber, MA[1], Lilly A. Talal[2], Lynn H. Gerber, MD[3], Jillian K. Price, PhD[3], Brian Lam, MSHS, PA-C[4], Andrei Racila, BS, OCP, MCITP[5], Zobair Younossi, MD, MPH[3]

[1]Inova Medical System, MEDFORD, MA; [2]NYU, Falls Church, VA; [3]Inova Medical System, Falls Church, VA; [4]Inova Health System, Falls Church, VA; [5]Inova Health System, Warrenton, VA

Background: NAFLD prevalence is rising alongside obesity, but BMI alone cannot establish NAFLD diagnosis or predict progression to NASH. However, measures that assess abdominal obesity may more accurately relate to NAFLD. Diet-behavior patient-reported outcomes (PROs) were previously associated with biomarkers of cirrhosis and hepatitis but have not yet been evaluated for NAFLD and anthropometrics of obesity. Understanding how diet behaviors and anthropometrics relate to obesity for patients with NAFLD/NASH may inform targeted interventions to treat NAFLD and prevent progression to NASH.

Purpose: To examine diet-behavior and anthropometrics among patients at different stages of NAFLD.

Methods: Patients diagnosed by a hepatologist with anthropometrics and PROs from the validated Chronic Liver Disease Questionnaire at their initial clinical visit were included. Patients at risk for NAFLD (ARN) fit empiric NAFLD criteria but had fibroscan liver stiffness (LS) < 7kPa, and hepatic steatosis controlled attenuation parameter score (CAP) < 248dB/m; NAFLD was established by biopsy, LS and/or CAP; NASH was established by biopsy. PROs of satisfaction with diet (SWD) and the ability to eat enough food (EA) were compared to BMI, and sub-samples were compared to waist-to-hip ratio (WHR; obese male > 0.95, female > 0.80), waist-to-height ratio (WHtR; obese > 0.50), waist circumference (WC; obese male > 40", female > 35"), CAP and LS. ANOVA, linear, and logistic models examined associations between measures, diagnosis, and PROs all adjusted for age, sex, and race.

Results: 646 patients were included (ARN: 9%; NAFLD: 74%; NASH: 17%). WC was obtained from 521, and WHR from 304. 71 (11%) reported low-SWD and 92 (14%) reported low-EA. Using BMI, n=358 (64%) had obesity (ARN: 32%; NAFLD: 65%; NASH: 80%) compared to WHtR n=485 (93%; ARN: 63%; NAFLD: 74%; NASH: 85%), WHR n=157 (52%; ARN: 21%; NAFLD: 20%; NASH: 42%), and WC n=242 (46%; ARN: 28%; NAFLD: 35%; NASH: 53%).

Low-PROs were associated with a 2.9 point increase in BMI ($p < 0.0001$); not significant for other metrics. Obese BMI was present in 58% with low-SWD, and 70% with low-EA, compared to WHtR (89%, and 77%), WHR (30%; 27%); and WC (53%; 44%). WHtR, BMI, low-EA, low-SWD, and age together described 23% of the variance in diagnosis from ARN to NASH ($p < 0.05$). Every point increase in BMI was associated with a 0.2 point increase in LS when adjusting for WHtR, low-EA and low-SWD ($p < 0.0001$).

Conclusion: Diet behavior patient-reported outcomes are associated with increased BMI and thus may be a useful adjunct to weight loss programs. Adding WHtR to BMI may aid clinicians in assessing disease severity and predicting disease progression among those at risk or diagnosed with NAFLD or NASH.

CORRESPONDING AUTHOR: Suzannah Gerber, MA, Inova Medical System, MEDFORD, MA; Suzannah.Gerber@tufts.edu

---

Abstract citation ID: kaad011.0132

POSTER SESSION A: HEALTH, HEALTH CONDITIONS AND BEHAVIORS, AND MEDICAL CARE UTILIZATION AMONG COLLEGE STUDENTS WITH OBESITY

Jacqueline F. Hayes, PhD[1], Jessica G. LaRose, PhD, FSBM[2], M. Katherine Hutchinson, PhD[3], Melissa Sutherland, PhD, RN, FAAN[3], Rena R. Wing, PhD, FSBM[4]

[1]Brown University/The Miriam Hospital, Providence, RI; [2]Virginia Commonwealth University School of Medicine, Richmond, VA; [3]University of Rhode Island, Kingston, RI; [4]Brown University & The Miriam Hospital, PROVIDENCE, RI

Background: Obesity is a growing issue on college campuses and the college environment makes it difficult for students to maintain healthy weight-related behaviors. It is unclear if students living in larger bodies experience poorer health and health behaviors at greater rates. Relatedly, although healthcare utilization and expenditure are higher among individuals with obesity than in those with lower weights in general, utilization of campus health centers related to obesity among college students has not been assessed. The current study examined perceived health, health conditions and behaviors, and medical care utilization among college students of different weight categories.

Methods: Participants (n= 37,583) were college students from 58 institutions who responded to a nationally-representative survey regarding health habits, behaviors, and perceptions in Fall 2019. Chi-squared and mixed model analyses were used to examine perceived health, health conditions and behaviors, and medical care utilization in relation to weight category.

Results: Fifty-six percent, 24%, and 16% of students self-reported weights and heights consistent with BMIs in the CDC-categories for healthy weight, overweight, or obesity, respectively. Compared to healthy weight students, those with obesity were less likely to report their health was excellent (4.4% vs. 16.2%), less likely to meet dietary and physical activity recommendations, and more likely to have diabetes/pre-diabetes (8.0% vs. 1.0%), hypertension (8.5% vs. 1.2%), and hyperlipidemia (6.2% vs. 1.8%). Eighty-four percent of students with obesity and 70% of students with overweight were attempting to lose weight compared to 35% of students of healthy weight. Students with obesity were more 1.24 times more likely to have attended a medical appointment in the prior 12 months compared to students of healthy weight, but utilized campus health services at similar rates.

Conclusions: Students with obesity have a greater number of obesity-related health conditions as well as poorer health behaviors and perceived health relative to students of healthy weight; students with overweight generally were in the middle. Students with obesity and overweight were both interested in losing weight. Future work should consider how to best tailor weight loss programs and implement them within colleges/universities in order to improve student physical and mental health.

CORRESPONDING AUTHOR: Jacqueline F. Hayes, PhD, Brown University/The Miriam Hospital, Providence, RI; jacqueline_hayes@brown.edu

Abstract citation ID: kaad011.0133

POSTER SESSION A: NEIGHBORHOOD SOCIAL CHARACTERISTICS AND BMI IN PARENT/ADOLESCENT DYADS: A LATENT CLASS ANALYSIS

Marissa Kobayashi, PhD[1], Tae Kyoung Lee, PhD[2], Roberto M. Benzo, PhD, MS[3], Rafael O. Leite, MS[1], Blanca S. Noriega Esquives, MD, PhD[4], Sara M. St. George, PhD[5]

[1]University of Miami, Coral Gables, FL; [2]Sungkyunkwan University, Seoul, FL; [3]University of Miami, Miami Beach, FL; [4]University of Miami, Sylvester Comprehensive Cancer Center, Miami, FL; [5]University of Miami Miller School of Medicine, Miami, FL

Background: Obesity is a multifactorial public health issue among youth and adults with drivers across multiple levels of the socio-ecological model, including the more distal neighborhood level. When assessing the relationship between neighborhoods and obesity, prior research has predominantly focused on food and physical activity attributes of the built environment (e.g., density of fast-food outlets). Other aspects of the neighborhood, such as the "social context" (e.g., perceived social capital, crime/safety), remain understudied. Conventional statistical approaches use a single/index neighborhood variable (e.g., crime), but a latent class analysis (LCA) could provide a richer understanding of how families are impacted by the complex types of neighborhoods in which they live.

Methods: Using cross-sectional data from a national survey (Family Life, Activity, Sun, Health, and Eating Study), we first conducted an LCA to identify neighborhood classes based on social capital (i.e., extent to which neighbors help/watch out for each other's children) and crime/safety (e.g., traffic) variables from parent and adolescent reports (n=1,808 dyads). Next, we compared body mass index (BMI) and sociodemographic correlates for parents and adolescents across identified classes.

Results: A four classes solution emerged: 1) low crime/safe, high social capital; 2) high crime/unsafe, low social capital; 3) high crime/unsafe, high social capital; and 4) low crime/safe, low social capital. Parents and adolescents in Class 1 had the lowest BMI and BMI% (27.28 BMI and 57.8 BMI%), respectively, followed by those in Class 4 (28.2 BMI and 60.9 BMI%), Class 3 (29.03 BMI and 65.9 BMI%), and Class 2, who had the highest values (31.9 BMI and 70.1 BMI%). There were significant differences in parent BMI across classes except for Class 3 vs. 4. When social capital levels were the same, adolescent BMI% was significantly higher in classes with high vs. low crime levels; however, there was no significant difference between low-crime neighborhoods regardless of social capital levels nor in high-crime neighborhoods with differential levels of social capital. Classes differed on socioeconomic variables such that Classes 1 and 4 (both low crime) had a higher estimated proportion of parents with a 4-year college degree or more vs. Classes 2 and 3 with less education. Class 2 also had a higher estimated proportion of receiving Medicaid vs. other classes.

Conclusion: We identified various neighborhood contexts which showed that high crime/unsafe and low social capital was associated with increased BMI/BMI%. Adults showed some evidence of a beneficial effect of high social capital on BMI, but adolescents were less influenced by this and more by crime. Future studies should test whether observed associations can be replicated with a longitudinal component and measures that capture the multiple mediating pathways.

CORRESPONDING AUTHOR: Marissa Kobayashi, PhD, University of Miami, Coral Gables, FL; mxk748@med.miami.edu

---

Abstract citation ID: kaad011.0134

POSTER SESSION A: REDUCTION OF INTERNALIZED WEIGHT BIAS VIA MINDFUL SELF-COMPASSION: RESULTS FROM A RANDOMIZED CONTROLLED TRIAL

Christina M. Hopkins, PhD[1], Hailey Miller, PhD RN[2], Dori Steinberg, PhD, RD[3], Gary G. Bennett, PhD[4]

[1]Drexel University WELL Center, philadelphia, PA; [2]Johns Hopkins University, Baltimore, MD; [3]Equip Health, Chapel Hill, NC; [4]Duke University, Durham, NC

Relatively few efficacious interventions have targeted weight bias internalization, a chronic discriminatory stressor with deleterious health effects. Self-compassion training isa potential intervention, though it has not been rigorously tested in those with elevated internalized weight bias.

Ruby was a two-arm randomized control designed to reduce internalized weight bias. Ruby tested the efficacy of a 4-week digitally delivered self-compassion intervention compared to wait list control. Participants in the intervention group received daily text messages which included psychoeducation videos, writing prompts, and guided mindfulness audio files. These materials facilitated daily mindful self-compassion practices ranging from 4-23 minutes per day. The main trial outcome was the 4-week reduction in weight bias internalization as measured by the Weight Bias Internalization Scale.Trial outcomes were analyzed using linear mixed models and multiple linear regressions using an intent-to-treat framework.

Participants were 121 adults with elevated internalized weight bias (i.e., WBIS score $\geq$ 4.0) and a body mass index over 30 kg/m^2. Participants in the intervention demonstrated greater reductions in weight bias internalization compared to the wait list control (Net difference: -0.84, CI: -1.21 to -0.48, $p < .0001$). Participants in the intervention demonstrated similar reductions in secondary outcomes, including weight self-stigma, weight-related experiential avoidance, and fear of self-compassion (p's < .05). Additionally, they reported increases in self-compassion, mindfulness, body appreciation, intuitive eating, and physical activity.

Ruby was the first digital standalone self-compassion-based intervention targeting weight bias internalization. Results suggest that a brief mindful self-compassion intervention can reduce internalized weight bias over 4 weeks. Additionally, a mindful self-compassion intervention can reduce several other secondary outcomes related to internalized weight bias. Due to its standalone digital delivery, Ruby may be a highly scalable treatment for internalized weight bias that can be delivered on its own or combined with other treatments. Ruby is poised to expand a burgeoning body of literature related to psychological intervention for internalized weight bias.

CORRESPONDING AUTHOR: Christina M. Hopkins, PhD, Drexel University WELL Center, philadelphia, PA; cmh346@drexel.edu

Abstract citation ID: kaad011.0135

POSTER SESSION A: COMPARISONS OF EXPLICIT WEIGHT BIAS ACROSS COMMON RESIDENCY SPECIALTIES

Samantha R. Philip, BS[1], Michelle van Ryn, PhD, MPH[2], Sherecce Fields, PhD[1], Sean M. Phelan, PhD, MPH[3]

[1]Texas A&M University, College Station, TX; [2]Diversity Science Inc., Clackamas, OR; [3]Mayo Clinic, Rochester, Rochester, MN

Background: A central goal of medical training is to train incoming doctors in providing compassionate, high-quality, and inclusive care. A well-known obstacle that interferes with this goal is bias, which leads to differential treatment of individuals on the basis of social categories which individuals belong to. One social identity that is persistently stigmatized in medical settings is high body weight, with studies demonstrating that providers endorse negative stereotypes of, and lower regard for, higher-weight patients, causing direct harm to the patient. However, no research to date has identified how resident providers, between specialties, compare in these attitudes. Thus, through our investigation of how explicit weight bias varies across individuals in common residency specialties, we aim to fill this important gap in the literature.

Methods: The present study uses data collected from the Medical Student Cognitive Habits and Change Evaluation Study (CHANGES), a national longitudinal study of medical students from 49 allopathic medical schools. The current study utilized data from Year 2 of Residency (N=3,267) among students who specialized in one of the most common 16 residency programs. Participants reported demographic information and completed four questionnaires pertaining to explicit anti-fat attitudes. Descriptive statistics were used to characterize the sample. For each dependent variable, a one-way between-subjects ANOVA was run with residency specialty as the predictor. Tukey's HSD post hoc tests were used to examine pairwise differences at $p<$ .05.

Results: An examination of item-level endorsement demonstrated that 13-48% of residents reported slight to strong agreement with each anti-fat statement. The omnibus F test revealed a significant relationship between residency specialty and anti-fat blame, F(1,15=12.87, $p<$ .001) η^2= .06, anti-fat dislike, F(1,15=7.01, $p<$ .001), η^2= .03, attitudes towards obese patients, F(1,15=17.78, $p<$ .001) η^2= .08, and feelings towards higher-weight people, F(1,15=5.75, $p<$ .001) η^2= .03. Consistently, primary care residents (i.e., family medicine, pediatrics, internal medicine) reported lower levels of weight bias than those in specialty programs (i.e., orthopedic surgery, anesthesiology, radiology-diagnostic).

Discussion: This is the first study to report on anti-fat attitudes in a large, heterogeneous sample of U.S. resident physicians. We found evidence of high levels of bias in this population. Further, we found that residents in specialty programs generally report more bias than those in primary care specialties. Future research should examine which factors contribute to these differences to guide intervention. In this presentation, I will discuss the implications of high anti-fat bias in these specialties.

CORRESPONDING AUTHOR: Samantha R. Philip, BS, Texas A&M University, College Station, TX; srphilip@tamu.edu

Abstract citation ID: kaad011.0136

POSTER SESSION A: SUPPORT AFTER ADOLESCENT BEHAVIORAL WEIGHT LOSS TREATMENT AND NAVIGATING THE TRANSITION INTO EMERGING ADULTHOOD

Laura J. Caccavale, PhD[1], Kristina L. Tatum, PsyD[2], Danyel I. Smith, MS[2], Ashley Cappel, RD[2], Sarah M. Farthing, MS[3], Jessica G. LaRose, PhD, FSBM[4], Melanie K. Bean, PhD[2]

[1]Children's Hospital of Richmond at Virginia Commonwealth University, Richmond, VA; [2]Virginia Commonwealth University, Richmond, VA; [3]Virginia Commonwealth University, Henrico, VA; [4]Virginia Commonwealth University School of Medicine, Richmond, VA

Background: Adolescent obesity is a chronic disease requiring long-term treatment, yet current treatment models do not align with the chronicity of obesity. A staged obesity treatment approach is recommended, but guidelines lack specificity on how to conduct treatment as youth progress from adolescence into emerging adulthood. Indeed, there are no evidence-based treatment models to support adolescents following treatment as they transition through emerging adulthood, and little data exist to inform such an approach.

Objective: To understand adolescents' and parents' experiences post-behavioral weight loss treatment as they navigate late adolescence/emerging adulthood, and identify what weight management support is needed during this transition.

Methods: Adolescents aged 12-16 and parents completed the TEENS+ randomized clinical trial, a 4m multicomponent behavioral weight loss treatment. Adolescents ages 16 years and older and their participating parent were eligible to participate in TEENS Talk—the current investigation—after completing active treatment through the final 12m assessment. Semi-structured interviews (N=20 parent / adolescent dyads; M adolescent age=16.5 yrs; SD=0.6) were conducted via zoom, separately with adolescents and parents. Domains assessed included facilitators and barriers to health behaviors since program completion and needs and preferences for continued weight management support through the transition into emerging adulthood. Interviews were recorded, transcribed verbatim, and thematically analyzed (first-level coding was based on both deductive and inductive reasoning in an iterative fashion to develop and refine the codebook with thematic analysis for deriving findings).

Results: Adolescent preliminary themes included: (a) facilitators to weight management behaviors (e.g., healthy foods in the environment, meal planning, maintaining a structure/routine, parents reminding of goals); (b) barriers to weight management behaviors (e.g., less healthy foods in environment, pressure to eat out, lack of time); (c) support needed during their transition to emerging adulthood (e.g., booster program with topics including healthy eating on a budget and how to stay motivated). Parent preliminary themes included: (a) transitioning their role as adolescents increase independence; (b) ideas for how to provide developmentally appropriate parent support as their adolescent transitions to emerging adulthood.

Discussion: Adolescents and parents expressed a desire for continued support during the transition to emerging adulthood, both to maintain behaviors and navigate changing roles. Results will inform the development of a behavioral weight management transition program specifically for this population.

CORRESPONDING AUTHOR: Laura J. Caccavale, PhD, Children's Hospital of Richmond at Virginia Commonwealth University, Richmond, VA; laura.caccavale@vcuhealth.org

Abstract citation ID: kaad011.0137

POSTER SESSION A: DESIGNING A GAMIFIED NEUROTRAINING AND BEHAVIORAL WEIGHT LOSS PROGRAM FOR MEN: USING PREVIOUS FINDINGS AND ADVISORY BOARD INPUT

Evan M. Forman, PhD[1], Charlotte J. Hagerman, PhD[1], Michael Onu, BS[1], Christina Chwyl, MS[1], Stephanie Manasse, PhD[2], Christina M. Hopkins, PhD[3], Hannah Dart, BA[1], Jasmine Sun, BA[1], Melissa M. Crane, PhD[4]

[1]Drexel University, Philadelphia, PA; [2]Drexel University, Wynnewood, PA; [3]Drexel University WELL Center, philadelphia, PA; [4]Rush University Medical Center, Chicago, IL

Over 70% of men are overweight, and most desire weight loss; however, men are profoundly underrepresented in weight loss programs. Gamification represents a novel approach to engaging men and may enhance efficacy through both game-based elements (e.g., streaks, badges, team-based competition) to motivate weight control behaviors and arcade-style "neurotraining" to enhance neurocognitive capacities to resist the temptation of unhealthy foods and more automatically select healthy foods. This presentation describes four aspects of the development of NeuroFit, a gamified neuorotraining and behavioral weight loss intervention for men that will be tested in an NIH R01-funded clinical trial. First, we discuss the results and incorporation of three pilot studies our team: a preliminary 2 x 2 clinical trial demonstrating that gamification and neurotraining targeting sweets can facilitate weight loss, an extension study of men, and a pilot comparison of the immediate effects on food preferences of three different inhibitory control training methodologies. Second, we discuss findings from, and application of, several self-report surveys and focus groups we conducted with an advisory board of 140 men with overweight. For example, a high proportion of men (75%, 73%, 66% and 68%) reported preferring: a game-based vs a traditional weight loss intervention, a game with the ability to compete against others, a game that allowed them to joining a team of other men, and a game with digital rewards (e.g., badges). Men also ranked 8 preferences for a combined app and arcade-style game theme from highest (space battle, detective) to lowest (robot escape, pioneer). Men also offered opinions on neurotraining (e.g., it must be well-justified scientifically, and < 7 minutes/day) and instructional modules (e.g., they should feature videos, tables and figures). Third, we describe a number of modifications we made to customize the program for men, such as focusing on autonomy in dietary choices using a traffic light categorization system of calorie reduction, using language that centers around strength and performance, and including scientific justification for recommendations. Finally, we describe how we designed an integrated mobile app able to set and track program goals, provide educational modules, and deliver the necessary four versions for the factorial design (gamified neurotraining, gamified sham training, non-gamified neurotraining and non-gamified sham).

CORRESPONDING AUTHOR: Evan M. Forman, PhD, Drexel University, Philadelphia, PA; emf27@drexel.edu

---

Abstract citation ID: kaad011.0138

POSTER SESSION A: BARRIERS, ASSETS AND DESIRES FOR WEIGHT LOSS TREATMENT AMONG ETHNICALLY DIVERSE BLACK ADULTS

Rachel V. Anderson[1], Kate Killion, MPH, RD[2], Curtis J. Antrum, MHA[3], Chifuniro S. Chagomerana[4], Krupa Parekh[5], Christie I. Idiong, MS[6], Snehaa Ray, MS[7], Kristen Cooksey Stowers, PhD[5], Loneke T. Blackman Carr, PhD, RD[5]

[1]University of Connecticut, Franklin, MA; [2]University of Connecticut, Worcester, MA; [3]University of Connecticut, Hamden, CT; [4]University of Connecticut, Coventry, CT; [5]University of Connecticut, Storrs, CT; [6]University of Connecticut, East Hartford, CT; [7]University of Connecticut, Willington, CT

Introduction: Nearly 50% of Black adults have obesity, a rate above all other racial/ethnic groups. Behavioral weight loss interventions have been less effective tools for clinically meaningful weight loss, recruitment, and retention among Black adults. These issues underscore the need to understand how behavioral weight loss interventions may be better designed for Black adults. This study examined the assets and barriers to weight-related behaviors, and preferences for weight loss treatment to improve outcomes and reduce obesity inequities.

Methods: We conducted 24 in-depth, semi-structured interviews with a geographically-diverse sample of Black adults (men=8, women=16) overweight or obese. Racial/ethnic backgrounds were: Black American (n=18) and Afro-Caribbean (n=6). Interviews were audio recorded, transcribed verbatim, coded in Dedoose (version 4.12), and analyzed using thematic analysis.

Results: Results point to unique assets and barriers to healthy eating and physical activity engagement plus desired characteristics of weight loss interventions among Black adults. Assets facilitating eating healthy and physical activity included motivation from personal or familial health concerns, access to exercise equipment, and enjoyment from cooking and eating healthy foods. Interpersonal assets included social support in the form of encouragement, accountability, and tangible aid (e.g.family cooking, walking partners)

Taste preferences, a lack of cooking skills, higher access to unhealthy versus healthy food outlets, and fast food consumption were diet-related barriers to healthy eating. Physical activity barriers included a lack of time, hair care preferences and expectations, and weather.

Participants desire that behavioral weight loss interventions have little to no cost, or offset the cost of food and/or access to exercise facilities. Building community was also important and may be accomplished by losing weight with others with similar goals and barriers, and for accountability. Participants desire interventions with more racial representation of Black adults, more emphasis on diseases that affect Black people, and more accommodating of people with familial commitments and busy lifestyles.

Conclusion: Black adults overweight or obese indicated several assets and barriers to consuming a healthy diet and engaging in physical activity. Both assets and barriers spanned individual and interpersonal levels, providing directions for future weight loss intervention design. Participants expressed that weight loss should relate to pertinent health concerns of the Black community and materials should reflect them. Future interventions should examine if inclusion of the identified barriers and assets and focus on health produce clinically meaningful weight loss among ethnically diverse Black adults.

CORRESPONDING AUTHOR: Rachel V. Anderson, University of Connecticut, Franklin, MA; rachel.v.anderson@uconn.edu

Abstract citation ID: kaad011.0139

POSTER SESSION A: CORRELATES AND HEALTH CONSEQUENCES OF BODY MASS INDEX TRAJECTORIES IN CHILDREN AND ADOLESCENTS WITH OVERWEIGHT OR OBESITY

Ruth G. St Fleur, PhD[1], Marian Tanofsky-Kraff, PhD[2], Jack A. Yanovski, MD, PhD[3], Nicholas J. Horton, ScD[4], Alison E. Field, ScD[1]

[1]Brown University, Providence, RI; [2]Uniformed Services University of the Health Sciences, Bethesda, MD; [3]National Institutes of Health, Bethesda, MD; [4]Amherst College, Amherst, MA

Background: In childhood and adolescence body mass index (BMI) is associated with health risks in adulthood. Yet very few studies have examined the associations of sociodemographic psychological familial and behavioral factors with trajectories of BMI change during this developmental phase.

Methods: We used data from 9–19-year-old youth with overweight or obesity in the Growing Up Today Study to examine trajectories in BMI z-scores from self-reported weight and height based on CDC growth charts. Weight concerns and eating influences were measured with the McKnight Risk Factor Survey. Longitudinal latent profile analyses stratified by sex were conducted in Mplus. Following the identification of trajectories we examined associations of each BMI z-score trajectory with baseline sociodemographic psychological familial and behavioral factors as well as risk of hypertension before age 35.

Results: Four trajectories were identified among the girls: stable obesity (20%) stable overweight (43%) decreasing overweight (34%) and decreasing high/normal weight (3%). Only three trajectories were identified among boys: stable obesity (27%) stable overweight (54%) and decreasing high/normal weight (19%). Compared to girls with the stable obesity trajectory girls in the decreasing high/normal weight pattern were less likely to have high weight concerns (31% vs 8%, χ2= 23.1, p < 0.001) maternal obesity (49% vs 21%, χ2= 16.1, p < 0.001) social eating influences at baseline (14% vs 3%, χ2= 9.3, p = 0.002) and less likely to be diagnosed with hypertension before age 35 (13% vs 4%, χ2= 6.2, p = 0.01). Compared to those with the stable obesity trajectory boys with the decreasing high/normal weight trajectory were less likely to be Black (2.4% vs 0.3%, χ2= 6.0, p = 0.01) less likely to report high weight concerns (19% vs 5%, χ2= 43.1, p < 0.001) less likely to report maternal obesity (44 vs 19%, χ2= 53.0, p < 0.001) less likely to skip breakfast (33% vs 23%, χ2= 8.1, p = 0.001) at baseline and less likely to be diagnosed with hypertension before age 35 (9% vs 5%, χ2= 5.3, p = 0.02).

Discussion: By identifying and characterizing girls and boys with stable obesity and overweight trajectories our results can guide the development of targeted interventions to effectively decrease risks of cardiovascular disease in adulthood.

CORRESPONDING AUTHOR: Ruth G. St Fleur, PhD, Brown University, Providence, RI; ruth_st_fleur@brown.edu

---

Abstract citation ID: kaad011.0140

POSTER SESSION A: ALCOHOL AND MARIJUANA USE AMONG INDIVIDUALS RECEIVING OPIOIDS FOR PAIN MANAGEMENT

Lisa R. Miller-Matero, PhD, ABPP[1], Celeste Zabel, MPH[2], Timothy Chrusciel, MPH[3], Joanne F. Salas, MPH[4], Mark Sullivan, MD, PhD[5], Lynn DeBar, PhD[6], Patrick Lustman, PhD[7], Brian K. Ahmedani, PhD[8], Jeffrey F. Scherrer, PhD[9]

[1]Henry Ford Health, Troy, MI; [2]Henry Ford Health, St. Clair Shores, MI; [3]Saint Louis University, Oklahoma City, OK; [4]Saint Louis University, Saint Louis, MO; [5]University of Washington, Seattle, WA; [6]Kaiser Permanente Washington Health Research Institute, Seattle, WA; [7]Washington University School of Medicine, St. Louis, MO; [8]Henry Ford Health, Detroit, MI; [9]Saint Louis University, St. Louis, MO

Introduction: Co-use of substances among individuals receiving prescription opioids for non-cancer pain is common and may be associated with poorer pain and psychiatric outcomes. Studies tend to either examine co-use with pain or psychiatric symptoms but have not determined the association between co-use and both pain and psychiatric symptoms. The purpose of this study was to examine whether co-use of substances is associated with pain functioning, psychiatric disorders, and opioid misuse.

Methods: Patients were recruited from two health systems and were eligible to enroll if they had non-cancer pain and recently initiated a new period of 30-90 day opioid use. Participants (N= 871) completed measures regarding pain severity, pain interference in daily activities, psychiatric symptoms, alcohol use, marijuana use, and opioid use and misuse.

Results: There were 174 participants (21.4%) who reported hazardous alcohol use and 247 participants (28.4%) with current marijuana use. Those with hazardous drinking had lower pain severity compared to those without hazardous drinking (5.6 vs. 6.1, p= .002), but were more likely to be experiencing depression (27.6% vs. 21.0%, p= .06). There were no significant differences between those with and without hazardous drinking for pain interference, opioid misuse, anxiety, or posttraumatic stress disorder (PTSD). Those with current marijuana use were more likely to have depression (31.6% vs. 19.4%, p< .001), anxiety (28.2% vs. 20.6%, p= .02), and PTSD (24.4% vs. 16.3%, p= .01), and were also more likely to have higher opioid misuse scores (p= .02). There were no significant differences between those with and without current marijuana use and pain severity and interference.

Conclusions: Use of opioids with hazardous drinking or marijuana use is common among individuals with pain. Although those with substance co-use had similar pain outcomes, those with co-use were more likely to have co-occurring psychiatric disorders. It is possible that substances are being used to cope with pain and psychiatric symptoms. Alternatively, it could be that the substance use is leading to worsening psychiatric symptoms. Clinicians treating individuals with pain should assess for substance use and be aware of the association with increased risk for psychiatric disorders. Interventions could also target pain, psychiatric symptoms, and substance use simultaneously to optimize outcomes for individuals with pain and substance use.

CORRESPONDING AUTHOR: Lisa R. Miller-Matero, PhD, ABPP, Henry Ford Health, Troy, MI; lmatero1@hfhs.org

Abstract citation ID: kaad011.0141

POSTER SESSION A: MEANING IN LIFE AND CHRONIC PAIN: A META-ANALYSIS

Addison D. Monroe, MS[1], Joshua A. Rysiew[2]

[1]University of Georgia, Athens, GA; [2]The University of Georgia, ATHENS, GA

Chronic pain is a major health problem in the U.S. and has high comorbidity rates with depression and other psychological conditions. Growing concern over the long-term effects of pharmacological interventions has encouraged research interest in psychosocial interventions (e.g., cognitive-behavioral therapy [CBT], acceptance and commitment therapy [ACT]) which have demonstrated efficacy for the treatment of chronic pain and its common comorbidities. Conceptual models have significantly shifted from pain remittance to pain acceptance in recent years. Less attention has been paid to the role that existential and positive psychology factors play in pain intervention, despite the strong link between acceptance and factors like meaning in life (MIL). MIL has since been documented as a significant buffer against pain and pain interference in several studies. Psychometric investigations of MIL indicate that there may be multiple domains within the construct such as coherence, purpose, and significance. Moreover, MIL may not only be present in a person's life (presence of meaning), but also something that is searched for (search for meaning). The specific link between various domains of MIL and pain are not well understood. As the volume of MIL research has grown, meta-analytic techniques can be utilized in order to better explain the relationship/s between MIL and chronic pain. The current meta-analysis aims to elucidate the strength of associations between MIL and chronic pain. All methods have been preregistered on PROSPERO (CRD42022326650). In the current study, MIL will be conceptualized based on domain type (i.e., coherence, purpose, significant) and presence-type (i.e., presence of vs. search for). Original quantitative studies published within the last 20 years were included. Main inclusion criteria will be: (a) MIL and pain-related outcomes were measured quantitatively, (b) relationship between MIL and pain were analyzed and reported, (c) participants were adults, and (d) the study was peer-reviewed and published in an academic journal. Systematic examination of five databases were utilized including PubMed, PsycArticles, PsycInfo, Health Source: Nursing/Academic Edition, and Academic Search Complete. Initial searches indicate k > 15 studies are expected (total N = 600 – 800) to be included in final analyses. Associations between MIL and (1) pain level, (2) pain interference, and (3) pain acceptance will be explored. The conceptualization of meaning, type of pain condition, age, and comorbid mental health symptoms/disorders will serve as moderators. Results could clarify the relationship between domain-specific MIL and various pain outcomes. As a result, current interventions (e.g., ACT) could be improved and new, existentially-based interventions can be developed.

CORRESPONDING AUTHOR: Addison D. Monroe, MS, University of Georgia, Athens, GA; addison.monroe@uga.edu

---

Abstract citation ID: kaad011.0142

POSTER SESSION A: EMBEDDING BRIEF, MINDFULNESS INTERVENTIONS INTO MEDICAL CARE PATHWAYS IMPROVES PATIENT OUTCOMES: RESULTS FROM 7 RCTS

Adam W. Hanley, PhD[1], Eric L. Garland, PhD[1]

[1]University of Utah, Salt Lake City, UT

Background: Mindfulness based interventions (MBIs) are emerging as efficacious treatment options; however, traditional, 8-week MBIs require a time and resource investment too burdensome for many patients and providers. By embedding brief MBIs into standard medical care pathways, more patients can be exposed to efficacious techniques for decreasing clinical symptomology and encouraging well-being.

Methods: This presentation will review seven randomized clinical trials (RCTs) examining how embedding a brief, single session, MBI in various medical settings (e.g., cancer hospital, general hospital, orthopedic surgery center) can improve patient outcomes. The order in which these seven RCTs will be presented is intended to suggest how these interventions might be embedded throughout a patients' entire surgical experience.

Findings: First, an audio-guided MBI delivered while patients (*N*=39) waited for their provider visit increased patients' visit satisfaction. Second (*N*=285), third (*N*=118), and fourth (*N*=128), an in-person MBI delivered preoperatively to knee and hip replacement patients was found to 1) immediately decrease pain, anxiety, and pain medication desire, 2) decrease postoperative pain and opioid use, and 3) increase postoperative physical function relative to pain psychoeducation. Fifth, an in-person MBI delivered to hospitalized patients reporting "intolerable pain" or "inadequate pain control" (*N*=244) decreased pain, increased relaxation, and increased pleasant body sensations. Sixth, a text message delivered MBI at critical perioperative points (*N*=54) decreased pain, medication desire, anxiety and depression. Seventh, an audio-guided MBI delivered while cancer patients' warmed-up for their first exercise training session (*N*=99) decreased cancer related fatigue and increased physical performance at the 3-month exercise re-evaluation.

Discussion: Results from these seven RCTs suggest an embedded MBI - capable of being delivered by nearly any healthcare provider and requiring minimal clinic time given their brevity - can improve patient outcomes. Using this brief embedded technique, we could offer patients the opportunity for a dose of mindfulness at nearly every medical visit.

CORRESPONDING AUTHOR: Adam W. Hanley, PhD, University of Utah, Salt Lake City, UT; adam.hanley@utah.edu

Abstract citation ID: kaad011.0143

POSTER SESSION A: THE MEDIATORY ROLE OF PAIN CATASTROPHIZING IN THE RELATIONSHIP BETWEEN MEANING MAKING AND PAIN PERCEPTION

Daniel Luedtke, BA[1], Alexandra M. Otto[2], Amy Wachholtz, PhD, MDiv, MS, FSBM[2]

[1]University of Colorado Denver Clinical Health Pychology, Denver, CO; [2]University of Colorado Denver, Denver, CO

Introduction: Pain is a common and complex experience with great societal and individual costs. Evaluating what shapes an individual's unique perception of pain is important to better understanding and treating it. A sense of meaning (M) in one's life is linked to improved pain intensity and functioning. Pain catastrophizing (PC), however, is associated with greater pain intensity and physical disability. Further, M and other subconstructs of spiritual wellbeing have been correlated with lowered PC. We hypothesize that PC mediates the relationships between M and two measures of pain perception: pain tolerance (PTo) and pain threshold (PTh).

Methods: The study included 120 individuals between the ages of 18 and 65 with at least six consecutive months of pain. We administered the Functional Assessment of Chronic Illness Therapy-Spiritual Well-being (FACIT-Sp) to measure M and the Pain Catastrophizing Scale (PCS) to measure PC. A cold pressor task was used to assess PTo and PTh. Bivariate correlation analyses were performed to detect individual correlations. Multiple regression analyses were then conducted to evaluate PC's potential role a mediator in the M-PTo and M-PTh relationships. Pain self-efficacy, sleep quality, and positive affect were assessed as potential confounds.

Results: M was significantly correlated with PC ($r = -0.205$, $p = 0.03$) and PTo ($r = 0.237$, $p = 0.01$) but not PTh ($r = 0.176$, $p = 0.056$). As such, it was determined that M had no significant effect on PTh that could be mediated, and thus PTh was removed from further analyses. PC was also significantly associated with PTo ($r = -267$, $p < 0.01$). The indirect effect of meaning on pain tolerance was 1.30 (95% CI = 0.11-3.56). When PC was included in a linear regression model, the effect of M on PTo reduced from 6.72 ($p = 0.01$) to 5.42 ($p = 0.04$). These analyses therefore support PC as a partial mediator in the M-PTo relationship. However, all models lost significance after controlling for pain self-efficacy, sleep difficulties, or positive affect.

Discussion: This study illustrates the intertwined effects of M and PC on pain perception. While these effects are largely confounded by pain self-efficacy, sleep difficulties, and positive affect, M and PC are still supported as important novel paths to improve holistic pain treatment. Further studies may wish to evaluate other facets of spiritual wellbeing in relation to pain catastrophizing and pain perception.

CORRESPONDING AUTHOR: Daniel Luedtke, BA, University of Colorado Denver Clinical Health Pychology, Denver, CO; daniel.luedtke@ucdenver.edu

---

Abstract citation ID: kaad011.0144

POSTER SESSION A: DOES NEGATIVE EMOTION DIFFERENTIATION BUFFER THE EFFECTS OF DAILY PAIN ON STRESS IN INDIVIDUALS WITH CHRONIC PAIN?

Meryl Olah, MA[1], Mary C. Davis, PhD[2]

[1]Arizona State University, Phoenix, AZ; [2]Arizona State University, Tempe, AZ

Chronic pain is among the most prevalent health issues experienced by older adults (Dahlhamer et al., 2018) and negatively impacts daily functioning and psychosocial well-being through mechanisms that include energy depletion, pain interference, and pain-related changes in negative affect (Skevington,1998). The capacities to be aware of and regulate negative emotions play a critical role in the successful management of chronic pain (Lumley et al., 2017). One dimension of negative emotion awareness, termed negative emotion differentiation (NED), is the ability to discriminate between negative affective experiences and recognize them as discrete categories (Barrett et al., 2001). The ability to identify and distinguish between the various emotions that accompany pain flares and other stressors may enhance the precision of the individual's regulatory efforts. In doing so, NED may be one possible resilience resource that can facilitate adaptive functioning in the context of chronic pain by buffering the effects of chronic pain flares on daily interpersonal stress. However, this has not yet been investigated. The current study aimed to examine the moderating effect of trait NED on the relationship between daily pain and same-day stress in 259 patients diagnosed with osteoarthritis (OA) or fibromyalgia syndrome (FMS). Individuals completed daily diaries each evening for 30 days reporting on average daily pain, negative emotions, interpersonal stress, and depressive symptoms. It was hypothesized that higher levels of NED would buffer the effects of daily pain on same-day stress. In exploratory analyses, it was evaluated whether the buffering effects were larger for individuals with FMS versus OA. Results of multilevel models revealed that, as expected, higher levels of trait NED predicted lower levels of same-day negative interpersonal events and perceived interpersonal stress. Trait NED also moderated the relationship between pain-related increases in same-day perceived interpersonal stress. Additionally, findings indicated that NED was similarly important for those with FMS and OA. Taken together, the current findings suggest that NED is an important resilience trait that can attenuate chronic pain-related increases in daily experiences of interpersonal stress.

CORRESPONDING AUTHOR: Meryl Olah, MA, Arizona State University, Phoenix, AZ; molah@asu.edu

Abstract citation ID: kaad011.0145

POSTER SESSION A: SELF-COMPASSION AND PAIN DISABILITY IN CHRONIC PAIN: MEDIATING ROLE OF FUTURE SELF-IDENTIFICATION AND SELF-EFFICACY

Erin G. Mistretta, MA[1], Mary C. Davis, PhD[2], Eva M. Bartsch, BS[2], Meryl Olah, MA[3]

[1]Arizona State University, Seattle, WA; [2]Arizona State University, Tempe, AZ; [3]Arizona State University, Phoenix, AZ

Pain-related disability is a primary target of treatment for chronic pain. Self-compassion, a resilience factor associated with better pain outcomes, shows promise as an intervention target to improve pain disability, but mechanisms linking self-compassion with disability remain to be identified. This study examined two mechanisms, health self-efficacy and future self-identification (FSI), as parallel mediators of the relation between self-compassion and pain disability in adults with chronic pain. Adults ($N = 188$; $M_{age} = 40.34$, $SD = 11.53$; 70.9% female) screened for chronic pain were recruited through online convenience sampling. Participants completed self-report measures of demographic characteristics, health status, and primary study variables. As expected, self-compassion was positively associated with both FSI and self-efficacy, but only self-efficacy was found to mediate the self-compassion – pain disability relation. Future work should involve experimental and longitudinal studies to establish whether the relation between self-compassion and pain disability is causal and is mediated via self-efficacy.

CORRESPONDING AUTHOR: Erin G. Mistretta, MA, Arizona State University, Seattle, WA; egriley@asu.edu

---

Abstract citation ID: kaad011.0146

POSTER SESSION A: IMPACT OF COVID-19 ON PHYSICAL ACTIVITY IN RURAL ALABAMA

Dorothy Pekmezi, PhD[1], Monica L. Baskin, PhD, FSBM[2], Nashira I. Brown, PhD, MS[3], Walker Cole, MPH[1], Shiva Emami, BS Neuroscience[4], Sarah P. Glass[1], Robert A. Oster, PhD[1], Kelsey B. Parrish, MS, RDN, LDN[1], Mohanraj Thirumalai, PhD[5], Wendy Demark-Wahnefried, PhD, RD[1]

[1]University of Alabama at Birmingham, Birmingham, AL; [2]University of Pittsburgh, Pittsburgh, PA; [3]Moffitt Cancer Center, Center Point, AL; [4]University of Alabama at Birmingham, Gurley, AL; [5]University of Alabama at Birmingham, Hoover, AL

Introduction: The COVID-19 pandemic has resulted in substantial reductions in physical activity (PA). Prior studies found that global step counts declined by 27.3%, and one in three U.S. adults reported engaging in more sitting and screen time and *even less* PA due to the pandemic. The current study investigated whether similar trends were found in disadvantaged rural communities in the Deep South.

Methods: Survey data on demographics at baseline and pandemic impact on PA at 3-months were taken from a subsample of participants ($N = 171$, from Dallas, Sumter, Greene, Marengo counties) enrolled in a PA RCT during 2020-2021.

Results: The sample ($N = 171$) consisted of mostly African American (98.2%) women (90.6%) with obesity (76.5%). Mean age was 57 ($SD = 13.26$), and both income (56.5% < $30,000/year) and education levels (55% with no college degree) were low. Roughly half of the participants (49.7%) reported being less active during the pandemic, whereas others reported being more active (18.1%) or no change in PA (32.2%). Overall, 47.4% endorsed that the COVID-19 pandemic made it more difficult to be active (52.6% did not), citing concerns about getting sick from exercising outside of home (70.4%), discomfort with wearing a face mask while exercising (58%), closed/less accessible exercise/fitness facilities (39.5%) and increased stress (30.9%). COVID impact on PA was significantly associated with education, children living at home, and gender, p's $< .05$. More women (50.97% vs. 12.5% for men) and participants with college degrees (57.14% vs. 39.36% without) and children living at home (58.18% vs. 41.74% without) indicated that COVID-19 made it more difficult to be active.

Discussion: These findings shed light on the impact of COVID-19 on PA in rural Alabama counties and call for effective interventions to avoid further exacerbation of existing health disparities in this area.

CORRESPONDING AUTHOR: Dorothy Pekmezi, PhD, University of Alabama at Birmingham, Birmingham, AL; dpekmezi@uab.edu

Abstract citation ID: kaad011.0147

POSTER SESSION A: AFFECT DYNAMICS AND PHYSICAL ACTIVITY IN ADULTS IN A BEHAVIORAL WEIGHT LOSS PROGRAM

Emily P. Wyckoff, PhD[1], Christiana M. Field, BA[2], Kayla F. O'Connor, MS[2], Zeely A. Denmat, BS[3], Tricia M. Leahey, PhD[2], Amy A. Gorin, PhD[2]

[1]Hartford Hospital, Vernon Rockville, CT; [2]University of Connecticut, Storrs, CT; [3]University of Connecticut, Hartford, CT

Research supports a bi-directional relationship between affect/emotion and physical activity. Much of this research has been conducted using intensive longitudinal study of daily life using ecological momentary assessment (EMA). The majority of EMA research on affect and physical activity has not focused on individuals with overweight/obesity, with even fewer studies on those engaged with weight control programs. As high levels of physical activity are especially important for weight loss maintenance, the current study sought to fill this gap. Specifically, this study examined how affect and patterns of affect within individuals (i.e., affect dynamics) relate to engagement in moderate to vigorous physical activity (MVPA) and amount of MVPA in individuals in a weight control program.

Participants were 52 adults (81% female, average BMI 33.69 +/- 5.04) who lost 5% or more of their initial body weight in a 4-month, online behavioral weight loss program and were beginning a weight loss maintenance program. Participants completed semi-random EMA prompts reporting momentary affect (positive, negative, arousal) 4 times a day for 7 days while simultaneously wearing an Actigraph for objective measurement of physical activity. Through examination of between- and within- person effects using multi-level modeling, affect arousal (i.e., energy level) was associated with greater MVPA across individuals indicating that those who reported higher affective arousal exercised more days ($\beta = 1.06$, $p = 0.01$) and more minutes ($\beta = 0.49$, $p = .03$) than those with lower affective arousal. Results revealed non-significant associations between affect valence (i.e., negative and positive affect) and physical activity. Affect dynamics were found to be more impactful on how long individuals exercised when they exercised, with less influence on whether or not one exercised on a given day. Lesser shifts in negative affect ($\beta = -0.39$, $p < .01$) and positive affect ($\beta = -0.09$, $p = 0.03$) from one time-point to the next (i.e., more stability) predicted more minutes of physical activity.

Results point to affective arousal as a possible point of intervention to promote physical activity in individuals with overweight or obesity engaged in a weight control program. The association between stability of positive and negative affect and physical activity may signify the benefits of physical activity for emotion regulation. Further research is needed to better understand the nuances of the relationship between affect and physical activity in adults with overweight and obesity.

CORRESPONDING AUTHOR: Emily P. Wyckoff, PhD, Hartford Hospital, Vernon Rockville, CT; emilywyckoff@gmail.com

---

Abstract citation ID: kaad011.0148

POSTER SESSION A: CLERGY PERCEPTIONS OF PHYSICAL ACTIVITY ACROSS THE STAGES OF CHANGE: A QUALITATIVE STUDY GUIDED BY THE TRANSTHEORETICAL MODEL

Nathan T. West, PhD[1], Kenneth D. Ward, PhD[2], LATRICE C. C. PICHON, PhD, MPH, CHES[3], Brook E. Harmon, PhD, RDN[4], Jonathan C. Lewis, Board Certified Chaplain, Doctor of Ministry[5], Tony Lugemwa, PhD in Social and Behavioral Science[6], Farah Faizah, MD, MPH[7]

[1]University of Alaska Anchorage, Anchorage, AK; [2]University of Memphis School of Public Health, Memphis, TN; [3]The University of Memphis School of Public Health, Memphis, TN; [4]Appalachian State University, Boone, NC; [5]Methodist Le Bonheur Healthcare, Olive Branch, MS; [6]The University of Memphis, memphis, TN; [7]University of Memphis, Memphis, TN

Meeting the current moderate-to-vigorous aerobic physical activity (PA) recommendation of 150 minutes/week provides numerous health benefits (e.g., weight management, chronic disease prevention). However, few US adults meet this recommendation which may be partially attributable to individual, social, and environmental barriers. Christian clergy (hereafter *clergy*) report multi-level barriers related to their vocation as well as a high prevalence of obesity, certain chronic diseases, and mental health conditions. Studies examining clergy PA behaviors guided by health behavior theory are sparse, further limiting our understanding of the PA-specific barriers clergy experience and the strategies they use to remain active. Therefore, the purpose of this study was to explore the perceptions clergy have of PA barriers, benefits, and motivators as well as strategies used to engage in PA at different levels of readiness to change as posited by the Transtheoretical Model. Twenty-seven clergy completed an online questionnaire and one in-depth interview. Based on responses to the Physical Activity Stages of Change Questionnaire, clergy were categorized as in *Maintenance* (41%), *Action* (19%), *Preparation* (26%), or *Contemplation* (15%) stages of readiness to change. Participants were also on average 44.3±11.6 years old, with most identifying as female (52%) and representing the Presbyterian denomination (89%). Informed grounded theory guided the interpretation of findings. Qualitative themes that emerged were: 1) PA engagement barriers (e.g., time, ministry workload, pain/injury, access, COVID-19) and facilitators (e.g., confidence, support of the church, family and friends, access, COVID-19); 2) Person-specific strategies used to reduce or prevent PA barriers; and 3) Perceived importance of PA engagement (e.g., role modeling, serving in ministry, health). While similar themes emerged across stages, clergy in the later stages of change showed a shift in the relative balance of PA engagement barriers and facilitators. Study findings also show how individual (e.g., confidence, enjoyment, role model), social (e.g., family, church support), and environmental (e.g., access, ministry workload, church policy) factors might help or hinder clergy initiate or maintain PA over time. Overall, findings suggest the value of using theoretical frameworks to account for multi-level factors influencing clergy PA engagement.

CORRESPONDING AUTHOR: Nathan T. West, PhD, University of Alaska Anchorage, Anchorage, AK; ntwest@alaska.edu

Abstract citation ID: kaad011.0149

POSTER SESSION A: THE EFFECT OF SEDENTARY AND PHYSICAL ACTIVITY BEHAVIOR ON POSTPARTUM PERCEIVED STRESS AMONG LOW INCOME WOMEN

BETH A. LEWIS, PHD[1], Katie J. Schuver, PhD[2], Carrie A. Terrell, MD[2], Jamie S. Stang, PhD, MPH, RDN[3]

[1]University of Minnesota, Rosemount, MN; [2]University of Minnesota, Minneapolis, MN; [3]University of Minnesota School of Public Health, Minneapolis, MN

Approximately 37% of postpartum women report moderate to severe levels of stress and this is substantially higher for postpartum women who are low income. Psychotherapy is efficacious for treating stress; however, only 10% of women with postpartum depression seek treatment, likely due to the numerous barriers associated with psychotherapy. Additionally, breastfeeding postpartum women are often hesitant to take psychotropic medication. Research indicates that physical activity (PA) can positively impact mental health among adults; however, more research is needed among low-income perinatal women. The purpose of the proposed trial was to better understand the effect of sedentary and PA behavior on perceived stress. In this study, participants were low-income women who were less than 20 weeks pregnant (n=111) recruited from healthcare clinics or via emails and print advertisements. Participants were randomly assigned to a 6-month home-based PA program (based on Self-Determination Theory and delivered by phone) or a wait-list control. Participants PA was assessed using the Fitbit, which was worn continuously throughout the trial. Perceived stress was assessed using the Perceived Stress Scale (PSS). There were no between group differences on sedentary behavior, light activity, or moderate to vigorous intensity physical activity (MVPA) and therefore, we examined the effect of sedentary and PA behavior on perceived stress regardless of group assignment. Fifty-one percent of women were married, 52% were employed, and 41% had a college education. Sixty-six percent of participants identified as a racial or ethnic minority individual. Linear regression analyses indicated that after controlling for group assignment and perceived stress at 36 weeks gestation, lower levels of sedentary behavior from 8-12 weeks postpartum was related to lower levels of perceived stress at 12 weeks postpartum, $\beta = .256$, $p < .05$. Additionally, higher levels of light activity at 8-12 weeks postpartum was related to lower perceived stress at 12 weeks postpartum, $\beta = -.284$, $p < .05$. There was a trend in the predicted direction regarding the relationship between MVPA and stress levels, $\beta = -.213$, $p = .067$. Our findings suggest that activity levels, especially sedentary behavior and light activity, may have a protective effect on perceived stress during postpartum among low-income women. There are unique barriers to activity during postpartum. It is important to implement strategies to decrease these barriers in order to reduce sedentary behavior and increase activity, which can help prevent the increased stress that commonly occurs following childbirth. An important limitation is that the results were correlational and therefore, causation cannot be inferred. More research is needed that examines the effect of activity levels on stress levels among postpartum women.

CORRESPONDING AUTHOR: BETH A. LEWIS, PHD, University of Minnesota, Rosemount, MN; blewis@umn.edu

---

Abstract citation ID: kaad011.0150

POSTER SESSION A: EVALUATING THE ACCEPTABILITY OF MINDFULNESS TRAINING DURING PHYSICAL ACTIVITY

Julia Starikovsky, MA[1], David Victorson, PhD[2], Whitney A. Welch, PhD MS[3], Karly M. Murphy, PhD[4], Payton Solk, MS[1], Abby Mishory, BS[5], Hannah Freeman, BA[1], Melanie E. Wolter, BA[6], Jacqueline Alexander, BS[1], Lillian B. Carden, BA[7], Siobhan M. Phillips, PhD, MPH[1]

[1]Northwestern University Feinberg School of Medicine, Chicago, IL; [2]Northwestern Feinberg School of Medicine, Evanston, IL; [3]Medical College of Wisconsin, Milwaukee, WI; [4]Wake Forest School of Medicine, Wilson, NC; [5]Northwestern University, Chicago, IL; [6]Northwestern University, Newport Beach, CA; [7]Northwestern Feinberg School of Medicine, Chicago, IL

Most adults do not engage in sufficient moderate to vigorous physical activity (MVPA) for health benefits, and 50% of adults who initiate an MVPA program drop out within 6 months. Thus, identifying ways to increase MVPA adoption and maintenance is critical. Emerging data indicate mindfulness may help to increase MVPA. However, few studies have had participants engage in mindfulness training during MVPA (PA+MIND). We aimed to evaluate the acceptability of practicing PA+MIND to inform further trials. Twenty-nine healthy adults (M_{age}=28.6, SD= 9.9; M_{BMI}=26.7, SD= 6.10) participated in a within-subjects counterbalanced experimental cross-over study, involving three experimental conditions: (1) physical activity (PA), (2) mindfulness training (MIND), (3) PA+MIND. PA was comprised of a 10-minute warm-up, 20-minute brisk treadmill walk, and a 6-minute cool down. MIND was comprised of a 20-minute mindfulness audio practice. PA+MIND was comprised of both PA and MIND components occurring simultaneously. Participants completed an online acceptability questionnaire following completion of the study. Data were analyzed using descriptive statistics. Most participants found study activities to be acceptable (96.6%) and were satisfied in their overall experience (100%). Many participants reported enjoying listening to the PA+MIND recording while walking (68%) and thought it provided a pleasant distraction (68%). Over half (58.6%) indicated that the PA+MIND recording was helpful and would be somewhat interested in listening to MIND while doing PA in the future (51.6%). However, 24.1% noted they were not interested in PA+MIND sessions in the future. Participants indicated that during exercise, the PA+MIND recording made them: a) more aware of thoughts/physical sensations (79.3%) and pleasant sensations (65.5%), b) view unpleasant things about PA more favorably (62%), and c) feel pleasantly connected to their body (62.1%). Findings were mixed regarding concerns that PA+MIND made them a) overly self-conscious (51.7% not at all; 41.3% at least somewhat) or b) too aware of PA that they did not enjoy it (44.8% not at all; 41.3% at least somewhat). Overall, these data suggest that PA+MIND is largely acceptable, but there is some variability based on individual preferences. Future work is warranted to understand how to further enhance the acceptability of PA+MIND in diverse populations and implement it in future interventions to test its efficacy for improving health and disease outcomes.

CORRESPONDING AUTHOR: Julia Starikovsky, MA, Northwestern University Feinberg School of Medicine, Chicago, IL; julia.starikovsky@northwestern.edu

Abstract citation ID: kaad011.0151

POSTER SESSION A: A RANDOMIZED CONTROLLED TRIAL OF A MULTILEVEL PHYSICAL ACTIVITY INTERVENTION AMONG PEOPLE WITH METABOLIC SYNDROME

Rachel A. Millstein, PhD, MHS[1], Lauren Harnedy, BS[2], Sonia Kim, BS, MPH[2], Crystal Castillo, BA[2], Julia Vitagliano, BA[3], Anne N. Thorndike, MD, MPH[2], Elyse R. Park, PhD[4], Brian C. Healy, PhD[2], Jeff C. Huffman, MD[2]

[1]Massachusetts General Hospital, Boston, MA; [2]MGH, Boston, MA; [3]HSPH, Boston, MA; [4]Harvard Medical School & Massachusetts General Hospital, Boston, MA

Background: Metabolic syndrome is comprised of five cardiometabolic risk factors that affect about 1/3 of US adults. People with metabolic syndrome are at high risk for developing chronic diseases. Intervening on lifestyle behaviors such as physical activity, can improve outcomes.

Methods: Primary care patients with metabolic syndrome were recruited from across our hospital system. Eligible patients were insufficiently physically active (< 150 minutes/week of moderate-vigorous physical activity) and have physician approval to participate. Participants were randomized to an immediate or waitlist control group. The intervention included 8-weekly 60-90-minute group sessions (in-person pre-COVID and virtually delivered post-COVID), physical activity behavioral goal-setting and self-monitoring using Fitbits, weekly physical activity/motivational interviewing (MI) topics, weekly positive psychology (PP) exercises related to physical activity, a weekly group walk, social support, and neighborhood built environment for walkability. Participants wore an Actigraph GT3X+ accelerometer for one week prior to beginning the study and after the last session. They also completed questionnaires pre- and post-intervention assessing mental health and health behaviors, compared using paired t-tests. Participants completed pre- and post-activity ratings to assess feasibility and acceptability of the intervention.

Results: Sixty-four participants enrolled in this randomized controlled trial phase of the study, with 32 randomized to each arm, 5 dropped out, and 55 completed follow-up assessments (86% retention). Most (92%) were non-Hispanic White, 69% were female, and the mean age was 60. The median number of group sessions attended was 8 out of 8 (89.4% sessions attended), indicating feasibility. The median ratings of the ease and usefulness of the group activities were both 8/10. Average daily physical activity, as measured by steps, increased after the intervention by 1025 steps/day (p=.008), light physical activity increased by an average of 19 minutes/day (p=.075), and moderate-vigorous physical activity increased by 4 minutes/day (not significant). Pre-post scores on anxiety and depression scores both improved, with marginal significance for depression (p=.056).

Discussion: This randomized controlled trial of a multilevel physical activity positive psychology -motivational interviewing, neighborhood-based intervention demonstrated high feasibility and acceptability. Participants attended and enjoyed sessions consistently. The intervention led to improvements on measures of mental health and light/overall physical activity. We plan to test this in a larger efficacy trial with broader reach and implementation.

CORRESPONDING AUTHOR: Rachel A. Millstein, PhD, MHS, Massachusetts General Hospital, Boston, MA; ramillstein@mgh.harvard.edu

---

Abstract citation ID: kaad011.0152

POSTER SESSION A: UNDERSTANDING ATHLETIC LATE BLOOMERS: A MIXED METHODS STUDY

Mel McHugh, MS[1], Kristin L. Schneider, PhD[1], W Hobart Davies, PhD[2]

[1]Rosalind Franklin University of Medicine and Science, North Chicago, IL; [2]University of Wisconsin-Milwaukee, Milwaukee, WI

Physical activity (PA) levels generally decline from youth to adulthood, and researchers primarily focus on understanding what factors contribute to these declines. Less is known about those who become more active over time. One factor which may contribute to increased PA is identity. We defined athletic late bloomers as individuals who experienced a change in their PA identity such that, at one point they did not consider themselves athletic or successful at sports, but later perceived they were successful. This study aimed to: understand athletic late bloomers by describing group demographics, explore themes of why they felt unsuccessful at athletics and what prompted their athletic transformation, and compare PA levels and athletic identity of athletic late bloomers and non-athletes.

Participants were 979 18- to 25-year-olds who completed an online survey including demographics, Athletic Identity Measurement Scale, and weekly hours of PA. Participants indicated which of the three groups they identified: I have never really thought of myself as being athletic or successful in sports (non-athlete), I have always thought of myself as being successful in sports (always athlete), or When I was younger, I did not think of myself as being successful in sports, but later developed a sense that I could be successful at sports (athletic late bloomer). Athletic late bloomers were asked why they did not feel successful at athletics and what experiences led to a change in their athletic identity. Data analysis included thematic analysis, ANOVA, and ordinal logistic regression.

Athletic late bloomers (n = 208, 21%) averaged 3-4 hrs/week of PA, had a mean BMI of 25.03 kg/m^2 (*SD* = 5.18), and experienced an athletic transformation anywhere from age 9 to 25 years, (*M* = 15.7, *SD* = 2.99). Athletic late bloomers felt unsuccessful due to perceived competence (n = 54, 43%), lack of interest (n = 30, 24%) and body concerns (n = 24, 21%). Athletic transformations were attributed to trying a different activity (n = 56, 44%), positive influence of others (n = 29, 23%), and increased self-efficacy (n = 25, 20%). Groups differed on athletic identity scores, Welch's $F(2, 464) = 354.83$, $p < .001$, $\eta^2 = .42$. Athletic late bloomers (*M* = 36.62, *SD* = 12.67) had higher athletic identity than non-athletes (*M* = 19.44, *SD* = 9.64), p < .001, 95% CI = 19.63, -14.73. Non-athletes were 65.8% less likely to engage in a higher level of PA compared to athletic late bloomers, (OR = .34, Wald $\chi^2(1) = 47.53$, $p < .001$).

The current study provides initial evidence for the existence of athletic late bloomers, and suggests that athletic identity can change. Thematic analyses may inform PA promotion. Strategies to enhance perceived competence, such as giving positive feedback, and the ability to try out many different athletic activities may assist in efforts to promote PA. Future research should examine individuals longitudinally to identify what prompts PA identity change.

CORRESPONDING AUTHOR: Mel McHugh, MS, Rosalind Franklin University of Medicine and Science, North Chicago, IL; melissa.mchugh@my.rfums.org

Abstract citation ID: kaad011.0153

POSTER SESSION A: FACILITATING EMPLOYEES' DESIRE TO MOVE: A BEHAVIORAL ANALYSIS USING THE COM-B MODEL

Rebecca Ellis, PhD[1], Chyna Brown, BS[1]

[1]Georgia State University, Atlanta, GA

Objectives: Desire2Move (D2M) is an annual eHealth program that encourages physical activity (PA) among university employees. A behavioral analysis has not been conducted to determine what theoretical constructs should be targeted to induce behavior change. Guided by the Behavior Change Wheel, and specifically the COM-B model, the purpose of this study was to identify facilitators of employee participation in regular PA.

Methods: In 2022, 272 employees from 19 departments volunteered for D2M. During the 8-week program, departments competed as teams to accumulate the greatest average minutes of PA. Team members recorded PA minutes using MapMyFitness or Strava mobile apps. Student assistants assigned to specific teams collected PA minutes. One week after D2M, participants were emailed a link to an electronic survey that included demographic questions and the COM-B Self-Evaluation Questionnaire (COM-B-Qv1) that was modified to measure the capability, opportunity, and motivation to be physically active.

Results: Of the D2M participants, 26 dropped out or withdrew and 11 were program administrators, leaving 235 eligible survey participants. Of these, 115 consented and 107 successfully completed the COM-B-Qv1 (response rate = 45.5%; female = 56.5%; White = 55.7%; faculty = 31.3%; staff = 28.7%). The most important facilitators of participation in regular PA were (i.e., selected by at least 30% of respondents): (a) develop a habit of doing it (n = 66, 61.7%; automatic motivation), (b) have more time to do it (n = 60, 56.1%; physical opportunity), (c) feel that you want to do it (n = 55, 51.4%; reflective motivation), (d) believe that it is a good thing to do (n = 34, 31.8%; reflective motivation), (e) develop better plans to do it (n = 34, 31.8%; reflective motivation), (f) know more about why it is important (n = 32, 29.9%; psychological capability), and (g) know more about how to do it (n = 32, 29.9%; psychological capability).

Conclusions: Over 50% of participants identified three facilitators of regular PA participation that represent the COM-B constructs of automatic motivation, physical opportunity, and reflective motivation. Four facilitators, identified by about 30% of the sample, also represent reflective motivation and psychological capability. To improve program effectiveness, administrators should collaborate with employees to select intervention options and content that will best target PA habits, resources, beliefs, planning, and knowledge.

CORRESPONDING AUTHOR: Rebecca Ellis, PhD, Georgia State University, Atlanta, GA; rellis@gsu.edu

---

Abstract citation ID: kaad011.0154

POSTER SESSION A: AGILITY OVER FRAGILITY: IMPACT OF AN EQUIPMENT-BASED RESISTANCE PROGRAM FOR OLDER ADULTS ON PHYSICAL FUNCTION

Zakkoyya H. Lewis, PhD[1], Alexandra T. Auslander, PhD, MPH, MS[2], Lara Killick, PhD, MPH[3], Ryan Harrison, PsyD, CWP[4]

[1]California State Polytechnic University Pomona, Pomona, CA; [2]West Coast University, Yorba Linda, CA; [3]California Polytechnic State University, Pomona, Pomona, CA; [4]Hillcrest Retirement Community, La Verne, CA

Purpose: Within the US, people are experiencing longer life expectancy, yet these extended lifespans have not necessarily translated into years living in good health. Degenerative diseases such as osteoporosis and sarcopenia are particularly prevalent amongst older adults. Research shows that regular resistance exercise carries preventive health benefits to combat these conditions. The purpose of this study was to evaluate the impact of an equipment-based resistance training program for older adults on physical function.

Methods: Forty-eight participants were enrolled in a group equipment-based resistance exercise program at a non-profit retirement community in Southern California. Participants were at least 60 years old, with no current history of cardiovascular, respiratory or arthritic conditions, and had the ability to follow guided exercise. The exercise program was 45 minutes, twice a week for 9 weeks. It utilized a hand-held device capable of multi-planar movements and varying resistance (5-25lbs). Pre-post measures of physical function (including 30 second chair stand, sit-and-rise and back scratch tests) were recorded.

Results: Preliminary data suggests that there are no differences between the equipment-based program and a standard fitness class for the sit-and-rise test (p=0.10) and for the back-scratch test (p=0.16). However, there is a significant positive difference between groups for the sit-to-stand test (F(2, 37)= 3.60, p=0.04, Cohen's d= 0.35). A Tukey-HSD test showed a positive trending, however, not significant effect for the sit-to-stand test when compared to a chair fitness class (p=0.08) with a mean difference of +4.68 repetitions.

Conclusions: Our results suggest this program is as or more efficacious as a traditional group equipment-based resistance exercise program that utilizes several forms of resistance equipment. Future research is needed to explore the fidelity and effectiveness of this program when scaled up to multiple locations.

CORRESPONDING AUTHOR: Zakkoyya H. Lewis, PhD, California State Polytechnic University Pomona, Pomona, CA; zakkoyyal@cpp.edu

Abstract citation ID: kaad011.0155

POSTER SESSION A: GIRLS CAN...MOVE! TESTING THE FEASIBILITY OF AN AFTER-SCHOOL PHYSICAL ACTIVITY INTERVENTION FOR ADOLESCENT GIRLS

Deirdre Dlugonski, PhD[1], Johanna Hoch, PhD, ATC[1]

[1]University of Kentucky, Lexington, KY

Only 23% of middle school aged girls in Kentucky engage in the recommended 60 minutes of daily moderate-to-vigorous physical activity (MVPA), compared to 33% of boys. Physical literacy and peer role modeling are positively associated with adolescent physical activity. After-school physical activity programs focused on physical literacy and role modeling may positively influence MVPA in this group. Therefore, we designed the Girls Can...Move! intervention to promote physical literacy by exposing adolescent female participants to a variety of physical activities led by college-aged active female role models (i.e., Movement Mentors). The purpose of this study was to examine the feasibility and initial effectiveness of an after-school intervention guided by social cognitive theory to increase physical literacy and MVPA among 6th – 8th grade girls. Low-active participants (*n* = 17) were recruited from one middle school. Participants completed a demographic survey, the PLAYself survey to assess physical literacy, and wore an accelerometer for 7-days to determine baseline MVPA. During the 8-week intervention, attendance was recorded and participants completed a weekly process evaluation survey to assess satisfaction with the 16 intervention sessions. At post-intervention, participants repeated baseline measures and were invited to a focus group interview about their experience. Participants received $10 remuneration after completing each timepoint. Thirteen participants (11.7 ± .7 years, 82% Black/African American or multiracial) completed the intervention. The average attendance rate was 81.7%. Participants thought the sessions (scale 1 – 5) helped them to become and remain physically active (4.2 ± .2), increased their physical activity confidence (4.2 ± .2), and were fun and enjoyable (4.6 ± .2). PLAYself scores increased from pre-intervention (669.8 ± 180.4) to post-intervention (731.4 ± 202.9, *d* = .43). Among 8 participants with valid accelerometer data, mean daily minutes of MVPA increased from pre-intervention (10.8 ± 6.2) to post-intervention (17.7 ± 9.6, *d* = 1.18). Focus group results indicated that participants were motivated to enroll by the participant payment offered, enjoyed participating with friends, liked trying new activities, and appreciated the girls only environment. Participants suggested: more introductory activities to get to know other participants and mentors, allow participant input on physical activities, and provide snacks. These promising results suggest that the Girls Can…Move! intervention should be tested with a larger sample using a randomized controlled trial design to improve physical literacy and MVPA in adolescent girls.

CORRESPONDING AUTHOR: Deirdre Dlugonski, PhD, University of Kentucky, Lexington, KY; dee.dlugonski@uky.edu

---

Abstract citation ID: kaad011.0156

POSTER SESSION A: FEASIBILITY OF A YOUTH-TARGETED, WEB-BASED PHYSICAL ACTIVITY INTERVENTION: RESULTS FROM THE ACTIWEB-PA PILOT RCT

Somya Rastogi, MPH[1], Luis Columna, PhD[2], Kelli F. Koltyn, PhD[2], Ronald Gangnon, PhD[2], Kristen Malecki, PhD[3], Paul Peppard, PhD[2], Lisa A. Cadmus-Bertram, PhD[2]

[1]University of Wisconsin- Madison, MADISON, NJ; [2]University of Wisconsin-Madison, Madison, WI; [3]University of Illinois Chicago, Chicago, IL

Introduction: We assessed the feasibility and acceptability of ACTIWEB-PA (Active Children through In-home Web-based Physical Activity), a 12-week youth-targeted, home-based, physical activity (PA) intervention. The intervention, delivered via the UNICEF Kid Power website, featured online exercise videos and a philanthropic reward system.

Methods: Insufficiently active children aged 8-11 years (n=82) were randomly assigned to an exercise intervention group (n=41) or a wait-list control (n=41) group. The intervention group participants were prescribed 5 moderate-to-vigorous intensity videos/day (on average, 4 minutes in duration) for 5 days/week from the UNICEF Kid Power program. Feasibility outcomes were recruitment, retention and intervention adherence, with *a priori* targets of 50%, 80%, and 70%, respectively. Intervention acceptability and barriers were assessed via survey at the middle and end of the study.

Results: 125 children were screened and eligible, 73.6% (n=92) consented/assented, and 65.7% (n=82) were randomized. Randomized participants were 9.2±1.1 (mean±SD) years old; 51% (n=42) female, and 79.3% (n=65) non-Hispanic white. 93.9% (n=77) completed the parent and child follow-up surveys at 12 weeks, and 80.5% (n=66) returned valid ActiGraph assessments at 12 weeks. Participants in the exercise intervention group completed 230±94 (mean±SD) videos (76.6% of the prescribed videos); 61.0% (n=25) completed ≥ 75% of the prescribed exercise videos. By parent report, exercise videos held the child's interest most or all of the time for 69.7% (n=23) children at 6 weeks and 48.5% (n=16) at 12 weeks. Additionally, by parent report, 39.4% (n=13) children looked forward to exercising using the videos most or all of the time at 6 weeks and 30.3% (n=10) at 12 weeks. There were no notable barriers to intervention of the four surveyed; time, space, device availability, and technological difficulties.

Conclusions: The recruitment, retention, and adherence feasibility outcomes met the prespecified thresholds. However, as reported by the parents, children's interest in exercise videos declined over the weeks. This study demonstrated that the ACTIWEB-PA trial was feasible to conduct. While the exercise intervention was found to be acceptable, refinements may be needed to sustain children's interest over time.

CORRESPONDING AUTHOR: Somya Rastogi, MPH, University of Wisconsin-Madison, MADISON, NJ; srastogi2@wisc.edu

Abstract citation ID: kaad011.0157

POSTER SESSION A: CORRELATES OF PHYSICAL ACTIVITY ACTION CONTROL IN CANCER SURVIVORS: APPLICATION OF THE MULTI-PROCESS ACTION CONTROL FRAMEWORK

Allyson Tabaczynski, MSc[1], Kelly Arbour-Nicitopoulos, PhD[1], Ryan E. Rhodes, PhD, FSBM[2], Catherine M. Sabiston, PhD[1], Linda Trinh, PhD[1]

[1]University of Toronto, Toronto, ON, Canada; [2]University of Victoria, Victoria, BC, Canada

Background: Most people diagnosed with cancer are not performing sufficient physical activity (PA) for general health benefits (≥150 min/week of moderate-to-vigorous PA). The Multi-process Action Control (M-PAC) framework theorizes that PA intention formation is largely determined by one's reflective processes towards PA (instrumental/ affective attitudes, perceived capability/ opportunity), while self-regulatory and reflexive (habit, identity) processes are determinants of intention translation (i.e., action control). There is limited work using the entire M-PAC framework to understand PA intentions and behaviors of people with a history of cancer. The purpose of this study was to test M-PAC processes as correlates of PA intentions and action control in people diagnosed with cancer.

Methods: This study was a secondary data analysis of an online, cross-sectional survey. PA was self-reported using the Godin Leisure-Time Exercise Questionnaire. Separate questionnaires for reflective (instrumental/ affective attitudes, perceived opportunity/ capability), regulatory (e.g., goal setting, planning), and reflexive processes (habit, identity) measured M-PAC constructs. Hierarchical logistic regressions were conducted to determine the correlates of intention formation (non-intenders vs. intenders) and action control (successful vs. unsuccessful intenders).

Results: Participants (N=347; M_{age}= 48.2±15.6) were primarily diagnosed with breast cancer (27.4%), at a localized disease stage (85.0%), and were a mean of 90.3±81.0 months from diagnosis. Most participants (70.9%) intended to perform PA, yet only 50.4% met guidelines. In the final models, affective judgements (OR=1.15; 95% CI=1.08-1.22; p< .001) and perceived capability (OR=1.24; 95% CI=1.09-1.43; p< .01) were significantly associated with intention formation, and surgical treatment (OR=0.42; 95% CI=0.19-0.88; p=.02) and PA identity (OR=1.20; 95% CI=1.08-1.33; p< .001) were associated with action control.

Conclusion: Favorable affective attitudes and perceived capability were correlates of PA intention formation, while a stronger PA identity is associated with successful intention translation. Behavior change efforts for people diagnosed with cancer should extend beyond traditional social-cognitive approaches and emphasize PA identity formation given its strong association with action control. Future research is needed to better understand PA identity and effective development strategies in this population.

CORRESPONDING AUTHOR: Allyson Tabaczynski, MSc, University of Toronto, Toronto, ON, Canada; allyson.tabaczynski@mail.utoronto.ca

---

Abstract citation ID: kaad011.0158

POSTER SESSION A: OPPORTUNITIES AND CHALLENGES PROMOTING MVPA IN BRAZIL: FINDINGS FROM A LARGE BEHAVIORAL CHANGE PROGRAM

Ana Laura Selzer Ninomiya, MS[1], Tania Bertoldo. Benedetti, PhD[2], Marina Christofoletti, MS[2], Emerson Sebastiao, PhD[3], Thierry Guigma[4], Caroline Schramm[2], Andiara Schwingel, PhD[5]

[1]University of Illinois at Urbana-Champaign, Urbana, IL; [2]Universidade Federal de Santa Catarina, Florianopolis, Santa Catarina, Brazil; [3]Northern Illinois University, DeKalb, IL; [4]University of Illinois Urbana Champaign, Urbana, IL; [5]University of Illinois Urbana Champaign, Champaign, IL

Background: Engaging in physical activity is key to good health across the lifespan and has a particular role in healthy aging. Promoting Moderate-to-Vigorous Physical Activity (MVPA) remains a challenge across the globe and might be of even greater among those from underserved populations. This study examined results from VAMOS, a behavioral change intervention implemented in communities across Brazil and its associations with socio-demographic variables of age, sex, education, and race.

Data and setting: The program was offered in 11 cities in Brazil and leveraged existing resources of the unified healthcare system (SUS), including facilities and staff from local public health centers. VAMOS is a 3-month behavioral change program that assists individuals to become more physically active. The curriculum was linguistically and culturally adapted from "Active Living Every Day", an evidence-based behavioral change program.

Methods: For the current study, we analyzed data from 814 participants (90% women, 40% Afro-Brazilians, median age= 60 years) whose pre and post-intervention data was collected between 2012 and 2019. Physical activity data was assessed via Actigraph GT3X/+ accelerometers. Multiple linear regression models were used to examine the relationship between MVPA, age, sex, education, and race.

Results: VAMOS participation was associated with a weekly increase in MVPA of 36 minutes on average. This increase was statistically significant (p< 0.01) and negatively associated with age and sex (older adults and women increased less) and positively associated with years of education and race (with more educated individuals and Afro-Brazilians achieving greater increases in MVPA).

More participants were meeting the physical activity guidelines (≥150 MVPA minutes/wk) as a result of participating in the intervention (+6%, p< 0.01). Significant increases in the number of people meeting the ≥150 MVPA mark were associated with being male (p< 0.01), younger (p< 0.01), and more educated (p=0.03).

Conclusions: Findings underscore the potential impact of behavioral change interventions for increasing MVPA and improving health among Afro-Brazilians. Our data underscore that improvements in MVPA may be more difficult to sustain among older adults, women, and those with less years of education. VAMOS and similar behavioral change interventions should consider examining underlying barriers and facilitators of MVPA participation among these vulnerable groups.

CORRESPONDING AUTHOR: Ana Laura Selzer Ninomiya, MS, University of Illinois at Urbana-Champaign, Urbana, IL; als17@illinois.edu

Abstract citation ID: kaad011.0159

POSTER SESSION A: EXERCISE MAY BE MOTIVATED MORE BY INSTRUMENTAL (VS. INTRINSIC) REASONS WHEN TEMPTING ALTERNATIVES ARE PRESENT

Celina R. Furman, MA[1], Alexander J. Rothman, PhD[2], Traci Mann, PhD[2]

[1]University of Minnesota, Saint Paul, MN; [2]University of Minnesota, Minneapolis, MN

Background: Physical activity (PA) must be performed within an ever changing constellation of competing goals, activities, and barriers. How do people sustain regular engagement in PA across contexts and time? Research suggests that intrinsic motivation (i.e., inherent enjoyment/interest) facilitates long-term engagement in PA, but that instrumental reasons (i.e., tangible outcomes relevant to one's goals) may be necessary to promote the *frequency* of PA needed for health benefits, especially in contexts when PA is not the most desirable activity. Thus, this preregistered experiment tested how these two sources of motivation interact to promote PA based on alternative activities that are present at the time that one must act. Specifically, we posited that intrinsic motivation helps sustain PA across contexts by increasing the appeal of PA so that alternatives are perceived to be less tempting. However, when alternative activities are highly tempting, we predicted that people would rely on instrumental reasons to motivate their PA (intrinsic reasons would not be sufficient).

Method: Participants (N = 177) reported their intrinsic and instrumental motivation for exercise and rated 13 alternative activities on the extent to which they would tempt the participant to skip their planned exercise at any given time. Participants then read six scenarios featuring alternative activities (e.g., spending time with friends, studying) that were experimentally manipulated to vary in the degree to which participants perceived them to be tempting (3 high, 3 low). In response to each scenario, participants selected the reason (e.g., "it will make me feel better", "it will improve my appearance") that would most likely motivate them to exercise (coded as intrinsic or instrumental).

Results: Supporting our hypotheses, the 13 alternatives were rated as less tempting as one's intrinsic motivation increased, but not as instrumental motivation increased. In response to the scenarios, participants with higher (vs. lower) intrinsic motivation were more likely to select intrinsic (vs. instrumental) reasons for motivation, and the bias toward selecting an intrinsic reason was strongest when the scenario featured less tempting alternatives. In other words, participants were more likely to be motivated by instrumental reasons in scenarios with highly tempting alternatives (*p*s < .01).

Conclusion: These findings build on prior work by specifying the conditions under which people utilize instrumental or intrinsic reasons to motivate their exercise.

CORRESPONDING AUTHOR: Celina R. Furman, MA, University of Minnesota, Saint Paul, MN; furma034@umn.edu

---

Abstract citation ID: kaad011.0160

POSTER SESSION A: PREVENTING FALL-RELATED INJURIES AMONG OLDER ADULTS: THE WORKING TO INCREASE STABILITY THROUGH EXERCISE RANDOMIZED TRIAL

Liza S. Rovniak, PhD, MPH[1], Christopher N. Sciamanna, MD, MPH[1], Jennifer L. Kraschnewski, MD, MPH[1], Joshua M. Smyth, PhD[2], Noel H. Ballentine, MD[1], Melissa Bopp, PhD, FACSM[3], Vernon M. Chinchilli, PhD[1], Heather L. Stuckey, DEd[4], Edward J. Fox, MD[1], Kathleen M. McTigue, MD, MPH[5], Jennifer S. Brach, PhD, PT[5], Anuradha Paranjape, MD, MPH[6], Joseph T. Ciccolo, PhD[7], Suzanne M. Jan De Beur, MD[8], Kerry J. Stewart, EdD[8], Edward McAuley, PhD[9]

[1]Penn State College of Medicine, Hershey, PA; [2]The Pennsylvania State University, University Park, University Park, PA; [3]Pennsylvania State University, University Park, PA; [4]College of Medicine, Humanities and Public Health Sciences, Penn State University, Hershey, Hershey, PA; [5]University of Pittsburgh, Pittsburgh, PA; [6]Temple University, Philadelphia, PA; [7]National Institutes of Health, Bethesda, MD; [8]Johns Hopkins University School of Medicine, Baltimore, MD; [9]University of Illinois at Urbana-Champaign, Urbana, IL

Background: Approximately one-third of older adults fall each year and fall-related injuries are a leading cause of death and disability. Although bisphosphonates can reduce fall-related injuries, concerns over their side effects have dramatically reduced use, and other treatment options are needed. Prior small studies have indicated that physical activity programs can reduce falls, but there has been a lack of studies that are adequately powered to detect a reduction in fall-related injuries. We aimed to compare the effects of a 3-year exercise coaching program vs. usual care on the risk of serious fall-related injuries (SFRI), including fragility fractures, among seniors ≥ 65 years with a prior fragility fracture.

Methods: We randomized 1,139 seniors to the Exercise Coaching or Usual Care conditions. Exercise Coaching was designed to consist of strength, balance, and aerobic exercises done 3 times weekly--either in-person with a volunteer group leader, or at home with an exercise DVD, with monthly phone calls to encourage participation. Due to the COVID-19 pandemic, the in-person group-based exercise sessions transitioned to virtual Zoom group-based sessions for the latter half of the study. Usual Care consisted of the recommendation to exercise and printed educational information. Fall-related outcomes were collected by phone every 4 months. Falls that led to a medical visit were verified with medical records. For the primary outcome, SFRI, medical records were reviewed by a blinded outcomes committee to determine if the case met criteria for a SFRI. A proportional hazards regression analysis, with the covariates of medical center, age, sex, race/ethnicity, smoking status and education included as regressors, was applied to the time to first SFRI.

Results: The Hazard Ratio (HR) for the time to first SFRI for the Exercise Coaching vs. Usual Care conditions was 0.88 (95% CI, 0.70-1.09; p=0.240), indicating no difference between study conditions. However, among the 50% of participants who had never taken an osteoporosis medication, those assigned to Exercise Coaching had a significantly lower risk of experiencing a SFRI (HR, 0.67 [95% CI, 0.49-0.91]; p=0.011) than those assigned to Usual Care. Adherence to the Exercise Coaching condition stabilized at an average of slightly more than one exercise session per week; with similar participation rates across the in-person and Zoom-delivered sessions.

Conclusions: Among seniors with a history of a fragility fracture, there was no difference between Exercise Coaching vs. Usual Care on the risk of SFRI in the total sample. However, among seniors who had not previously used osteoporosis medication, Exercise Coaching reduced the risk of SFRI by 33% relative to Usual Care. As fewer than 10% of U.S. seniors use osteoporosis medication, exercise coaching holds potential to reduce SFRI on a large scale, and help older adults to maintain independent living.

CORRESPONDING AUTHOR: Liza S. Rovniak, PhD, MPH, Penn State College of Medicine, Hershey, PA; lrovniak@pennstatehealth.psu.edu

Abstract citation ID: kaad011.0161

POSTER SESSION A: HOW DOES WALKING DOWN A VIRTUAL-REALITY STREET COMPARE TO WALKING DOWN THE SAME STREET IN REAL LIFE?

Amanda N. Spitzer, BA[1], Katrina Oselinsky, MS[2], Yiqing (Skylar) Yu, BA[1], Matea R. Ramey, BS[1], Katie McMahon, BS[1], Dan J. Graham, PhD[1]

[1]Colorado State University, Fort Collins, CO; [2]Colorado State University, Denver, CO

Background: Increasing walking behavior is desirable from public health, environmental, and urban planning perspectives. Virtual Reality (VR) has been promoted and employed as a method of addressing this causal gap although research has not definitively shown that walking decisions in VR are similar to those in the real-world.

Purpose: This study investigates how walking in a VR model of a real-world street compares to walking in the corresponding real-world street to help clarify if built environmental modifications that boost walking in VR (e.g., adding trees, widening sidewalks) are likely to translate to increased walking when implemented in the real world.

Methods: 47 participants completed two study sessions: a VR session in which participants walked in a VR simulation of a historic district in Colorado, and a real-world session in which participants walked in the real-life district. During each session, participants were asked to complete 3 tasks. Participants stopped walking when these tasks (e.g., find a place you'd like to eat) were completed. Heart rate data was collected while walking, and the total time spent walking in each scenario was recorded (Maximum time set at 25 min).

Results: A paired t-test indicated that walking time and average heart rate were significantly different between the real world and VR scenarios. People on average spent about 5 more minutes walking in VR (18 minutes) than in the real world (13; $p < 0.001$), and their average heart rate was about 8 beats per minute higher in the real world (102 bpm) than in VR (94; $p < 0.001$).

Conclusions: Walking in VR appears to differ in some ways from walking in the real world, which has important implications for how VR methods can be used to inform environmental planning. The observed findings may have been confounded by large differences in ambient temperature and humidity between conditions. Future research could benefit from using similar methods as the present study, but in a location where ambient conditions could be controlled.

CORRESPONDING AUTHOR: Amanda N. Spitzer, BA, Colorado State University, Fort Collins, CO; amanda.spitzer@colostate.edu

---

Abstract citation ID: kaad011.0162

POSTER SESSION A: A RE-AIM EVALUATION OF THE GIRLS EMPOWERING MOVEMENT INITIATIVE

Ashlee Davis, PhD[1], Sarah L. Gross, BS[1], Peter Stoepker, PhD[2], Duke Biber, PhD, NBC-HWC[3], Jennifer Heidorn, MS[1], Adria Meyer, BS[4]

[1]University of West Georgia, Carrollton, GA; [2]Kansas State University, Manhattan, KS; [3]Kennesaw State University, Smyrna, GA; [4]HealthMPowers, Norcross, GA

Objectives: *GEM: Girls Empowering Movement* is an out-of-school (OST) physical activity-based mentoring initiative for middle school girls in Georgia. The purpose of this study was to evaluate the pilot year of GEM.

Methods: HealthMPowers (HMP) collaborated with the University of West Georgia (UWG), Georgia Alliance of the Boys and Girls Club (GBGC), Girl Scouts of Historic GA (GSHG), and Girl Scouts of Greater Atlanta (GSA) to develop GEM. Each partner recruited GEM sites (schools, clubs, or troops) from within their respective organizations across the state. Partner sites implemented the initiative by delivering physical activity programming that emphasized girl choice, at least once per week during the program cycle. GEM also included social emotional wellness and mindful behavior components. All sites had access to a GEM toolkit to guide implementation. Sites were asked to complete pre-and-post FitnessGram tests (one-mile walk or PACER) to measure aerobic fitness and the Youth Activity Profile (YAP) to measure physical activity behavior. The RE-AIM framework was used to evaluate *Reach*, *Efficacy*, *Adoption*, *Implementation*, and *Maintenance*.

Results: *Reach* - A total of 2,043 out of 20,658 (9.9%) girls eligible across partner sites participated in at least one GEM session. Total enrollment was capped due to budget restrictions, so the maximum total enrollment was 2,305 (88.6%). Representativeness could not be accurately calculated at the individual level, but the participating sites primarily served African American girls (45.7%), followed by White (24.8%) and Hispanic (20.9%). *Efficacy* - FitnessGram and YAP data was not collected uniformly, so pre-and-post comparisons could not be made. This data was summarized to be used as a baseline to compare future years. A total of 636 girls completed the YAP and reported an average of 44.8 weekly minutes of physical activity. The PACER was completed by 69 girls at UWG and HMP partner sites. The average PACER score was 16.1. *Adoption* - A total of 120 sites (47 schools, 32 clubs, and 36 troops) adopted the initiative, covering 50 counties in Georgia. *Implementation*- The delivery of GEM varied between partners due to program year and personnel differences, as well as COVID related disruptions. UWG, HMP, and GBGC sites offered physical activity sessions for one hour per week as either a single session or two, 30-minute sessions. GSHG and GSA met at least once per month and the duration of the physical activity sessions varied. *Maintenance* - All partners continued implementation for a second year.

Conclusion: GEM nearly reached maximum enrollment during the pilot period. The implementation sites primarily served minoritized groups in a range of OST settings. Although there were challenges with data collection and variations in implementation that should be addressed for future cycles, GEM has the potential to become a sustainable physical activity initiative.

CORRESPONDING AUTHOR: Ashlee Davis, PhD, University of West Georgia, Carrollton, GA; ashleed@westga.edu

Abstract citation ID: kaad011.0163

POSTER SESSION A: EFFICACY OF A PUBLIC RECREATION SYSTEM-BASED CANCER RISK REDUCTION PROGRAM

Mary Hidde, PhD[1], Jamila L. Kwarteng, PhD, MS[1], Erica Wasserman[2], Sandra I. Contreras, BA[1], Margaret Tovar, MPH[1], Anjishnu Banerjee, PhD[1], Alexis Visotcky, MS[1], Ashley Sanchez[1], Kathleen Jensik, MSW[1], Melinda Stolley, PhD[1]

[1]Medical College of Wisconsin, Milwaukee, WI; [2]Milwaukee Recreation, Milwaukee, WI

Background: Cancer is a leading cause of death in Wisconsin with substantial disparities in outcomes observed for Blacks/African Americans (B/AA) living in Milwaukee. Diet and physical activity (PA) are risk factors for cancer and comorbidities, yet many communities have limited access to lifestyle change resources. We sought to create an accessible program to promote positive lifestyle changes to reduce cancer and comorbidity risk in those most impacted by health disparities.

Methods: The Total Wellness (TW) program was developed in partnership with an academic cancer center and Milwaukee Recreation (MKE Rec). The 16-week MKE Rec-based program (offered in two 8-week sessions) promotes adoption of the American Cancer Society Nutrition and PA guidelines. Twice weekly classes include information sharing, skills building (i.e., plant-based cooking), supervised exercise and group support. Participants who register for TW are invited to complete an evaluation including surveys on diet and PA patterns and fitness assessments at baseline, 8-weeks, and 16-weeks. Herein, we present changes in PA and diet from baseline to 8-weeks using signed rank tests.

Results: TW began January 2022 at one MKE Rec site and is offered each season, with plans to sustain the program. To date, 51 people have registered; enrollment is ongoing. Of these, 28 (50.04 ± 13.53 years, 35.6 ±1.4 kg/m^2, 71.4% B/AA) agreed to complete the evaluation with 17 completing baseline and 8-week evaluations and 11 more expected to complete late summer. Significant improvements were observed for diet and fitness. Participants significantly improved number of sit-to-stands (p=0.012), non-dominant handgrip strength (p=0.013), and reduced screen time (p=0.012). There were no significant changes in the 6-minute walk test (p=0.079). Regarding diet, participants significantly increased fruit (p=0.017) and vegetable (p=0.017) intake and decreased processed and/or red meat intake (p=0.008). Additionally, participants had a significant reduction in systolic (p=0.006) and diastolic (p=0.001) blood pressure.

Conclusions: MKE Rec successfully integrated the TW program into their system and documented high enrollment. Notably, TW was successful in improving PA and diet behaviors in a predominately B/AA population in Milwaukee. Future studies assessing long-term benefits of TW are warranted to establish the value of public recreation-based lifestyle behavior programs on community health.

CORRESPONDING AUTHOR: Mary Hidde, PhD, Medical College of Wisconsin, Milwaukee, WI; mchidde@gmail.com

---

Abstract citation ID: kaad011.0164

POSTER SESSION A: THE ASSOCIATION BETWEEN BODY IMAGE FLEXIBILITY AND MOTIVATION TO EXERCISE IN A LATINX COLLEGE STUDENT SAMPLE

Roberto Sagaribay III, MA[1], Angelica Aguirre[1], Jennifer Lopez Garcia[1], Aaron J Ochoa[1], Austin Vernon[1], Theodore V V. Cooper, PhD[1]

[1]University of Texas at El Paso, El Paso, TX

Body image flexibility refers to the ability to openly experience thoughts and feelings about the body without acting or making efforts to avoid or change them. Cross-sectional studies have reported strong associations between body image flexibility and lower levels of eating disorders and body image concerns. However, little is known about these relationships in Latinx college students and how body image flexibility is related to exercise motivation.

Participants (n = 708; M_{age}= 21.10, SD = 4.69, 78.7% Female) from a university on the border of the U.S. and Mexico were recruited through a web-based recruitment site. After providing online consent, participants were asked to complete questionnaires including: a demographic survey, the Body Image Acceptance and Action Questionnaire, and the Exercise Motivation Inventory (Appearance and Health subscales). A linear regression model assessed the association between body image flexibility, appearance-based and health-based exercise motivation; controlling for age, sex, and BMI.

The average BMI for participants was 25.67 (SD = 5.62). Body image flexibility was moderate (M = 51.16, SD = 28.94), and motivation to exercise for appearance (M = 18.88, SD = 4.44) and health (M = 15.28, SD = 3.29) were high. Increased body image flexibility was statistically associated with age (β = 1.477, p = .002), lower BMI (β = -1.667, p < .001), males (β = -19.889, p < .001), less appearance-based motivation to exercise (β = -2.581, p < .001), and more health-based exercise motivation (β = 1.347, p = .037).

That lower body image flexibility was associated with younger participants, higher BMI, and females suggests these groups may experience more sociocultural pressures than their counterparts. Findings are consistent with studies suggesting women and those with higher BMs report eating pathology and body image problems. However, studies have suggested that individuals who are high in body image flexibility are able to align behavior with their core values even when confronted with body image-related threats. That body image flexibility was associated with less appearance-based and more health-based exercise motivation suggests intrinsic motivations to exercise, and body image flexibility as a protective factor for excessive exercise. Including skills to improve body image for exercise-based interventions for Latinx college students may bolster health behavior change and improve sustainability of intervention effects over time.

CORRESPONDING AUTHOR: Roberto Sagaribay III, MA, University of Texas at El Paso, El Paso, TX; rsagaribay@miners.utep.edu

Abstract citation ID: kaad011.0165

POSTER SESSION A: NOVICE AND EXPERIENCED EXERCISERS REACT TO ATTENTIONAL INTERVENTIONS DISTINCTIVELY: A LATENT PROFILE ANALYSIS

Katrina Oselinsky, MS[1], Amanda N. Spitzer, BA[2], Yiqing (Skylar) Yu, BA[2], Katie McMahon, BS[2], Matea R. Ramey, BS[2], Dan J. Graham, PhD[2]

[1]Colorado State University, Denver, CO; [2]Colorado State University, Fort Collins, CO

Background: Research indicates dissociative attentional focus strategies can result in lowered ratings of perceived exertion (RPE) and greater enjoyment during exercise without impacting overall performance; however, this effect might depend on exerciser type.

Purpose: The goal of this study was to determine if distinct exerciser profiles exist within what was thought to be a homogenous sample and if these profiles suggest a differential effect of attentional focus on RPE, performance, and enjoyment.

Methods: Participants (N=31) were asked to take one traditional group cycling class with audio cues only (AUD) and one video-enhanced immersive (IMM) cycling class. Heart rate (HR) data was gathered throughout each class. After each session, participants reported RPE, attentional focus, and affect during the class. Latent profile analysis (LPA) was used to determine if distinct profiles existed for "novice" vs. "experienced" exercisers. Profiles were created using self-reported RPE, attentional focus, enjoyment, and time spent at ≥70% maximum heart rate (i.e., vigorous physical activity). Models with 1-4 classes were estimated.

Results: The 3-class solutions provided the best overall model fit to the data. Although class-1 was not acceptably large (representing ~3% of cases), the three class model was maintained as it was determined those in class-1 were not part of the target study population as they spent almost 50% of the class exercising below target intensity. The other two classes can be described as "experienced" and "novice" exercisers. The experienced profile was characterized by highly associative attention focus, a decrease in heart rate during IMM, equal enjoyment of AUD and IMM, and higher RPEs in AUD vs. IMM. The novice profile was characterized by more dissociative attentional focus during IMM vs AUD indicating they were paying attention to and were distracted by the immersive video. Additionally, the novice class was associated with lower RPE, greater enjoyment, and improved performance in IMM vs AUD.

Conclusions: For experienced exercisers the immersive video was not effective at reducing RPE and increasing enjoyment; further investigation into techniques to maximize performance are warranted. Novices, however, did benefit from the immersive video. As novice exercisers are the population for which exercise adherence is most beneficial, further research should seek to expand on the current work to determine if attentional focus mediates the relationship between RPE and affect for this population.

CORRESPONDING AUTHOR: Katrina Oselinsky, MS, Colorado State University, Denver, CO; katrina.oselinsky@colostate.edu

Abstract citation ID: kaad011.0166

POSTER SESSION A: THE ASSOCIATION BETWEEN POSSIBLE COGNITIVE IMPAIRMENT AND QUALITY OF LIFE IN OLDER ADULTS WITH EPILEPSY

Julia Thomas, PhD[1], Jaishree Narayanan, MD, PhD[2], Leslie Guidotti Breting, PhD, ABPP-Cn[3]

[1]Barrow Neurological Institute, Phoenix, AZ; [2]Private Practice, Paxton, MA; [3]NorthShore University Health System, Evanston, IL

Background: Maximizing quality of life (QOL) remains an important healthcare outcome. There is substantial research that demonstrates that people with epilepsy report lower QOL compared to healthy controls, but much less research on QOL in older adults (65+) with epilepsy (Baranowski, 2018). The purpose of the current study is to examine QOL differences in older adults with and without possible cognitive impairment (PCI), as determined by a screening measure in an outpatient epilepsy clinic. It was hypothesized that those with PCI would have lower QOL.

Method: All participants (N = 79) were over the age of 65 (M = 74.57, SD = 6.98); their data were analyzed retrospectively and cross-sectionally. Participants were either grouped into the PCI or without PCI group based on a cut score of ≤29 on the Short Test of Mental Status (STMS; Kokmen et al., 1987). QOL was measured using self-reported scores on the Quality of Life In Epilepsy 10-item weighted questionnaire (QOLIE-10-P; Cramer et al., 1996). Data were screened for missing data and outliers, and an independent samples t-test was used to examined differences in QOLIE-10-P scores between groups. Additional analyses explored group differences related to epilepsy, psychiatric, and demographic factors.

Results: Participants in the PCI group had significantly lower QOL (t (77) = -2.16, p = 0.03) and lower education (t (76) = -2.82, p < .01) than those without PCI. There were no significant differences in gender, number of anti-seizure medications, years since diagnosis, seizure frequency, anxiety, depression, or daytime sleepiness.

Discussion: Participants with PCI had lower QOL and education than those who passed the STMS. This echoes previous research that shows associations between cognitive dysfunction and lower QOL in epilepsy, but offers a needed focus on the understudied geriatric population. PCI in older adults may also be superimposed on seizure disorders, with comorbid factors such as neurodegenerative processes or sequalae of brain injury. Before sending patients for formal neuropsychological assessment, providers who work with this population have an opportunity to intervene and improve patient QOL by addressing barriers if they detect PCI on cognitive screening measures. This is an important step into creating more impactful care for older adults in practical settings.

CORRESPONDING AUTHOR: Julia Thomas, PhD, Barrow Neurological Institute, Phoenix, AZ; juliathomasphd@gmail.com

Abstract citation ID: kaad011.0167

POSTER SESSION A: AN EXAMINATION OF PERCEIVED STRESS AND SLEEP QUALITY ON INFORMAL CAREGIVERS' STRAIN

Imani Canton, MS[1], Ana Laura Selzer Ninomiya, MS[2], Diana Morales, BS[2], Jacqueline Guzman, MS[3], Yuliana Soto, MS[4], Helena Salgado Bonilla, MS[2], Susan Aguinaga, PhD[2]

[1]University of Illinois Urbana-Chamapign, Champaign, IL; [2]University of Illinois at Urbana-Champaign, Urbana, IL; [3]University of Illinois at Urbana-Champaign, Berwyn, IL; [4]University of Illinois at Urbana-Champaign\, Urbana, IL

Introduction: In the U.S., about 16.3 million informal caregivers provide nearly 18 billion hours of unpaid care for persons with Alzheimer's disease and related dementias (ADRD). Informal caregivers are crucial to maintaining the health and wellbeing of those with ADRD; however, less attention is paid to their own health. Caregivers report high levels of stress and poor sleep quality; however, little is known regarding how sleep further impacts caregiver strain. The purpose of this study was to examine the association of sleep disturbance and stress on strain among ADRD caregivers.

Methods: Participants were female caregivers who completed measures online (n= 299; M_{age} = 37.72 ± 13.75; 35.8% had a high school diploma; 83.3% have an income less than $75,000). Caregiver strain was assessed through the Modified Caregiver Strain Index, perceived stress was assessed through the Perceived Stress Scale, and sleep disturbance was assessed through one (Y/N) question: "Had sleep disturbance because of caring for my relative." A hierarchical sequential linear regression analysis was conducted to examine if sleep disturbance and perceived stress predict caregiver strain.

Results: Model 1 of the hierarchical regression revealed that caregiver age (R^2 = .047, β = -0.009, p = .04) and education (R^2 = 0.040, β = 0.725, p = 0.002) significantly contributed 4.7% of variance to caregiver strain. When perceived stress was added to the model, it explained 14.9% of variance (R^2 = 0.188, β= 0.380; p < 0.001). Lastly, when sleep disturbance was added, it explained 1.8% of variance (R^2 = 0.203, β= 1.78; p = 0.011). Furthermore, all 3 ANOVAs were statistically significant [F (2, 294) = 7.23; p < 0.001; F (3, 293) = 23.85; p < 0.001; F (4, 292) = 19.88; p < 0.001], respectively.

Discussion: Our findings support the current literature in that high stress significantly contributes to strain among ADRD caregivers. Though sleep disturbance also contributed to strain, the model with perceived stress and not sleep disturbance best explained variance in caregiver strain. The results suggest that ADRD caregivers likely experience sleep disturbances, but more research is needed to understand the relationship between strain and sleep. However, it is evident that perceived stress significantly impacts strain. Future interventions should be specifically tailored towards ADRD caregivers to decrease their stress.

CORRESPONDING AUTHOR: Imani Canton, MS, University of Illinois Urbana-Chamapign, Champaign, IL; icanton2@illinois.edu

---

Abstract citation ID: kaad011.0168

POSTER SESSION A: BEHAVIORAL CHARACTERISTICS ASSOCIATED WITH CPAP THERAPY USAGE IN OBSTRUCTIVE SLEEP APNEA AT ONE YEAR

Leanne Kaye, PhD, MPH, RD[1], Vy Vuong, MPS[1], Adam Benjafield, PhD[2], Priyanshu Gupta, MS[3], Meredith A. Barrett, PhD[4]

[1]ResMed Science Center, NA, CA; [2]Resmed, NA, New South Wales, Australia; [3]ResMed, NA, New South Wales, Australia; [4]ResMed, NA, OR

Rationale: Obstructive sleep apnea (OSA) is a sleep disordered breathing condition that can result in worsening cardiovascular and metabolic health. Continuous positive airway pressure (CPAP) is an effective treatment for OSA; however, treatment adherence is often suboptimal. Identification of psychosocial characteristics associated with CPAP usage may inform theory-based interventions to promote therapy uptake.

Methods: Patients (18+) receiving CPAP therapy and enrolled in the myAir companion app (ResMed, San Diego) were invited to complete an emailed questionnaire between March and April 2021. Eligible patients were fluent in English, resided in the US and had ≥360 days of CPAP treatment data. The questionnaire examined perceived health and sleep status, treatment knowledge and experience, and psychosocial characteristics. Guided by the Social Cognitive Theory, we conducted retrospective analyses exploring the association between 360-day CPAP usage and: 1) knowledge (2 questions), 2) confidence (3 questions), 3) motivation (5 questions), 4) social support (5 questions) and, 5) perceived health status (1 question). 360-day usage was defined as non-termination of therapy at day 360, where therapy termination was defined as 30 consecutive days of zero usage. We report baseline characteristics and outcomes from multivariable logistic regressions adjusting for age, gender, marital status, self-reported baseline BMI, and diagnostic apnea hypopnea index.

Results: Data from 6,753 patients were analyzed (mean (SD) age: 60 (13) years, 40.2% female, mean (SD) BMI 34.8 (9.1)). The percent of patients with mild, moderate or severe sleep apnea was: 19.1%, 17.3%, 26.1%, respectively. Greater motivation ("What keeps you most motivated to stay on CPAP?"), confidence ("How confident are you that you will continue using CPAP in the next 90 days?"), social support ("Who keeps you motivated to seek treatment?"), and perceived improvement in health status ("How much have your OSA-related symptoms changed since using CPAP treatment?") was significantly associated with usage; all p< 0.05. Knowledge of treatment options was not significantly associated with 360-day usage.

Conclusion: Select cognitive, behavioral and environmental factors may promote longer-term usage of CPAP therapy among adults with OSA. Consideration of potential moderators (e.g., types/sources of knowledge) should be further explored, as well as predictors related to therapy reimbursement (ie., 90-day CPAP use).

CORRESPONDING AUTHOR: Leanne Kaye, PhD, MPH, RD, ResMed Science Center, NA, CA; leanne.kaye@resmed.com

Abstract citation ID: kaad011.0169

POSTER SESSION A: PRENATAL SLEEP QUALITY MODERATES POSTPARTUM DEPRESSIVE SYMPTOMS AMONG WOMEN WITH OVERWEIGHT/OBESITY

Abigail M. Pauley, PhD[1], Danielle Symons Downs, PhD[2]

[1]Pennsylvania State University, Hollidaysburg, PA; [2]The Pennsylvania State University, University Park, PA

Poor sleep quality and psychological health are frequently reported by women during pregnancy and postpartum. Recent evidence suggests that weight status and gestational age may moderate these factors, but limited research has examined other potential moderators that may increase the risk for adverse pregnancy outcomes. The objective of this secondary analyses study was to examine the moderating influence of prenatal sleep quality on postpartum sleep behaviors and psychological health among women with overweight and obesity (OW/OB).

Methods: Participants were 23 women with OW/OB (*M* age = 30.2 years, *SD* = 3.5) from Healthy Mom Zone, an adaptive intervention to regulate gestational weight gain. Women completed the Pittsburgh Sleep Quality Index (PSQI) during the post-intervention assessment (~34-36 weeks gestation). At the 6-week postpartum follow-up, they also wore a wrist-mounted monitor to assess nighttime awakenings and sleep duration (averaged over 7-days) and completed the Perceived Stress Scale (high stress score = 27-40) and Edinburgh Postnatal Depression Scale (EPDS; possible depression ≥ 10); both self-report measures were completed once during the 7-days. Women were classified as having poor sleep quality (PSQI ≥ 5; *n*=13) or good sleep quality (PSQI < 5; *n* = 10) in the 3rd trimester. One-way ANOVAs controlling for study assignment (intervention, control) were used to examine group differences in sleep quality.

Results: The total sample reported high nighttime awakenings (*M* = 1.7, SD = 0.7), short nighttime sleep duration (*M* = 6.5 hours/night, SD = 97.7), high stress (*M* = 28.4, SD = 7.1), and symptoms of possible depression (*M* = 17.6, SD = 2.9). Although the group difference was not significant (*p* = 0.21), women with poorer 3rd trimester sleep quality had shorter postpartum sleep duration (*M* = 6.2 hours/night) than women with good sleep quality (*M* = 8.5 hours/night). Women with poor 3rd trimester sleep quality had significantly higher PPTM EPDS scores compared to those with good sleep quality (F = 5.7, df (1,19), *p* < 0.05). There were no significant group differences for nighttime awakenings (*p* = 0.78) or perceived stress (*p* = 0.09).

Conclusion: Prenatal sleep quality appeared to moderate postpartum depressive symptoms in this sample of women with OW/OB. Improving prenatal sleep quality may be one modifiable intervention target to protect against postpartum depressive symptoms and, in turn, reduce the risk for adverse outcomes. However, more research is needed to examine potential mechanistic pathways to confirm these findings.

CORRESPONDING AUTHOR: Abigail M. Pauley, PhD, Pennsylvania State University, Hollidaysburg, PA; amp34@psu.edu

---

Abstract citation ID: kaad011.0170

POSTER SESSION A: SLEEP DISTURBANCE IN STROKE SURVIVORS: A PILOT STUDY WITH A RING PULSE OXIMETER SENSOR

Temmy L. T. Lo, PhD[1], Ian C. H. Leung[1], Rainbow T.H. Ho, PhD[1]

[1]Centre on Behavioral Health, The University of Hong Kong, Hong Kong, N/A, Hong Kong

Introduction: Sleep disturbances are common among stroke survivors, which associate with poor rehabilitation outcomes, a higher risk of recurrent stroke or mortality, and are detrimental to the post-stroke quality of life. Despite its high commonality and significance in determining the quality of post-stroke life, the awareness of screening or treating sleep disturbance remains low. This study aimed to examine the feasibility of applying a ring-shaped pulse oximeter sensor to stroke survivors and providing a more convenient and reliable device to screen for sleep disturbances in stroke survivors.

Methods: The study recruited 35 participants by convenience sampling with 33 stroke survivors (60.6% male, 51.5% mRS level 1, Mean age = 61.79 years, *SD* = 7.373) at least submitted one full sleep report. They previously experienced at least one major stroke episode from 2 to 221 months (Mean = 92.91 months, *SD* = 57.739). Participants were invited to respond to a questionnaire that measured stress, sleep quality, and generic quality of life. Participants were instructed to wear the ring while sleeping for three consecutive nights within one week. Measured objective sleep parameters included sleep duration, sleep efficiency, Apnea Hypopnea Index (AHI), and Oxygen Desaturation Index (ODI). The objective sleep parameters were computed as averages over the sleep report(s) from each participant.

Results: The ring revealed that the mean sleep duration was 335.52 minutes (*SD* = 90.619), less than 6 hours, the average sleep duration of the normal older adult population. Around 80% of participants recorded sleep efficiency (the % of sleep time during the recording time) lower than 85%, which presented a high tendency for insomnia. The prevalence rate was higher than in general populations (10-60%) and other stroke studies (~40%). Around 85% of participants were detected with mild to moderate severity of sleep apnea and mild to severe levels of oxygen disturbance. The prevalence rate was also higher than in general populations (~20%) and other stroke studies (~70%). In contrast, only 57.6% of participants were indicated as with sleep disorder(s) in Pittsburg Sleep Quality Index (cut-off score >5). No significant associations were found between self-reported measures and objective sleep parameters.

Conclusions: The results suggested that the prevalence of sleep disturbances among stroke survivors was high. The ring-shaped oximeter device could preliminarily help screen survivors with sleep disturbances, particularly sleep apnea and insomnia. Merely relying on subjective measures of sleep quality in stroke survivors may not be sufficient to screen out survivors with sleep disturbances. A larger sample with a healthy comparable control group helps further confirm the device's sensibility.

CORRESPONDING AUTHOR: Rainbow T.H. Ho, PhD, Centre on Behavioral Health, The University of Hong Kong, Hong Kong, N/A, Hong Kong; tinho@hku.hk

Abstract citation ID: kaad011.0171

POSTER SESSION A: SOCIAL DETERMINANTS OF HEALTH, HEALTH BEHAVIOR, AND HEALTH OUTCOMES AMONG YOUNG ADULTS

Heather K. Hardin, PhD, RN[1], Anna E. Bender, PhD, MSW[2], Khannah Wetmore, MSSA, LSW[3]

[1]Case Western Reserve University, Clevleand, SC; [2]University of Washington, Seattle, WA; [3]Case Western Reserve University, Cleveland, OH

Purpose: The purpose of this study was to examine associations between social determinants of health, health behavior, and health outcomes among young adults ages 18-25 years in the U.S. during the coronavirus-19 pandemic.

Methods: A cross-sectional descriptive survey of 250 young adults aged 18-25 years was conducted in July 2020 via online platforms (Reddit, Twitter, Facebook, email). Due to small cell counts, participants who identified as Native American/American Indian or Native Hawaiian/Pacific Islander were collapsed into a single category (Indigenous). Frequencies and correlations examined social determinants of health, health behavior, and health outcomes among participants. Hierarchical multiple regression was employed to examine associations between social determinants of health, health behavior (sleep, stress management), and health outcomes (general physical health, coronavirus-19 anxiety, depressive symptoms).

Results: Half of participants identified as male and the participants were primarily white, non-Hispanic/Latinx, single, and had at least some college. Greater general physical health was associated with lower levels of loneliness, lower levels of sleep disturbance, greater stress management, and lower levels of depressive symptoms. Greater coronavirus-19 anxiety was associated with identifying as Black or Indigenous, greater loneliness, and greater depressive symptoms. Greater depressive symptoms were associated with lower household income, greater loneliness, lower trust of healthcare provider, lower levels of stress management, greater sleep disturbance, greater coronavirus-19 anxiety, and lower levels of general physical health. With general physical health, the regression model as a whole predicted 20% of the variance [F (10, 112) = 2.82, p < .01], which was predicted by stress management and sleep disturbance. With coronavirus-19 anxiety, the regression model as a whole predicted 25% of the variance in [F (10, 112) = 3.09, p < .01], which was predicted by Black or Indigenous identity. With depressive symptoms, the regression model as a whole predicted 56% of the variance [F (10, 112) = 12.07, p < .01], which was predicted by Black or Indigenous identity, lower household income, lower levels of trust of healthcare provider, greater loneliness, lower levels of stress management, and greater sleep disturbance.

Conclusions: Overall, general physical health was predicted by health behaviors, coronavirus-19 anxiety was predicted by social determinants of health, and depressive symptoms were predicted by a combination of social determinants of health and health behaviors. Interventions are necessary to change health behaviors, such as sleep and stress management, and to connect young adults with primary healthcare providers to translate science into impact for improved physical and mental health outcomes among young adults.

CORRESPONDING AUTHOR: Heather K. Hardin, PhD, RN, Case Western Reserve University, Clevleand, SC; hkh10@case.edu

---

Abstract citation ID: kaad011.0172

POSTER SESSION A: HIGH SOCIAL AND VERBAL SOOTHE-TO-SLEEP METHODS FOR NEWBORNS MAY INCREASE RATE OF WEIGHT GAIN VIA REDUCTIONS IN SLEEP DURATION

Megan E. Petrov, PhD[1], Jingmin Shu, PhD, MD[1], Li Liu, PhD[2], Nana Jiao, MSN[1], Corrie M. Whisner, PhD[1]

[1]Arizona State University, Phoenix, AZ; [2]Arizona State University, Tempe, AZ

Background: Bedtime settling strategies that deemphasize active physical comforting are linked with less parent-reported infant sleep problems. Further, short sleep duration and longer sleep bouts in early infancy are related to increased risk for obesity and subcutaneous adiposity, respectively. Our aim was to examine the direct and indirect relationships between bedtime settling strategies and parent-reported infant sleep at 3 months of age with weight change from birth to 3 months of age.

Methods: English or Spanish speaking mothers (n=47, 31.8±5.9y, 46.8% Hispanic, 22.3% < high school degree) and their full-term (≥37wk), singleton infants with normal weight (2.5-4kg) and without major complications were recruited from Phoenix, Arizona. At 3 months of age, mothers reported infant nocturnal sleep duration and longest nocturnal sleep bout with the Brief Infant Sleep Questionnaire-Revised and completed the Parental Interactive Bedtime Behaviours Scale (PIBBS) including subscales focusing on encouraging bedtime autonomy, active physical comforting, and social comforting. Weight at birth was mother-reported and obtained objectively at 3 months. Mediation models assessing for sleep as a mediator between PIBBS subscales and weight change were tested.

Results: Models examining PIBBS subscales with infant sleep indicated that after controlling for infant sex, greater active physical comforting (b=-0.002, p=0.0004) and social comforting (b=-0.05, p=0.047), were related to less nocturnal sleep duration. In models examining sleep with weight change, after adjustment for infant sex, birthweight, and feeding mode, greater nocturnal sleep duration was related to less weight change (b=-0.67, p=0.02). Models examining PIBBS subscales with infant growth indicated that after adjustment for infant sex, birthweight, and all other PIBBS subscales, greater social comforting was related to greater weight change (b=0.05, p=0.03). Mediation models revealed that after adjusting for infant sex, birthweight, longest nocturnal sleep bout, and all other PIBBS subscales, the direct, positive association between the social comforting and weight change (b=0.08, p=0.02) was significantly partially mediated by nocturnal sleep duration (b=0.033, p=0.05).

Conclusions: In a small sample of normally developing newborns, parents who used more social comforting strategies at bedtime had babies with more rapid weight gain, which was partly explained by reductions in nighttime sleep duration.

CORRESPONDING AUTHOR: Megan E. Petrov, PhD, Arizona State University, Phoenix, AZ; megan.petrov@asu.edu

Abstract citation ID: kaad011.0173

POSTER SESSION A: TREATMENT PREFERENCES OF MIDLIFE WOMEN WITH AND WITHOUT INSOMNIA

Leilani Feliciano, PhD[1], Andrew Lac, PhD[1], Katie Oltz, BAS[1], Michele L. Okun, PhD[1]

[1]University of Colorado Colorado Springs, Colorado Springs, CO

Insomnia symptoms (difficulty falling or staying asleep, and/or nonrestorative sleep, impeding daytime function) are notably prevalent in midlife women. Midlife marks an important developmental period for women as hormonal changes are occurring (estrogen production declines), evolving caregiving and social roles, and increased risk for chronic illness. Midlife women (ages 50-64) can experience menopause symptoms (perimenopausal) or be in postmenopause (≥12 months without a menstrual cycle). Yet, higher odds ratios for women experiencing sleep disturbances arise in perimenopause (1.60) and postmenopause (1.67) compared to premenopause, especially difficulty falling asleep or nightly wakenings. Insomnia can impact both physical and mental health and have long-term adverse effects on wellbeing, but few midlife women seek treatment for insomnia. This study aimed to understand midlife women's preferences for the format of sleep treatments.

Participants (N = 449), Mage = 62.71 years (SD = 5.53; range 50-84) were recruited via Mechanical Turk. Seventy-eight percent of women were postmenopausal and the rest were perimenopausal. A series of logistic regression models examined sleep treatment preferences for modality (in person vs. online), format (group vs. individual), and session number (1, 2, or 4). Predictors included age, race, marital status, education, health status, menopausal status, and Insomnia Severity Index scores.

Only significant (p < .05) results of the logistic regression models are reported here. Older age, being married, and perimenopause, uniquely predicted stronger preference for in person (vs. online) modality. Better health predicted preference for group (vs. individual) format. Participants without insomnia preferred the one 4-hour session (vs. two 2-hour sessions). Perimenopause, better health status, and lack of insomnia uniquely predicted preference for one 4-hour session (vs. four 1-hour sessions). Additionally, higher education, lower income, perimenopause, and better health uniquely predicted preference for two (vs. four 1-hour sessions).

Despite high prevalence of sleep disorders and adverse health risks, few insomnia studies have focused on midlife women. Preference for modality, format, and number of sessions are impacted by demographic and health variables. Understanding sleep treatment preferences and offering treatments tailored to those preferences may encourage more help seeking and accessing of these interventions in midlife.

CORRESPONDING AUTHOR: Leilani Feliciano, PhD, University of Colorado Colorado Springs, Colorado Springs, CO; lfelicia@uccs.edu

---

Abstract citation ID: kaad011.0174

POSTER SESSION A: MODERNIZATION INDICATORS AND HEALTH DISPARITIES AMONG ASIAN INDIANS

Biswadeep Dhar, PhD, MEd, MS[1]

[1]University of Illinois Chicago, College of Medicine, Rockford, IL

To date, there have not been any studies in India where the concept of modernization has been studied beyond demographic shifts, and there has not been an examination of how modernization can influence food consumption and related lifestyle behaviors associated with chronic diseases. Modernization theory will drive the way to explain modernization in a developing nation like India, whereas fundamental cause theory will predict how individuals or households differ in health behavioral outcomes when there is a variation in the fundamental cause, which is denoted by the socioeconomic conditions. This study has developed a multidimensional construct of modernization by using the predictors of modernization supported by the existing research literature. Using panel data from the India Human Development Survey (comprising 2005 and 2012), this study focused on households and individuals, allowing an examination of societal transition over that time, while examining lifestyle behaviors and chronic disease trends during this period. The longitudinal nature of this panel makes it unique in studying the changes in societal development and the emerging role of modernization in India. Based on the results from exploratory principal component factor analysis, composite scores for modernization were measured for 2005 & 2012 and differences between 2005 & 2012 indicated that there was higher modernization mean scores in the year 2012 (2.99) compared to 2005 (2.84). Paired t-test showed a t-value of -22.706, p< 0.001(M=-.149, SD=1.137, df=30004) with high statistical significance. The mean difference between 2005 and 2012 was 14.9% higher in 2012 than in 2005 with (p< 0.001). In addition, the mean modernization score for rural areas in 2005 was 2.83 whereas it was 3.15 in urban areas, and this difference was found to be statistically significant (t=-3.097, p< 0.05). Whereas, in 2012, the mean modernization score for rural areas was 2.95, whereas it was 3.78 in urban areas, which was a statistically significant difference (t=-21.629, p< 0.001). Results from this study also found that modernization mediated the lifestyle behaviors associated with chronic diseases in the year 2005. However, there was a moderation effect in 2012, which was due to the interaction effect between modernization scores and lifestyle scores, thereby resulting in increased strength of association between modernization and chronic disease initiation. The results from this study suggest the need for policy-based interventions aimed in understanding the impact of modernization in India on consumer food habits and lifestyle behavioral changes due to the rapid advancement in technology, and developing interventions to reduce chronic health disparities in India.

CORRESPONDING AUTHOR: Biswadeep Dhar, PhD, MEd, MS, University of Illinois Chicago, College of Medicine, Rockford, IL; bdhar@uic.edu

Abstract citation ID: kaad011.0175

POSTER SESSION A: WHERE TO FOCUS OUR EFFORTS: STATE OF THE EVIDENCE FOR MECHANISMS OF ACTION THAT SUPPORT MAINTENANCE OF BEHAVIOR CHANGE

Allecia Reid, PhD[1], Lauren C. Bohlen, PhD[2], Katie Witkiewitz, PhD[3], Kate B. Carey, PhD[4]

[1]University of Massachusetts Amherst, Amherst, MA; [2]Brown University School of Public Health, Providence, RI; [3]University of New Mexico, Albuquerque, NM; [4]Brown University, Providence, RI

Myriad theories have been developed to explain the factors that support long-term maintenance of behavior change. A 2016 review classified 47 existing theories of maintenance under five broad categories (e.g., self-regulation). However, the utility of individual constructs within each theory for promoting maintenance remains unclear. Identifying which constructs are most likely to support maintenance is critical for streamlining and improving the efficacy of maintenance interventions.We therefore conducted a review of maintenance theories to identify which constructs have been cited most frequently and thus are most likely to promote maintenance.

We extracted constructs proposed to promote maintenance from the 47 theories identified in the prior review. As theories give different names to similar constructs, two PhD-level coders categorized constructs under 26 broad mechanisms of action identified in prior theory work. Disagreements were resolved via discussion.

In all, 123 constructs were extracted from the theories, speaking to the need to consider constructs within theories rather than theories as a whole. The 123 constructs reflected 21 of the 26 mechanisms of action. The top five mechanisms identified in theories were: behavioral regulation (i.e., skills for managing behavior; identified in 38% of theories), environmental context and resources that support change (24%), automatic cueing of behavior (22%), motivation to change (18%), and self-efficacy (16%). In contrast, attitudes, which may be more relevant for initiation than maintenance, were only noted in 6% of theories.

Theories noting a role of behavioral regulation in maintenance emphasized problem solving barriers to change and disrupting existing habits that support performance of the unwanted behavior. Theories including behavioral cueing likewise noted that automatic processes can prompt or “cue” behavior and that long-term maintenance requires creation of new habits. Inclusion of these mechanisms among the top five indicates the importance of breaking old and forming new habits when promoting maintenance.

Theories highlighting the role of environmental context and resources noted the importance of resources that support the behavior (e.g., alternatives to the unwanted behavior) and that the environment can promote or inhibit long-term change. Most theories discussed general rather than maintenance-specific characterizations of motivation to change (88%) and self-efficacy (57%). However, motivation and self-efficacy for maintenance are likely better intervention targets for long-term maintenance. Areas where behavior change techniques for targeting each mechanism are well-defined versus require more empirical attention were also noted. This work provides an agenda for future maintenance interventions and supports focusing on these top five mechanisms.

CORRESPONDING AUTHOR: Allecia Reid, PhD, University of Massachusetts Amherst, Amherst, MA; aereid@umass.edu

Abstract citation ID: kaad011.0176

POSTER SESSION A: “I CAN NEVER FEEL SAFE IN PLACES THAT I AM SUPPOSED TO FEEL SAFE” LATINX YOUTH VOICES ON PSYCHOSOCIAL IMPACT OF IMMIGRATION POLICIES

Emily D. Lemon, MPH[1], Yesnely Flores, MPH[1], Viridiana Fuentes[2], Jonathan Peraza Campos, MA[3], Briana Woods-Jaeger, MS, PhD[1]

[1]Emory University, Atlanta, GA; [2]N/A, Atlanta, GA; [3]Buford Hwy Peoples Hub, Atlanta, GA

Introduction: Adolescent exposure to immigration enforcement or to the threat of enforcement is associated with increased depression, distress, and suicidal ideation. However, there is limited research led by youth that gives voice to the experience of living their formative years under local enforcement policies like the 287(g) program.

Methods: We used photovoice, a youth participatory action research method, to explore youth perspectives and experiences of immigration policy environment and enforcement on Latinx youth mental health. We conducted our research in Gwinnett County, Georgia, known as the “most productive” 287(g) county in the U.S. for nearly 10 years. Ten Latinx youth who lived the last five years in Gwinnett County participated in photovoice sessions which included orientation, four SHOWED photo analysis sessions, and two community forum planning sessions.

Results: Youth identified several impacts on Latinx youth mental health including: 1) Fear and uncertainty inhibits everyday activities and opportunities 2) Loss of childhood, family, and culture create sadness, isolation 3) Discrimination against Latinx identity, language and culture causes negative emotions 4) Youth need spaces to feel safe, express feelings, and be their authentic selves but safe spaces are impacted by policing, assimilation and gentrification 5) Forming community and advocating for change make youth stronger and more confident.

Conclusions: The constant threat of deportation is harmful for adolescent Latinx youth mental health and intersects with pressures of assimilation and gentrification. There is a need for community-level interventions that emphasize creating safe spaces for youth to express emotions and form cultural and community connections.

CORRESPONDING AUTHOR: Emily D. Lemon, MPH, Emory University, Atlanta, GA; emily.lemon@emory.edu

Abstract citation ID: kaad011.0177

POSTER SESSION A: UNDERSTANDING COVID-19 VACCINE HESITANCY AMONG FIREFIGHTERS: APPLICATION OF THE HEALTH BELIEF MODEL

Stephanie A. Hooker, PhD, MPH[1], Zeke J. McKinney, MD, MPH, MHI[2], Jule M. Muegge, MPH[1], Jeanette Y. Ziegenfuss, PhD[1], Jennifer M. Dinh, MPH[1], Nathalee Belser, MD, MPA[3], Dominik S. Dabrowski, MD, MPH[4], Ashley M. Nadeau, MD[5]

[1]HealthPartners Institute, Bloomington, MN; [2]HealthPartners, Bloomington, MN; [3]HealthPartners, St. Paul, MN; [4]HealthPartners, St. Louis Park, MN, MN; [5]HealthPartners, St. Louis Park, MN

Vaccination is one of the major tools to combat COVID-19, yet many are hesitant to get vaccinated. Hesitancy is especially concerning among individuals with high occupational exposure risks, such as firefighters. Although little is known about hesitancy among firefighters, previous data indicates that more than half of firefighters surveyed expressed uncertainty about getting vaccinated prior to vaccine availability. This study assessed the prevalence of COVID-19 vaccination among firefighters in the state of Minnesota (MN) and explored whether attitudes, informed by the Health Belief Model (HBM), were associated with being fully vaccinated or receiving a booster shot. A cross-sectional online survey, designed to take 5-10 minutes, was made available to firefighters throughout MN in March – April 2022. The survey was distributed via email lists from state firefighting leadership and union organizations and subsequent snowball sampling. Of the 19,911 firefighters in MN, 974 firefighters (91% male, 89% white) reported on their roles in their respective fire departments, current vaccination status, and attitudes towards COVID-19 and vaccines. Logistic regression models were used to examine the associations between demographic and attitudinal variables and whether firefighters were fully vaccinated (two doses of mRNA vaccines or one dose of DNA viral vector vaccine; outcome=1) or not (outcome=0) or were boosted (additional doses beyond "fully vaccinated"; outcome=1) or not (including all firefighters, vaccinated or not; outcome=0). Results revealed that 74% of firefighters were fully vaccinated and 53% were boosted. Firefighters had lower odds of being vaccinated if they reported more concerns about vaccine safety and side effects (OR=0.40, p< .001), greater ease of decision making (OR=0.41, p< .001), and greater autonomy (OR=0.67, p=.04), and greater odds of being vaccinated if they believed the vaccine protects them from COVID-19 (OR=2.57, p< .001) and if more of their family/friends were vaccinated (OR=2.09, p< .001). Similar results were seen predicting booster status. Perceived susceptibility and severity of COVID-19 were not related to vaccination or booster status. This study demonstrated that our respondent pool of firefighters has similar rates of vaccination to the general population, despite having high exposure risks. This study was likely limited by volunteer bias. Attitudinal constructs, informed by the HBM, may be key targets to encourage vaccination.

CORRESPONDING AUTHOR: Stephanie A. Hooker, PhD, MPH, HealthPartners Institute, Bloomington, MN; stephanie.a.hooker@healthpartners.com

---

Abstract citation ID: kaad011.0178

POSTER SESSION A: DOES SOCIAL NETWORK DENSITY FACILITATE HEALTHCARE ACCESS AND UTILIZATION FOR RACIAL-ETHNIC MINORITY ADULTS/OLDER ADULTS?

Melissa A. Flores[1], Kelly Palmer, PhD, MHS[2]

[1]The University of Arizona, Tucson, AZ; [2]University of Arizona College of Public Health, Tucson, AZ

Introduction: There is a vast literature demonstrating the benefits of social integration on healthcare access and utilization. However, much of this literature ignores social network infrastructure which can be uniquely captured using social network analysis. Recent literature suggests that adults from racial-ethnic minority backgrounds have densely connected social networks and corresponding lower cardiovascular risk when compared with their non-Hispanic white counterparts. Yet, little is known whether having a densely connected social network facilitates healthcare utilization. Thus, the aim of our study was to understand whether social network density may influence the probability of accessing healthcare across racial-ethnic groups over a 5-year period in a national sample of adults/older adults.

Method: For this study, we used Waves 1 (2005-2006), and 2 (2010-2011) from The National Social Life, Health, and Aging Project, a nationally representative study of US adults to older adults (*N* = 2,253). Social network density is equal to the number of ties between members in a social network divided by the number of possible ties and was calculated using social network analysis. Outcomes representing healthcare access and utilization were measured using the following Wave 2 binary variables (0 = no, 1 = yes): 1) "Do you have a place to go when you are ill?", and 2) "Have you visited the doctor in last 12 months?". Multiple logistic regressions were estimated with each binary outcome regressed on an interaction term of social network density and racial-ethnic group, their main effects, and relevant covariates including baseline healthcare access, education, age, and gender.

Results: Social network density was a significant moderator of the association between racial-ethnic group and healthcare access (Wald $\chi 2$ (3, 1985) = 7.11, *p* < 0.01) and utilization (Wald $\chi 2$ (3, 1988) = 11.74, *p* < 0.01). Contrary to our expectations, social network density was only beneficial for non-Hispanic white adults/older adults. At high (versus low) levels of social network density, non-Hispanic White adults were more likely to endorse having a place to go when they felt ill, OR = 2.97, 95% CI (0.69, 13.38) and were significantly more likely to see a doctor in the past 12 months when compared with Latinx/Hispanic adults/older adults OR = 3.07, 95% CI (1.17, 7.78).

Conclusion: Although past literature suggests social network density may offer physiological benefits for adults from racial-ethnic minority backgrounds, we did not find that it is protective for healthcare access and utilization. Further research is needed to understand how differences in social network infrastructure may result in different downstream health effects across groups.

CORRESPONDING AUTHOR: Melissa A. Flores, The University of Arizona, Tucson, AZ; maflor@arizona.edu

Abstract citation ID: kaad011.0179

POSTER SESSION A: UNDERSTANDING ACCESS TO SAFETY NET SERVICES IN U.S. COUNTIES

Bibiana Martinez, MPH[1], Christopher Rogers, PhD, MPH[2], Kasturi Bhamidipati[3], Jo Kay Ghosh, PhD, MPH[4]

[1]Heluna Health, Industry, CA; [2]California State University, Northridge, Northridge, CA; [3]Columbia University, New York, NY; [4]Heluna Health, City of Industry, CA

Background: Much of the progress in morbidity and mortality in the United States is associated with improvements in housing, sanitation, nutrition, and access to medical technologies. Access to safety net services, such as housing programs, food and nutritional assistance programs, health insurance, and unemployment benefits vary widely across the nation based on local policies. We developed a county-level index to help illustrate trends and patterns in safety net access across the country.

Methods: We compiled data from the Census Bureau, US Department of Agriculture, and the University of Wisconsin's County Health Rankings. Access to housing considered severe housing problems and housing cost burden. To assess quality food access, we calculated SNAP and WIC participation rates and incorporated the Food Environment Index. Health insurance access was measured for adults and minors. The unemployment benefits measure included households with broadband internet service (proxy for access) and a comparison of benefit amounts to local cost of living. All measures were converted into percentages and averaged into subdomains; subdomain scores were then averaged for a final county-level measure of safety net services access, with higher scores denoting better access. Descriptive statistics and regression models were used to explore patterns of access.

Results: The overall mean score of access to safety net services in US counties (N=3142) was 0.74. On average, scores for access to housing (0.88) and health insurance (0.90) were higher than access to quality food (0.60) and unemployment benefits (0.59). Broad disparities emerged between the highest and lowest scoring counties for all domains; geographically, better safety net access was found in the Northeast region and worst access in the South. Lower access to social safety net services were associated with counties with that had higher proportions of younger adults (compared to aged 65+), Hispanic and non-white populations (compared to white), and higher rurality.

Discussion: Our index pinpoints substantial unmet needs in the access to safety net benefits for non-white and rural populations across the country, which must be addressed to improve population health. Future research will explore the association between index scores and specific health outcome measures to guide development of interventions that support vulnerable populations.

CORRESPONDING AUTHOR: Bibiana Martinez, MPH, Heluna Health, Industry, CA; bmartinez@helunahealth.org

---

Abstract citation ID: kaad011.0180

POSTER SESSION A: LIVING IN THE COVID-19 ERA: IMPACT OF LIVING ARRANGEMENTS ON MENTAL HEALTH AND HEALTH-RELATED BEHAVIORS

Rose Martillotti, BA[1], Anne Moyer, PhD[2], Brady Nelson, PhD[2], Lauren Richmond, PhD[2], Jessica Schleider, PhD[2], Bonita London, PhD[2]

[1]Stony Brook University, Setauket, NY; [2]Stony Brook University, Stony Brook, NY

Background: With quarantines and forced isolation, the COVID-19 pandemic caused many individuals extreme stress, with the potential to affect their mental and physical health. Due to health precautions, individuals could not see friends, family, and colleagues and had perhaps unusually extended contact with the people in their household. Living arrangements varied with respect to the number of people sheltering in place together and their relationship to one another. Given the role of social support in well-being, it is important to understand how different living arrangements affected individuals during this period of unprecedented upheaval.

Purpose: To evaluate how different living arrangements (alone, with roommates, and with family/romantic partners), while stay-at-home orders were in place, affected individuals' mental health and health-related behaviors, and the extent to which social support predicted these for people living in each of these situations.

Methods: Data were collected from undergraduate and graduate students, faculty, and staff who were part of a Northeastern U.S. university community from May to August, 2020, when the population had been in lockdown for some time and vaccines were not yet available. The survey included measures of anxiety (General Anxiety Disorder-7) and depression (Patient Health Questionnaire-9), and items asking about health-related behaviors (eating, sleeping, exercise, smoking, and drinking alcohol), and social support. We examined associations between social support and anxiety, depression, and health-related behaviors and compared levels of these variables across the living arrangement groups.

Results: Social support significantly predicted superior mental health for people in each of the three groups, with the exception of anxiety for those living alone. The strongest correlation was between social support and depression for those living alone, $r(22) = -.72$, $p < .0001$. There were no significant differences in social support, mental health, or health-related behaviors across groups.

Conclusion: There was some evidence that those with more social support, regardless of their living situation, fared better in terms of mental health, suggesting the importance of this factor during unprecedented times of uncertainty and stress. The lack of group differences across living conditions may indicate that virtual means allowed individuals to stay connected and feel supported throughout the pandemic in important ways.

CORRESPONDING AUTHOR: Rose Martillotti, BA, Stony Brook University, Setauket, NY; rose.martillotti@stonybrook.edu

Abstract citation ID: kaad011.0181

POSTER SESSION A: CBT- AND MINDFULNESS-BASED SUPPORT FOR BREAST CANCER SURVIVORS: DEVELOPMENT OF TWO DIGITAL STRESS-MANAGEMENT INTERVENTIONS

Elin Børøsund, PhD[1], Anders Meland, PhD[2], Hege R. Eriksen, PhD[3], Giske Ursin, PhD[4], Christine Rygg, BSc[5], Lise Solberg Nes, PhD, LP[5]

[1]Department of Digital Health Research, Division of Medicine, Oslo University Hospital, Oslo, Norway, OSLO, Oslo, Norway; [2]Department of Sport and Social Sciences, Norwegian School of Sport Sciences, Oslo, Norway, Oslo, Oslo, Norway; [3]Department of Sport, Food and Natural Sciences, Western Norway University of Applied Sciences, Bergen, Norway, Bergen, Hordaland, Norway; [4]Cancer Registry of Norway, Oslo, Oslo, Norway; [5]Department of Digital Health Research, Division of Medicine, Oslo University Hospital, Oslo, Norway, Oslo, Oslo, Norway

Background: Stress-management interventions may help reduce stress and distress for cancer survivors, but are not always available. Digital delivery of such interventions may therefore have the potential to enhance availability. Research examining digital stress-management interventions for cancer survivors has increased over the recent years, but establishing efficacy and identifying what works best for whom, when and how, still remains to be seen.

Objectives: This study sought to develop two digital stress-management interventions for breast cancer survivors; one cognitive behavioral- and one mindfulness-based.

Methods: Development of the two interventions was based on the existing *StressProffen* program, a digital stress-management intervention for cancer survivors. Psychosocial oncology- and stress management experts worked in close collaboration with eHealth experts and additional key stakeholders including breast cancer survivors and oncology health care providers. The development phase included workshops identifying cognitive behavioral and mindfulness specific *StressProffen* content, deciding on overlapping aspects, identifying needs for adjustment and developing new content. Iterative processes identified ways to specifically design and develop the two interventions, utilizing an evidence-informed and user-centered approach.

Results: Iterative design and development processes resulted in two specific digital interventions; one cognitive behavioral based intervention (*StressProffen* CBI) and one mindfulness based intervention (*StressProffen* MBI). Educational material, exercises, illustrations, static text (e.g., reminders), word of the day content and onboarding pages were adapted to fit the distinct CBI and MBI versions. Educational material overlapped, with balanced and similar design and length between the two interventions.

Conclusions: This study shows how theory specific digital stress-management interventions for breast cancer survivors can be developed through iterative processes and extensive collaborations between research team experts and other key stakeholders, including breast cancer survivors and health care personnel. Future studies will examine how such digital interventions may work, for whom and how they compare.

CORRESPONDING AUTHOR: Elin Børøsund, PhD, Department of Digital Health Research, Division of Medicine, Oslo University Hospital, Oslo, Norway, OSLO, Oslo, Norway; elin.borosund@rr-research.no

---

Abstract citation ID: kaad011.0182

POSTER SESSION A: THE SELAH TRIAL: A PREFERENCE-BASED RANDOMIZED WAITLIST CONTROL STUDY OF THREE STRESS MANAGEMENT INTERVENTIONS

Rae Jean Proeschold-Bell, PhD[1], Logan Tice, MA[1], Joshua Rash, PhD, RPsych[2], David Eagle, PhD[3], Alyssa Platt, MA[4], Jia Yao, MA[1], Jessie Larkins, MA, MDiv[1], Timothy Kim, PhD[5], Elizabeth M. Wallack, BA[2]

[1]Duke Global Health Institute, Duke Center for Health Policy & Inequalities Research, Durham, NC; [2]Memorial University of Newfoundland, St. John's, NF, Canada; [3]Duke Global Health Institute, Duke Center for Health Policy & Inequalities Research, Dept of Sociology, Durham, NC; [4]Duke Global Health Institute, Durham, NC; [5]ChildFund International, Durham, NC

Introduction: Like many professionals in emotional labor occupations, clergy experience high rates of mental and physical comorbidities. Stress management practices may benefit clergy, but it is unclear which practices can be reliably included in busy lifestyles.

Methods: The design was a partially randomized, preference-based waitlist control trial. United Methodist clergy in North Carolina were eligible to participate and recruited via email. Participants indicated their preference among three interventions: mindfulness-based stress reduction (MBSR), Daily Examen prayer practice, and a set of stress inoculation skills called Stress Proofing. Participants with a preference were assigned their preferred intervention; those with no preference, or a tie between two preferences, were randomly assigned among those interventions. A set proportion of participants were randomly assigned to waitlist control. Interventions spanned 8-12 weeks in duration. Surveys were conducted at 0, 12, and 24 weeks, 48-hour ambulatory heart rate variability (HRV), specifically Midline Estimating Statistic of Rhythm (MESOR), was collected at 0 and 12 weeks, and practice data were collected daily via text message. The primary outcomes for this study were self-reported symptoms of stress and HRV, and the secondary outcome was symptoms of anxiety, at week 12 for each intervention compared to waitlist control. Propensity score adjustment and an as-treated estimand were used to account for the combination of randomized (no preference) and non-randomized (unique preference) treatment assignment. Main outcome models used linear mixed effects models with conditional random intercepts to account for partial clustering due to group delivery of the intervention.

Results: 255 participants enrolled and participated in an intervention during 2020-2021 (MBSR, n=65; Daily Examen, n=71; Stress Proofing, n=48) or waitlist (n=71). The mean age was 54 years; 91% were White and 48% female. Text message respondents indicated high engagement in the practices across 24 weeks. Compared to waitlist control: MBSR participants evidenced lower symptoms of stress and anxiety at 12 and 24 weeks ($p < 0.001$) and a 15% improvement in MESOR HRV at 12 weeks ($p=0.037$); Examen participants evidenced lower symptoms of stress and anxiety at 24 weeks ($p < 0.05$), but not at 12 weeks, and a non-significant 6% improvement in MESOR HRV at 12 weeks ($p=0.52$); and Stress Proofing participants evidenced lower symptoms of stress and anxiety at 12 and 24 weeks ($p < 0.001$) and a non-significant 3% worsening of MESOR HRV at 12 weeks ($p=0.69$).

Discussion: MBSR demonstrated robust improvement in self-report and physical correlates of stress whereas Stress Proofing and Daily Examen resulted in improvements in self-reported correlates of stress. These brief practices were sustainable and beneficial for an occupational sample during the COVID pandemic.

CORRESPONDING AUTHOR: Rae Jean Proeschold-Bell, PhD, Duke Global Health Institute, Duke Center for Health Policy & Inequalities Research, Durham, NC; rae.jean@duke.edu

Abstract citation ID: kaad011.0183

POSTER SESSION A: BEHAVIORAL HEALTH SCREENING FOR UNIVERSITY STUDENT ATHLETES

Duke Biber, PhD, NBC-HWC[1], Ashlee Davis, PhD[2], Bridgette A. Stewart, NBC-HWC, CWP[2]

[1]Kennesaw State University, Smyrna, GA; [2]University of West Georgia, Carrollton, GA

Objectives: The purpose of this study was to assess university student-athlete mental and behavioral health using the Heads Up Checkup (HUCU) screening tool via mobile device.

Methods: University student-athletes (*n* = 388) who were participating in a physical and concussion protocol completed the HUCU mental and behavioral health screening on their mobile devices. Participants self-reported mental and behavioral health, including risk and criteria for more than 20 ICD-10 disorders. Upon completion of the screening, participants were prompted to download the Sharpen mobile app, where they could access tailored mental health content based on their HUCU outcomes. Participants also received data coaching from licensed clinicians based on mental health priority risk.

Results: The most represented sports were football (29.5%), cheerleading (14.6%), baseball (8.9%), softball (8.6%), and women's soccer (8.3%). In terms of gender, 46.7% identified as female and 52.7% identified as male. Grade classification was also collected, and 35.7% were freshmen, 21.4% were sophomores, 15.2% were juniors, 20.8% were seniors, and 6.8% were graduate student-athletes. The sample was comprised of 64.2% White, 32.4% Black, 1.5% Asian, 1.5% American Indian, and 0.3% Pacific Islander races, in which 8% identified as Hispanic. Across the sample, 48% of participants (*n* = 178) did not meet enough diagnostic criteria for any diagnosis, 17.1% of participants (*n* = 63) met at least 50% of the criteria for at least one diagnosis, 18.8% (*n* = 69) met 70-99% of diagnostic criteria for at least one diagnosis, and 15.5% of participants (*n* = 57) met 100% of diagnostic criteria for at least one ICD-10 diagnosis. The most common ICD-10 diagnoses in which 100% of criteria were met included post-traumatic stress disorder, (*n* = 25), social phobia (*n* = 17), and post-concussional syndrome (*n* = 13). The most prevalent ICD-10 diagnoses for which 50-99% of criteria were met included ADHD (*n* = 51), insomnia (*n* = 49), post-traumatic stress disorder (*n* = 47), Asperger's syndrome (*n* = 41), and Major depressive disorder with a single episode (*n* = 35).

Conclusion: The results revealed various ICD diagnoses that had not been previously identified by the athletics staff. This data will serve as baseline for future comparison following intervention implementation. Student-athletes need evidence-based mental and behavioral health screening to assist coaches, trainers, and athletic staff with necessary care and referrals. Continued evaluation of mental health data coaching and triaged referrals following screening is important for effective translation and sustainability of student-athlete mental health care.

CORRESPONDING AUTHOR: Duke Biber, PhD, NBC-HWC, Kennesaw State University, Smyrna, GA; dbiber@kennesaw.edu

---

Abstract citation ID: kaad011.0184

POSTER SESSION A: "LONELY AND IN MY THOUGHTS ABOUT MY CHILDHOOD" ASSESSING SUBSTANCE USE AND MENTAL HEALTH IN YOUNG ADULTS WITH ACE DURING COVID19

Sheila Pakdaman, PhD(c), MS[1], Shaddy Saba, PhD(c), MSW[1], Jennifer Weck, MSW[1], Colin Ring, BS[2], Jane Steinberg, PhD, MPH[1], Jessica Barrington-Trimis, PhD[3], John D. Clapp, PhD, MSW[1], Jennifer B. Unger, PhD[1]

[1]USC, Los Angeles, CA; [2]USC, Redlands, CA; [3]University of Southern California, Los Angeles, CA

Introduction: Young adults (YA) are a population that is vulnerable to the effects of external stressors, and those with adverse childhood experiences (ACE) are known to suffer particularly poor health outcomes including mental health and substance use disorders. COVID-19 has imposed numerous external stressors and impacted access to healthcare services for many. Therefore, YA with ACE may be particularly vulnerable to the effects of pandemic-related stressors and may have especially poor mental health and substance use outcomes. This study aims to explore substance use and mental health behaviors as well as mental healthcare access among YA with ACE during the COVID-19 pandemic.

Methods: YA (N=26, ages 21-29 years old) were recruited online and were invited for a qualitative interview via Zoom to learn about their histories of substance use, anxiety, depression, and their mental healthcare experiences, during the COVID-19 pandemic. Post transcription, thematic analysis was conducted.

Results: 15 males, 9 females, and 2 non-binary YA were interviewed (M_{age}=25) from all across the US. Almost all participants indicated depression during COVID-19 (n=25) and anxiety (n=24) and some form of substance use (N=21). More YA had a history of maltreatment than household dysfunction, and those who experienced maltreatment often reported more substance use than those who experienced household dysfunction. Thematic analyses indicated that participants reported several factors that impacted their mental health and substance use behaviors during the pandemic when compared to their pre-pandemic experiences. These themes included experiencing isolation, grief and loss during the pandemic, financial and employment disruption, problematic interpersonal relationships that were exacerbated by staying home, and fear of contracting COVID-19. However, YA who received mental healthcare during the pandemic reported that their mental health and substance use subsided during the pandemic.

Conclusion: The COVID-19 pandemic is a collective, global trauma. YA with ACE, who are already susceptible to maladaptive coping mechanisms were found to have high rates of depression, anxiety, alcohol, and marijuana use during this time. Access to (or participation in) mental healthcare was found to be beneficial in reducing substance use and mental health implications. Future pandemic prevention efforts should include intervening with mental healthcare during traumatic times.

CORRESPONDING AUTHOR: Sheila Pakdaman, PhD(c), MS, USC, Los Angeles, CA; sheila.pakdaman@gmail.com

Abstract citation ID: kaad011.0185

POSTER SESSION A: IMPACT OF STIGMA AND IMPLICIT ASSOCIATIONS ON RECOVERY IN PEOPLE WITH A SUBSTANCE USE DISORDER

Nora L. Nock, PhD, MS, FSBM[1], Amy Wachholtz, PhD, MDiv, MS, FSBM[2]

[1]Case Western Reserve University, Cleveland, OH; [2]University of Colorado Denver, Denver, CO

Over 20 million adults in the U.S. have a substance use disorder (SUD) and over 2.5 million have an opioid use disorder (OUD). Only about 11% of adults who need treatment for substance misuse actually receive it. Among those who do pursue treatment, high drop-out rates of 50-70% are common. Stigma and implicit associations present a major barrier to not only seeking treatment but retention in treatment programs for people with a SUD, who may also have co-occurring pain and mental health disorders. The COVID-19 pandemic may further exacerbate stigma against people with a SUD, particularly in congregate housing, as outbreaks are well known to create their own fear and anxiety. Thus, we sought to better understand the multiple dimensions of stigma and implicit associations from the lens of people with a SUD as well as people with an OUD and chronic pain, whose views have been largely understudied. We developed a new implicit association task (IAT) for SUD in collaboration with Project Implicit® and, evaluated implicit associations in providers with the new SUD IAT and a COVID-19 IAT as part of a larger multi-site study in residential drug treatment centers. In addition, we conducted individually administered, semi-structured interviews in people with a SUD enrolled in residential and intensive outpatient treatment programs. We transcribed audiotapes from the interviews verbatim, organized data, and conducted thematic analysis using NVivo v12 software (QSR International Inc.). People with a SUD experienced stigma (internalized, perceived/anticipated) that was enacted by providers (health care, treatment center staff) and the criminal justice system (judges, officers, case workers) as well as their own family and peers, which negatively impacted their recovery. Stigma associated with the use of medications to treat OUD (MOUD) was a prevailing theme. People with an OUD (heroin) were told by people with other SUD (alcohol, methamphetamine, cocaine) that "you don't belong here", "suboxone is a crutch" and "you are just taking it (suboxone) to get high". The negative impacts of stigma and implicit biases on recovery in people with a SUD are substantive and must be addressed through education and other interactive programs. Implicit biases can be gradually "unlearned" through a variety of "de-biasing" techniques but, we must have good measurement tools to confirm they exist and acknowledge that we possess them before we can be intentional in resolving these biases.

CORRESPONDING AUTHOR: Nora L. Nock, PhD, MS, FSBM, Case Western Reserve University, Cleveland, OH; nln@case.edu

---

Abstract citation ID: kaad011.0186

POSTER SESSION A: CULTURALLY-RELATED RISKS AND PROTECTIVE FACTORS FOR ALCOHOL AND MARIJUANA USE PATTERNS AMONG LATINX COLLEGE STUDENTS

Andrea Rodriguez-Crespo, BS[1], Miguel Garcia, BA[1], Ariana Cervantes, MA[1], Aaron J Ochoa[1], Jennifer Lopez Garcia[1], Theodore V V. Cooper, PhD[1]

[1]University of Texas at El Paso, El Paso, TX

College students indicate high use prevalence of alcohol and marijuana (Schulenberg et al., 2018), and ethnic and cultural influences may influence the prevalence of substance use within Latinx groups (Strunin et al., 2017). While studies in Latinx college students have suggested relationships between alcohol and marijuana use patterns relative to sociodemographic and behavioral constructs (Woloshchuk et al., 2020, 2022), few studies have assessed culturally-related risk and protective factors of substance use. The aims of this study were to assess the associations between alcohol and marijuana ever use and age of first use, acculturation, microaggressions, and familism.

Hispanic college students (*n*=502; M_{age}=20.64 years, *SD*=3.34) were recruited via a web-based system. After providing consent, students completed the following assessments: Sociodemographics, Drug Use Frequency (DUF), Revised 28 Item Racial and Ethnic Microaggression Scale (REMS), Short Acculturation Scale for Hispanics (SASH) and the Attitudinal Familism Scale (AFS). Two logistic regressions assessed ever use of alcohol and marijuana. Two linear regressions assessed age of first use of alcohol and marijuana. All model predictors included subscales of acculturation, microaggressions, and familism, while controlling for age and sex.

All overall models were statistically significant. Alcohol ever use was positively associated with age, assumptions of inferiority, SASH media, AFS familial interconnectedness, and was negatively associated with AFS family honor. Marijuana ever use was marginally inversely associated with AFS family honor. Alcohol age of first use was negatively associated with second class citizen/assumptions of criminality and microinvalidations. Marijuana age of first use was positively associated with age, second class citizen/assumptions of criminality, and media microaggressions, and was inversely associated with assumptions of inferiority, SASH language, and AFS familial interconnectedness.

While findings suggest somewhat complex associations, perceived microaggressions appear to be risk factors for trying alcohol and marijuana and doing so at earlier ages, while family honor appears to be protective from ever using alcohol and marijuana. Mixed findings with regard to familial interconnectedness suggest the need to explore familism in a more nuanced manner. Future prospective studies in Latinx groups are warranted to better inform prevention efforts from a sociocultural perspective.

CORRESPONDING AUTHOR: Andrea Rodriguez-Crespo, BS, University of Texas at El Paso, El Paso, TX; arodriguez206@miners.utep.edu

Abstract citation ID: kaad011.0187

POSTER SESSION A: PERCEIVED RISK AND ACCESSIBILITY OF MARIJUANA USE: CHANGES AND DEMOGRAPHIC VARIATIONS AMONG ADOLESCENTS IN THE U.S.

Wenhua Lu, PhD[1], Vanessa Li, PhD[2], Lawrence Yang, PhD[2]

[1]The City University of New York School of Medicine, New York, NY; [2]New York University, New York, NY

Purpose: To examine time changes and sociodemographic differences in perceived risk of harm and easy access to marijuana in US adolescents.

Methods: Publicly available data for adolescents aged 12 to 17 in the National Survey on Drug Use and Health (NSDUH) 2011-2019 were pooled and analyzed. Bivariate and multivariate logistic regression analyses were conducted to assess time trends and sociodemographic differences in percentages of adolescents who perceived great risk of monthly marijuana use and those who reported easy marijuana access, adjusting for the complex survey design.

Results: In 2011, 44.5% of adolescents perceived great risk of harm from monthly marijuana use, which decreased linearly to 34.0% in 2019 (OR=0.95, p< 0.001). The percentage of adolescents who reported easy marijuana access also decreased, from 47.6% to 44.7% (OR=0.98, p< 0.001). After controlling for survey years, higher perceived risk of marijuana use was found in girls (aOR=1.30, p< 0.001) than in boys, while lower perceived risk was noted in adolescents aged 14-15 (aOR=0.60, p< 0.001) and 16-17 (aOR=0.40, p< 0.001) than those aged 12-13. Compared to Whites, higher perceived risk was found in Asians (aOR=1.42, p< 0.001) while lower perceived risk was noted among Native Americans (aOR=0.79, p< 0.05) and adolescents of two or more races (aOR=0.83, p< 0.001). Adolescents living in rural areas (aOR=1.30, p< 0.001) reported higher perceived risk than those from large metropolitan areas. Compared to boys, adolescents aged 12-13, and Whites, girls (aOR=1.06, p< 0.001), adolescents aged 14-15 (aOR=4.02, p< 0.001) and 16-17 (aOR=9.74, p< 0.001), and adolescents of two or more races (aOR=1.21, p< 0.001) were more likely to report easy marijuana access. While living in rural areas (aOR=0.79, p< 0.001) decreased the likelihood that adolescents report easy marijuana access, having higher annual household income significantly increased such likelihood.

Conclusion: Findings from the study highlight the need for providing adolescents with credible and accurate information about the harm associated with marijuana use. Despite the legalization of recreational and medical marijuana use in many states, adolescents' perceived access to marijuana decreased overall. Marijuana prevention programs are particularly necessary for boys, high school students, Native Americans, adolescents of two or more races, and adolescents living in urban settings.

CORRESPONDING AUTHOR: Wenhua Lu, PhD, The City University of New York School of Medicine, New York, NY; wlu1@med.cuny.edu

---

Abstract citation ID: kaad011.0188

POSTER SESSION A: E-CIGARETTE DEVICE TYPE AND VAPING BEHAVIORS OF YOUTH AND YOUNG ADULTS: FINDINGS FROM THE TRUTH LONGITUDINAL COHORT (2020-2021)

Elizabeth K. Do, PhD, MPH[1], Kathleen Aarvig, MPH[1], Emily Donovan, MPH[1], Jessica Barrington-Trimis, PhD[2], Donna C. Vallone, PhD, MPH[1], Elizabeth C. Hair, PhD[1]

[1]Truth Initiative, Washington, DC; [2]University of Southern California, Los Angeles, CA

Background: E-cigarette device types vary in the amount of nicotine delivered to users. Given that youth and young adults are using high nicotine products, including pod-based and disposable e-cigarettes, it is important to determine how e-cigarette device type influences vaping behaviors indicative of nicotine dependence.

Methods: Data were obtained from the Truth Longitudinal Cohort. Baseline information was collected from September 2020 to March 2021 and follow-up information was collected from July to October 2021. To be included in analyses, respondents (aged 15-24) had to have reported current use of e-cigarettes at either baseline or follow-up. Differences in endorsement of items from the E-cigarette Dependence Scale (EDS) and source of acquisition of e-cigarettes (store, online, social) were assessed using chi-square tests.

Results: Participants (N=1144) were evenly split on age (15-20, 21-24) and gender. A greater proportion of 15-20 year olds used disposable e-cigarettes (39.7%), compared to those 21-24, who primarily used pod-based devices (37.4%). Among current users, 70.1% acquired their device from a store, 17.9% from a social source, and 12.0% from online sources. This also differed by age, as a greater proportion of those aged 15-20 years obtained their e-cigarettes from social sources (87.2%), relative to 21-24 year olds (12.8%, p-value < 0.01) The most common type of e-cigarette accessed from a store or from a social source was pod-based (37.7% and 40.5%), while the most common type of e-cigarette accessed online was a tank e-cigarette (56.2%) (p=0.02). Although the average EDS score did not differ by e-cigarette device type, endorsement of two items from the EDS significantly differed, with more tank users endorsing 1) reaching for a device without thinking about it (pod-based: 79.0%; disposables: 79.9%, tank: 92.6%; p=0.03) and 2) vaping more before going into a situation where vaping is not allowed (pod-based: 71.0%; disposables: 73.0%, tank: 92.9%; p< 0.01).

Conclusions: Results suggest that users of tank devices may be at higher risk for endorsing vaping behaviors associated with nicotine dependence and may inform future tobacco regulatory policies, including those that regulate both brick and mortar and online retailers.

CORRESPONDING AUTHOR: Elizabeth K. Do, PhD, MPH, Truth Initiative, Washington, DC; edo@truthinitiative.org

Abstract citation ID: kaad011.0189

POSTER SESSION A: AN EXAMINATION OF SOURCES OF E-CIGARETTE ACQUISITION BY DEVICE TYPE IN 2022

Elizabeth K. Do, PhD, MPH[1], Kathleen Aarvig, MPH[1], Emily Donovan, MPH[1], Donna C. Vallone, PhD, MPH[1], Elizabeth C. Hair, PhD[1]

[1]Truth Initiative, Washington, DC

Background: Prior to March 2020, social sources were the primary method of e-cigarette acquisition among youth and nicotine naïve users. Stay-at-home orders and social distancing implemented following the start of the COVID-19 pandemic presumably reduced socialization with peers and restricted access to e-cigarettes through social channels. Two years into the pandemic, there is a need to examine more recent data on how e-cigarette users access their products and whether that may differ by sociodemographic characteristics.

Methods: Data were obtained from a cross-sectional, continuous tracking survey of participants aged 15-24 years. The analytic sample included current e-cigarette users who completed a survey in 2022 (n=7860). Respondents provided information on source of e-cigarette acquisition (retail or social) and device type (pod-based, tank-based, disposable, and vape pen), as well as sociodemographic characteristics (age, gender, and race/ethnicity). Differences in source of acquisition by age, gender, race/ethnicity, and device type were determined using chi-square tests of differences.

Results: Respondents predominantly obtained their products through retail sources (55.2%) and reported using disposable e-cigarettes most recently (40%). E-cigarette source differed significantly across age, gender, race/ethnicity, and device type. Greater proportions of e-cigarette users who obtained their e-cigarette products through social sources were under 21 years old (15-17 years: 27.0% vs. 8.8%, p< 0.001; 18-20 years: 35.2% vs. 28.7%, p< 0.001), female (53.7% vs. 49.3%, p=0.042), non-Hispanic White (60.3% vs. 54.1%, p=0.001), and non-Hispanic Black (12.8% vs. 11.1%, p=0.001), relative to those who obtained their e-cigarettes through retail sources. Additionally, most users who obtained products through retail sources were disposable users (44.1%) and tank users (10.5%), while those who obtained e-cigarettes through social sources were primarily vape pen users (33.4%).

Conclusions: Although most individuals under 21 years are obtaining e-cigarettes via social sources, more than a third are still obtaining e-cigarettes through retail sources. Results indicate potential gaps in enforcement of the national tobacco 21 (T21) policy. Future research needs to focus on drivers of this trend, such as delivery options and sales through social media, and continue to monitor changes in e-cigarette sources over time.

CORRESPONDING AUTHOR: Elizabeth C. Hair, PhD, Truth Initiative, Washington, DC; ehair@truthinitiative.org

---

Abstract citation ID: kaad011.0190

POSTER SESSION A: EVALUATING THE UTILITY OF MENTAL HEALTH SCALES IN PREDICTING E-CIGARETTE USE AMONG A COLLEGE STUDENT SAMPLE

Elizabeth K. Do, PhD, MPH[1], Carlin D. Nelson, MPH[2], Jennifer M. Kreslake, PhD, MPH[1], Donna C. Vallone, PhD, MPH[1], Elizabeth C. Hair, PhD[1]

[1]Truth Initiative, Washington, DC; [2]Truth Initiative, Baltimore, MD

Background: Given prior associations between mental health and e-cigarette use, there is a need to identify which mental health scales are correlated with e-cigarette use among youth and young adults.

Objective: To evaluate associations between different mental health scales and e-cigarette use.

Method: Data were obtained from the spring 2021 National College Health Assessment, a survey administered by the American College Health Association (N=16,074). Multiple logistic regressions including the effects of mental health scales [Kessler 6 Screener for Non-Specific Serious Mental Illness (Kessler 6), University of California-Los Angeles (UCLA) Loneliness Scale, and Connor-Davison Resilience Scale (CDRISC2)], adjusting for sociodemographic characteristics (age, sex, gender identity, sexual orientation, race/ethnicity, and region) and other combustible tobacco use (cigarettes, cigars, hookah), were used to predict past 3-month e-cigarette use.

Results: Most respondents were female (60.5%) and White (71.8%). The Kessler 6, UCLA Loneliness Scale, and CDRISC2 independently predicted past 3-month e-cigarette use, even when adjusting for age, sex and gender, sexual orientation, race/ethnicity, geographic region, and use of other combustible tobacco products. Relative to those with no or low psychological distress under the Kessler 6, those with serious psychological distress had higher odds of reporting e-cigarette use in the past 3 months (OR: 1.38; 95% CI: 1.23, 1.56). Those who were positive for loneliness using the UCLA Loneliness scale were also had greater odds of reporting past 3-month e-cigarette use (OR = 1.13; 95% CI: 1.03, 1.22). Those with higher levels of resilience according to the CDRISC2 had lower odds of reported past 3-month use of e-cigarettes (OR=0.97; 95% CI: 0.95, 0.99). When including all mental health scales in the same model predicting past 3-month e-cigarette use, the Kessler 6 remained associated (OR = 1.33; 95% CI: 1.16, for those with serious psychological distress, compared to those with no or low psychological stress).

Discussion: Results demonstrate cross-sectional associations between mental health scales measuring psychological distress, loneliness, and resilience and past 3-month e-cigarette use among a nationally representative college sample. Longitudinal research is needed to better understand the direction of the association between mental health and e-cigarette use to guide prevention and intervention strategies.

CORRESPONDING AUTHOR: Elizabeth K. Do, PhD, MPH, Truth Initiative, Washington, DC; edo@truthinitiative.org

Abstract citation ID: kaad011.0191

POSTER SESSION A: CLICK CITY®: TOBACCO - A VAPING AND TOBACCO PREVENTION PROGRAM FOR YOUTH

Judith S. Gordon, PhD[1], Judy A. Andrews, MA, PhD[2], Erika Westling, PhD[3]

[1]University of Arizona, Tucson, AZ; [2]Oregon Research Institute, Springfield, OR; [3]Oregon Research Institute, Eugene, OR

Introduction: While the prevalence of smoking has decreased among youth, the prevalence of vaping has recently increased dramatically, greatly exceeding that of cigarette use. The increased prevalence of vaping among youth, the health effects of vaping, and the increased probability that adolescents will become addicted to nicotine through vaping provide support for the crucial need for the incorporation of vaping into tobacco prevention programs targeting youth. Within this Phase II SBIR project, we integrated content targeting risk factors predictive of vaping into an existing effective school-based tobacco prevention program. *Click City®: Tobacco* is designed for implementation in the 5th grade, with a booster in 6th grade, prior to the onset of tobacco use for most youth. Advantages of the program include: delivered online with fidelity of implementation, requires little teacher training time, allows students to work independently, and encourages student engagement through interactive activities and affect-producing games.

Objectives: Our goals were to: 1) Develop additional content that specifically targets risk factors/mechanisms predictive of e-cig use to integrate into existing activities that previously targeted only conventional tobacco use; and 2) Update the programming to increase marketability by expanding the range of devices on which the program can be delivered, simplify the student user interface, and provide more robust teacher/administrator functionality; and 3) Conduct a randomized trial within 44 schools to assess: a) the effectiveness of the revised program on changing youth's intentions and willingness to vape and to smoke; and b) the logistics of implementing the program in the school setting.

Method: We recruited and randomized 44 schools in two states, Arizona (AZ, 26 schools) and Oregon (OR, 18). We stopped the trial due to COVID-19 with completed data collected from 26 schools (16 AZ, 10 OR.; 1013 students in AZ, 424 in OR). We analyzed data using a mixed model analysis of variance with students nested within schools. The study continued in 2022 (analyses in progress).

Results: *Click City®: Tobacco* changed risk factors in the expected direction with small to medium effect sizes. In addition, over 90% of students completed the entire program supporting ease and fidelity of implementation. Final results will be presented.

Discussion: *Click City®: Tobacco* shows promise as an effective and easy to implement tool to reduce youth vaping and tobacco use. The program is available for use in schools nationwide and includes student, teacher, and parent materials, and meets curriculum standards. *Click City®: Tobacco* may have a large positive impact on the health of youth in the US by discouraging tobacco use and vaping.

CORRESPONDING AUTHOR: Judith S. Gordon, PhD, University of Arizona, Tucson, AZ; judithg@arizona.edu

---

Abstract citation ID: kaad011.0192

POSTER SESSION A: FINANCIAL HARDSHIP DURING THE COVID-19 PANDEMIC AND DISCOUNT COUPON RECEPTION AMONG U.S. ADULTS WHO USE COMMERCIAL TOBACCO

Kasra Zarei, MHA, MPH[1], Kristen Moseley, PhD[1], Julia Chen-Sankey, PhD, MPH[2], Lilianna Phan, PhD, MPH[1], Aniruddh Ajith[3], Kiana Hacker[1], Bambi Jewett[1], Kelvin Choi, PhD, MPH[1]

[1]National Institute on Minority Health and Health Disparities, Bethesda, MD; [2]Center for Tobacco Studies, School of Public Health, Newark, NJ; [3]University of Pittsburgh School of Medicine, Bethesda, MD

Introduction: Commercial tobacco (CT) sales increased during the COVID-19 pandemic, partly because of the tobacco industry's increased expenditures on price discounting. We examined how experiencing financial hardships during the COVID-19 pandemic relates to increases in coupon reception for CT products.

Methods: A nationally representative sample of 1,700 U.S. adult recently former and current CT users were surveyed online during January-February 2021. Participants reported if they had received more discount coupons for CT products (cigarettes, electronic vaping products, cigars and cigarillos, hookah, other combustible tobacco products, and smokeless tobacco) through any channel (including via mail, email, stores), and experienced financial hardships (e.g., not having enough money to pay for food). The number of types of financial hardships experienced was counted (range: 0-6). Weighted multivariable logistic regressions were used to examine the associations between financial hardships and increased coupon reception, adjusting for demographics.

Results: During the first year of the COVID-19 pandemic, 21.3% of U.S. adult current and recently former CT users reported increases in receiving coupons for any tobacco product; 9.0% for cigarettes, 8.1% for hookah and other combustible tobacco products, 7.4% for electronic vaping products, 5.6% for cigars and cigarillos, and 5.5% for smokeless tobacco. Experiencing financial hardship during the pandemic was associated with higher odds of receiving coupons for all types of CT products: every additional count of financial hardship was associated with higher odds of increased reception of discount coupons for all CT products (adjusted odds ratios ranging from 1.13 to 1.23).

Conclusions: With increased CT price-discounting expenditures during the pandemic, over 1 out of 5 U.S. adults who use commercial tobacco received more discount coupons for any CT products, especially those facing financial hardships during the pandemic. This suggests that the tobacco industry may be targeting financially vulnerable individuals with discount coupons, which are known to hinder CT cessation and promote relapse. Prohibiting discount coupon and price promotions by the CT industry may promote CT cessation among financially vulnerable groups.

CORRESPONDING AUTHOR: Kelvin Choi, PhD, MPH, National Institute on Minority Health and Health Disparities, Bethesda, MD; Kelvin.choi@nih.gov

Abstract citation ID: kaad011.0193

POSTER SESSION A: TOBACCO IMAGERY LIGHTS UP THE BIG AND SMALL SCREEN AMONG THE 2022 OSCAR AND EMMY AWARD NOMINEES

Jessica M. Rath, PhD, MPH, CHES[1], Brenda S. Dimaya, MPH[1], Elizabeth C. Hair, PhD[1]

[1]Truth Initiative, Washington, DC

The Oscars and Emmy award shows draw hundreds of millions of viewers anxious to know what movies/shows will receive highest honors at these flagship events. Tobacco imagery remains a common sight on screens despite research showing that exposure to tobacco products through onscreen entertainment has been found to contribute to youth tobacco use initiation. This study aims to investigate the prevalence of tobacco imagery in 2022 Oscar and Emmy nominated films and shows. At least two coders using the Thumbs Up Thumbs Down methodology coded full Oscar nominated films or entire seasons of Emmy nominated shows. Films were flagged "yes/no" for tobacco imagery presence and shows were coded for individual tobacco incidents. Overall, 23 of the 38 Oscar nominated films (61%) contained tobacco imagery and 80% of the Best Picture nominees contained tobacco, including hit films, *CODA*, *King Richard*, and *West Side Story*. Among the rated films containing tobacco imagery, 40% were rated PG-13 indicating suitability for young people. The PG-13-rated films include Marvel Studios' superhero film *Shang-Chi and the Legend of the Ten Rings* and the latest Bond thriller *No Time to Die*. Other PG-13-rated films with tobacco include *Flee* and *tick, tick…Boom*! We surveyed 15–24-year-olds (n=3,047) to identify which shows they watched on the top 5 platforms that had a new season air in 2021 were popular among youth and young adults. Overall, 7 shows popular among young people were nominated for the 2022 Emmy Awards and all but 1 (86%) nominated show contained tobacco imagery. Of Emmy nominated shows, *Euphoria* had the most tobacco imagery, followed by *The Simpsons* and *Squid Game*. *Bob's Burgers* was the only Emmy nominated show, popular among youth that did not contain any tobacco imagery. The Oscars and The Emmy Awards are normalizing and glamorizing tobacco use by nominating content with tobacco imagery. Addressing tobacco imagery in popular culture is important to prevent tobacco use among youth and young adults.

CORRESPONDING AUTHOR: Jessica M. Rath, PhD, MPH, CHES, Truth Initiative, Washington, DC; jrath@truthinitiative.org

---

Abstract citation ID: kaad011.0194

POSTER SESSION A: CANNABIS CO-USERS CALLING A TOBACCO QUITLINE FOR HELP QUITTING SMOKING: WHO ARE THEY AND CAN WE HELP THEM?

Kelly M. Carpenter, PhD[1], Helena Berlin, PhD, MPH[2], Kristina Mullis, PhD, MCHES[3], Beatriz H. Carlini, PhD, MPH[4], Harold S. javitz, PhD[5], Denise D. Walker, PhD[4]

[1]Optum, Seattle, WA; [2]Optum, Las Vegas, NV; [3]Optum Center for Wellbeing Research, Mukilteo, WA; [4]University of Washington, Seattle, WA; [5]SRI International, Menlo Park, CA

In states where recreational cannabis is legal, about 25% of adults over 21 calling tobacco quitlines (QLs) report past 30-day cannabis use. Frequent cannabis use contributes to failure to quit smoking, but little is known about cannabis co-users who call QLs for assistance quitting smoking.

The present project includes development of a novel coaching intervention for co-users calling state QLs. The Check-Up-QL intervention was developed and tested by experts in QL coaching & cannabis use & treatment. Elements of the Marijuana Check-Up, a brief Motivational Enhancement Therapy intervention, were integrated into standard QL coaching to bring awareness to co-use habits that may impact quitting tobacco. A secondary goal was to increase motivation to reduce or quit cannabis.

A Phase IIb randomized pilot (n = 107) was conducted in 4 state QLs (Alaska, Oregon, Washington State & Washington DC) to evaluate feasibility and acceptability of the new intervention. Eligible participants smoked $\geq$ 5 cigarettes per day and used cannabis $\geq$ 9 days/30. The final sample was 50% female, aged 23-79 (M/SD 51/14), primarily heterosexual (85%), and non-Hispanic (98%). Regarding race, 73% were white and 16% Black. Mean cigarettes per day was 16.5 (SD 7.9) and 8% also vaped nicotine. Most (78.5%) met the national survey standard of daily cannabis use ($\geq$ 20 days/30), with an average of 24.9 days. Most smoked cannabis (89%), but many also used edible cannabis (40%), vaped (16%), dabbed (15%), or drank THC products (6.5%). Of the participants who did not smoke cannabis (n = 12), 7 (58.3%) were edible users (6 were exclusive edible users), 4 vaped THC (33%) and 3 dabbed (25%). 58% of the sample met criteria for hazardous cannabis use on the Cannabis Use Disorders Identification Test, and 25% screened positive for a Cannabis Use Disorder (CUD). Regarding psychosocial screenings, 31.8% were positive for depression, and 22% screened positive for generalized anxiety. The intervention appears feasible to deliver and acceptable to co-users calling QLs: participants engaged in 3 coaching calls on average and the intervention was successfully delivered in the QL setting with coaches receiving high fidelity ratings.

Cannabis & tobacco co-users calling QLs reported heavy cannabis use and many were at risk of a CUD. More research is needed to determine how use patterns and reasons for use interact with smoking behavior, contribute to cessation efforts, and respond to this new intervention.

CORRESPONDING AUTHOR: Kelly M. Carpenter, PhD, Optum, Seattle, WA; Kelly.Carpenter@optum.com

Abstract citation ID: kaad011.0195

POSTER SESSION A: CONTENT ANALYSIS OF TOBACCO IMAGERY IN POPULAR MUSIC VIDEOS, 2018-2021

Jessica M. Rath, PhD, MPH, CHES[1], Brenda S. Dimaya, MPH[1], Katie O'Connor, MPH[1], Jennifer M. Kreslake, PhD, MPH[1], Donna C. Vallone, PhD, MPH[1], Elizabeth C. Hair, PhD[1]

[1]Truth Initiative, Washington, DC

Exposure to tobacco imagery in movies and television has been identified as a key factor to youth smoking initiation. This study aims to investigate the prevalence of tobacco imagery in popular music videos, 2018 to 2021. Weekly top 10 songs of 2018-2021 were identified using *Billboard Charts* categories (Hot 100, R&B/Hip-Hop, Country, Rock & Alternative, Dance/Electronic, Pop Airplay). Content analyses of the top music videos were conducted using Thumbs up Thumbs Down methodology to identify tobacco depictions on screen. The sample consisted of 1,008 music videos across four years; 196 of which contained tobacco imagery (19.4%). The proportion of music videos containing tobacco imagery increased minimally over time, from 20.8% in 2018, to 21.0% in 2019 to 23.0% in 2020. Music videos containing tobacco imagery decreased significantly from 23.0% in 2020 to 12.8% in 2021. Tobacco incidences almost doubled from 280 occurrences in 2018 to 522 occurrences in 2020 but decreased by over half to 290 occurrences in 2021. In 2018, Hot 100 was the top offending genre with 40.0% of songs containing tobacco imagery. From 2019 to 2020, Hot R&B/Hip-Hop became the top offending genre (52.7%, 52.5%, and 23.9% respectively). Cigarettes were most pervasive in 2019 (70.1% of total tobacco incidences), 2020 (45.6%), and 2021 (64.1%) music videos. Pipes were the most pervasive product in 2018 (39.6%). Given the reach and frequency of exposure to music videos among young people, reducing tobacco imagery in popular music videos may prevent tobacco use among young people.

CORRESPONDING AUTHOR: Jessica M. Rath, PhD, MPH, CHES, Truth Initiative, Washington, DC; jrath@truthinitiative.org

---

Abstract citation ID: kaad011.0196

POSTER SESSION A: DUAL USE OF CIGARETTES AND JUUL OVER 24 MONTHS: TRANSITIONS TO SWITCHING AND CHANGES IN BASELINE CIGARETTE CONSUMPTION

Arielle Selya, PhD[1], Jessica R. Seifert, PhD, MPH[2], Saul Shiffman, PhD[3]

[1]PinneyAssociates, Inc, Pittsburgh, PA; [2]Juul Labs, Inc., Landenberg, PA; [3]PinneyAssociates, Pittsburgh, PA

Adult smokers can reduce their exposure to harmful chemicals by switching completely away from cigarettes to electronic nicotine delivery systems (ENDS). After initiating ENDS use, smokers may engage in a period of concurrent cigarette and ENDS use (i.e., dual use). Analysis of a large cohort of U.S. adult (age ≥21) smokers who purchased a JUUL Starter Kit for the first time in 2018 suggested that dual use often functioned as a transitional state towards switching during the first year of use. However, over 40% of participants were still dual using after 1 year. This paper aims to extend this prior work by examining dual users' (n=26,522) trajectories the second year following initial purchase.

Findings from the second year of follow up show that dual use declined (from 41.6% at 12 months to 29.6% at 24 months), while switching away from cigarettes increased over the same time period (from 53.1% to 60.1%). Among those reporting dual use at 12 months, nearly half were no longer dual using at 24 months; most of those who transitioned away from dual use (75.2%) transitioned to complete switching. Those who remained dual users at 6, 12, 18, and 24 months reduced their baseline cigarette consumption by ≥50%; reductions averaged nearly 90%. These reductions occurred in terms of both frequency of cigarette use (from 30 days per month to 10 days) and the daily number of cigarettes smoked (from 10 to 3 cigarettes on smoking days). Across the 2-year period, those who reduced their cigarette consumption by ≥50% used JUUL more frequently (≥25 days vs ≤20 days), consumed more JUUL pods (7-10 pods vs a consistent 4 pods in the past month), and had higher average JUUL dependence (M=2.5, SD=1.0 vs M=2.0, SD=0.9; item scale 1 – 5, with higher numbers indicating higher dependence) than those who had not (i.e., those who maintained or increased cigarette consumption). Results were similar among heavier baseline smokers (i.e., 10+ cigarettes per day at baseline).

Two years after initial ENDS purchase, dual use continues to be a transitional state to complete switching away from combusted cigarettes. Dual use, rather than prolonging smoking, can be characterized by substantial reductions in cigarette consumption with greater engagement with ENDS, and, for most, leading to complete switching away from smoking.

CORRESPONDING AUTHOR: Arielle Selya, PhD, PinneyAssociates, Inc, Pittsburgh, PA; aselya@pinneyassociates.com

Abstract citation ID: kaad011.0197

POSTER SESSION A: MEASURING INTRINSIC MOTIVATION AND ASSOCIATIONS WITH HEALTHY EATING DURING PREGNANCY

Susan D. Brown, PhD[1], Michaela Kiernan, PhD[2], Yeyi Zhu, PhD[3], Monique Hedderson, PhD[3], Saher Daredia, MPH[3], Andrea Millman, MA[3], Hillary Serrato Bandera, BA[3], Brittany L. Garcia, PhD[1], Charles P. Quesenberry, PhD[3], Assiamira Ferrara, MD, PhD[3]

[1]University of California, Davis, Sacramento, CA; [2]Stanford University School of Medicine, Palo Alto, CA; [3]Kaiser Permanente Northern California, Oakland, CA

Background: Healthy eating is critical for maternal cardiovascular health; yet there is little research on intrinsic motivation for healthy eating in pregnancy, nor measures to assess it among diverse populations.

Methods: We examined two such measures, and cross-sectional associations with diet quality, in the Pregnancy, Lifestyle and Environment Study (PETALS; n=512; 24.0% Asian or Pacific Islander, 6.3% Black, 30.1% Hispanic, 12.7% multiracial, 27.0% White). Participants recruited at 10-13 weeks' gestation completed the 4-item Intrinsic Motivation subscale of the Regulation of Eating Behaviors Scale (REBS; Pellitier 2004) to assess enjoyment of healthy eating; and the 6-item Taste-Based Choices scale (Kiernan 2022) and its 3 subscales [taste (enjoy the taste of healthy foods), deprivation (feel a sense of loss when eating healthy foods), and moderation (include favorite unhealthy foods into an overall healthy eating pattern)]. We used the Block Food Frequency Questionnaire to assess dietary intake in the last 3 months and the Alternate Healthy Eating Index for Pregnancy (AHEI-P) to quantify diet quality.

Results: Both intrinsic motivation measures demonstrated internal consistency (REBS α=.86; Taste-Based Choices α=.70). The two measures were moderately correlated overall (r=.37, p < .0001) and REBS correlated with Taste-Based Choices subscales (taste r=0.47, p < .0001; deprivation r=0.24, p < .0001; and moderation r=0.10, p=.02), suggesting the measures assess similar, but non-overlapping constructs. As hypothesized, intrinsic motivation was higher among participants who met or exceeded the sample-specific AHEI-P 75th percentile score of 70.4 vs. those below it (REBS mean [SD]: 5.2 [1.3] vs. 4.5 [1.4], p < 0.0001; Taste-Based Choices: 4.2 [0.6] vs. 3.8 [0.7], p < 0.0001). In modified Poisson regression models adjusted for age, pre-pregnancy BMI, race/ethnicity, education, and parity, a 1 unit increase in REBS and Taste-Based Choices scores remained associated with an increased probability of meeting or exceeding the AHEI-P 75th percentile (REBS rate ratio [95% CI]: 1.26 [1.12, 1.42]; Taste-Based Choices: 1.80 [1.39, 2.32]).

Conclusions: Intrinsic motivation for healthy eating can be quickly and reliably measured and was associated with better diet quality in pregnancy. Research is needed on psychological determinants of healthy eating to establish whether intrinsic motivation prospectively impacts maternal cardiovascular health.

CORRESPONDING AUTHOR: Susan D. Brown, PhD, University of California, Davis, Sacramento, CA; sdmbrown@ucdavis.edu

---

Abstract citation ID: kaad011.0198

POSTER SESSION A: HOW PREGNANT WOMEN COGNITIVELY PROCESS HEALTH INFORMATION: A QUALITATIVE STUDY

Tracey A. Ledoux, PhD, RD, FAND[1], Basant Gamal[1], Alejandra Duque[1], Pamela Berens, MD[2]

[1]University of Houston, Houston, TX; [2]UT Health Houston, McGovern Medical School, Houston, TX

Background: Knowing the Institute of Medicine's (IOM's) gestational weight gain (GWG) recommendations increases likelihood of adherence. Although most women receive GWG counseling, many do not know how much weight they should gain during pregnancy or the associated risks for nonadherence.

Purpose: To describe how pregnant women cognitively process information about GWG recommendations.

Methods: The Consolidated Criteria for Reporting Qualitative research checklist was used to guide this study, which used a phenomenological approach to explore perspectives of pregnant women as they received information about GWG recommendations and risk. Primigravida women (≥18 years with a healthy singleton pregnancy at 8-20 weeks gestation) were recruited purposively from an obstetrics clinic for low-income women until the data reached theoretical saturation. Within 60-minutes, trained interviewers 1) collected demographic information and determined pre-pregnancy weight status based on CDC Body Mass Index cut points calculated from self-report height and pre-pregnancy weight, 2) presented IOM's personalized GWG recommendations and associated risks for non-adherence; and 3) engaged participants in an interview using a semi-structured guide developed by the investigators. Participants received a $30 gift card for their time. Interviews were recorded and transcribed verbatim. Transcripts were coded by two trained coders using the 6 phases of Braun and Clarke's (2020) reflexive thematic analysis procedures wherein trained coders identified key points, which were refined and collapsed into themes using an iterative constant comparison approach. Discrepancies were managed with consultation with PI and consensus. Procedures were approved by university IRBs.

Results: 29 interviews were conducted with women who were 25.5 years (4.7 SD) of age. When presented with GWG information, participants went through several phases including: 1) making sense of the information, 2) evaluating the credibility of the information, 3) weighing the relevance of the information to self, 4) determining how modifiable the expected outcomes are, and 5) managing feelings, which included plans for diet and exercise behavior change.

Conclusions: Pregnant women were motivated to set health promotion behavior goals to manage tension that arose with understanding of, and trust in recommendations for GWG, that were deemed personally relevant; and when GWG was thought to be modifiable.

CORRESPONDING AUTHOR: Tracey A. Ledoux, PhD, RD, FAND, University of Houston, Houston, TX; taledoux@Central.UH.EDU

Abstract citation ID: kaad011.0199

POSTER SESSION A: CAPACITY-BUILDING AMONG SAFETY-NET FAMILY PLANNING CLINICS DURING THE CHOOSE WELL INITIATIVE IN SOUTH CAROLINA

Amy Weber, DBH, MPH[1], Liane M. Ventura, MPH[1], Kate Beatty, PhD, MPH[1], Deborah Slawson, PhD, RD, LDN[1], Amal Khoury, PhD, MPH[1], Mike G. Smith, DrPH, MSPH[1]

[1]East Tennessee State University, Johnson City, TN

The Choose Well initiative is a statewide contraceptive access initiative throughout South Carolina (SC) (2017-2022). A component of the initiative included clinical and administrative trainings for safety-net clinic staff at federally qualified health centers (FQHC) and health departments (HD) on topics such as contraceptive counseling, implant and IUD provision, revenue cycle management and billing and coding. We examined perceptions of implementing training into practice through conducting key informant interviews across multiple years (2018-2020) with FQHC and HD clinicians and leaders. Interviews were transcribed and coded through a two-phase coding process. Themes were analyzed through a team-based consolidation process and categorized into two constructs: clinic organization and scope of services. Many respondents stated that trainings led to enhanced contraceptive counseling (N=36) and enhanced contraceptive provision (N=17). Similarly, respondents emphasized that the trainings led to expanded perspectives on sexual and reproductive health (N=15) and an improved capacity specifically for patient-centered counseling (N=55). Of note, respondents from both clinic types noted that trainings increased buy-in and engagement among staff (N=9) as well as having enhanced clinic workflow and efficiency (N=14). Despite these positive impacts, some respondents noted there was no impact on administrative components (N=10), such as workflow, billing/coding, or scheduling, or on patient care (N=3). Additionally, certain clinic policies were noted as a barrier to implementation (N=4) such as health center policy restricting abortion counseling and other practice policies. We conclude that among clinic staff and leadership, there was an overall positive perception of the impact of Choose Well provided trainings on the clinic organization and scope of services. Clinic policies, often impacted by the health care environment in the state, may be a potential barrier to implementation of best practice. As such, it is critical to widely offer trainings to safety-net clinics so as to increase capacity for contraceptive care service provision.

CORRESPONDING AUTHOR: Liane M. Ventura, MPH, East Tennessee State University, Johnson City, TN; ventural@etsu.edu

---

Abstract citation ID: kaad011.0200

POSTER SESSION A: THE IMPACT OF MISDIAGNOSIS AND COMORBID DIAGNOSES ON WOMEN WITH RHEUMATOID ARTHRITIS: IMPLICATIONS FOR TREATMENT OUTCOMES

Dallas N. Robinson, MS Clinical Psychology[1], Sara Hayes, MPH[2], Amanda Lipski, MBA[2], Amy Wachholtz, PhD, MDiv, MS, FSBM[3]

[1]University of Colorado Denver, Aurora, CO; [2]Health Union, LLC, Philadelphia, PA; [3]University of Colorado Denver, Denver, CO

Introduction: Rheumatoid arthritis (RA) is an autoimmune disorder often characterized by inflammation leading to joint damage and severe pain. There has historically been less medical research involving women and more gaslighting of women's concerns by providers, leading to millions of women being underdiagnosed or misdiagnosed. This is especially true related to conditions characterized by pain, and individuals with comorbid diagnoses. This study seeks to identify the effect of past misdiagnosis (MD) and additional comorbid diagnoses (CD) on women living with RA.

Methods: 3,635 participants who identify as female completed the *Rheumatoid Arthritis in America 2021* survey. They were grouped based on diagnosis history prior to RA (MD; CD; no other diagnosis). An ANOVA was conducted to determine differences between groups on RA specific factors including joint damage, extent symptoms are under control, disability, life impact, and physician interactions.

Results: There was a significant effect of diagnosis group on current joint damage and how controlled RA symptoms are currently with treatment ($F(2,3632) = 10.608, p < 0.001$; $F(2,3632) = 30.34, p < 0.001$). Post hoc Tukey's HSDs showed that MD and CD reported more severe damage and less control over symptoms than no other diagnosis but revealed no significant differences between MD and CD. There was also a significant effect of diagnosis group on overall disability and RA life impact ($F(2,3632) = 45.56, p < 0.001$; $F(2,3632) = 32.81, p < 0.001$). Post hoc Tukey's HSDs showed that MD scored higher than no other diagnosis on disability and RA life impact but revealed no significant differences between MD and CD. Several physician related factors including explaining treatment factors, being thorough, being easy to talk to, agreeing on symptom severity, and overall care followed a similar pattern of significance with MD scoring more negatively than no other diagnosis.

Discussion: There were no significant differences between those misdiagnosed before RA and those living with comorbid diagnoses on joint damage, symptom severity, disability, and physician interactions, demonstrating the increased difficulties experienced by individuals living with multiple diagnoses and individuals who have gone through incorrect diagnoses. Overall, those who were misdiagnosed reported a more negative experience with RA compared to those who were not previously misdiagnosed, highlighting the importance of early and accurate detection and treatment to improve patient treatment outcomes and quality of life.

CORRESPONDING AUTHOR: Dallas N. Robinson, MS Clinical Psychology, University of Colorado Denver, Aurora, CO; dallas.robinson@ucdenver.edu

Abstract citation ID: kaad011.0201

POSTER SESSION A: DETERMINING THE IMPACT OF A PILOT TO SUPPORT BLACK PERINATAL HEALTH PROFESSIONALS

Kacie Blackman, PhD[1], Wenonah Valentine, MBA[2], Meridith A. Merchant, PhD[2]

[1]California State University, Northridge, Northridge, CA; [2]i.D.R.E.A.M. for Racial Health Equity, Los Angeles, CA

Background: There is an alarming maternal mortality crisis among Black birthing persons in the United States. Professionals in Black Maternal Health support Black birthing families through various strategies such as direct services (e.g., mental health therapy, doula care, fitness, nutrition, peer support) and indirect services (e.g., implementing programs, applying for funding, advocacy, research). Further, it is well known that health care environments can be toxic to Black people (professionals and patients) who regularly navigate around effects of systemic racism, micro- and macro-aggressions. Yet, there is minimal information on how Black professionals are being encouraged and mentored so that they can continue to support others. The objective of this project was to determine the impact of a virtual peer support group among Black community maternal health professionals on preserving and prioritizing their mental health.

Methods: This project was rooted in community partnered participatory research principles and led by a Black-women community based organization and a Black woman academic partner. The inclusion criterion was: identifying as a professional that works in Black perinatal health. This virtual community mentoring program met for 7 sessions from March 28, 2022-June 20, 2022. Each session was 90 minutes long. A 17 item pre- and post-survey was used to query about building confidence, creating space for intergenerational bridge building, engendering a growth mindset, and leveraging Black cultural principles (e.g., community, storytelling, mothering).

Results: There were 14 participants (100% female, spanning across 4 generations; 93% Black) which included 10 mentees and 4 mentors (2 mentors with 3 mentees). Approximately, 86% attended all sessions. Responses evolved from pre- to post- which reflected a deeper understanding to the concepts. For example responses of building confidence (pre) included "eliminating self-doubt in professional spaces", "public speaking" compared to (post) "asking for help" and "setting and maintaining boundaries". An example response for bridge building (post) included "developing meaningful and impactful relationships by listening, connecting, understanding, training, advocacy, and collaborating". An example response for a growth mindset (post) was "Intentionally and constantly growing forward". An example response for Black cultural principles (post) was "Sisterhood and motherhood are the ties that bind us". Additionally, there were immediate life changes among participants such as job promotions (n=4), increased visibility as a public speaker (n=3), recognitions as champions (n=2) in Black perinatal health, and overall increased intentionality and frequency of self-care.

Conclusion: These findings help inform future programs to support Black perinatal professionals through culturally congruent mentoring.

CORRESPONDING AUTHOR: Kacie Blackman, PhD, California State University, Northridge, Northridge, CA; kacie.blackman@csun.edu

---

Abstract citation ID: kaad011.0202

MERITORIOUS AWARD WINNER

POSTER SESSION A: INTERACTIONS BETWEEN DEPRESSIVE DISORDERS AND ORAL CONTRACEPTIVE USE PREDICTS MOOD SYMPTOMS IN YOUNG ADULT WOMEN

Delcourt L. Meaghan, MS[1], Ethan Beri, BS[2], David Black, BS[3], Cruess G. Dean, PhD[4]

[1]University of Connecticut, Manchester, CT; [2]University of Connecticut, Fairfield, CT; [3]University of Connecticut, Weatogue, CT; [4]University of Connecticut, Storrs, CT

There are robust associations between hormone levels and mood among females, however findings relating oral contraceptive pill (OCP) use and mood have been mixed. Hormone sensitivity theory (Soares and Zitek, 2008) suggests that examining different forms of OCP and the role of depressive disorders may clarify these findings. The current study aimed to explore whether OCP use predicted more negative affect and mood in a sample of young women, and whether either major depression (MDD) or premenstrual dysphoric disorder (PMDD) augmented this effect. 208 young adult females completed weekly self-report questionnaires across a 6-week study, reporting demographics, menstrual history, OCP use, positive and negative affect (Watson et al., 1988), current depression symptoms (Kroenke et al., 2009), past MDD (adapted from DSM-5 diagnostic criteria; APA, 2013), and symptoms of PMDD (Steiner et al., 2003). Form of OCP used was coded categorically as general use (0 = No OCPs, 1 = OCPs) and by form used (0 = No OCP, 1 = *Combined*, 2 = *Progestin-only*). ANCOVAs and moderated regressions were used to test study aims. Results demonstrated that OCP use was not associated with greater negative affect ($F[1, 204] = .160$, $p = .690$, $\eta^2 = .001$) and depression ($F[1, 204] = 0.394$, $p = .531$, $\eta^2 = .002$), or lesser positive affect ($F[1,204] = 0.030$, $p = .863$, $\eta^2 = .000$). However, progestin-only OCP use was associated with lower positive affect ($F[2, 202] = 3.006$, $p = .052$, $\eta^2 = .029$) and marginally higher negative affect $F[2, 202] = 2.361$, $p = .097$, $\eta^2 = .023$) and depression ($F[2, 202] = 2.755$, $p = .066$, $\eta 2 = .027$). Moderated regressions revealed main effects of both MDD and PMDD predicting worse affect and mood. Although there were no significant interactions between OCP use and MDD, OCP use significantly interacted with PMDD symptoms to predict higher negative affect ($B = 22.485$ [12.175, 32.795], $p < .001$) and depression ($B = 9.827$ [3.186, 16.469], $p = .004$), and lower positive affect ($B = -14.573$ [-26.744, -2.402] $p = .019$). For individuals with PMDD, using either form of OCP was associated with greater negative affect and depression, while positive affect was only reduced among those using combined OCPs. These results suggest that affective and mood symptoms associated with OCP use differ based on the form used and individuals with hormone-related mood disorders, especially PMDD, may be vulnerable to negative mood effects associated with OCP use.

CORRESPONDING AUTHOR: Delcourt L. Meaghan, MS, University of Connecticut, Manchester, CT; meaghan.delcourt@uconn.edu

Abstract citation ID: kaad011.0203

POSTER SESSION A: THE RELATION BETWEEN OCCUPATIONAL STRESS AND PHYSICAL ACTIVITY: THE PROTECTIVE EFFECTS OF MOTIVATION

Anqi Deng, PhD[1], Nicole Zarrett, PhD[2]

[1]University of South Carolina, West Columbia, SC; [2]University of South Carolina, Columbia, SC

Afterschool Programs (ASPs) within underresourced communities face great challenges such as insufficient resources, high rates of staff burnout, lack of professional development training, all of which are associated with greater staff occupational stress (Font, 2012; Weaver et al., 2015). As a key mental health issue, stress can impair staff physical activity (PA) levels and, in turn, interfere with the adoption and implementation of effective interventions to promote adolescents' PA in ASPs (Affrunti et al., 2018). Given the negative association between high stress and PA, understanding how stress can be buffered has both theoretical and clinical significance. The current study set out to examine the relationships between three types of occupational stress, self-determination motivations, and daily moderate-to-vigorous PA (MVPA) among ASP staff using 7-day accelerometry wear. Baseline data (N = 58; 53.45% female; 32% Black, African American, or multi-racial; average age = 34.12) were collected in under-resourced communities as part of a larger NIH funded trial to promote youth and program staff PA from 10 under-resourced ASPs (ASPs free/reduced lunch rates = 57 - 98%). Staff's autonomous and controlled motivations for PA were measured using the Behavioral Regulation in Exercise Questionnaire and occupational stress was assessed using the three subscales (work stress, time management, and discipline and motivation) of the Teacher Stress Inventory (21 items). For controlled motivation, path analysis results showed that work stress had indirect negative effects (β = - 4.15, p < .05) on daily MVPA which was mediated by controlled motivation (β = -.49, p = .002): staff work stress had negative effects on daily MVPA for staff with controlled PA motivations. For autonomous motivation, three types of occupational stress did not have significant direct effects on autonomous motivation or indirect effects on daily MVPA through autonomous motivation. Autonomous motivation was the only significant predictor (β = 9.93, p = .01) that positively predicted daily MVPA. Together these findings indicate the potential protective processes of autonomous motivation. This study highlights the positive relationship between staff's autonomous motivation and their daily PA levels. Our study shows that high levels of autonomous motivation can attenuate the harmful effects of stress on daily PA levels among ASP staff within under-resourced communities, while controlled motivation cannot. Hence, staff health or life skill intervention programs should not only focus on increasing staff's knowledge and behavioral management skills for promoting PA but also facilitate the development of autonomous motivation for PA.

CORRESPONDING AUTHOR: Anqi Deng, PhD, University of South Carolina, West Columbia, SC; anqid@email.sc.edu

---

Abstract citation ID: kaad011.0204

POSTER SESSION A: POSITIVE AFFECT MODERATES THE RELATIONSHIP BETWEEN PEER VICTIMIZATION AND HEALTH BEHAVIOR IN SCHOOL-AGE CHILDREN

Haley Coronado, BS[1], Katherine R. Shircliff, BS[1], Caroline Cummings, PhD[1], Abigail Kortenhoeven, BA[1], Carlos R. Sanchez, BA[1], Brianna T. Ricker, MS[1], John L. Cooley, PhD[1]

[1]Texas Tech University, Lubbock, TX

Background: Peer victimization has been demonstrated to reduce children's engagement in physical activity. Children who report a history of peer victimization are also at an increased risk for sleep disturbances. Positive affect is independently linked to peer victimization, physical activity, and sleep disturbances; yet researchers have not investigated whether positive affect may attenuate the adverse effects of peer victimization on physical activity and sleep.

Objective: To examine the moderating effect of positive affect on the relationships between cyber and traditional peer victimization and health behavior (physical activity and sleep disturbance).

Methods: Data was analyzed from a larger-scale study of positive youth development in elementary school students. Participants (N=238) completed a demographic questionnaire and measures of cyber and traditional (e.g., physical; relational) peer victimization, positive affect, physical activity, and sleep disturbances. We ran multiple linear regressions with the main effects of peer victimization and positive affect, as well as the interaction term between both variables. Separate models were run for each peer victimization type (cyber and traditional) and health behavior outcome (physical activity and sleep disturbances).

Results: There were no main effects of peer victimization on neither physical activity nor sleep disturbances. Positive affect shared a significant, positive association with physical activity and a significant, negative association with sleep disturbances. Positive affect moderated the relationship between cyber peer victimization and physical activity, as well as the relationship between traditional peer victimization and sleep disturbances. Children who reported more frequent experiences of cyber peer victimization and concurrently more frequent experiences of positive affect also reported greater engagement in physical activity. Similarly, children who reported more frequent experiences of traditional peer victimization and concurrently more frequent experiences of positive affect also reported fewer sleep disturbances.

Discussion: Positive affect can serve as a protective factor against the negative effects of peer victimization on health behavior engagement. Findings provide preliminary evidence that it may be useful to target positive affect regulation within future interventions with children with a known peer victimization history.

CORRESPONDING AUTHOR: Haley Coronado, BS, Texas Tech University, Lubbock, TX; hcoronad@ttu.edu

Abstract citation ID: kaad011.0205

POSTER SESSION A: DYNAMIC PATTERNS OF PERSONALITY STATES, AFFECTS AND GOALS BEFORE AND DURING AN EXERCISE INTERVENTION: A SERIES OF N-OF-1 TRIALS

Celia Kingsbury, PhDc[1], Paquito Bernard, PhD[1]

[1]Université du Québec à Montréal, Montreal, PQ, Canada

Objective: The Whole Trait Theory postulates that individuals have unique personality structures that vary from day to day (personality states). Studies showed that cognitive-affective mechanisms such as affects and personal goals are independently associated with the manifestation of individuals' personality variability, and that physical activity is prospectively associated with personality states and affects variability at short term. However, no studies have shown clear insights about the complex interactions between personality states, affects and personal goals in the context of an exercise behavior change intervention. Hence, we aimed to modelize the temporal associations between daily personality states, affects and pursuit of personal goals before and during a behavior change intervention (physical exercise).

Methods: Using an A (baseline -10 days) - B (intervention 2x/week – 6 weeks) design, we paired a series of N-of-1 with ecological momentary assessments in a sample 10 inactive adults. Idiographic network analyses and generalized addictive models were carried out.

Results: Associations between the three cognitive-affective variables were modified during the intervention, and their respective weight in the networks followed an individual pattern. The intervention was associated with a systematic non-linear change in the level of personal goals.

Conclusions: Our findings need to be replicated, however they represent a first step in better understanding the cognitive-affective mechanisms underlying the manifestation of personality states as an interconnected and evolving system modifiable by an exercise intervention.

CORRESPONDING AUTHOR: Celia Kingsbury, PhDc, Université du Québec à Montréal, Montreal, PQ, Canada; celia.kingsbury@umontreal.ca

---

Abstract citation ID: kaad011.0206

POSTER SESSION A: CROSS-SECTIONAL ASSOCIATIONS BETWEEN REGULAR PHYSICAL ACTIVITY AND DOMAINS OF MENTAL HEALTH IN A GLOBAL SAMPLE OF YOUNG ADULTS

Christopher Huong, BA[1], Denver M. Brown, PhD[1]

[1]The University of Texas at San Antonio, San Antonio, TX

Rates of mental illness have been steadily rising with little sign of improvement. Young adults are a particularly vulnerable population, having seen within the past two decades rising rates of self-reported persistent feelings of sadness or hopelessness, suicidal ideation and behaviors, loneliness, and diminished wellbeing. Evidence indicates that physical activity (PA) can be a clinically useful, low-cost, and non-invasive treatment option for preventing and managing many mental health symptoms. Further investigation into which specific aspects of mental health are most influenced by PA can help to elucidate the differential effects that PA may confer, and thus allow clinicians to make better informed treatment recommendations.

This study used cross-sectional data (January-July 2022) from the Mental Health Million project to investigate the influence of regular PA on overall mental wellbeing and specific dimensions of mental health. The sample included 43,227 young adults between the ages of 18-24 (63.7% female, 35.9% male, 0.4% other) from 178 countries. Participants completed the 47-item Mental Health Quotient and reported how frequently they engaged in daily bouts of PA for 30 min or more. Propensity score weighted multi-level regression models were computed to examine associations between regular PA engagement and overall mental wellbeing as well as six dimensions of mental health.

Findings revealed regular PA engagement was associated with more favorable scores for overall mental wellbeing (B = 23.66 ± 0.65 SE, $p < .001$). Among the individual dimensions, regular PA engagement was associated with the most favorable scores for complex cognition (B = 26.40 ± 0.65 SE, $p < .001$), followed by mind-body connection (B = 25.29 ± 0.58, $p < .001$), drive and motivation (B = 23.52 ± 0.62 SE, $p < .001$), core cognition (B = 22.85 ± 0.61 SE, $p < .001$), mood and outlook (B = 19.54 ± 0.62 SE, $p < .001$), and lastly, social self (B = 16.66 ± 0.68 SE, $p < .001$).

Our findings support the body of literature demonstrating a clear exposure effect of regular PA engagement on overall mental wellbeing and build on this work by revealing differential effects that exist across specific dimensions. Further research should investigate whether different PA modalities are more beneficial for particular dimensions of mental health so that clinically relevant precision medicine approaches can be adopted to address specific mental health problems.

CORRESPONDING AUTHOR: Christopher Huong, BA, The University of Texas at San Antonio, San Antonio, TX; christopher.huong@my.utsa.edu

Thursday
April 27th, 2023
9:00 AM – 9:50 AM
Symposia

Abstract citation ID: kaad011.0207

PRESIDENTIAL SYMPOSIUM: SYMPOSIUM 1: REPRODUCTIVE HEALTH IN A POST-ROE UNITED STATES

Jolaade Kalinowski, EdD[1], Lindsay Palmer, PhD in Psychology and Women's, Gender, and Sexuality Studies[2], Rhonda K. Dailey, MD[3], Sherry Pagoto, PhD, FSBM[4], Liane M. Ventura, MPH[5]

[1]UCONN, Storrs, CT; [2]University of Connecticut, Chicago, IL; [3]Wayne State University School of Medicine, Detroit, MI; [4]University of Connecticut, Storrs, CT; [5]East Tennessee State University, Johnson City, TN

Maternal mortality rates in Black women are three times higher than White and Hispanic women. US states that place restrictions on reproductive rights have higher maternal morbidity and mortality rates, particularly among Black women. On June 24, 2022, the Supreme Court of the United States decision in *Dobbs v Jackson Women's Health Organization* resulted in the reversal of *Roe v Wade* which had protected women's right to have an abortion for nearly 50 years. Thirteen states had trigger laws that immediately banned abortion and 13 others are in position to pass legislation that will ban abortion. A recent study projects that total abortion bans would result in an increase in maternal mortality of 21% for all women and of 33% in Black women. Further, the landmark Turnaway study found that women who are denied abortion services spend additional years in poverty and have lower credit scores, greater debt, more bankruptcies, and more evictions than those who obtained an abortion. As such, safe and accessible reproductive care including abortion, contraception, and prenatal care, is paramount for the health and wellbeing of women and their children. All of these findings together suggest that the public health crisis of maternal mortality, in Black women in particular, will intensify as reproductive rights are being dismantled nationwide. In this symposium, we will feature three speakers who will present their work on reproductive health. First, we will hear from Dr. Rhonda Dailey who has developed and validated an instrument that assesses quality of prenatal care and used it to study the relationship between experiences of discrimination in healthcare by Black women and reduced quality of prenatal care. She will discuss how this instrument can be used in prenatal outpatient settings to identify areas of care improvement. Second, we will hear from Dr. Liane Ventura who will discuss her findings regarding barriers and facilitators to contraception access in patients of federally-funded safety-net clinics in South Carolina. Finally, we will hear from Dr. Lindsay Palmer who conducted a social listening study of misinformation in tweets containing the word "abortion." Her findings revealed a very high rate of misinformation about abortion on Twitter following the reversal of *Roe vs Wade*. The discussant, Dr. Sherry Pagoto, will synthesize these findings and initiate a discussion about an urgent behavioral medicine research agenda addressing reproductive health and reproductive justice in a post-Roe United States, with a focus on reducing maternal morbidity and mortality in Black women.

CORRESPONDING AUTHOR: Jolaade Kalinowski, EdD, UCONN, Storrs, CT; jolaade.kalinowski@uconn.edu

Abstract citation ID: kaad011.0208

1: A QUALITATIVE ANALYSIS OF ABORTION MISINFORMATION ON TWITTER FOLLOWING THE DOBBS DECISION

Lindsay Palmer, PhD in Psychology and Women's, Gender, and Sexuality Studies[1], Sherry Pagoto, PhD, FSBM[2], Cindy Pan, BS, BA[3], Shanya Thomas[4], Haley Troy[5]

[1]University of Connecticut, Chicago, IL; [2]University of Connecticut, Storrs, CT; [3]University of Connecticut, West Hartford, CT; [4]University of Connecticut; [5]University of Connecticut, Manchester, CT

On June 24th, 2022, the US Supreme Court released a decision in *Dobbs vs Jackson Women's Health Organization* that reversed *Roe v Wade* which had protected reproductive rights of childbearing people in the US for 50 years. This decision has given way to a rapidly changing and confusing sociopolitical landscape for reproductive rights around the nation. Google searches about abortion medications were 162% higher than expected given weekly trends after the leaked draft of the Supreme Court ruling (Poliak et al., 2022), revealing that people now more than ever are seeking information about abortion care. Misinformation about abortion abounds. Over half of top webpages produced by a Google search about abortion have been found to contain misinformation (Pleasants et al., 2021). As abortion misinformation proliferates online, research is needed to understand the nature of this misinformation and which type spreads the fastest. In this study, we aimed to examine the prevalence and nature of abortion misinformation being shared on Twitter in the summer of 2022 following the *Dobbs* decision and we compared the spread of different types of misinformation as measured by retweets. Using the NVivo plugin, Ncapture, we collected three samples of tweets over three weeks for a total of N=53,999 tweets. We then selected a random sample of (N=1,131) tweets for content analysis. Among the tweets, 14.5% contained misinformation. Our content analysis of tweets with misinformation revealed 4 types of misinformation: political, medical, sexist, and conspiracy theories. Political misinformation was defined as misinformation that supports and/or is created for a political agenda and characterized 54% of tweets. Conspiracy theories (e.g., CDC covering up cases of fetus' surviving abortion) accounted for 26% of tweets. Medical misinformation was defined as false and/or inaccurate medical information about abortion and other aspects of reproductive health (e.g., pregnancy) and characterized 12% of tweets. Sexist misinformation was defined as misinformation that relies on sexist assumptions, misogyny, and/or stereotypes, characterizing 7% of tweets. Abortion misinformation is prevalent on Twitter, and comes in a variety of types including but not limited to health misinformation. Political misinformation and conspiracy theories make up the majority of misinformation spread on Twitter. Public health efforts to educate women and other people who can get pregnant about abortion may be challenging in this misinformation landscape. Further research is needed to understand the impact of exposure to abortion misinformation on pregnant people seeking abortion care.

Abstract citation ID: kaad011.0209

2: A CALL TO ACTION TO IMPROVE PRENATAL CARE: AN OVERVIEW OF BLACK WOMEN'S PERCEPTIONS OF PRENATAL CARE QUALITY AND EXAMINING ITS RELATIONSHIP TO HEALTHCARE DISCRIMINATION

Rhonda K. Dailey, MD[1], Cyntha Wynn, BS[2], Dawn Misra, MHS, PhD[3], Carmen Giurgescu, PhD, RN, WHNP, FAAN[4]

[1]Wayne State University School of Medicine, Detroit, MI; [2]University of Michigan; [3]Michigan State University; [4]University of Central Florida

There has been a recent call to action by maternal health advocates for healthcare providers to address the alarming maternal health disparities in the Unites States. Black women, compared to non-Hispanic White women, are 1.5 times more likely to have a preterm birth and are 3 to 4 times more likely to die from pregnancy related complications. Receipt of adequate prenatal care is associated with lower rates of preterm birth and may be a factor in racial disparities in pregnancy outcomes. Although efforts to expand access and early initiation of prenatal care has been successful in increasing the number of visits, they have failed to create equity in pregnancy and maternal health outcomes. Racial and cultural differences with regard to values, attitudes, preferences, and experiences may affect care that is accepted or received. Underuse of prenatal care among Black women has been associated with health care mistrust and beliefs, perceived discrimination, and unsatisfactory clinical experiences. During this symposium, we will discuss the co-presenter's published results of a validity and reliability analysis of the Quality of Prenatal Care Questionnaire (QPCQ), a 46-item instrument used to measure prenatal care quality perceptions in a cohort of 200 Black women. Our results indicated that most women rated their prenatal care highly and that the instrument and subscales were reliable with high Cronbach's alphas (0.97). The only exception was the Approachability subscale, which had a lower Cronbach's alpha of 0.72. We will demonstrate how to effectively use this instrument or a shortened version of this instrument and its subscales in research and clinical care settings to quickly identify potential gaps in order to make quick, effective quality improvements in prenatal care. We will also discuss preliminary results of the association of Black women's personal experiences with everyday healthcare discrimination and subscales of the QPCQ. Our preliminary analysis has demonstrated significant relationships between higher everyday healthcare discrimination scores and lower scores on the Approachability ($p < .011$) and Support and Respect ($p < .000$) scales. Pregnant women have voiced that they value effective communication, want to be listened to by providers, and have a right to dignified and safe care respected. Although assessing prenatal care quality with the woman-centered QPCQ will not itself reduce Black maternal health disparities, it may be able to identify key areas for improvement. The instrument can be conveniently administered in the prenatal outpatient setting and could be used to improve doctor-patient communication.

Abstract citation ID: kaad011.0210

3: EXAMINING THE CHOOSE WELL INTERVENTION AMONG TITLE X CLINICS IN SOUTH CAROLINA (2017 TO 2020)

Liane M. Ventura, MPH[1], Kate Beatty, PhD, MPH[1], Amal Khoury, PhD, MPH[1], Michael Smith, DrPH[2], Amy Weber, DBH, MPH[1], Deborah Slawson, PhD, RD, LDN[1]

[1]East Tennessee State University, Johnson City, TN; [2]East Tennessee State University

Reproductive autonomy denotes patients must have access to the full range of contraceptive services. Federally funded safety-net clinics provide contraceptive care for underserved patients. Title X is the sole federal funding mechanism for contraceptive care. Title X family planning clinics have special guidelines for the provision of contraceptive care, such as training requirements for clinical staff and a sliding scale fee for uninsured and underinsured patients. However, gaps to access the full range of methods may persist due to limited clinic capacity, limited provider availability and training, and the high cost of stocking methods like implants and intrauterine devices (IUDs). The Choose Well contraceptive access initiative implemented infrastructure and workforce, training and capacity-building, and communication and media efforts among Title X clinics throughout South Carolina (SC) to increase access to and equity for uninsured and underinsured women. This study examined perceptions of Title X family planning clinic staff and leadership regarding facilitators and challenges to access to the full range of method options for uninsured and underinsured patient populations during implementation of Choose Well in SC (2017-2020). Ninety-two key informant interviews with clinic staff and leadership at Title X clinics in SC were conducted across four years. Interviews were recorded, transcribed, and coded through a validated two-phase coding process. Common themes regarding facilitators of access included availability of implant devices and IUDs, increased community awareness through a statewide media campaign and patient outreach, and workforce expansion efforts. Few respondents noted that expanded service lines, patient-centered contraceptive counseling and Choose Well supported trainings increased access. However, some respondents emphasized that access remained the same at their clinics, and some noted challenges to access including limited method types being offered for free or low cost and a lack of adequate staffing capacity. Respondents also noted that COVID-19 was a contextual challenge (2020). Findings suggest several components of Choose Well, such as funding for contraceptive methods and an expanded workforce, were successful in increasing access to the full range of contraceptive methods for uninsured and underinsured patients at Title X clinics in SC. Workforce expansion and patient outreach are important components of contraceptive access and must continue to be explored.

Abstract citation ID: kaad011.0211

SYMPOSIUM 2: DIGITAL HEALTH INTERVENTIONS FOR PROMOTING HEALTH EQUITY

Adrian Aguilera, PhD[1], Stacy C. Bailey, PhD, MPH[2], Marvyn R. Arévalo Avalos, PhD[3], Charles R. Jonassaint, PhD, MHS[4]

[1]University of California, Berkeley, Berkeely, CA; [2]Feinberg School of Medicine, Northwestern University, Chicago, IL; [3]University of California Berkeley, Berkeley CA, CA; [4]University of Pittsburgh, Pittsburgh, PA

Digital health interventions have dramatically increased in number since the start of the pandemic. They are addressing real needs to intervene as part of people's daily lives. The increase in development and implementation needs to include diverse populations with chronic illnesses that include those with the fewest resources. These are often the most challenging populations to reach but are crucial to include if digital health is going to meet the promise to scale health interventions broadly and reduce costs. This symposium presents 3 examples of interventions that specifically seek to improve health equity via the application of digital technologies among underserved populations. The first presentation will describe the use of a patient portal and text messaging platforms to increase health literacy among people with diabetes. The second talk will present results from a physical activity intervention that uses machine learning to personalize content for English and Spanish speaking patients with diabetes and depression in a public sector clinic. The final study will share outcomes from a cognitive behavioral therapy (CBT) intervention to reduce pain symptoms among a predominantly African-American sample of people with sickle cell disease. Altogether, these studies provide valuable contributions to the field that broadly needs to increase the evidence base of digital health technology use for those with the highest need.

CORRESPONDING AUTHOR: Adrian Aguilera, PhD, University of California, Berkeley, Berkeely, CA; aguila@berkeley.edu

---

Abstract citation ID: kaad011.0212

1: USE OF CONSUMER AND HEALTH-INFORMATION TECHNOLOGIES IN THE PREPARED TRIAL

Stacy C. Bailey, PhD, MPH[1], Allison Pack, PhD, MPH[2], Guisselle Wismer, MPH[3], Michael S. Wolf, PhD, MPH, MA[1]

[1]Feinberg School of Medicine, Northwestern University, Chicago, IL; [2]Northwestern University Feinberg School of Medicine, Chicago, IL; [3]Feinberg School of Medicine Northwestern University, Chicago, IL

Background: While type 2 diabetes (T2DM) has historically affected older individuals, its incidence is increasing rapidly among younger adults, including women of reproductive age. Women with T2DM are more likely to experience adverse reproductive outcomes, yet many are unaware of increased risks and few receive recommended preconception counseling. The Promoting REproductive Planning And REadiness in Diabetes (PREPARED) intervention was designed to increase uptake of preconception health behaviors and to improve hemoglobin A1c among women with T2DM receiving care in academic and community health center settings, with a focus on reducing health literacy-related disparities. This presentation will review the implementation of PREPARED and the use of technology to tailor intervention components and delivery. The presentation will also review the use of a novel health literacy tool – the HL6 – which can be used to remotely measure patient health literacy skills via text messaging. This is in contrast to most currently available, objective measures, which rely upon in-person, interviewer administration.

Methods: PREPARED is a 5-year, NIH-funded, clinic-randomized trial currently in its second year. It utilizes health information and consumer technologies to 'hardwire' preconception care and promote diabetes self-management among reproductive-aged women with T2DM. Specifically, its leverages the electronic health record to: [1] promote medication reconciliation, [2] prompt patient-provider preconception counseling and reproductive planning, and [3] deliver health literacy-appropriate patient education tools. Post-visit, text messages are used to [4] encourage healthy lifestyle behaviors. To date, 30 practices in Chicago, IL have been randomized to deliver either PREPARED or usual care. A total of 840 women will be enrolled; participants are interviewed via phone and/or videoconferencing at baseline, 1- and 3 months. After the baseline interview, participants are sent the HL6 for completion.

Results & Discussion: Implementation across sites has required adaptation to fit clinic workflows and resources. Some practices have utilized the patient portal to collect patient data before visits; data is then used to streamline medication reconciliation and to tailor provider counseling during the encounter to each patient. Other sites have utilized primarily a paper-based approach to medication reconciliation and generic provider alerts due to low levels of patient portal use. Centralized text messaging platforms deliver intervention text messages and deploy the HL6. To date, 48 participants have been enrolled in the trial; 40 have completed the HL6. As the trial is ongoing and results are not yet available, this presentation will focus on how current technologies can be used across diverse sites and patient populations for intervention delivery and evaluation.

Abstract citation ID: kaad011.0213

2: MHEALTH APP TO INCREASE PHYSICAL ACTIVITY FOR ADULTS WITH DIABETES AND DEPRESSION: THE DIAMANTE STUDY

Marvyn R. Arévalo Avalos, PhD[1], Adrian Aguilera, PhD[2], Jing "Kenny" Xu, PhD[3], Bibhas Chakraborty, PhD[4], Courtney Lyles, PhD[5]

[1]University of California Berkeley, Berkeley CA, CA; [2]University of California, Berkeley, Berkeely, CA; [3]Duke-National university of Singapore Medical School; [4]Duke-National University Of Singapore Medical School; [5]University of California, San Francisco

Comorbid diabetes and depression are highly disabling and prevalent diseases among low-income ethnic minority patients. Most interventions target these conditions separately despite overlapping symptoms. Increasing physical activity may help address diabetes and depression symptoms; such as helping improve glycemic control while improving mood. Utilizing cost-effective, scalable, accessible, and easily tailored self-management digital interventions can help promote physical activity. Personalizing via machine learning methods may help increase the effectiveness of these interventions. The purpose of this presentation is to describe the implementation of the DIAMANTE intervention, including issues related to participant recruitment, engagement, and outcomes; and to describe how personalized self-management app interventions can help promote health equity for underserved patients.

DIAMANTE study is a 6-month three-arm RCT that examines the effects of a text-messaging app to encourage physical activity (i.e., walking/step count) among low-income ethnic minority patients with comorbid diabetes and depression. The intervention includes an adaptive group that receives intervention messages chosen by a reinforcement learning algorithm, a static group that receives the same messages randomly, and a control group that only receives a weekly mood monitoring message. Mixed methods survey data were collected via Qualtrics and daily step count data were collected passively via the smartphone app. Patients were recruited via clinics in the San Francisco Health Network and via social media (e.g, Craigslist) to adapt to COVID-19 conditions. The analysis will examine trajectories and changes in physical activity across the 6-month intervention by the intervention arm.

A total of 196 participants enrolled in the DIAMANTE Study (37% Hospital Network, 63% social media); 143 of those have completed the study, 30 were dropped or lost to follow-up, and 23 are still active and enrolled in the study. Of those that completed the study, participants were adults aged 19-72 (M=48.52), 62% female, and of diverse race/ethnicity: 8% Asian/Asian American, 16.5% Black/African American, 29% White, and 36% Latinx, and the remainder identified as multiracial. Among 79 participants with available pre-intervention data, their weekly step average was 3271 steps indicating a low degree of physical activity. This presentation will highlight successes and challenges with the implementation of DIAMANTE. We will report on trajectories and changes in physical activity among the study participants. Further, we will discuss ways in which machine learning and mHealth applications can be leveraged to promote health equity among diverse, underserved patients.

Abstract citation ID: kaad011.0214

3: THE EFFECTIVENESS OF A TAILORED DIGITAL COGNITIVE BEHAVIORAL THERAPY PROGRAM FOR ADULTS WITH CHRONIC SICKLE CELL DISEASE PAIN

Charles R. Jonassaint, PhD, MHS[1]

[1]University of Pittsburgh, Pittsburgh, PA

Sickle cell disease (SCD) is an inherited blood disorder that affects approximately 100,000 individuals in the U.S., most of whom are of African-descent and belong to a traditionally underserved and underrepresented group. Pain is the hallmark symptom of SCD. Many people living with SCD suffer from daily, chronic pain as well recurrent acute pain episodes that require medical attention. Pain in SCD is almost exclusively treated with opioid medication, despite the limited effectiveness and negative side-effects associated with long-term opioid use. Thus, there is a pressing need for evidence-based, accessible, and scalable behavioral interventions for treating pain in this population. To address this gap in care, we are conducting a comparative effectiveness trial testing digital cognitive behavioral therapy (CBT) adapted specifically for this patient population, adults with SCD. In addition to interactive lessons on CBT, the program also includes health coaching from individuals with experience working in the SCD community, many of whom have SCD themselves. As the first large-scale trial of behavioral pain management in SCD, this project involves seven clinical sites and over 20 partnering community-based organizations, and will recruit 350 adults with SCD who report chronic pain (pain more days that not for more than 3 months). There are two primary aims of this study. First, we will test the effectiveness of a tailored, health coach supported, digital CBT program for reducing SCD pain and mental health symptoms versus pain education in a randomized, comparative effectiveness trial. Second, will assess whether baseline depression symptoms moderate treatment effects.

Currently, the study has randomized 274 participants, to either CBT (51%) or education (49%), with an average age of 36.4 (18 - 68). Most participants are Black/African American (91%), and 69% female. At baseline, 47.6% of the participants have reported moderate to severe depressive symptoms (PHQ9), 36.3% reported moderate to severe anxiety symptoms (GAD7), and 23% have reported suicidal ideation on screening questionnaires. Thus, the mental distress among this patient population was high. The study has shown good engagement. Among the first 114 participant to complete the study, 81.5% had at least one phone or text message session with a health coach.

Enrollment will close November 2022. We will present 3- and 6-month group differences on pain interference and daily pain intensity change, as well as data on engagement with the tailored digital CBT program. Given this study was conducted during the COVID pandemic and a period of racial unrest in the U.S., we will discuss the impact of these factors on trial startup, enrollment, and engagement. The results of this study will provide important evidence to inform pain management for adults with SCD, as well as, how to address pain among other underserved populations.

Abstract citation ID: kaad011.0215

SYMPOSIUM 3: MOVING BEYOND EFFICACY TRIALS TO REAL WORLD IMPLEMENTATION

Dawn K. Wilson, PhD, FSBM[1], Robert M. Kaplan, PhD, FSBM[2], Guillermo M. Wippold, PhD[1], Kenneth Resnicow, PhD, FSBM[3]

[1]University of South Carolina, Columbia, SC; [2]Stanford University, Pacific Grove, CA; [3]University of Michigan, School of Public Helath, ann arbor, MI

There are problematic gaps between procedures as tested in efficacy trials and those implemented in clinical practice as well as community-based settings. This session will provide an overview and examples of how these gaps need to be addressed with studies that identify, and/or test strategies for overcoming barriers to the adoption, adaptation, integration, scale-up, and sustainability of evidence-based interventions, practices, treatments, and policies. Speaker 1 outlines the gaps between procedures tested in RCTs and those implemented in clinical settings and provides clear examples of these issues. Speakers 2 and 3 further describe the gaps between dissemination and implementation of evidence-based interventions among underrepresented communities. Speaker 2 focuses on Barbershop Community-Informed Interventions in Black men and Speaker 3 presents the use of D&I frameworks for adapting tailored social marketing strategies for community-based walking programs in underserved regions of the US. This session will also include an internationally known discussant who will provide insights on how these studies advance our understanding of the need for adaptive methods of dissemination and implementation for future population and policy impact.

CORRESPONDING AUTHOR: Dawn K. Wilson, PhD, FSBM, University of South Carolina, Columbia, SC; wilsondk@mailbox.sc.edu

---

Abstract citation ID: kaad011.0216

1: USING A D&I FRAMEWORK FOR ADPATING TAILORED SOCIAL MARKETING STRATEGIES TO PROMOTE WALKING IN UNDERSERVED COMMUNITIES

Dawn K. Wilson, PhD, FSBM[1], Guillermo M. Wippold, PhD[1], Allison Sweeney, PhD[1], Kaylyn Garcia, MA[2], Taylor R. White, BS[3], Sarah Griffin, PhD[4]

[1]University of South Carolina, Columbia, SC; [2]University of South Carolina; [3]University of South Carolina, Tarrant, AL; [4]Clemson University

The purpose of this talk is to highlight the use of a D&I framework for translating the Positive Action for Today's Health (PATH) intervention for promoted access, safety, and social connectedness for community-based walking programs in diverse underserved regions of the country (Greenville, SC, and Dallas, TX).   We propose a community informed and evidenced-based framework, the Transcreation Framework, for tracking the development, adaptation, adoption, effectiveness, and maintenance of these new programs in diverse settings (urban versus rural; family focused versus adult focused). While the original PATH program focused on African American adults in a rural southeastern community, the extension of this program will expand the focus of using novel tailored social marketing strategies for adapting the PATH walking program to increase community-walking among families in rural settings (Greenville, SC) and among Black and Hispanic communities in urban settings (Dallas, Texas). The speaker will present results from a recent scoping review (k = 27 studies) demonstrating the need to use community-based participatory methods such as qualitative data, steering committees, and advisory boards for guiding the adoption of social marketing strategies for promoting walking. Overall, while previous social marketing interventions have shown that the majority of programs were effective for increasing walking and physical activity (69%), there still remains a need to adapt these programs to the community's specific values. We argue that the gap between efficacy and effectiveness trials is that although social marketing strategies have been impactful, there still remains a need to adapt these interventions for use in diverse and underserved communities. We specifically present a dissemination model for adapting the implementation and maintenance of walking programs that are inclusive of diversity and which are informed by social marketing strategies to specifically increase walking, access to healthcare, and sustainability of community-based walking programs, which have been limitations of previous large-scale trials.

Abstract citation ID: kaad011.0217

2: NOT SO FAST: THE CONSEQUENCES OF PREMATURE IMPLEMENTATION

Robert M. Kaplan, PhD, FSBM[1], Karen Schmaling, PhD[2]

[1]Stanford University, Pacific Grove, CA; [2]Washington State University

There are sizable gaps between procedures of behavioral and pharmaceutical interventions as tested in RCTs and those implemented in clinical practice. This presentation reviews the sources of and causes for these gaps, such as differences in settings, patients, providers, and other factors. We explore several explanations for why interventions are often shown to be promising in efficacy RCTs, yet have weaker effects when applied in real world settings. Several biases are likely. First, efficacy trials typically employ exclusion criteria, while exclusions are rare in real world settings. Using data from several trials, we show how application of exclusion rules assures that RCT subjects differ systematically from populations to whom results will be generalized. Second, there are biases introduced because staffing and support services in trials are usually better than those available for under real world circumstances. Third, we examine biases associated with selective reporting and publication bias. Decisions about the benefits of clinical treatments are often made on the basis of studies published in the peer reviewed literature. Further, studies published in the most prestigious journals are given the greatest attention and are about four times more likely to be cited by other authors. Yet, studies are significantly more likely to be published if they achieve a positive result. Mandatory clinical trial registration on ClinicalTrials.gov and with the FDA makes it possible to determine how many trials are initiated, completed, and reported. We show that reports of many studies are greatly delayed and that some studies are never reported at all. Although studies that have the most exciting results are most likely to be reported in the major journals, they may be outliers or even the studies in which the statistically significant result occurred by chance. The presentation concludes with suggestions for policies to address these issues and offers some evidence for the potential benefits of the policies for both researchers and consumers.

Abstract citation ID: kaad011.0218

3: NECESSITY IS THE FATHER OF ADAPTATION: PLANNING AND IMPLEMENTING BARBERSHOP-BASED HEALTH PROMOTION INTERVENTIONS FOR BLACK MEN

Guillermo M. Wippold, PhD[1], Sarah Grace Frary, BS[1], Kaylyn Gracia, MA[2], Dawn K. Wilson, PhD, FSBM[1]

[1]University of South Carolina, Columbia, SC; [2]University of South Carolina

Health promotion efforts among Black men have been limited in their ability to produce meaningful health-related changes. Black men experience a lower life expectancy and health-related quality of life than any other racial/ethnic-gender group in the United States (U.S.). In order to promote meaningful health-related change among Black men, health promotion efforts must circumvent common challenges with the recruitment and retention of these men. Despite the National Institutes of Health Revitalization Act of 1993, Black men constitute less than 4.5% of those enrolled in clinical trials. When barriers to recruitment are circumvented, challenges retaining these men arise. These difficulties have led to Black men being referred to as a "hard-to-reach population" – a designation which places undue blame on the men as opposed to the dissemination and implementation strategies being used by health promotion specialists. Necessity is the father of adaptation and dissemination/implementation strategies need to be adapted for these men in order to promote recruitment, minimize attrition, and foster meaningful health-related change. The presentation highlights the gap between efficacy and effectiveness trials in that efficacy trials have not included Black men. Adaptations should align with the gender- and race-based lived experiences of these men. Given that barbershops are cultural institutions for many Black men in the U.S., barbershop-based health promotion efforts are uniquely positioned to promote recruitment, retention, and meaningful health-related change among Black men. Despite the recent interest in barbershop-based health promotion efforts by the academic community, there is little guidance on how to develop, implement, and evaluate such community-based efforts. This presentation provides a review of the literature and guidance by analyzing existing efforts using the RE-AIM Framework. Results indicate that barbershop-based health promotion efforts that prioritize community engagement and intentional alignment to the gender- and race-based lived experiences of Black men are likely to result in satisfactory recruitment, retention, and health-related changes among these men. These results are presented in conjunction with literature-derived recommendations, such as the need for efforts that target young Black adults, rural Black men, mental health outcomes and efforts implemented using peer-to-peer models.

Abstract citation ID: kaad011.0219

SYMPOSIUM 4: PARTNERING WITH COMMUNITY HEALTH WORKERS TO ADVANCE HEALTH EQUITY: LESSONS AND APPLICATIONS FROM BEHAVIORAL MEDICINE RESEARCH

Patricia Rodriguez Espinosa, PhD, MPH[1], Mona AuYoung, PhD, MS, MPH[2], Kristi Graves, PhD, FSBM[3], Ann Cheney, PhD[4]

[1]Stanford School of Medicine, Palo Alto, CA; [2]UCLA School of Medicine, Los Angeles, CA; [3]Georgetown University, Alexandria, VA; [4]University of California Riverside, riverside, CA

Community Health Workers (CHWs) -also known as promotores de salud or lay health care workers- are trusted messengers and leaders in many communities. They play a pivotal role in building capacity, conducting community outreach and education, linking individuals to resources, and providing culturally and linguistically appropriate services. Approaches that include CHWs have gained recent attention in health promotion, interventions, and health care navigation. CHWs can effectively engage marginalized communities and represent an innovative workforce model to address health inequities. Moreover, recent Medicaid expansions that increase reimbursement for CHW services present a timely opportunity to develop rigorous approaches to involve CHWs in behavioral medicine.

This symposium will highlight various approaches to partnership, design, and intervention efforts that incorporate CHWs. We will also discuss cross-cutting challenges and recommendations, and opportunities for using a CHW model to promote health equity and respond to public health challenges.

Patricia Rodriguez Espinosa will give a brief overview of behavioral medicine applications that integrate CHWs. Dr. Rodriguez Espinosa will then present on a community engaged project which partnered with CHWs to co-develop culturally and linguistically relevant health education materials to address COVID-19 disparities in the Latinx community. She will highlight capacity building efforts at the county level, partnership approach, outcomes, and current directions.

Kristi Graves will present on a training program for CHWs to increase knowledge, self-efficacy, and skills related to identifying individuals in the Latinx community who are at high risk of hereditary breast and ovarian cancer. Dr. Graves will provide an overview of the interactive training program and highlight initial outcomes and CHW's applications of their knowledge and skills through their community action projects.

Ann Cheney will present on the work of *Unidas por Salud*, a CHW collective working with Latinx/Indigenous Mexican immigrant populations to address climate change disparities, including effects on children's respiratory health. Dr. Cheney will describe the community engaged approach, photovoice and air quality data collection and analysis, lessons, and next steps for public health policy change.

This symposium aims at enhancing knowledge of the SBM audience in incorporating CHWs in their work, with Dr. Mona AuYoung, a national community engagement expert, serving as the discussant.

CORRESPONDING AUTHOR: Patricia Rodriguez Espinosa, PhD, MPH, Stanford School of Medicine, Palo Alto, CA; prespinosa@stanford.edu

---

Abstract citation ID: kaad011.0220

1: PARTNERING WITH LATINX COMMUNITY HEALTH WORKERS TO PROMOTE HEALTH EQUITY DURING AND BEYOND THE COVID-19 PANDEMIC

Patricia Rodriguez Espinosa, PhD, MPH[1], Promotoras Con Stanford En Acción[2], Yessica Martinez Mulet, MS[1], Wei-ting Chen, PhD, MA[3], Lisa G. Rosas, PhD, MPH[4]

[1]Stanford School of Medicine, Palo Alto, CA; [2]Collectivo Si Se Puede; [3]Stanford University School of Medicine, Palo Alto, CA; [4]Stanford University, Palo Alto, CA

During the COVID-19 pandemic there has been an urgent need to promote vaccination, combat misinformation, and promote public health guidelines. *Promotoras*/community health workers (CHWs) are well positioned as trusted messengers for reaching under-resourced communities overburdened by the COVID-19 pandemic (including the Latinx community) and to reduce inequities. Using principles of Community-Based Participatory Research (CBPR), our team has fostered a community of practice and learning with 15 CHWs representing five community-based organizations in Northern California. Our collaborative identified the following priority areas: 1) CHW capacity development for community outreach using evidence-based practices; 2) co-create culturally and linguistically relevant materials (in Spanish) for community members addressing COVID-19 myths and misinformation; and 3) addressing social determinants of health in the community (e.g., housing, food insecurity).

Since June of 2021 we have held monthly partnership development and capacity building meetings (e.g, using motivational interviewing to promote vaccine trust). In addition, four trainings aimed to increase CHW's ability to support Latinx community members' needs and questions surrounding mental health concerns. We also piloted a stress and resilience curriculum adapted for the CHWs to address their own pandemic-induced stress and trauma. Based on the success of the community of practice and in partnership with a local health plan, we began hosting virtual CHW workshops attended by 160 CHWs in several counties focusing on basic needs (e.g. housing and food insecurity).

Lastly, we co-developed culturally relevant COVID-19 health education materials in Spanish, including a web-page hosting short public service announcement videos, social media content, and answers to frequently asked questions. These materials have reached 3,500 individuals via direct outreach, and nearly 3 million impressions via Facebook ad campaigns. With these materials, the CHWs have reached an additional 21,305 community members in the hardest-hit and most impoverished zip codes in our local county.

This presentation will describe our CBPR approach and lessons learned, activities from the community of practice, co-development of bilingual health education materials, and evaluation efforts. We argue that the CHW community of practice model can be applied to other health equity topics (e.g., chronic disease prevention, climate change). Findings have key implications for health equity research and practice.

Abstract citation ID: kaad011.0221

2: PROGRAMA DE ARBOLES FAMILIARES (FAMILY TREES TRAINING PROGRAM): COMMUNITY HEALTH WORKERS' ACTION PROJECTS ON HEREDITARY BREAST AND OVARIAN CANCER

Kristi Graves, PhD, FSBM[1], Youssef El Mosalami[2], Sabrina Oliveros, BS[3], Lina Jandorf, MA[3], Jennifer Argueta-Contreras, MS[2], Lourdes Pena Albo, MD[2], Jennifer Garcia, MA[4], Alejandra Hurtado de Mendoza, PhD[2], Claudia Campos, MA[5], Susan T. Vadaparampil, PhD, MPH[6]

[1]Georgetown University, Alexandria, VA; [2]Georgetown University; [3]Icahn School of Medicine; [4]Moffitt Cancer Center; [5]Nueva Vida; [6]Moffitt Cancer Center, Tampa, FL

Significant disparities exist in awareness of, and access to, genetic services such as genetic counseling and testing for Hispanic and Latin American individuals (H/L) at risk for hereditary breast and ovarian cancer (HBOC). We developed and implemented ARBOLES Familiares (Family Trees), a training program for community health workers, health educators, promotoras and patient navigators, to raise awareness of HBOC in the H/L community to facilitate identification, referral, and navigation of H/L individuals to genetic counseling and testing. The training program, delivered in English and Spanish, consists of a 2.5 day in-person training followed by 6 online modules. As part of this program, trainees submit an "action project" for implementation in the community. To date, we have enrolled 255 trainees across 8 cohorts. This study evaluated initial characteristics of a subset (n=34) of trainees' actions projects.

Action projects were analyzed using qualitative and quantitative approaches to describe the format, content and depth of information. Among the 34 trainees, 94% identified as H/L, 79% as female and 72% were born outside of the United States. Trainees submitted action projects in a variety of formats including educational flier (29.4%), presentation (26.5%), resource list (14.7%), and informational guide (14.7%). Most action projects included information about HBOC (71%), genetic counseling (65%), genetic testing (76%), and at least some details about family history (76%). Action projects by community health workers and health educators were more likely to include information about genetic testing compared to projects submitted by patient navigators, t(32)=2.46, p=0.02. Action projects that included information about family history were more likely than projects without mention of family history to include information about genetic counseling (t(32)=3.11, p< 0.01) and genetic testing (t(32)=2.6, p=0.01).

Results suggest that the majority of trainees developed action projects with relevant information about risk factors for HBOC, family history, genetic counseling and genetic testing. Community health workers can bridge the gaps between genetic services and the individuals and families in community settings at high risk for HBOC. Future work can explore implementation barriers and facilitators of trainees' action projects on community members' knowledge about HBOC and uptake of cancer genetic services among individuals at high risk of HBOC.

Abstract citation ID: kaad011.0222

3: UNIDAS POR SALUD: THE ROLE OF PROMOTORAS IN ADDRESSING CLIMATE CHANGE AND CHILD HEALTH ALONG THE SALTON SEA IN INLAND SOUTHERN CALIFORNIA

Ann Cheney, PhD[1], William Porter, PhD[2], Maria Pozar, CITI training[3]

[1]University of California Riverside, riverside, CA; [2]University of California Riverside; [3]Unidas por Salud

As climate change increasingly impacts communities and populations around the globe, there is an urgent need to provide public health education and increase awareness of climate on health outcomes. This is especially the case among marginalized populations at great risk for environmental exposures and poor health outcomes. Community health workers (CHWs), or promotores de salud, are well situated to lead such efforts through research and public health dissemination efforts.

This presentation discusses the work of *Unidas por Salud*, a collective of CHWs with capacity to engage patients, caregivers, and community members in health disparities research with Latinx/Indigenous Mexican immigrant populations in the Salton Sea region of the desert region of Inland Southern California. The Salton Sea, which occupies the prehistoric Cahuilla lakebed, has been a site of agricultural runoff creating a highly toxic body of water. Rising temperatures due to climate change and political decisions to re-route water away from the Sea has resulted in a receding waterline exposing toxics in the lakebed that are carried into the air during seasonal dust storms. Children living along the Sea breathe this toxic dust in their homes, schools, and community spaces, contributing to childhood asthma rates that are double the state and national child population average.

Since winter 2022, promotoras trained in the photovoice method, a participatory action method that uses photography and narrative text to document experience and enact structural change, have engaged 15 families living along the Sea in research to understand caregiver perceptions of the effects of seasonal weather patterns on children's respiratory health. Promotoras were also trained to install and monitor air quality sensors in participants' homes and to communicate the value of such monitors to examine environmental impacts on child health. We describe our community engaged approach, capacity building in photovoice data collection and analysis, use of air quality sensor monitors, lessons learned, and next steps for public health policy change.

Abstract citation ID: kaad011.0223

SYMPOSIUM 5: PERSPECTIVES, TOOLS AND STRATEGIES FOR APPLYING HEALTH EQUITY IN IMPLEMENTATION SCIENCE TO INCREASE RESEARCH IMPACT

Kelly Aschbrenner, PhD[1], Rachel G. Tabak, PhD, RD[2], Ariella Korn, PhD, MPH[3], April Oh, PhD[4], Cheryl A. Boyce, PhD[5]

[1]Geisel School of Medicine at Dartmouth College, Nashua, NH; [2]Washington University in St. Louis, St. Louis, MO; [3]National Cancer Institute, Arlington, MA; [4]National Cancer Institute, Rockville, MD; [5]NIH, Bethesda, MD

Despite substantial progress advancing evidence-based practices (EBPs) and research innovations through implementation science (IS), widespread inequities in health and healthcare delivery linked with economic and social disadvantage persist. IS that concentrates on advancing health equity focuses on understanding and addressing differences in health and health care that are unjust and avoidable. Social and behavioral scientists increasingly aspire to integrate health equity into their implementation research efforts. However, many researchers lack insight regarding where or how to begin the process.

There have been numerous recent calls to prioritize health equity in implementation research, with key questions and considerations raised for reflection in bringing an equity and antiracism approach to implementation research. IS scholars have responded with guidance for integrating an "equity lens" in implementation research. Our group of investigators has translated this and other scholarship into practical tools and strategies researchers and practitioners can use to integrate health equity into implementation efforts.

Aligned with the conference theme for the 44th SBM Annual Meeting & Scientific Sessions: "Translating Science into Impact," this symposium brings together investigators from the National Cancer Institute's Implementation Science Centers in Cancer Control (ISC3) network, who are engaged with clinical and community partners, to present tools and strategies for applying health equity in implementation science to increase research impact. The presentations illustrate practical ways to approach the integration of health equity in implementation research efforts, including building community partnerships and applying and enhancing implementation science frameworks, models, and approaches to understand and address key dimensions of context and equity during EBP implementation and sustainment.

We will summarize this work and implications for advancing health equity in implementation research. We will also discuss current opportunities for training and resources for applying health equity in IS to increase impact. Specifically, the discussion will highlight opportunities for NIH funding, including activities in the Common Fund that focus on IS and equity.

CORRESPONDING AUTHOR: Kelly Aschbrenner, PhD, Geisel School of Medicine at Dartmouth College, Nashua, NH; kelly.aschbrenner@dartmouth.edu

---

Abstract citation ID: kaad011.0224

1: AN INVESTIGATOR'S GUIDE TO GETTING STARTED WITH HEALTH EQUITY-FOCUSED IMPLEMENTATION RESEARCH

Kelly Aschbrenner, PhD[1]

[1]Geisel School of Medicine at Dartmouth College, Nashua, NH

Social and behavioral scientists increasingly aspire to integrate health equity into their implementation research efforts. However, many researchers lack insight regarding where or how to begin the process. Implementation scholars have responded with guidance for integrating an "equity lens" in implementation research that has been primarily disseminated through dispersed academic manuscripts. We complement this existing guidance on integrating health equity into implementation science with a practical toolkit that provides an orientation to health equity implementation science intended to help investigators and teams gain fundamental knowledge to engage in this work. We used an informal consensus-based process informed by key literature and resources and our team's complementary expertise as implementation scientists and health equity-focused investigators and research team members to develop this toolkit. We collaborated on this work as members and affiliates of the NCI-sponsored Implementation Science Centers in Cancer Control Equity (ISC3) programs. The ISC3 program supports the development, testing, and refinement of innovative approaches to implement evidence-based cancer control programs in the US.

This toolkit is intended to provide an orientation to key constructs and concepts related to health equity-focused implementation science and guidance for engaging in this work, whether health equity is the primary or secondary focus of an investigation. The toolkit is designed to help investigators and team members locate relevant online resources and provides bibliographies for recommended readings and resources. During the session, we will present an overview of the toolkit, including how to access and use it and report its use in projects as part of the toolkit consortium. We will also engage session participants in a discussion of content for future versions of the health equity-focused implementation research toolkit, including tailoring content for research trainees, implementation coursework, and community partners for real world impact.

Abstract citation ID: kaad011.0225

2: EXTENSION OF AN INTERACTIVE WEBTOOL FOR DISSEMINATION AND IMPLEMENTATION SCIENCE FRAMEWORKS FOR HEALTH EQUITY

Rachel G. Tabak, PhD, RD[1], Meredith Fort, PhD, MPH[2], Callie Walsh-Bailey, MPH[3], Ross C. Brownson, PhD[3], Russell E. Glasgow, PhD, FSBM[4], Borsika A. Rabin, PharmD, PhD, MPH[5]

[1]Washington University in St. Louis, St. Louis, MO; [2]Colorado School of Public Health; [3]Brown School, Washington University in St. Louis, Saint Louis, MO; [4]University Colorado Anschutz Medical Campus, Eugene, OR; [5]University of California San Diego, LA JOLLA, CA

Theories, models, and frameworks (TMFs) in Dissemination and Implementation (D&I) Science are important to support translation of research to practice to enhance the impact of behavioral science, public health, and healthcare research. The D&I Science Models in Health Research and Practice (D&I Models webtool: https://dissemination-implementation.org/) is an interactive webtool designed to help researchers and practitioners select D&I science TMFs that best fit their research question; combine TMFs; adapt TMFs to the study context; integrate TMFs into a study; and find tools to measure constructs from the TMFs. Second, in conducting research in chronic disease prevention and control, it is critical to consider health equity implications, as conditions such as cancers and cardiovascular diseases, among others, not only present the greatest burden of morbidity and mortality worldwide, but disproportionately impact marginalized populations. To support the increasing interest in health equity in D&I science, a project expanding the D&I Models webtool 1) identifies and describes the scope of health equity TMFs with a D&I lens via a scoping review of chronic disease prevention and control studies; 2) reviews TMFs from the D&I science literature to determine their focus on and/or relevance to health equity using a reverse citation search and engaging expert groups; 3) integrates this information into the webtool, including guidance and examples. The presentation will include an overview of the methods and preliminary findings for each review. Briefly, scoping review methodology was used to identify, characterize, and describe the use of health equity frameworks and models applied in chronic disease prevention and control studies. In addition, individual reverse citation searches applying equity search terms were conducted for each of the over 100 TMFs included in the D&I Models webtool. The webtool will be briefly demonstrated and case studies of applied examples will be described. These search procedures and development of case examples and guidance will contribute to an understanding of the current state of health equity applications. They will further describe opportunities to expand the focus of health equity-oriented D&I science.

Abstract citation ID: kaad011.0226

3: PRACTITIONER PERSPECTIVES ON EQUITABLE IMPLEMENTATION OF EVIDENCE-BASED INTERVENTIONS FOR CANCER PREVENTION AND CONTROL

Ariella Korn, PhD, MPH[1], April Oh, PhD[2]

[1]National Cancer Institute, Arlington, MA; [2]National Cancer Institute, Rockville, MD

Background: Longstanding inequities in cancer prevention and control require novel approaches to improve evidence-based intervention (EBI) implementation. Exploring and elevating the perspectives of cancer prevention and control practitioners working to advance health equity and equitably implement EBIs is an important yet underutilized step among researchers working in this space. The current study aimed to explore perspectives of cancer prevention and control practitioners on how health equity is defined and integrated in their work, challenges of advancing health equity for implementation in local settings, and associated strategies toward defining an agenda to advance health equity related to cancer prevention and control.

Methods: We conducted key informant interviews followed by focus groups with cancer prevention and control practitioners between Summer 2021 and Winter 2021/2022. Eligible individuals engaged in any aspect of cancer prevention and control (e.g., medical professionals, public health practitioners, health administrators, community health workers) who were not primary in a research or faculty role. We aimed to recruit participants representing diverse geographic locations and roles across the United States. Interviews and focus groups were conducted virtually and were audio recorded and transcribed. Data were coded using inductive content analysis and summarized into themes.

Results: We conducted key informant interviews with 13 respondents and four focus groups with a total of 16 respondents. Four major themes emerged from the qualitative data: (1) how health equity is conceptualized as both a process and outcome; (2) the need to shift mindsets related to equity; (3) the importance of community partnerships; and (4) strategies to foster equity in implementation. Respondents noted the need for the research and medical communities to learn about the importance and benefits of allowing communities to drive and shape the process of implementation. Additionally, respondents underscored the need for institutional leaders to initiate changes at the organizational and system levels.

Conclusions: Respondents endorsed the need to address equity related to the implementation of cancer prevention and control programs, practices, and policies. Although the context of the study was cancer prevention and control, many findings could be applied to how implementation science can support equitable implementation and outcomes more generally from the perspective of practitioners.

Abstract citation ID: kaad011.0227

4: PRACTITIONER PERSPECTIVES ON EQUITABLE IMPLEMENTATION OF EVIDENCE-BASED INTERVENTIONS FOR CANCER PREVENTION AND CONTROL

April Oh, PhD[1]

[1]National Cancer Institute, Rockville, MD

Background: Longstanding inequities in cancer prevention and control require novel approaches to improve evidence-based intervention (EBI) implementation. Exploring and elevating the perspectives of cancer prevention and control practitioners working to advance health equity and equitably implement EBIs is an important yet underutilized step among researchers working in this space. The current study aimed to explore perspectives of cancer prevention and control practitioners on how health equity is defined and integrated in their work, challenges of advancing health equity for implementation in local settings, and associated strategies toward defining an agenda to advance health equity related to cancer prevention and control.

Methods: We conducted key informant interviews followed by focus groups with cancer prevention and control practitioners between Summer 2021 and Winter 2021/2022. Eligible individuals engaged in any aspect of cancer prevention and control (e.g., medical professionals, public health practitioners, health administrators, community health workers) who were not primary in a research or faculty role. We aimed to recruit participants representing diverse geographic locations and roles across the United States. Interviews and focus groups were conducted virtually and were audio recorded and transcribed. Data were coded using inductive content analysis and summarized into themes.

Results: We conducted key informant interviews with 13 respondents and four focus groups with a total of 16 respondents. Four major themes emerged from the qualitative data: (1) how health equity is conceptualized as both a process and outcome; (2) the need to shift mindsets related to equity; (3) the importance of community partnerships; and (4) strategies to foster equity in implementation. Respondents noted the need for the research and medical communities to learn about the importance and benefits of allowing communities to drive and shape the process of implementation. Additionally, respondents underscored the need for institutional leaders to initiate changes at the organizational and system levels.

Conclusions: Respondents endorsed the need to address equity related to the implementation of cancer prevention and control programs, practices, and policies. Although the context of the study was cancer prevention and control, many findings could be applied to how implementation science can support equitable implementation and outcomes more generally from the perspective of practitioners.

Abstract citation ID: kaad011.0228

SYMPOSIUM 6: PROBLEMATIC MEDIA USE IN PRE-ADOLESCENTS AND ADOLESCENTS: AN EMERGING PUBLIC HEALTH ISSUE.

Sarah E. Domoff, PhD[1], Jennifer A. Emond, PhD, MS[2], Stacey B. Armstrong, PhD[3], Alison L. Miller, PhD[4]

[1]Central Michigan University, Mount Pleasant, MI; [2]Geisel School of Medicine at Dartmouth College, Hanover, NH; [3]The Ohio State University, Columbus, OH; [4]University of Michigan School of Public Health, ANN ARBOR, MI

Problematic media use (PMU) describes addiction-like media use that has a negative effect on daily life. PMU has been associated with poor mental health including an increased risk for depression and anxiety among adolescents and adults. As media use and engagement with online content becomes increasingly common among younger children, there is an urgent need for robust measurement of PMU at an even younger age. Further, the etiology of PMU, and whether it precedes, co-occurs with, or is a consequence of mental health concerns is still up for debate. In this symposium, we will explore various points of view on the nature of PMU and its etiology, as well as outline critical research and clinical approaches to best understand this emergent concern. The first speaker will present data on the development of a self-reported measure of PMU for pre-adolescents and adolescents. This study found that PMU correlated with screen time and behavioral health and well-being, supporting its validity in two different samples. This brief measure provides an opportunity to assess the determinants and consequences of PMU across early adolescence. The second speaker will report on a potential genetic susceptibility to PMU among pre-adolescents. Specifically, this study found a positive association between the Taq1A polymorphism, a genetic indicator of reduced dopamine sensitivity, and PMU among a sample of pre-adolescents. Findings provide insight into potential neurobiological mechanisms underlying PMU and shed insight into inter-individual heterogeneity in PMU. The third speaker will present novel findings on the associations between PMU, health behaviors, and well-being among adolescents participating in a partial psychiatric hospitalization program. In this study, adolescents with marked mental health concerns reported experiencing PMU to a greater extent than youth not seeking psychiatric treatment, highlighting the importance of supporting vulnerable youth in their use of digital media, including social media, in healthier ways. Across these three presentations, attendees will be able to define what PMU is among youth and how it is measured, why an association between PMU and the Taq1A polymorphism is meaningful, and how PMU is associated with mental well-being in a clinical, at-risk population of adolescents. The discussant will examine cross-cutting themes about whether PMU reflects an addiction and question the conceptual model linking PMU and mental well-being.

CORRESPONDING AUTHOR: Jennifer A. Emond, PhD, MS, Geisel School of Medicine at Dartmouth College, Hanover, NH; jennifer.a.emond@dartmouth.edu

Abstract citation ID: kaad011.0229

1: MEASURING PROBLEMATIC MEDIA USE AMONG CHILDREN AND YOUNG ADOLESCENTS: VALIDATION OF THE PROBLEMATIC MEDIA USE MEASURE SELF-REPORT

Sarah E. Domoff, PhD[1], Allison Kiefner-Burmeister, Doctor of Philosophy in Psychology[2], Yumary Ruiz, PhD, MPH[3], Frank Snyder, PhD, MPH[4]

[1]Central Michigan University, Mount Pleasant, MI; [2]The University of Findlay, Findlay, OH; [3]Purdue University; [4]Central Michigan University

Background: Problematic media use (PMU), or excessive media use that interferes with functioning, is a growing public health issue among youth. Prior research has yielded surveys attempting to capture childhood PMU, including a parent-report measure (Domoff et al., 2019); however, child self-reported measures of PMU are lacking. Thus, the purpose of this paper is to describe the validation of the Problematic Media Use Measure-Self-Report form (PMUM-SR), based on a previously validated parent-report measure (Domoff et al., 2019) using two samples of children and young adolescents.

Study 1 Methods: AAn exploratory factor analysis (EFA) of the PMUM-SR and correlations between PMUM-SR scores and self-reported digital and social media use were conducted.

Study 1 Results: In a convenience sample of 147 youth in the Midwest (*M* age = 12.79, *SD* = 2.56; 51.7% female), the EFA indicated a one-factor solution for the PMUM-SR, based on evaluation of the Scree plot (Eigenvalue = 4.59; 42% variance explained), with the 11 items each loading on the overall factor at .40 or above. Cronbach's alpha was acceptable ($\alpha = .85$). Correlations between the PMUM-SR and self-reported digital and social media use indicated convergent validity, with higher PMUM-SR scores correlating with greater mobile device use ($r = .27$, $p < .05$) and higher social media engagement ($r = .48$, $p < .01$), after controlling for age and gender for this (and all other) analyses.

Study 2 Methods: 252 youth (*M* age = 10.14 years, *SD* = 1.76; 54.8% male) completed baseline measures prior to participating in a summer program in the Midwest. Youth self-reported on amount of screen time, physical activity, and well-being (Kern et al., 2016).

Study 2 Results: A CFA was conducted based on the Study 1 factor structure. A unidimensional construct was indicated, with adequate model fit (χ^2 (44) = 68.237, $p < .05$; RMSEA = .047, CFI = .952, SRMR = .047). Greater PMUM-SR scores were associated with higher screen time across types of media (*r*'s > .22, *p*'s < .01). PMUM-SR scores were also significantly correlated with lower physical activity ($r = -.23$, $p < .01$) and well-being (*r*'s range from -.15 to -.24, *p*'s < .05).

Conclusions: The PMUM-SR was internally consistent and demonstrated convergent validity with measures of digital media and social media use. Future research should seek to prioritize measurement of PMU and clarify etiology of this new construct to best support the health of children and young adolescents.

Abstract citation ID: kaad011.0230

2: EXAMINING A GENETIC PREDISPOSITION TO PROBLEMATIC MEDIA USE AMONG PRE-ADOLESCENTS: PRELIMINARY EVIDENCE FOR A LINK WITH THE TAQ1A POLYMORPHISM

Jennifer A. Emond, PhD, MS[1], Timothy Renier, BS[2], Dabin Yeum, BS[2], Reina K. Lansigan, MSSW[1], Hannah Utter, BS[3], Diane Gilbert-Diamond, BA, ScD[1]

[1]Geisel School of Medicine at Dartmouth College, Hanover, NH; [2]Geisel School of Medicine at Dartmouth College; [3]Dartmouth College

Background: Problematic media use (PMU) is use that negatively interferes with life and may precede media addiction. PMU is emerging among children, potentially because of easy access to mobile media devices. If PMU reflects addiction-like behaviors, genetic factors related to substance use or mood disorders may relate to PMU.

Methods: Data from an existing cohort of 9-to-12-year-olds were used to examine the associations between five polymorphisms (rs1800497 [Taq1A], rs4680, rs1044396, rs2229910, and the long- or short-length allele of 5HTTLPR) and PMU. Candidate polymorphisms have been previously associated with substance use, depression, and/or anxiety as well as with internet gaming disorder among adults and adolescents. rs1800497, rs4680, and rs1044396 were directly genotyped; rs2229910 and 5HTTLPR were imputed. PMU was measured with a validated, 9-item, parent-reported scale to assess addiction-like screen media use (e.g., preoccupation, withdrawal, tolerance) that does not specify media content (Domoff et al., 2019). Final scores range from 1 to 5 with higher scores indicating more addictive-like behaviors. Separate linear regression models quantified the associations between PMU scores (log-transformed) and each polymorphism variant, adjusted for child age, child sex, and household income.

Results: Among the 159 participants, 43.4% were female, 88.7% were non-Hispanic white, and 31.4% of homes earned $145,000 or more per year. Children averaged 18 hours of total media use per week and median (IQR) PMU scores were 2.33 (1.78, 2.78). In the adjusted models, there was an additive association between the number of Taq1A risk alleles and greater PMU. Specifically, mean PMU scores were 11.1% greater for each additional copy of the Taq1A risk allele ($p=0.038$; $R2=2.4\%$). Adjusted geometric mean PMU scores were 1.97 for homozygous low-risk ($n=75$) vs 2.66 for homozygous high-risk ($n=5$) children. No other polymorphisms were statistically associated with PMU at the $p< 0.05$ level.

Conclusions: The number of Taq1A risk alleles was associated with PMU in this sample of 9-to-12-year-olds. This risk allele likely indicates a decreased density or binding potential of dopamine D2 receptors in the brain, suggesting that a genetic predisposition to reduced dopamine sensitivity may increase PMU. However, this was a small sample of primarily non-Hispanic white children from a higher socioeconomic status, and results need to be confirmed in larger, more diverse samples.

Abstract citation ID: kaad011.0231

3: PROBLEMATIC MEDIA USE AMONG ADOLESCENTS IN A PARTIAL HOSPITALIZATION PROGRAM.

Stacey B. Armstrong, PhD[1], Russell Fridson, PhD[2], Heide Rollings, MD[3], Amy Mancuso, LMSW[3], Sarah E. Domoff, PhD[4], Carol Janney, PhD, MS[3]

[1]The Ohio State University, Columbus, OH; [2]Childrens Hospital of Michigan; [3]Pine Rest Christian Mental Health Services; [4]Central Michigan University, Mount Pleasant, MI

Background: Problematic media use (PMU) among adolescents is an emergent issue and there is evidence that it may be linked to mental health (Keles et al., 2020). However, most research on PMU has been conducted with convenience samples of adolescents. Given the links between social media use and suicidality and depression (Sohn et al., 2019), it is important to consider how treatment-seeking youth use social media and experience PMU.

Methods: Participants were adolescents participating in a partial psychiatric hospitalization program in the midwestern United States in 2022. Of our sample (N=39), the mean age was 14.61 (SD=1.52), with n = 20 (51%) identifying as female. A majority of the sample (77%) identified as non-Hispanic white. 46% of participants identified as heterosexual/straight (n =18; 28% identified as bisexual, 13% preferred to self-describe, 8% identified as gay, and 5% identified as lesbian).

Adolescents reported on their experiences of cybervictimization (CV), cyberbullying, ever experiencing sextortion (i.e., a form of sexual exploitation that occurs online), PMU, and various behavioral health correlates. CV, cyberbullying, and sextortion were all measured with one item each using the cybervictimization screen. PMU was measured using the Addictive Patterns of Use (APU) scale, physical activity (PA) was measured using the Stanford Leisure-Time Activity Categorical item, sleep was measured using Pittsburgh Sleep Quality Index, and loneliness was measured using the 3-item UCLA loneliness scale.

Results: Because the measurement of these constructs in hospitalized adolescents is relatively new, we first ran descriptive statistics on the main study variables. The overall APU mean was 2.39 (SD=0.76); 23.1% of adolescents reported experiencing CV in the last month, 10.3% reported cyberbullying others in the last month, and 17.9% reported ever having been sextorted. Next, we examined how PMU associated with behavioral health indicators using bivariate correlations. The APU was associated with lower PA (r=-.48, p< .01), greater loneliness (r=.40, p< .05), and was not significantly associated with sleep (r=.22, p=.22).

Conclusions: Compared to samples of adolescents not seeking mental health treatment, frequencies of sextortion were much higher in this sample; the mean APU was also higher in this sample. Given the associations between PMU and behavioral health, it is important for clinicians to screen for PMU among adolescents with mental health concerns.

Abstract citation ID: kaad011.0232

SYMPOSIUM 7: SCALING UP PRODUCE PRESCRIPTION PROGRAMS FOR IMPACT

Courtney A. Parks, PhD[1], Bailey Houghtaling, PhD, MSc, RDN[1], Amy L. Yaroch, PhD, FSBM[1], Megan Reynolds, MPH, RD[1], Lisa G. Rosas, PhD, MPH[2], Patricia Rodriguez Espinosa, PhD, MPH[3], Erica Martinez, BS[3], Andy Ollove, BA[4], Ariana Thompson-Lastad, PhD[5]

[1]Gretchen Swanson Center for Nutrition, Omaha, NE; [2]Stanford University, Palo Alto, CA; [3]Stanford School of Medicine, Palo Alto, CA; [4]Fresh Approach, Concord, CA; [5]UCSF, San Francisco, CA

The purpose of this symposium is to share best practices and lessons learned in scaling up produce prescription (PPR) programs across the country. PPR programs represent a unique behavioral medicine approach that combines reduction or removal of financial barriers for greater levels fruits and vegetables with nutrition education and other approaches supporting behavior. PPR programs operate in health care settings (e.g., Federally Qualified Health Centers) and are designed to address chronic disease prevention/treatment and food insecurity among low-income populations through prescriptions (i.e., vouchers) for fruits and vegetables to redeem at participating food retail outlets (e.g., farmers markets, grocery stores). This multi-disciplinary team will present innovative research and experiences from the field with an emphasis on adaptations made to PPR programs to function optimally under varied settings from across the country (e.g., geographies, populations reached, organizations). Dr. Rosas (symposium chair) will provide an overview of PPR programs and linkages with food insecurity, dietary quality, and health as well as current policies and trends from the field. Dr. Parks will describe findings from key-informant interviews conducted with various partners (e.g., clinicians, and representatives in nutrition education, fruit and vegetable producers/retailers) involved in implementing PPR programs across the country. This presentation will highlight implementation barriers and facilitators across domains within the Consolidated Framework for Implementation Research (CFIR). Mr. Ollove will provide an in-depth example of a PPR programs led by a small non-profit (Fresh Approach) that has recently encountered funding and policy opportunities to expand their reach. This presentation will describe challenges experienced and processes employed to adapt to increased demand for produce prescriptions. Dr. Houghtaling will describe and engage the audience in a recent application of the Exploration, Preparation, Implementation, and Sustainment (EPIS) framework for healthy food retail behavioral medicine approaches focusing on PPR programs. This presentation will provide practical tools for research and practice for PPR program design, implementation, and evaluation. Finally, Dr. Yaroch (discussant) will address aspects to consider in working with PPR programs and how behavioral approaches can continue to support dietary quality, food security, and health of diverse low-income populations.

CORRESPONDING AUTHOR: Courtney A. Parks, PhD, Gretchen Swanson Center for Nutrition, Omaha, NE; cparks@centerfornutrition.org

Abstract citation ID: kaad011.0233

1: A QUALITATIVE EXPLORATION OF THE SCALABILITY OF PRODUCE PRESCRIPTION PROGRAMS USING THE CONSOLIDATED FRAMEWORK FOR IMPLEMENTATION RESEARCH (CFIR)

Courtney A. Parks, PhD[1], Patricia Espinosa, PhD, MPH[2], Ariana Thompson-Lastad, PhD[3], Wei-ting Chen, PhD, MA[4], Erica Martinez, BS[5], Megan Reynolds, MPH, RD[1], Amy L. Yaroch, PhD, FSBM[1], Lisa G. Rosas, PhD, MPH[6]

[1]Gretchen Swanson Center for Nutrition, Omaha, NE; [2]Stanford University; [3]UCSF, San Francisco, CA; [4]Stanford University School of Medicine, Palo Alto, CA; [5]Stanford School of Medicine, Palo Alto, CA; [6]Stanford University, Palo Alto, CA

Food insecurity or limited access to enough food is associated with diet-related chronic disease and can be partially attributed to limited access to affordable healthy foods, such as fruits and vegetables. Produce prescription (PPR) programs typically operate in health care settings and are designed to address chronic disease and/or food insecurity among low-income populations through prescriptions (i.e., vouchers) for fruits and vegetables coupled with nutrition education. There is an urgent need to provide evidence on implementation barriers and facilitators to inform dissemination and scaling of these interventions across the United States (U.S.). Leveraging our national networks, we are conducting key informant interviews with a subset of PPR programs funded through the U.S. Department of Agriculture's Gus Schumacher Nutrition Incentive Program (GusNIP). PPR programs were selected to be representative (e.g., geography, population density, and tribal). Each PPR program (N=15 programs) includes 4-6 key informant interviews (N=60-90 participants) across partners involved in differing capacities (e.g., clinicians, and representatives in nutrition education, fruit and vegetable producers/retailers) to examine implementation factors guided by the Consolidated Framework for Implementation Research (CFIR) domains. Interviews were 45-60 minutes long and audio recorded and transcribed verbatim. Two team members coded each transcript using a content analysis approach with constant comparison to identify themes emergently using NVivo software to digitize the process. Preliminary analysis revealed themes across CFIR domains and other program specific themes such as: Implementation climate (e.g., compatibility, COVID-19 impacts), key stakeholders (e.g., healthcare, food retailers, policymakers), necessary resources, networks, intervention characteristics (e.g., adaptability), and evidence (existing supportive evidence and gaps). As PPR programs continue to expand their reach across the U.S. it is important to identify implementation factors that influence programs' success. PPR programs vary across settings (e.g., population density, participant characteristics, healthcare type and level of involvement) and this study helps illuminate barriers and facilitators to inform implementation and adoption of PPR programs.

Abstract citation ID: kaad011.0234

2: USING THE EXPLORATION, PREPARATION, IMPLEMENTATION, AND SUSTAINMENT (EPIS) FRAMEWORK TO ADVANCE THE SCIENCE AND PRACTICE OF HEALTHY FOOD RETAIL: APPLICATION TO PRODUCE PRESCRIPTION PROGRAMS

Bailey Houghtaling, PhD, MSc, RDN[1]

[1]Gretchen Swanson Center for Nutrition, Omaha, NE

Healthy food retail is a current priority among federal agencies in the United States (U.S.) and aims to make healthy choices the easy choices by removing barriers to accessing healthy foods like fruits and vegetables. For example, the U.S. Department of Agriculture's (USDA) Supplemental Nutrition Assistance Program Education (SNAP-Ed) implements direct education and policy, systems, and environmental change programming (including healthy food retail) in communities with predominantly lower income residents. The USDA's Gus Schumacher Nutrition Incentive Program (GusNIP) is another example growing in reach. GusNIP funds nutrition incentive and produce prescription programs that provide financial incentives for fruits and vegetables to Americans with lower income that are then redeemed at food retail sites. Although there are several remaining research questions regarding the impact of healthy food retail strategies across contexts, there is also a need to improve our understanding of how these strategies are adopted, implemented, and sustained. To meet this need, we recommend the implementation science Exploration, Preparation, Implementation, and Sustainment (EPIS) framework be used to advance the science of healthy food retail. First, we introduce EPIS as a process and determinant framework and describe why it was chosen as a recommended framework for healthy food retail. Next, we pull from comprehensive healthy food retail review articles to highlight evidence in support of EPIS as well as current gaps. For this symposium, we pull in specific examples regarding produce prescription programs and describe how evidence might infer changes to EPIS to better fit specific healthy food retail strategies such as produce prescription programs. GusNIP produce prescription programs represent a healthy food retail strategy and systems change involving two EPIS *Inner Context* organizations: 1) the healthcare partner that screens patients and prescribes a fruit and vegetable incentive or voucher to individuals with lower income and at heightened risk for a diet-related condition; and 2) the retail partner who redeems prescriptions and may also adopt additional environmental changes to promote incentive redemptions. Last, we discuss additional research and practice needs moving forward that could be valuable for advancing the science and practice of healthy food retail specific to produce prescriptions. This includes more research focused on implementation outcomes using standard frameworks to inform suitable EPIS adaptations and applications, developing a standard set of measures to reflect EPIS constructs, and facilitating standardization and documentation of these approaches to inform a set of best practices for facilitating healthy food retail, including produce prescription programs, to ensure they are adopted, implemented, and sustained for population health impact.

Abstract citation ID: kaad011.0235

3: FRESH APPROACH: THE JOURNEY OF SCALING AND ADAPTING A GRASSROOTS PRODUCE PRESCRIPTION PROGRAM

Andy Ollove, BA[1]

[1]Fresh Approach, Concord, CA

San Mateo County, California (CA) has higher rates of overweight, obesity, and type 2 diabetes compared with other counties across CA with over two thirds of low-income adults being overweight or obese. These disparities were further exacerbated during the COVID-19 pandemic as exemplified through CalFresh (California Supplemental Nutrition Assistance Program (SNAP) applications (+182% in spring 2020 vs Feb. 2020) and for food served by Second Harvest of Silicon Valley Food Bank (+85% in spring 2020 vs Feb. 2020). In response, Fresh Approach began implementing a produce prescription (PPR) program, VeggieRx. The overarching goal of VeggieRx is to improve knowledge and behaviors around fruit and vegetable consumption, food security, and healthcare utilization among low-income and at-risk patients. VeggieRx is a multi-pronged approach for behavior change incorporating both in-person and virtual trauma-informed nutrition education classes, paired with vouchers for the purchase of fresh fruits and vegetables using a trauma-informed method. Fresh Approach received additional funding to expand reach of VeggieRx in the fall of 2021 through the Gus Schumacher Nutrition Incentive Program COVID Relief and Response (GusCRR) funds. This funding will allow two additional clinics to be added to reach more food insecure and at-risk individuals with VeggieRx nutrition education classes and vouchers for the purchase of fresh fruits and vegetables. In addition, recent legislation informed the development of California Advancing and Innovating Medi-Cal (CalAIM) which presents an opportunity for scalable funding for food as medicine interventions, including PPR programs through Medicaid reimbursement for food. During this presentation, a Fresh Approach team member will discuss how these opportunities have been leveraged to expand the reach of VeggieRx and the types of operational challenges they have navigated, including transitioning to clinic screening and referral, integration with electronic health records, and scalability of the VeggieRx voucher systems (e.g., paper vs. electronic). The lessons learned and best practices shared during this presentation will inform other small non-profits that may be navigating similar statewide policies and scaling up of PPR programs to support the health of lower-income and food insecure individuals.

Abstract citation ID: kaad011.0236

SYMPOSIUM 8: SETTING UP FOR SUCCESS IN VIRTUAL REALITY-BASED TRIALS

Ryan A. Mace, PhD[1], Lena J. Lee, RN, PhD[2], Shelby Baez, PhD, ATC[3], Susan Persky, PhD, FSBM[4]

[1]Harvard Medical School/Massachusetts General Hospital, Boston, MA; [2]National Institutes of Health Clinical Center, Bethesda, MD; [3]University of North Carolina at Chapel Hill, Chapel Hill, NC; [4]National Human Genome Research Institute, National Institutes of Health, Bethesda, MD

Virtual reality (VR) is a rapidly emerging technology with the potential to transform the field of behavioral health. Recent advances in technology have created exciting opportunities to develop personalized, scalable, and effective, VR-based behavioral medicine treatments. Yet, researchers face numerous barriers to designing rigorous and successful VR trials including the complexities of new technologies, limited professional training in VR, lack of guidance for trial design, cost and access, and ethical issues. To address the lack of guidance in these areas, we have assembled an interdisciplinary team of researchers leading cutting-edge pilot studies of VR with diverse patient populations. The presenters and discussant will share clinical research insights relevant to the early stages of designing, developing, piloting, and user testing of VR for behavioral medicine.

Presenter 1 will present a mixed-methods pilot of an 8-week, at-home, skills-based program (*RelieveVRx*) to prevent chronic pain and disability after an acute orthopedic injury. Presenter 1 will describe the protocol, "lessons learned" from industry collaborations, feasibility results, signals of improvement in pain-related outcomes, and user experience from qualitative interviews.

Presenter 2 will present a two-phase pilot study of a 4-week nature-based VR intervention for hematopoietic stem cell transplantation (HSCT) caregivers. Phase I will be a single-arm pre-post design, and Phase II will be a prospective randomized controlled group design (VR versus usual care education control). Presenter 2 will present the protocol and preliminary results of feasibility, acceptability, perceived stress, symptoms, and stress-related biomarkers outcomes.

Presenter 3 will present a feasibility and preliminary efficacy RCT of virtual reality mindfulness meditation, administered through the *BehaVR* platform, to reduce injury-related fear in women after anterior cruciate ligament reconstruction (ACLR). Presenter 3 will describe the protocol (e.g., building online platform, integrating with ACLR rehabilitation, developing the Sham VR control) and share a case study of a participant who completed the 8-week BehaVR.

The Discussant will contextualize the pilot studies within the larger field of VR in behavioral medicine. Consistent with the SBM 2023 theme, the discussion will explore both the promises and challenges of translating advances in VR to research and behavioral medicine approaches.

CORRESPONDING AUTHOR: Ryan A. Mace, PhD, Harvard Medical School/Massachusetts General Hospital, Boston, MA; rmace@mgh.harvard.edu

Abstract citation ID: kaad011.0237

1: VIRTUAL REALITY PAIN MANAGEMENT FOR ACUTE ORTHOPEDIC INJURY; PROTOCOL FOR AN AT-HOME FEASIBILITY PILOT

Ryan A. Mace, PhD[1], Julie Brewer, BS[2], Joshua Cohen[2]

[1]Harvard Medical School/Massachusetts General Hospital, Boston, MA; [2]Center for Health Outcomes and Interdisciplinary Research, Department of Psychiatry, Massachusetts General Hospital

Acute orthopedic musculoskeletal injuries (e.g., fractures and dislocations) are the leading cause of adult hospitalizations. The care of these patients follows an outdated model that does not address the multifactorial influences on recovery (e.g., catastrophic thinking, pain anxiety, depression) and common treatment barriers (e.g., available providers, cost, time). Virtual reality (VR) can eliminate these barriers because it can: 1) be self-administered by patients at home, 2) integrate proven pain-management skills (e.g., education, diaphragmatic breathing, relaxation training), and 3) provide immersive and safe learning environments. Currently, we are conducting the first pilot study of *RelieveVRx* (FDA-approved for lower back pain) for acute orthopedic injury to evaluate feasibility, signals of improvement, and pain modulation mechanisms. We are enrolling patients (N=10) with acute injuries within our Orthopedics Department who are at risk for chronic pain and disability (PCS ≥ 20 and PASS-20 ≥ 40) for a mixed-methods feasibility pilot. Participants complete daily VR modules (avg = 6 min each) over an 8-week period at home. Data collection will be complete by SBM 2023. We will present the results of our primary Go/No-Go feasibility outcomes of the VR program and study, which will inform future studies with *RelieveVRx* and SBM attendees conducting VR research. We will present exploratory outcomes of pain intensity, pain-specific coping, disability, physical function, emotional function, and digital markers (VR use data, smartphone pain surveys). We will also share qualitative findings from individual exit interviews (30 min) on participants' VR user experience, barriers/facilitators to adherence, and the burden of study procedures. This study aligns with the SBM 2023 theme "Translating Science into Impact" because VR delivers the latest behavioral science on pain management directly to patients in their own homes while also enabling remote data collection through the headset. There is immense potential for VR to radically shift our approach to preventing chronic pain and disability as an effective, low-risk, non-pharmacological intervention that engages mechanisms of recovery after an acute orthopedic injury. If successful, skills-based VR could be easily administered in the clinic or at home, adapted to other pain conditions, and widely scaled via mobile health.

Abstract citation ID: kaad011.0238

2: NATURE-BASED VIRTUAL REALITY (VR) INTERVENTION TO MANAGE STRESS IN FAMILY CAREGIVERS OF ALLOGENEIC HEMATOPOIETIC STEM CELL TRANSPLANT (HSCT) RECIPIENTS: PROTOCOL FOR A TWO-PHASE PILOT STUDY

Lena J. Lee, RN, PhD[1], Hyojin Son, PhD, RN[1], Nicole Farmer, MD[2], Li Yang, PhD[1], Chantal Gerrard, MS, RN[1], Cory Stephens, DNP, MSN, RN-BC, CPHIMS, SHIMSS[1], Gwenyth R. Wallen, PhD, RN[1]

[1]National Institutes of Health Clinical Center, Bethesda, MD; [2]National Institutes of Health, Clinical Center

Millions of Americans provide unpaid care for aging or ill family members and/or friends. Caregiving for an allogeneic hematopoietic stem cell transplant (HSCT) recipient is particularly demanding and stressful physically and psychologically. Unmanaged stress and stress-related symptoms could make it difficult for caregivers to fulfill their roles and could negatively impact the health of themselves and care recipients. Virtual reality (VR) is an emerging technology in various therapeutic areas, and the application of VR technology is increasing in care settings. Although VR interventions have reported positive impacts on stress and symptoms among patients in various clinical scenarios, no published studies have examined their efficacy, focusing on family caregivers of patients with cancer. The objective of this study is to assess the feasibility and acceptability of a 4-week nature-based VR intervention and to examine the effectiveness of the VR intervention on stress and stress-associated symptoms in HSCT caregivers. This study is a two-phase study. Phase I will be a single-arm pre-post design focused on assessing the feasibility and acceptability of the VR intervention. Phase II will be a prospective randomized controlled group design to examine the effectiveness of the VR intervention on stress and symptoms in the target population. Adults (≥ 18 years) who serve as primary caregivers for a person planning to undergo an allogeneic HSCT will be recruited. Phase I study will enroll up to 15 participants, and Phase II study will enroll up to 94 participants (the VR intervention arm N=47; the usual care education control arm N=47). The nature-based VR intervention will deliver 360° high-definition videos of nature scenes along with nature sounds and soothing music via a market-leading head-mounted display for 20 minutes every day for four weeks. The study will launch in early 2023. We will present the design and preliminary results of our primary feasibility and acceptability outcomes of the VR intervention. Exploratory outcomes of perceived stress, symptoms (fatigue, sleep disturbance, depression, anxiety, impaired cognition), and stress-related biomarkers (cortisol, alpha-amylase, osteocalcin, oxytocin) will be presented. Qualitative findings from individual follow-up at week one and exit interviews on participants' VR user experience will also be shared. This study will provide early evidence of whether nature-based VR interventions are feasible, acceptable, and effective for managing stress and symptoms in this caregiver population.

Abstract citation ID: kaad011.0239

3: VIRTUAL REALITY MINDFULNESS MEDITATION FOR PATIENTS AFTER ANTERIOR CRUCIATE LIGAMENT RECONSTRUCTION: PROTOCOL CONSIDERATIONS AND CASE STUDY

Shelby Baez, PhD, ATC[1], Jason Moser, PhD[2], Brian Pietrosimone, PhD, ATC[3]

[1]University of North Carolina at Chapel Hill, Chapel Hill, NC; [2]Department of Psychology, Michigan State University; [3]Department of Exercise and Sport Science, University of North Carolina at Chapel Hill

Patients after anterior cruciate ligament reconstruction (ACLR), a traumatic knee injury, have identified injury-related fear as a primary barrier for physical activity engagement. Mindfulness meditation has led to decreases in injury-related fear in other knee-injured populations and may be beneficial for patients post-ACLR. While many musculoskeletal rehabilitation specialists acknowledge the need to address injury-related fear in clinical practice, such as through inclusion of mindfulness meditation into patient care, they also report a barrier of lack of confidence in integrating mental skills. There is a critical need to identify clinically feasible, efficacious, plug-and-play tech driven interventions to address injury-related fear during rehabilitation after ACLR that also reduces the barrier of lack of confidence expressed by rehabilitation specialists. Therefore, we have developed an 8-week virtual reality mindfulness meditation (VRMM) protocol using an online platform (BehaVR, inc.) that consists of mindfulness meditation and mindful movement programming to reduce injury-related fear, improve jump-landing biomechanics, and alter brain activity after ACLR. In this randomized controlled trial, participants will be randomized to 8-weeks of VRMM (i.e., three 10-minute sessions per week) and a neuromuscular training rehabilitation (NTR), or to 8-weeks of VR sham and the NTR. Participant recruitment, retention, and acceptability will be used to assess feasibility. The Tampa Scale of Kinesiophobia-11 (TSK-11) to measure injury-related fear, 3D motion capture to measure knee kinetics and kinematics during a jump-landing task, and a functional magnetic resonance imaging scan to measure default mode network activity will be completed pre- and post-intervention/sham. In this presentation, we will describe the current VRMM protocol through the online platform, considerations for incorporating a VR intervention into ACLR rehabilitation, and the development of a feasible and informative sham condition. We will also report findings from a patient 1-year post-ACLR who completed the 8-week VRMM intervention. We observed high acceptability and tolerability for the VRMM and decreases in injury-related fear, as measured by the TSK-11, from pre-to-post assessments. Results from the proposed clinical trial could help translate behavioral science into real-world impact by identifying clinically feasible and effective interventions to improve patient care after ACLR.

Abstract citation ID: kaad011.0240

SYMPOSIUM 9: THE HUMAN-CENTERED DESIGN PROCESS FOR DIGITAL HEALTH TECHNOLOGY IN CANCER CARE: IMPLEMENTATION ACROSS THE LIFESPAN

Elizabeth Siembida, PhD, MPH[1], Alaina L. Carr, PhD[2], Karly M. Murphy, PhD[3], Rina S. Fox, PhD, MPH[4], Emily A. Walsh, MS[5]

[1]Northwell Health, Manhasset, NY; [2]Georgetown Lombardi Comprehensive Cancer Center, Alexandria, VA; [3]Wake Forest School of Medicine, Wilson, NC; [4]University of Arizona College of Nursing, Tucson, AZ; [5]University of Miami, Coral Gables, FL

Digital health tools can substantially expand access to high-quality cancer care. However, organizations often use existing tools that were not tailored for the needs and preferences of their target populations, reducing both patient engagement and satisfaction. This has been particularly common in recent years, given the rapid transition to virtual care during the COVID-19 pandemic. To ensure patient engagement with digital tools, best practices for technology design consider end users in the early phases of development or adaptation. This symposium will present the human-centered design (HCD) framework as one process for developing, adapting, implementing, and evaluating digital health technologies. The presenters will provide an overview of specific HCD methodologies and speak critically on how they incorporate key characteristics of their target population, like age and treatment setting, into the HCD process. In Step 1 – Understand Users – it is important to identify the specific needs of the target audience. The first speaker will describe a needs assessment aimed at optimizing patient navigator workflows in varied clinic settings to better support women diagnosed with breast cancer across the cancer care continuum. In Step 2 – Design – potential solutions to meet end users' needs are identified. Our second speaker will discuss the process of co-designing a web-based intervention with adolescent and young adult cancer survivors. In Step 3 – Implement – the final solution is prototyped and examined in the target population. The third speaker will present her methodology for usability testing of an eHealth group therapy program for young adult cancer survivors. In Step 4 – Evaluate – feedback on the performance of the digital health tool is gathered from end users. The final speaker will share her analysis of engagement with a companion website among older women with breast cancer enrolled in a virtual group stress management intervention. The symposium will conclude with a discussion on why the HCD framework is a valuable approach for digital health design and adaptation within oncology, how to incorporate lifespan development and other key survivor characteristics into developing and adapting digital tools, and recommendations for digital health research. Digital health technology can increase access to cancer care, provide real-time support outside the clinic, and improve the long-term well-being of cancer survivors if it is designed with their needs in mind.

CORRESPONDING AUTHOR: Elizabeth Siembida, PhD, MPH, Northwell Health, Manhasset, NY; esiembida@northwell.edu

Abstract citation ID: kaad011.0241

1: PATIENT NAVIGATOR NEEDS ASSESSMENT FOR OPTIMIZING PATIENT NAVIGATOR WORKFLOWS AND BREAST CANCER CARE: THE DEVELOPMENT OF MYNAVIGATOR MHEALTH APP

Alaina L. Carr, PhD[1], Naomi Vinod, MS[2], Maen J. Farha, MD[3], Kristi D. Graves, PhD, FSBM[4]

[1]Georgetown Lombardi Comprehensive Cancer Center, Alexandria, VA; [2]Howard University; [3]MedStar Union Memorial and Good Samaritan Hospitals; [4]Lombardi Comprehensive Cancer Center

Purpose: Oncology patient navigators (PNs) work to support patients diagnosed with breast cancer (BC) within the complex environment of cancer care. PNs seek to improve care for patients along the cancer care continuum, from screening to survivorship. In the context of PNs' work, they must manage patients' multiple needs often in the context of limited tools, technology and resources to meet the informational, logistic, financial and psychosocial needs of BC patients. PNs may benefit from innovative digital solutions that aim to simplify PN processes, streamline their ability to provide critical resources to BC patients and their families and improve communications across all groups. The present study sought to conduct a needs assessment across PNs and BC patients to identify ways to enhance PN core functions and workflow with a mHealth app.

Methods: We recruited 11 PNs and 10 BC patients from community-based settings, oncology clinics set in community hospitals, and oncology clinics set in academic medical settings. PNs and BC patients completed a demographics survey and participated in structured individual interviews. We used descriptive statistics to analyze demographic survey data and two independent coders used applied thematic analysis to identify salient themes.

Results: Overall, PNs and BC patients were in support of a mHealth app to function as a critical tool to support information delivery and communication between PNs and patients. Both groups noted a tool could assist in coordinating cancer care from pre-diagnosis to survivorship, particularly for providing trustworthy and credible information on BC treatment and community-based resources. Most BC patients described feeling overwhelmed by the amount of complex medical information and identified challenges with scheduling appointments, emotional concerns such as fear of cancer reoccurrence, and worries about the transition to long-term follow-up care during survivorship. The following themes emerged related to the potential functions of a mHealth app to support PN workflows: 1) scheduling and real-time, secure text messages with patients and providers 2) streamlining secure PN access to patient electronic health record information for enhanced communication with the care team 3) sharing community-based resources with patients and families. Many PNs conceptualized the mHealth app as a "virtual assistant" to help reduce time spent on logistical tasks. Both groups suggested the mHealth app include an introductory instructional video in lay language to orient users to the app.

Conclusion: A mHealth app for use by PNs to support BC patients has the potential to improve 1) PNs' provision of informational, logistic and psychosocial support to BC patients and families 2) BC outcomes by streamlining communications between members of the care team and 3) BC patients' enhanced access relevant disease and treatment information.

Abstract citation ID: kaad011.0242

2: USING HUMAN-CENTERED DESIGN METHODS TO ENGAGE ADOLESCENT AND YOUNG ADULT CANCER SURVIVORS: TAILORING A DEPRESSION SELF-MANAGEMENT INTERVENTION

Karly M. Murphy, PhD[1], Emily Lattie, PhD[2], John M. Salsman, PhD, FSBM[3], David Victorson, PhD[4], Madhu Reddy, PhD[5]

[1]Wake Forest School of Medicine, Wilson, NC; [2]Northwestern University, Chicago, IL; [3]Wake Forest University School of Medicine, Wake Forest Baptist Comprehensive Cancer Center, Winston-Salem, NC; [4]Northwestern Feinberg School of Medicine, Evanston, IL; [5]University of California-Irvine, Irvine, CA

Adolescent and young adult cancer survivors (AYAs; ages 15-39) are more likely to experience elevated depressive symptoms when compared to older survivors and peers without a history of cancer. Existing web-based interventions for depression do not address the common concerns of AYAs, such as negative thoughts about cancer and feelings of social isolation, which can lead to low user engagement. Tailoring (i.e., adapting interventions based on key individual difference variables such as age and cancer history to increase content relevance) can improve the likelihood that AYAs will engage with an intervention and increase rates of long-term use.

This presentation will highlight the utility of human-centered design methods in designing a tailored, evidence-based digital tool for AYAs. We will present on the methodology for the first aim of *iManageAYA*, an NIH-funded study to prepare and optimize an evidence-based digital tool to help AYAs manage depressive symptoms. This occurs in two iterative steps: (1) Co-design workshops and (2) Semi-structured interviews. Co-design workshops are a participatory design method that engages key stakeholders in developing content and features that are likely acceptable to and useful for the intended end users. During the workshops, researchers engage AYAs (N = 15) and providers (e.g., oncologists, psychologists, social workers; N = 6) in participatory design activities such as sketching their ideal mood tracker and brainstorming features to facilitate skills practice. Data collected during co-design workshops is used to develop paper prototypes of the tool that will be presented to AYAs (N = 15) during semi-structured interviews to elicit detailed feedback and inform modifications. Ultimately, these participatory design methods will inform the development of a working prototype of a web-based tool to assist AYAs in depression self-management.

In addition to presenting this methodological approach, we will speak critically on the incorporation of key characteristics of AYAs to consider in intervention design. For example, AYAs are generally confident about their ability to access and navigate digital interfaces; as such, they tend to blame the design of a digital tool for failures rather than themselves. Drawing on examples from our experience such as this one, we will use a lifespan development perspective to summarize lessons learned about conducting design work with AYAs.

Abstract citation ID: kaad011.0243

3: USING HUMAN-CENTERED DESIGN METHODS TO ADAPT AN EHEALTH PLATFORM FOR A YOUNG ADULT CANCER SURVIVOR GROUP INTERVENTION

Rina S. Fox, PhD, MPH[1], Terry Badger, PhD, RN, PMHCNS-BC, FAAN, FAPOS[1], Emmanuel Katsanis, MD[2], Stacy Sanford, PhD[3], David Victorson, PhD[4], Betina Yanez, PhD, FSBM[5], John M. Salsman, PhD, FSBM[6], Echo L. Warner, PhD, MPH[7], Frank J. Penedo, PhD, FSBM[8], Michael H. Antoni, PhD, FSBM[9], Laura B. Oswald, PhD[10]

[1]University of Arizona College of Nursing, Tucson, AZ; [2]University of Arizona College of medicine; [3]Northwestern University Feinberg School of Medicine; [4]Northwestern Feinberg School of Medicine, Evanston, IL; [5]Northwestern University Feinberg School of Medicine, Chicago, IL; [6]Wake Forest University School of Medicine, Wake Forest Baptist Comprehensive Cancer Center, Winston-Salem, NC; [7]University of Utah; Huntsman Cancer Institute, Salt Lake City, UT; [8]University of Miami, Miami, FL; [9]Sylvester Comprehensive Cancer Center, Coral Gables, FL; [10]Moffitt Cancer Center, Tampa, FL

Young adult (YA) cancer survivors aged 18-39 report poorer health-related quality of life (HRQOL) compared to cancer survivors in other age groups and peers without a history of cancer. Despite this, few studies have evaluated evidence-based approaches to improve HRQOL in this population. With input from post-treatment YA cancer survivors, our team recently developed the content for a 10-week group intervention to improve HRQOL. This intervention, titled TOGETHER-YA, was found to be feasible and acceptable. It also meets YAs' expressed preference for receiving supportive interventions in groups to promote peer support. However, YAs have also expressed a desire for interventions delivered via eHealth to promote convenience, which TOGETHER-YA does not yet effectively accomplish. To address this, we are now adapting an existing web-based platform to deliver the TOGETHER-YA intervention via eHealth. Here, we focus on our methods for platform adaptation.

As a first step, we collaborated with an industry partner to map the TOGETHER-YA intervention content onto the platform and replace images to be more engaging to YAs. We are now gathering feedback on the adapted platform via three iterative waves of usability testing with three YAs per wave (N=9). During one-hour usability testing sessions, participants are thinking aloud while completing prescribed tasks (e.g., log in, navigate from the home dashboard to session content). Sessions are being audio recorded to enable future qualitative analysis of information related to the appeal, clarity, comprehensibility, and aesthetic of the platform. Time on task, success rate for task completion, and errors committed are also being monitored, and participants are completing a questionnaire assessing the platform's ease of use. We will modify the platform per feedback received after each wave of usability testing. This process will continue until nine participants have completed testing, as nine usability testers are typically needed to find moderately hard-to-find problems with 75% certainty. Subsequent evaluations will involve field testing of the platform and participant engagement.

By incorporating this human-centered design method and completing usability testing, we are increasing the likelihood that the adapted platform will meet the needs and preferences of YA cancer survivors. In turn, our hope is this will maximize engagement and potential benefit from the TOGETHER-YA intervention as delivered via eHealth.

Abstract citation ID: kaad011.0244

4: EVALUATION OF INITIAL ENGAGEMENT WITH A WEBSITE-BASED COMPANION FOR A RANDOMIZED, VIRTUAL COGNITIVE BEHAVIORAL STRESS MANAGEMENT INTERVENTION AMONG OLDER WOMEN WITH EARLY-STAGE BREAST CANCER

Emily A. Walsh, MS[1], Paula Popok, BA[2], Molly Ream, MS[3], Estefany Saez-Clarke, PhD[1], Dolores Perdomo, PhD[4], Rachel Plotke, BA[2], Bonnie Blomberg, PhD[5], Michael H. Antoni, PhD, FSBM[6]

[1]University of Miami, Coral Gables, FL; [2]University of Miami, Miami, FL; [3]University of miami; [4]Miller School of Medicine, Miami, FL; [5]Miller School of Medicine, University of Miami; [6]Sylvester Comprehensive Cancer Center, Coral Gables, FL

Background: Digital interventions offer enhanced access to evidence-based treatments for patients with cancer; however, engagement can be suboptimal. Common engagement predictors include age, symptom burden, race, ethnicity, and mood. Evaluation of engagement with virtual cognitive-behavioral platforms is lacking. This study examined predictors of initial engagement with a cognitive behavioral stress management (CBSM) companion website among women with breast cancer (BC).

Methods: Older women (≥ 50 years) with nonmetastatic BC enrolled in a clinical trial after primary surgery and were randomized to receive virtual CBSM immediately (N = 41) or undergo a 6-month waitlist (N = 34). All received access to a companion website upon CBSM initiation, where they accessed educational videos, readings, and other related resources. Engagement was tracked via breadth (total features used) and depth (total clicks on specific features) daily over the first week of CBSM. The Center for Epidemiological Depression Studies (CES-D) scale assessed baseline depression levels, and a single item question (range: 0-4) measured daily stress. Multilevel modeling estimated predictors of trajectory using a bottom-up model building approach.

Results: Women were on average 61.2 years old (*SD*=7.13), White (78.6%) non-Hispanic (64.0%) with stage I disease (60.0%), and moderate depression levels (CES-D, *M*=20.58). Depth decreased over time (*B*=-0.93, *SE*=0.35, *p*< 0.01), and women with greater disease stage demonstrated more breadth (*B*=0.52, *SE*=0.19, *p*< 0.01) and depth (*B*=14.06, *SE*=5.63, *p*< 0.01) than women with lower stage disease. Non-Hispanic White women engaged with more features than others (race: *B*=-0.97, *SE*=0.33, *p*< 0.01; ethnicity: *B*=-0.59, *SE*=0.26, *p*=0.03). Stage and timing of the intervention interacted, such that women with greater stage who received CBSM after the waitlist period engaged most with the website (*B*=-11.73, *SE*=5.83, *p*=0.04). Depressive symptoms and daily stress did not predict engagement trajectories.

Conclusion: Disease stage, race/ethnicity, and timing of the intervention delivery predict engagement with a CBSM website in older BC patients. Age was not related to engagement, and results support growing research that web-based interventions may have utility for all. Delivering CBSM later in treatment among women with more advanced disease may mitigate competing treatment-related demands. Fostering engagement and tailoring content for racial/ethnic minorities is needed.

Abstract citation ID: kaad011.0245

SYMPOSIUM 10: TOO SUGARY SWEET! SCALABLE BEHAVIORAL INTERVENTIONS TO REDUCE SUGAR-SWEETENED BEVERAGE CONSUMPTION IN REAL WORLD SETTINGS

Jamie M. Zoellner, PhD, RD[1], Kristina H. Lewis, MD, MPH, SM[2], Donna P. Brock, MA[3], Karen Yeary, PhD[4]

[1]University of Virginia, Christainsburg, VA; [2]Wake Forest School of Medicine, Winston-Salem, NC; [3]University of Virginia, Christiansburg, VA; [4]Roswell Park Comprehensive Cancer Center, Buffalo, NY

Sugar-sweetened beverages (SSB) are the largest single source of calories in the US diet, contributing almost 10% of total energy intake for US youth and adults. Unfortunately, considerable disparities in SSB consumption persist, including among low SES and racial and ethnic minorities, individuals with low health literacy skills, and those residing in rural regions. This is concerning as substantial, high-quality evidence has demonstrated the negative health impacts of excessive SSB on obesity, diabetes, coronary heart disease, hypertension, some types of cancer, and dental decay. How best to address SSB overconsumption remains one of the most publicized and controversial public health topics. Much of the debate stems from disagreement about the effectiveness and potential regressive nature of SSB taxation policies. However, clearly missing from the literature are scalable behavioral interventions that are effective in reducing SSB and can reach large numbers of individuals at risk. In part, this is because key features of historically successful behavioral interventions are not compatible with dissemination in many real-world settings. This symposium will explore whether behavioral interventions for SSBs can be translated with scalability and sustainability in mind. It will feature three behavioral interventions, each targeting different high-risk populations: 1) **Ready, Set, Gulp** leverages an electronic health record-based SSB screening program to implement a 6-month health-system based intervention comprised of a mobile phone app, Interactive Voice Response (IVR) calls, a water promotion toolkit, and educational video for families of children ages 0-8; 2) **Kids SIP*smart*ER** is a 6-month, multi-level, school-based, behavior and health literacy intervention with a built in short message service (SMS) intervention for caregivers that targets 7th grade middle school students and their caregivers in rural Appalachia; and 3) ***i*SIPsmarter** is a 9-week, technology-based behavior and health literacy intervention comprised of six Internet-delivered Cores, an integrated SMS strategy for reporting SSB behaviors, and a cellular-enabled scale for in-home weighing that targets adults in Appalachian communities. Together, these presentations will illustrate key process and/or outcome data as well as highlight opportunities and challenges related to scalability, sustainability, and potential long-term public health impacts of improved SSB behaviors.

CORRESPONDING AUTHOR: Jamie M. Zoellner, PhD, RD, University of Virginia, Christainsburg, VA; jz9q@virginia.edu

---

Abstract citation ID: kaad011.0246

1: PRIMARY OUTCOMES OF KIDS SIPSMARTER, A CLUSTER RANDOMIZED CONTROLLED TRIAL TO IMPROVE SUGAR-SWEETENED BEVERAGES BEHAVIORS AMONG APPALACHIAN MIDDLE-SCHOOL STUDENTS AND THEIR CAREGIVERS

Jamie M. Zoellner, PhD, RD[1], Wen You, PhD[2], Kathleen Porter, PhD[2], Brittany M. Kirkpatrick, DHSc, MPH[3], Annie Reid, MPH, RDN, CHES[2], Donna P. Brock, MA[3], Philip Chow, PhD[2], Lee Ritterband, PhD[2]

[1]University of Virginia, Christainsburg, VA; [2]University of Virginia; [3]University of Virginia, Christiansburg, VA

Introduction: Sugar-sweetened beverage (SSB) consumption is disproportionately high among adolescents and adults in rural Appalachia. The primary objective of this study is to determine changes in SSB behaviors among students and caregivers receiving the Kids SIPsmartER intervention, as compared to delayed control schools.

Methods: This on-going Type 1 hybrid, cluster randomized controlled trial includes 12 Appalachian middle schools (6 randomized to Kids SIPsmartER and 6 to control) in southwest Virginia and southeastern West Virginia (2018-2023). Kids SIPsmartER is a multi-level, 6-month, school-based, behavior and health literacy program aimed at improving SSB behaviors among 7th grade middle school students. The program also incorporates a two-way text message strategy to engage caregivers in SSB role modeling and to support making home SSB environment changes. All students and caregivers are eligible to participate, regardless of SSB behaviors at baseline. The validated BEV-Q is used to assess SSB behaviors at baseline and 7-months. Both student and caregiver analyses include modified two-part models with time fixed effects and relevant demographics controlled and school cluster robust standard errors. Completer analyses that exclude extreme outliers are presented, yet mixed model repeated measures analyses revealed comparable findings.

Results: Of the 526 students and 238 caregivers, mean (SD) ages are 12.7 (0.5) and 40.7 (7.4) years, respectively. Students are 54% female. Caregivers are mostly female (91%) and non-Hispanic White (96%); 33% have a high school education or less and 41% live in households with annual income less than $50,000. Regardless of SSB intake at baseline, intervention students significantly decreased SSB by -9.9 ounces/day (95% CI = -12.2, -7.6) compared to the control students with a decrease of -2.7 SSB ounces/day (95% CI, -5.4, -0.1); p< 0.001, effect size (ES)=0.35. Among students who consumed >24 ounces SSB/day at baseline (n=223, 42% of sample), the ES increased to 0.45 (p=0.003). Regardless of SSB intake at baseline, intervention caregivers significantly decreased SSB by -7.9 ounces/day (95% CI = -12.1, -3.7) relative to the control caregivers with a decrease of -1.9 SSB ounces/day (95% CI, -4.3, 0.6); p=0.018, ES=0.31. Among caregivers who consumed >24 ounces SSB/day at baseline at baseline (n=67, 28% of sample), the ES increased to 0.71 (p=0.004).

Discussion: Despite COVID-related study disruptions, Kids SIPsmartER is effective at improving SSB behaviors among students and their caregivers in the rural, medically underserved Appalachian region. Importantly, effects were even stronger among students and caregivers who were high SSB consumers at baseline. This on-going study is currently focused on assessing maintenance of behaviors and sustainability of Kids SIPsmartER among enrolled schools.

Abstract citation ID: kaad011.0247

2: READY, SET, GULP! A HEALTH SYSTEM-BASED FAMILY BEVERAGE CHOICE INTERVENTION

Kristina H. Lewis, MD, MPH, SM[1], Fang-Chi Hsu, PhD[2], Jamie M. Zoellner, PhD, RD[3], Jason Block, MD, MPH[4], Marlene Schwartz, PhD[5], Joseph Skelton, MD, MS[2], James Krieger, MD, MPH[6]

[1]Wake Forest School of Medicine, Winston-Salem, NC; [2]Wake Forest School of Medicine; [3]University of Virginia, Christainsburg, VA; [4]Harvard Medical School; [5]UNIVERSITY OF CONNECTICUT; [6]University of Washington

Background: With regular access to diverse and underserved populations, health care settings may be an ideal venue for addressing pediatric sugar-sweetened beverage (SSB) and fruit juice (FJ) overconsumption. However, due to limited time and resources, traditional behavioral interventions that require substantial in-person contact and counseling are infeasible in most clinics. The objective of this pilot study was to evaluate the feasibility of a new health-system-based intervention.

Methods: Ready, Set, Gulp! is a 6-month intervention designed to reduce SSB/FJ consumption and increase water intake in children ages 1-8 and their families. The intervention was designed to minimize clinic workload and consists of a water promotion toolkit and brief counseling provided at the point of care by the pediatric team, a brief educational video, mobile phone app, and a series of 14 interactive voice response (IVR) phone calls delivered to parents over 6 months. Eligible children ages 1-8 consuming 2+ servings of SSB/FJ daily were identified using a unique electronic health record (EHR)-based SSB/FJ screening program. 60 parent-child dyads were recruited and randomized to receive the intervention or usual care. Data were collected at baseline, 3 and 6 months and included child and parent beverage consumption (using the BevQ-15 instrument). Intervention fidelity was assessed using objective process measures and acceptability via exit surveys with intervention group parents. Beverage changes between groups was assessed using ANCOVA, adjusting for baseline data.

Results: Mean (sd) age of parents and children was 34.1(9.3)y and 4.2(2.1)y, respectively. 88% of parents were mothers, 70% were non-Hispanic Black or Hispanic, and 34% had less than high school education. Retention was 88% at 3 months and 86% at 6 months. Child frequency and volume of SSB/FJ decreased in both groups over follow-up, with no significant difference between intervention and control arms (3m estimate: -0.43 servings fewer for intervention, p=0.15, 6m: -0.28 servings fewer for intervention, p=0.42). Similarly, child water intake increased for both the intervention and control group, with no significant difference between groups (3m: 0.28 servings more for intervention, p=0.25; 6m: 0.58 servings more for intervention, p=0.09). Parents in the intervention group reported greater decreases in SSB/FJ compared to control parents at 3 months (3m: 0.80 servings fewer for intervention, p=0.03, 6m: 0.30 servings fewer, p=0.42). Fidelity and acceptability of the intervention was high for all components.

Conclusions: This technology-based intervention shows preliminary promise for modifying family beverage choice and has the potential for sustainability and scalability even in busy pediatric clinic settings. Findings will be used to refine intervention components aimed at supporting improved beverage behaviors.

Abstract citation ID: kaad011.0248

3: AN EXPLORATORY ANALYSIS OF RURALITY DIFFERENCES ON ENGAGEMENT AND RETENTION FOR A DIGITAL SUGAR SWEETENED BEVERAGE REDUCTION INTERVENTION

Donna P. Brock, MA[1], Lee Ritterband, PhD[2], Kathleen J. Porter, PhD, RD[2], Teace Markwalter, MPH, CHES[2], Annie Reid, MPH, RDN, CHES[2], Christina Frederick, BS[3], Deborah Tate, PhD[4], Jamie M. Zoellner, PhD, RD[5]

[1]University of Virginia, Christiansburg, VA; [2]University of Virginia; [3]UVA Center for Behavioral Health & Technology (CBHT), Charlottesville, VA; [4]Wake Forest University; [5]University of Virginia, Christainsburg, VA

Background: While there is evidence that digital health programs are effective, data is limited on their uptake and impact in medically underserved and largely rural regions. iSIPsmarter, a digital sugar sweetened beverage (SSB) reduction intervention, is part of a larger, on-going RCT targeting Southwest Virginia and adjacent Appalachian counties. The program consists of 6 Internet-delivered Cores, text messages and cellular-enabled scales to track SSBs and weight, and a stepped care process that uses human-supported texts (Step 1) followed by phone calls (Step 2) to participants who are non-adherent in completing assigned Cores after one week. This preliminary analysis explores rurality differences in Core completion, stepped care, self-monitoring of SSB and weight, and 9-week study retention among participants in the iSIPsmarter condition.

Methods: This preliminary analysis included iSIPsmarter participants at the 9-week point (n=94) (or about 77% of the planned 122 participants randomized into the iSIPsmarter condition). Based on home addresses, Rural Urban Continuum Codes (RUCC) of urban (RUCC 1-2; n=13), suburban (RUCC 3; n=48), or rural (RUCC 4-9; n=33) were assigned. Coordinators tracked engagement via Core completion, stepped care, and SSB and weight diaries, and study retention (i.e., completion of the primary outcome assessment at 9 weeks). Analyses included chi-square and one-way ANOVAs.

Results: On average, participants completed 4.9 (*sd*=1.7) of 6 Cores, with no significant differences among urban (*M*=5.1, *sd*=1.8), suburban (*M*=5.1, *sd*=1.6), and rural (*M*=4.6, *sd*=1.8) RUCC categories (*p*=0.49). Fifty (53%) participants did not need stepped care; however, of the remaining 44 (47%) who did, the likelihood of rural participants (46%) needing this assistance trended greater than their suburban (39%) and urban (16%) counterparts (*p*=0.07). Over 9 weeks, participants tracked their SSBs and weight an average of 75% and 57% of the days, respectively. There were no significant differences in SSB (*p*=0.61) or weight (*p*=0.20) self-monitoring among RUCC categories. Finally, 83 (88%) participants were retained, with no statistically significant differences among RUCC categories (*p*=0.72).

Conclusions: Preliminary analysis demonstrated high participant engagement in the Cores and self-monitoring, and high retention. This was consistent across RUCC categories. While there was some indication that rural participants were more likely to need stepped care, they did not complete fewer Cores. Potential insufficient power concerns urge caution in interpretation of these exploratory findings, yet the high engagement and self-monitoring of participants from this medically underserved Appalachian region are encouraging as this is known to positively influence behavioral outcomes.

Abstract citation ID: kaad011.0249

SYMPOSIUM 11: UNDERSTANDING AND IMPROVING ACCESS TO CARE AMONG INDIVIDUALS WITH PSYCHOLOGICAL DISTRESS AND SOCIAL NEEDS

Ellen Poleshuck, PhD[1], Catherine Cerulli, JD, PhD[2], Derrecka M. Boykin, PhD[3]

[1]University of Rochester Medical Center, Rochester, NY; [2]University of Rochester, Rochester, NY; [3]MEDVAMC, Houston, TX

Despite increasing attention to the social determinants of health, individuals with psychological distress and unmet social needs often continue to find their needs unaddressed. A lack of access to care is particularly true for individuals with multiple, interacting challenges such as presence of interpersonal violence, living in a rural setting, exposure to structural racism and sexism, lack of transportation or housing, and the presence of multiple physical and mental health conditions. This symposium will help attendees learn more about Personalized Support for Progress (PSP), an intervention designed to improve access among individuals with psychological distress and social needs from a range of underserved populations. The speakers will provide an overview of a patient-centered community health worker intervention, PSP, which the panelists have evaluated in three clinical trials in different settings (obstetrics and gynecology practices; community members experiencing intimate partner violence and depression; and women Veterans in an urban primary care clinic). A community health worker or other peer specialist implements PSP and employs self-determination theory to allow the individual to identify their personal priorities and select goals based on those priorities. The attendees will also learn about two projects to better understand barriers to accessing care among two populations at high risk of being underserved, individuals experiencing both intimate partner violence and psychological distress and rural women Veterans with unmet social needs and psychological distress. Lastly, panelists will discuss a current randomized controlled trial pilot with rural women Veterans to determine if PSP is associated with improved access to care for this particular population.

CORRESPONDING AUTHOR: Ellen Poleshuck, PhD, University of Rochester Medical Center, Rochester, NY; ellen_poleshuck@urmc.rochester.edu

---

Abstract citation ID: kaad011.0250

1: EXPLORING THE USE OF PSP TO IMPROVE ACCESS TO CARE AMONG RURAL WOMEN VETERANS: FINDINGS FROM A PILOT RCT AND A QUALITATIVE STUDY

Ellen Poleshuck, PhD[1], Derrecka M. Boykin, PhD[2], Catherine Cerulli, JD, PhD[3], Ariella Davis, MSW[4], Jennifer Funderburk, PhD[5], Natalie Hundt, PhD[6], Emily Johnson, PhD[4], Kyle Possemato, PhD[4]

[1]University of Rochester Medical Center, Rochester, NY; [2]MEDVAMC, Houston, TX; [3]University of Rochester, Rochester, NY; [4]Syracuse VAMC; [5]VA Center for Integrated Healthcare, Syracuse, NY; [6]Michael E DeBakey VA Medial Center

Rural women Veterans are less likely than other Veterans to access Veteran Health Administration (VHA) care. Women Veterans prefer gender-specific services, yet gender-specific services are often unavailable to women Veterans, especially those in rural settings. Our initial pilot explored the use of Personalized Support for Progress (PSP) with women Veterans from an urban women's clinic delivered by a woman Veteran peer specialist compared to treatment as usual. In our sample of 20, we found general feasibility for PSP and a positive signal for improvement in perceived stress, global symptom severity, depression anxiety, and quality of life for PSP compared to treatment as usual. We then conducted a qualitative study aimed to understand barriers to accessing care among rural women Veterans in particular. We recruited rural women Veterans with psychological distress and social needs, women peer specialists, and primary care providers working with rural Veterans to participate in focus groups and individual interviews. We conducted two peer specialist focus groups with women peer specialists, two Veteran focus groups with rural women Veterans, and 11 individual interviews with primary care providers interviews working with rural Veterans and used a rapid qualitative data analysis approach. One Veteran focus group was limited to Veterans who identified as Black, Indigenous, or People of Color. Data analysis revealed many challenges affecting access for rural women Veterans to services, including transportation, finances and childcare, long travel distance to clinics, lack of access to gender-specific services, ineligibility for services, and lack information about available resources. Participants also reported patients waiting months for appointments, not having a choice of provider, and not being able to bring children to appointments. In terms of virtual care, rural Veterans were described as having unreliable internet access. Participants identified challenges related to accessing community care outside of the VHA as well. In sum, rural women Veterans face significant barriers to accessing VHA care and need gender-specific services. Peer specialists who are both women and Veterans were described as excellent candidates to help bridge some but not all of the barriers to accessing care among rural women Veterans.

Abstract citation ID: kaad011.0251

2: RESULTS FROM A RANDOMIZED COMPARATIVE EFFECTIVENESS TRIAL TO EXAMINE AN INTERVENTION TO IMPROVE SAFETY AND HEALTH DETERMINANTS AMONG PEOPLE WHO EXPERIENCE INTIMATE PARTNER VIOLENCE AND DEPRESSION.

Catherine Cerulli, JD, PhD[1], Hugh F. Crean, PhD[1], Iwona Juskiewicz, MD[2], Marsha Wititnk, MD[3], Geena Cruz, MPA, MNM, CPLC[3], Michelle ReQua, MS[3], Elaine Bell, LPN[3], Ellen Poleshuck, PhD[4]

[1]University of Rochester, Rochester, NY; [2]Univeresity of Rochester Medical Center; [3]University of Rochester Medical Center; [4]University of Rochester Medical Center, Rochester, NY

This longitudinal randomized comparative effectiveness trial shares results from a community-based participatory research study which compared 2 interventions to improve the safety of patients experiencing intimate partner violence (IPV) and depression: (1) care as usual (CAU), with a hospital-based social worker in a medical-legal partnership; or (2) Personalized Support for Progress (PSP), delivered by a community health worker. As an international public health problem that results in increased morbidity and mortality, health care provides have a unique opportunity to engage patients, which may include IPV screening, assessments, and referrals. We explored whether PSP improves patient safety, improved depression, health function, and quality of life. We recruited individuals with depressive symptoms who had experienced IPV from community venues (ie, an IPV shelter and local family court) and medical sites (ie, departments of emergency, psychiatry, pediatrics, women's health) (n= 231 participants, 195 of which participated in the final follow-up). Both intervention arms reported greater safety, reduced depressive symptoms, and improved function. PSP participants reported greater overall satisfaction. We also learned through a heterogeneity of treatment effect analysis what intervention worked for whom. Findings suggest patients involved in IPV should not receive one-size-fits-all interventions. Rather, clinicians and other health professionals should screen, assess, and refer patients to care that can address their most pressing needs.

Abstract citation ID: kaad011.0252

3: USE OF A PEER INTERVENTION TO IMPROVE ACCESS AMONG RURAL WOMEN VETERANS WITH PSYCHOLOGICAL DISTRESS AND UNMET SOCIAL NEEDS

Derrecka M. Boykin, PhD[1], Catherine Cerulli, JD, PhD[2], Hugh F. Crean, PhD[2], Ariella Davis, MSW[3], Jennifer Funderburk, PhD[4], Natalie Hundt, PhD[5], Emily Johnson, PhD[3], Ellen Poleshuck, PhD[6], Kyle Possemato, PhD[3]

[1]MEDVAMC, Houston, TX; [2]University of Rochester, Rochester, NY; [3]Syracuse VAMC; [4]VA Center for Integrated Healthcare, Syracuse, NY; [5]Michael E DeBakey VA Medial Center; [6]University of Rochester Medical Center, Rochester, NY

Not only do rural women Veterans report significant psychological distress (PTSD, anxiety, depression, suicide risk) and social needs (housing, transportation, material insecurity), they experience barriers accessing services to address these needs. Personalized Support for Progress (PSP) is an evidence-based intervention in which a peer specialist supports women in prioritizing their needs and attaining access to preferred services. We propose to extend this intervention to Veterans and investigate if PSP with rural women Veterans is associated with improved perceived access and actual engagement in mental health and social resource services, as well as high satisfaction and improved mental health, social needs and function. Ultimately we will compare PSP to Tailored Referral information (TR) among 75 rural women Veterans with psychological distress and social needs for perceived access and actual engagement. Hypothesized mechanisms are perceived confidence, autonomy support, and alliance. Secondary outcomes include satisfaction, psychological distress, social needs, progress on needs, and functioning. Hypothesized mechanisms are based on self-determination theory (SDT) and outcomes are based on Fortney's reconceptualized model of access.

We will measure actual engagement by face-to-face and digital visits based on VHA administrative data and on self-reported number of visits on the Epidemiological Catchment Area Survey and perceived access to mental health and social resource services on the Assessment of Perceived Access to Care as our primary outcomes. Other outcomes include: perceptions of progress on needs; Veteran satisfaction; psychological distress (PHQ-9; GAD-7; PTSD Checklist); social needs (PRAPARE), functioning (Brief Inventory of Psychosocial Functioning; WHO-QOL), and Self Determination Theory domains (Perceived Confidence; Autonomy Support; and Kim Alliance Scales). At the end of this project, we will have refined PSP delivery to rural women Veterans and determine if there is support to pursue a hybrid effectiveness-implementation study of PSP to improve access to care among rural women Veterans.

Abstract citation ID: kaad011.0253

SYMPOSIUM 12: WOMEN'S CARDIOVASCULAR HEALTH: RISK FACTORS, OPPORTUNITIES FOR PREVENTION, AND NOVEL INTERVENTIONS ACROSS THE LIFESPAN

Allison E. Gaffey, PhD[1], Alyssa M. Vela, PhD[2], Susan D. Brown, PhD[3], Danielle Arigo, PhD[4], Phoutdavone Phimphasone-Brady, PhD[5], Diana A. Chirinos, PhD[6]

[1]Yale School of Medicine, VA Connecticut Healthcare System, Lyme, CT; [2]Northwestern Feinberg School of Medicine, Chicago, IL; [3]University of California, Davis, Sacramento, CA; [4]Rowan University, Glassboro, NJ; [5]University of Colorado, School of Medicine, Aurora, CO; [6]Northwestern University Feinberg School of Medicine, chicago, IL

One in five women die annually from cardiovascular disease (CVD), the leading cause of death for women in the United States. Despite almost as many women dying from CVD annually as men, less attention has been paid to the unique risk factors and opportunities for primary and secondary prevention of CVD among women. Specifically, women's CVD risk can changes across the lifespan due to medical conditions that impact hormones, pregnancy and post-partum, and pre and post-menopausal changes. Thus, there is a critical need to bolster research on women's CVD health and to highlight opportunities to translate the science into impacting the lives of millions of at-risk women. This symposium features interdisciplinary research from four experts in women's cardiometabolic health and will address risk factor identification, prevention, and treatment for women's cardiovascular health across the lifespan. The first paper brings light to polycystic ovarian syndrome (PCOS), a condition affecting more than 1 in 5 women of reproductive age, as a risk factor for CVD and related conditions.

The authors will highlight their important findings about rates of modifiable CVD risk factors among non-treatment seeking females with PCOS. The second paper will highlight the need to address preventive healthcare among those with gestational diabetes, a major risk factor for cardiovascular disease (CVD) and metabolic syndrome even years postpartum. The authors will share the design and implementation of a trial testing a digital health intervention aimed at improving uptake of glucose screening and lifestyle prevention programs for people who are postpartum. The third paper sheds light on the unique CVD risk factors faced by women in midlife. The authors will share the utility and acceptability of a targeted digital tool to support physical activity and mitigate such risk among women with at least one CVD risk factor. Finally, the fourth paper features results from a large study on CVD risk development in young adults and examines the association between depressive symptoms and cardiac structure and function after 25 years and the authors will highlight any sex-specific interactions in their findings. Altogether, the papers emphasize the current and potential impact of behavioral medicine to prevent and address CVD risk factors and prevent CVD among diverse women across the lifespan.

CORRESPONDING AUTHOR: Allison E. Gaffey, PhD, Yale School of Medicine, VA Connecticut Healthcare System, Lyme, CT; allison.gaffey@yale.edu

---

Abstract citation ID: kaad011.0254

1: IMPROVING UPTAKE OF RECOMMENDED SCREENING TO PROMOTE MATERNAL CARDIOMETABOLIC HEALTH: DESIGN AND RATIONALE FOR A FACTORIAL TRIAL

Susan D. Brown, PhD[1], Michaela Kiernan, PhD[2], Monique Hedderson, PhD[3], Mara Greenberg, MD[4], Geoffrey Cohen, PhD[5], Andrea Millman, MA[3], Siedah Garrison, MPH[6], Saher Daredia, MPH[3], Hillary Serrato Bandera, BA[3], Brittany L. Garcia, PhD[1], Charles P. Quesenberry, PhD[7], Assiamira Ferrara, MD, PhD[3]

[1]University of California, Davis, Sacramento, CA; [2]Stanford University School of Medicine, Palo Alto, CA; [3]Kaiser Permanente Northern California, Oakland, CA; [4]The Permanente Medical Group; [5]Stanford University; [6]University of California, Davis; [7]Kaiser Permanente Northern California

Gestational diabetes mellitus (GDM) is a common pregnancy complication that elevates lifetime risk for type 2 diabetes and, in turn, for metabolic syndrome and cardiovascular events within 10 years postpartum. Despite clinical guidelines urging postpartum glucose screening to initiate primary or secondary prevention, uptake of this screening remains suboptimal. Particularly given racial and ethnic disparities in diabetes and cardiovascular disease, research must identify strategies to increase uptake of preventive healthcare services in diverse populations. Here we describe the design and implementation of an ongoing randomized factorial trial, leveraging the multi-phase optimization strategy (MOST), to test an innovative set of digital health communication intervention components aimed at improving uptake of postpartum glucose screening and preventive lifestyle programs. Set in an integrated health delivery system with a diverse population of patients with GDM (75% from racial/ethnic groups other than White), the trial is being implemented in concert with health system stakeholders. Intervention components build upon existing strategies at the health system level (e.g., patient registries, reminders, and bulk ordering of screening tests). We will summarize the rationale for the four theory-driven intervention components, which were previously examined in pilot trials and designed to address patient-level psychosocial barriers to postpartum screening. To maximize potential scalability and reach, each component is designed to be delivered through an interactive online module accessible via mobile devices. Components shown to be efficacious will be combined in an optimized intervention package and tested in a future large-scale randomized clinical trial, with the long-term goals of improving preventive care and maternal cardiometabolic health.

Abstract citation ID: kaad011.0255

2: A MIXED METHODS APPROACH TO EVALUATING A PERSONALIZED, ADAPTIVE, AND SOCIALLY FOCUSED WEB TOOL TO PROMOTE DAILY PHYSICAL ACTIVITY AMONG WOMEN IN MIDLIFE

Danielle Arigo, PhD[1], Jonathan Lassiter, PhD[1], Kiri Baga, BA[1], M. Cole C. Ainsworth, PhD[2], Kristen Pasko, MA[1], Jacqueline A. Mogle, PhD[3], Andrea F. Lobo, PhD[4]

[1]Rowan University, Glassboro, NJ; [2]Noom, Inc., Glassboro, NJ; [3]Clemson University; [4]Rowan University

Women in midlife (ages 40-60) are at unique risk for cardiovascular disease due to aging, menopause, and conditions such as hypertension. Regular physical activity (PA) can mitigate this risk, though the many existing PA interventions that target this population are only minimally effective. There is a need for innovative PA resources tailored for women in midlife. Digital tools can account for the individual and contextual nature of PA, particularly with respect to social influences (e.g., opportunities for PA-related social support or social comparisons). After our initial development and user testing (*n*=26), the goal of this study was to gather feedback on use of a new personalized, adaptive digital tool for supporting the PA-relevant social preferences and needs of women in midlife. Women in midlife with 1 or more risk factors for cardiovascular disease (e.g., hypertension, type 2 diabetes; n=27, M_{Age}=53 years, M_{BMI}=32.6 kg/m^2) completed daily tests of the new website for 7 days. They used the site each morning (with personalized opportunities for support and comparisons), completed end-of-day surveys (including their PA recorded by a pedometer, to inform day-level adaptations), and engaged in 1-hour qualitative interviews. Quantitative data on website navigation and in-the-moment responses were examined using multilevel models; qualitative data from interviews were coded for a priori and emergent topics of interest by 2 independent raters, and discrepancies were resolved by consensus. Of the expected app uses, 93% resulted in site navigation data (7% missing due to access difficulties) and 92% were informed by completed end-of-day surveys. Participants described their experience with the web app as extremely positive and all indicated strong interest in use of the app to support them in regular PA engagement. Participants described the site as "easy to use" and many indicated that they "learned about themselves" during their week of using it. Configural frequency analysis showed 2 primary types of content selection: lateral comparisons and encouragement messages, and no preference for either (site chooses randomly; *p*s< 0.02). Quantitative and qualitative data converged to indicate that participants prefer sources of support and comparison who are similar to them in PA level and stage of life (i.e., with vs. without young children, caregiving for parents vs. not), though some prefer to "let the universe decide what they need" (by selecting no preference). Findings show that a socially focused, personalized, and adaptive web tool is highly acceptable to women in midlife and feasible for supporting their PA goals in daily life. Further, a mixed methods design revealed potential subtypes of users who may have distinct social needs to support their PA goals. These results support larger-scale testing of the new tool as an innovative method of promoting daily PA in an at-risk group.

Abstract citation ID: kaad011.0256

3: POLYCYSTIC OVARY SYNDROME (PCOS) AND CARDIOVASCULAR HEALTH: THE ENDOCRINE AND MENTAL (TEAM) HEALTH STUDY.

Phoutdavone Phimphasone-Brady, PhD[1], Rachel L. Johnson, MS[2], C. Neill Epperson, MD[3]

[1]University of Colorado, School of Medicine, Aurora, CO; [2]Department of Biostatistics and Informatics, Colorado School of Public Health, University of Colorado Anschutz Medical Campus; [3]Department of Psychiatry, University of Colorado, Anschutz Medical Campus

Background: PCOS is a chronic reproductive, endocrine, and psychiatric condition, affecting up to 12% (or 5 million) reproductive aged females in the United States, increasing their risk for cardiovascular disease (CVD)-related conditions, including overweight/obesity (OW/OB) and type 2 diabetes. PCOS also impacts females without OW/OB and their CVD risk may differ compared to females with PCOS and OW/OB. Our objective is to compare modifiable CVD risk factors among non-treatment seeking females with PCOS with and without OW/OB and their non-PCOS counterparts.

Methods: Eligible participants completed validated surveys on depression, insomnia, sleepiness, obstructive sleep apnea (OSA) risk, and duration of physical activity and strength training. Body mass index (BMI) and PCOS status were self-reported. Data were summarized with descriptive statistics and differences in means across groups were tested with one-way ANOVAs. Three group comparisons were conducted based on BMI and PCOS status.

Results: This analysis cohort included 1,355 English- and 21 Spanish-speaking participants (70.0% White, 6.2% Black, 7.1% Asian, 1.2% American Indian or Alaska Native, 0.1% Native Hawaiian or other Pacific Islander, 11.0% other/more than one race; 20.7% Hispanic/Latina). Most identify as cisgender females (94.3%) with a mean age of 30 (SD = 6.6), BMI ≥ 30 (40.8%) and a Bachelor's degree (42.2%). In group one (BMI < 25 only), those with PCOS (n =189), compared to those without (n = 313), self-reported significantly higher symptoms of depression, insomnia, sleepiness, and OSA risk (p values = 0.006 to < 0.001). In group two (BMI >25 only), those with PCOS (n = 565), compared to those without (n = 309), self-reported significantly higher symptoms of depression, insomnia, and OSA risk (p values = 0.029 to < 0.001). In group three (PCOS only), those with OW/OB, compared to those without OW/OB (n = 189), self-reported significantly higher symptoms of insomnia, OSA risk, and lower minutes of physical activity and days of strength training per week (p values = 0.044 to < 0.001), though the mean differences across these risks were minimal.

Conclusion: Results highlight that regardless of BMI, non-treatment seeking females with PCOS self-reported higher modifiable risk factors for CVD, indicating that their CVD risk events may be elevated. Actionable and equitable strategies are urgently needed for primary prevention of PCOS-related CVD risk.

Abstract citation ID: kaad011.0257

4: DEPRESSIVE SYMPTOMS AND CARDIAC STRUCTURE AND FUNCTION IN THE CORONARY ARTERY RISK DEVELOPMENT IN YOUNG ADULTS STUDY

Diana A. Chirinos, PhD[1], Michael Hammond, MD[2], Ravu Patel, MD[2], Mandy Wong, MS[3], Mercedes R. Carnethon, PhD[4], Sadiya Khan, MD MSc[4]

[1]Northwestern University Feinberg School of Medicine, chicago, IL; [2]Northwestern University; [3]Northwestern University, Chicago, IL; [4]Northwestern University Feinberg School of Medicine, Chicago, IL

Background: Depressive symptoms are highly prevalent among patients with heart failure and are associated with adverse health outcomes, including mortality. However, the association between depressive symptoms and subclinical markers of cardiac structure and function is not well studied and even less is known about a potential differential impact of depressive symptoms in women vs. men. This study aimed to examine the association between depressive symptoms and cardiac structure and function 25 years later within the Coronary Artery Risk Development in Young Adults (CARDIA) study, and determine the moderating effect of sex in this relationship.

Methods: We included 2329 CARDIA participants with available data on depressive symptoms at CARDIA's Year (Y) 5 assessment (1990) and cardiac structure and function at Y30 (2015). The primary exposure was standardized Center for Epidemiological Studies-Depression (CES-D) score (Y5). Outcomes included markers of cardiac structure (left ventricular [LV] mass, LV end diastolic diameter, left atrial volume index, LV mass index), systolic (LV ejection fraction, global longitudinal strain, global circumferential strain), and diastolic function (average e' velocity, and E/e', assessed by echocardiography) at Y30. Linear regression was used to examine associations of interest, and a sex by depression interaction term was computed to examine moderation. Models adjusted age, race, education level, field center, systolic blood pressure, use of hypertensive medication, total cholesterol level, diabetes, smoking, and BMI (at Y5).

Results: Mean±SD age was 30±4 years, 56% of participants were women, and 46% were Black. Mean CES-D score (Y5) was 11± 8. Depressive symptoms were significantly associated with LV mass index (B=0.88, 95% CI=0.04-1.71), global longitudinal (0.12, 0.01-0.22) and circumferential strain (0.18, 0.03-0.33), average e' (-0.12, -021- -0.03), and E/e' (0.14, 0.05-0.23) in unadjusted models. Sex by depression interactions were not significant. After controlling for demographic and cardiovascular risk factors, only the association between depressive symptoms and global circumferential strain remained significant (0.17, 0.01-0.32).

Conclusion: Depressive symptoms are associated with subclinical markers of cardiac structure and function in both women and men. However, cardiovascular risk factors significantly attenuated these associations. Future studies are needed to examine pathways mediating these associations.

Abstract citation ID: kaad011.0258

PRESIDENTIAL SYMPOSIUM: SYMPOSIUM 13: PROMOTING PHYSICAL ACTIVITY IN OLDER ADULTS: EVIDENCE BEHIND THE 2023 PHYSICAL ACTIVITY GUIDELINES MIDCOURSE REPORT

David E. Conroy, PhD, FSBM[1], Cheryl Der Anian, PhD[2], Deborah John, PhD, MS[3], Alison Vaux-Bjerke, MPH, MCHES[4]

[1]The Pennsylvania State University, University Park, PA; [2]Arizona State University, Phoenix, AZ; [3]Oregon State University, College of Public Health and Human Sciences, Corvallis, OR; [4]U.S. Department of Health and Human Services, Fresno, CA

Physical activity has proven effective for improving a wide range of health outcomes. Older adults in particular can experience many benefits from a physically-active lifestyle, including reduced risk for falls and fall-related injuries, reduced risk of mild cognitive impairment or dementias, and improved quality of life (to name but a few key benefits). In 2018, the US Department of Health and Human Services issued the second edition of the Physical Activity Guidelines for Americans, including specific guidelines for older adults. These guidelines provide evidence-based guidance on the type, frequency, duration, and intensity of physical activity known to produce substantial health benefits. They have emerged as a critical resource for policy makers and health professionals alike. To address the needs of a rapidly-growing older adult population, the Office of Disease Prevention and Health Promotion convened a subcommittee (Science Board) of the President's Council on Sports, Fitness and Nutrition to review the literature and grade the evidence regarding strategies and policies for promoting physical activity among older adults. In this symposium, representatives of the Science Board will summarize key findings from their systematic review of the past decade of research on physical activity promotion with older adults. The first presentation will review the overall pattern of results from the review with particular attention to the modes of delivering interventions that have been most effective with older adults. The second presentation will review specific strategies and behavior change techniques that have been used more frequently in effective physical activity interventions. The third presentation will contextualize the Science Board's findings through a health equity lens. This presentation will highlight existing disparities in older adults' physical activity and describe how physical activity promotion can be a strategy for advancing health equity in late life. The discussant will address how these findings influenced the Office of Disease Prevention and Health Promotion's 2023 Midcourse Report on the Physical Activity Guidelines and provide a roadmap for translating the science of physical activity promotion into public health impact.

CORRESPONDING AUTHOR: David E. Conroy, PhD, FSBM, The Pennsylvania State University, University Park, PA; conroy@psu.edu

Abstract citation ID: kaad011.0259

1: OVERVIEW OF THE 2022 SCIENCE BOARD REVIEW AND THE IMPACT OF INTERVENTION MODE ON OLDER ADULTS' PHYSICAL ACTIVITY

David E. Conroy, PhD, FSBM[1], Susan Buchholz, PhD[2], Cheryl Der Anian, PhD[3], Loretta DiPietro, PhD, MPH[4], Mark Fenton, MS[5], Deborah John, PhD, MS[6], NiCole Keith, PhD[7], David X. Marquez, PhD, FSBM[8], Barbara Nicklas, PhD[9], Jacqueline Osborne, DPT[10], Dori Rosenberg, PhD, MPH, FSBM[11], Katrina Piercy, PhD[12], Alison Vaux-Bjerke, MPH, MCHES[13]

[1]The Pennsylvania State University, University Park, PA; [2]Michigan State University; [3]Arizona State University, Phoenix, AZ; [4]The George Washington University, Washington, DC, DC; [5]Tufts University; [6]Oregon State University, College of Public Health and Human Sciences, Corvallis, OR; [7]Indiana University-Purdue University, Indianapolis; [8]University of Illinois at Chicago, Chicago, IL; [9]Wake Forest School of Medicine; [10]Brooks Rehabilitation; [11]Kaiser Permanente; [12]Office of Disease Prevention & Health Promotion, US DHHS; [13]U.S. Department of Health and Human Services, Fresno, CA

The multi-system health benefits of physical activity for older adults were highlighted in the second edition of the Physical Activity Guidelines for Americans. Despite evidence that physical activity increases the lifespan and the healthspan, less than half of older adults report attaining the recommended level of physical activity in the Guidelines. The 2022 Science Board was charged with reviewing scientific evidence to determine “what works for promoting physical activity in older adults.” A systematic search of over 16,000 original titles/abstracts from 2012-2022 identified 47 eligible studies of individual interventions with a cumulative sample size of 24,750 older adults that reported randomized clinical trials evaluating interventions to increase individual physical activity. The most common outcomes in these trials were aerobic activity (72%) and total physical activity (68%); very few studies included outcomes for sedentary behavior (17%), muscle-strengthening exercise participation (7%), or multi-component exercise participation (4%). Participation in balance training was not an outcome in any studies. The vast majority of studies showed that interventions either increased physical activity (49%) or had no effect on physical activity (48%); few studies showed that interventions decreased physical activity (4%). One potential source of variability in intervention effects was the mode of intervention delivery (e.g., in person, phone, print, computer, video, social media). The mode of delivery directly impacts dissemination and implementation potential. The Board concluded that moderate evidence indicated that physical activity interventions delivered in person and by phone were effective with older adults, and that print interventions can be an effective complement to other modes but are unlikely to be effective when used in isolation. There was insufficient evidence to determine whether other modes were effective for promoting older adults’ physical activity. There was also insufficient evidence for drawing conclusions about the comparative effectiveness of different modes for promoting physical activity among older adults. Collectively, this review indicated that behavioral interventions can be used to increase older adults’ physical activity. Intervention effects are heterogeneous and one source of variability appears to be the mode of delivery. Key limitations and recommendations for future research will be discussed.

Abstract citation ID: kaad011.0260

2: BEHAVIOR CHANGE STRATEGIES FOR PROMOTING PHYSICAL ACTIVITY PARTICIPATION IN OLDER ADULTS: A SYSTEMATIC REVIEW OF THE LITERATURE

Cheryl Der Anian, PhD[1], Susan Buchholz, PhD[2], David E. Conroy, PhD, FSBM[3], Loretta DiPietro, PhD, MPH[4], Mark Fenton, MS[5], Deborah John, PhD, MS[6], NiCole Keith, PhD[7], David X. Marquez, PhD, FSBM[8], Barbara Nicklas, PhD[9], Jacqueline Osborne, DPT[10], Dori Rosenberg, PhD, MPH, FSBM[11], Katrina Piercy, PhD[12], Alison Vaux-Bjerke, MPH, MCHES[13]

[1]Arizona State University, Phoenix, AZ; [2]Michigan State University; [3]The Pennsylvania State University, University Park, PA; [4]The George Washington University, Washington, DC, DC; [5]Tufts University; [6]Oregon State University, College of Public Health and Human Sciences, Corvallis, OR; [7]Indiana University-Purdue University, Indianapolis; [8]University of Illinois at Chicago, Chicago, IL; [9]Wake Forest School of Medicine; [10]Brooks Rehabilitation; [11]Kaiser Permanente; [12]Office of Disease Prevention & Health Promotion, US DHHS; [13]U.S. Department of Health and Human Services, Fresno, CA

The health benefits of regular participation in physical activity (PA) among older adults are well-established. Yet, few older adults meet the Physical Activity Guidelines for Americans (2nd edition). Therefore, a subcommittee (Science Board) of the President’s Council on Sports, Fitness & Nutrition convened by the Office of Disease Prevention and Health Promotion reviewed the literature to examine which intervention and behavior change strategies help to promote PA among older adults. A systematic review of original, peer reviewed PA research was conducted using established, best practice guidelines. English language studies, published between 2012-2022, that used a randomized controlled trial design with at least 50 participants per group, measured PA as an outcome, and had a mean age of at least 65 were included. Studies that focused on older adults in long-term care, memory or hospice facilities or on disease specific therapeutic exercise delivered in medical facilities were excluded. Results: The literature review yielded 47 eligible papers with a total sample across papers of 24,750 older adults. The majority of the interventions used a combination of individual-level, cognitive-behavioral strategies such as increased PA knowledge, goal-setting, self-monitoring of PA behavior, barrier identification, and problem solving. Goal setting was reported in 21 studies, of which 89.5% (19) demonstrated an increase in PA. Self-monitoring of PA was reported in 16 studies, of which 87.5% (14) demonstrated an increase in PA. Self-monitoring was combined with goal-setting in 13 studies. Similarly, intervention studies using barrier identification (n=9) and problem solving (n=8) typically used them in combination (n=7). Nearly 88% of these studies demonstrated increased PA. Increasing social support, (apart from PA counseling) was reported in 7 studies, all of which demonstrated an improvement in PA. Only 3 studies implemented strategies focused on institutional or community-level change. Intervention strategies associated with an increase in PA included PA counseling or advice (15 of 22 studies), individually tailored PA programs (15 of 23 studies), structured exercise programs (20 of 26 studies), lifestyle PA approaches (15 of 17 studies), and the use of PA monitoring devices (10 of 10 studies). While the findings generally supported the use of individual-level behavior change strategies and approaches, it was not possible to determine which intervention components promoted changes in PA. Future research should focus on clear identification of the intervention strategies and behavior change techniques used to promote physical activity participation, adequate description of the intended and received dose of the intervention, and examine mediators and moderators of intervention outcomes.

Abstract citation ID: kaad011.0261

3: BEHAVIORAL EQUITY CONSIDERATIONS WHEN STUDYING AND PROMOTING PHYSICALLY ACTIVE AGING IN AMERICA

Deborah John, PhD, MS[1], Loretta DiPietro, PhD, MPH[2], Mark Fenton, MS[3]

[1]Oregon State University, College of Public Health and Human Sciences, Corvallis, OR; [2]The George Washington University, Washington, DC, DC; [3]Tufts University

Important for population health and equity are understanding socio-environmental determinants that provide people the needed resources and options in the places where they live and age to initiate and maintain healthy lifestyle behaviors, including physical activity. Changes to policy, systems, and environments (PSE), represent "upstream" strategies that work at multiple levels to change the behavioral context. PSE strategies aim to expose whole or subpopulations, and/or target strategies to reach priority subgroups to address inequalities in physical activity opportunities and outcomes.

A systematic review undertaken to determine effective PSE strategies to increase physical activity among older Americans yielded only 18 studies conducted in the United States. Sixteen studies examined predominantly urban/suburban settings, the environmental contexts to which study populations were exposed, and two compared urban/rural geographies, with total reach of 113,204 study participants. Study design, sampling criteria, and methods contributed to inequities in who did and did not have access or opportunity to participate in research, which influenced who included and excluded in the limited body of_evidence. Four studies assessed neighborhood exposures on physical activity using data from large women-only cohort samples who were predominantly white and educated. Two studies involved predominantly Black residents in low-income neighborhoods and one study targeted exclusively Asian subgroups within one state, limiting racial diversity represented in results. Socio-environmental inequities emerged as physical activity resource availability and access, which differed in lower vs. higher income and rural vs. urban residential communities, and explained physical activity disparities in older adults living in those communities, respectively. Lastly, disparities emerged in how studies defined "older" adults that could serve to reinforce ageism in the body of evidence. Specifically, sampling criteria varied by minimum age, by within-group age ranges for analyses, and even subjectively categorized adults as "older" or "senior" based on observations of physical appearance (e.g. child, teen, adult, senior).

We determined the evidence insufficient to suggest that changing the community context contributes directly to changes in older adults' physical activity. Identified limitations and directions for future research will be presented through a health equity lens.

Thursday
April 27th, 2023
11:00 AM – 11:50 AM
Poster Session B

Abstract citation ID: kaad011.0262

POSTER SESSION B: PULMONARY FUNCTION AND TRAJECTORIES OF COGNITIVE DECLINE IN AGING POPULATION

Albert J. Ksinan, PhD[1], Andrea Dalecká, PhD[1], Tatyana V. Sarycheva, PhD[1], Martin Bobák, PhD[1], Hynek Pikhart, PhD[1]

[1]Masaryk University, Brno, Jihomoravsky kraj, Czech Republic

Introduction: The number of older people with cognitive impairment is estimated to triple by 2050, posing a high socioeconomic burden worldwide. Cognitive health is among the major factors relevant to preserving the quality of life as it allows older people to maintain sense of purpose and ability to live independently.

According to some previous research, impaired lung function might be associated with cognitive decline in older age. However, most of the previous epidemiological studies relied on a cross-sectional design that does not allow for observing the dynamic nature of cognitive aging. To address these gaps, we used data from the Survey of Health, Ageing and Retirement in Europe (SHARE), which provides an opportunity for examining the longitudinal associations between baseline pulmonary function and the trajectories of cognitive functions among older adults from 14 European countries, spanning 14 years.

Methods: The analytic sample included $N = 32,111$ older adults (M age = 65.23 years at baseline). The cognitive functions were measured repeatedly across six waves in three domains: verbal fluency, episodic memory, and numeracy. The main outcome was modeled as a latent factor with the cognitive measures as indicators. Our main predictor of interest was peak expiratory flow (PEF), measured by spirometry. All analyses were adjusted for age, sex, alcohol use, smoking status, BMI, education level, and history of cardiovascular disease. These covariates were measured at baseline (Wave 1). The data were analyzed in a three-level accelerated longitudinal design structured on individual ages. Separate models were also estimated for each indicator of cognitive function.

Results: The results showed that cognitive ability declined linearly with age ($B = -0.09$ per year, $p < .001$), and this was also found for each cognitive measure. PEF was positively associated with baseline cognitive ability above and beyond other covariates ($B = 0.97$ per quartile, $p < .001$), and this association was confirmed for each cognitive function. The cognitive decline was steeper for females ($B = -0.03$, $p < .001$), smokers ($B = -0.04$, p < .001), and older people (B =-0.01 per year, $p < .001$), yet no other covariate significantly affected the rate of decline.

Conclusion: Impaired lung function was found to be an independent predictor of cognitive ability, and this was found regardless of the type of cognitive function. The results highlight the importance of maintaining a healthy pulmonary system to reverse or halt the cognitive decline in the aging population and the suitability of spirometry for assessing the risk of cognitive decline.

CORRESPONDING AUTHOR: Albert J. Ksinan, PhD, Masaryk University, Brno, Jihomoravsky kraj, Czech Republic; albert.ksinan@recetox.muni.cz

Abstract citation ID: kaad011.0263

POSTER SESSION B: PHYSICAL ACTIVITY AND SPATIAL USAGE OF OLDER ADULTS IN THE COMMUNITY IN TAIWAN: A SURVEILLANCE IN TAINAN CITY

CHIH-LIANG WANG, Master[1], Ching-Ju Chiu[2], Pei Fen Kuo, PhD[3], I Gede Brawiswa Putra, Master[3]

[1]National Cheng Kung University, Tainan, Tainan, Taiwan (Republic of China); [2]Institute of Gerontology, College of Medicine, National Cheng Kung University, Tainan, Tainan, Taiwan (Republic of China); [3]National Cheng Kung University, Tainan City, Tainan, Taiwan (Republic of China)

Background: Point of Interest (POI) and its linked behavior in the objective measurement of lifestyle in older adults living in the Tainan community is void in the literature.

Objective: To find older adults' POIs from GPS trajectories and match the behavior in both time and space by wrist accelerometers and diary for clarifying the behavioral and environmental influence to the lifestyle of older adults in the community by sociodemographic character.

Method: This is a cross-sectional study. 254 over-50-year older adults who own smartphones and live in southern Taiwan were interviewed. We utilized wrist accelerometers to detect behavioral physical activity, app in a smartphone to receive GPS data, questionnaires to assess psychological and social status, and a diary to record sleep time and activity categories. The process took 7 days for each participant, The GPS data contained at least 20 minutes in each hour from 8 Am to 5 PM on the same day is considered valid as a person-day; the criteria of actigraphy data is more than 5 days of wearing time.

Finding: 31 cases and 103 person-day are qualified for temporal and spatial analysis in both actigraphy and GPS data. The preliminary finding of two participants (2 women) shows that participants above 60 years old have large discrepancies in comparison with participants in their 50s: lower sleep efficiency (90 vs. 63), lower Middle to Vigorous physical activity time (181 vs. 127), lower Interdaily Stability (0.75 vs. 0.64), and less GPS hotspot point (48 vs.12). Additionally, from the aspect of Point of Interest (POI) and behavior, participants above 60 years old present visiting medicine service place more frequently (7 times in 6 days vs. 5 times in 8 days), less shopping behavior (7 times in 6 days vs. 0 times in 8 days), and less social activities (10 times in 6 days vs. 2 times in 8 days).

Conclusion: Age seems to be a significant factor in determining POI categories and linked behavior in older adult lifestyles. Other sociodemographic parameters will be further analyzed.

CORRESPONDING AUTHOR: CHIH-LIANG WANG, Master, National Cheng Kung University, Tainan, Tainan, Taiwan (Republic of China); firefawkes3@gmail.com

Abstract citation ID: kaad011.0264

POSTER SESSION B: INFLUENCE OF COGNITIVE IMPAIRMENT ON DEPRESSIVE SYMPTOMS, FUNCTION, AND PAIN AMONG HOSPITALIZED OLDER PATIENTS WITH DEMENTIA

Anju Paudel, PhD, MGS, RN[1]

[1]Penn State Ross and Carol Nese College of Nursing, University Park, PA

Background: There is some association between cognitive impairment and important clinical outcomes such as depressive symptoms, functional status, and pain among older adults. However, information on the direct influence of cognitive impairment on these important clinical outcomes among hospitalized older adults with dementia is limited.

Purpose: The purpose of this study was to examine the impact of cognition on depressive symptoms, function, and pain among hospitalized older patients with dementia.

Methods: We utilized baseline data of 461 hospitalized older patients with dementia who participated in the randomized controlled trial implementing Family centered Function-focused Care (Fam-FFC). Stepwise linear regression was conducted with a step method of entry-level probability of F set at P=.05 and removal level at P=.10 for the predictor (cognition) and covariates (patient's age, race, gender, and comorbidities).

Results: On average, the participants (males=189; 41% and females=272; 59%) were 81.64 years old (Standard Deviation, SD = 8.38). There was statistically significant influence of cognition on each depressive symptoms (b=-0.184, p< .001), functional status (b=1.324, p< .001), and pain (b=-0.045, p< .001) when controlling for covariates.

Conclusion and Implication: This study utilized a large sample of a relatively underrepresented population, hospitalized older adults with dementia, and addressed a topic with great clinical significance. Results suggest that cognitive impairment significantly impacts important clinical outcomes— depressive symptoms, function, and pain. Thus, specific focus on testing and implementing best practices or interventions (e.g., physical activity/exercise and cognitive stimulation) to support cognitive function of older adults, especially hospitalized older adults with dementia is warranted in both practice and research.

CORRESPONDING AUTHOR: Anju Paudel, PhD, MGS, RN, Penn State Ross and Carol Nese College of Nursing, University Park, PA; aqp6003@psu.edu

Abstract citation ID: kaad011.0265

POSTER SESSION B: PHYSICIANS' PERSPECTIVES ON THE ROLE OF TELEMEDICINE IN THE DELIVERY OF PALLIATIVE CARE DURING THE COVID-19 PANDEMIC

Laura Quintero Silva, MS[1], Julie Bobitt, PhD[2], Andiara Schwingel, PhD[1], Minakshi Raj, PhD, MPH[1]

[1]University of Illinois Urbana Champaign, Champaign, IL; [2]University of Illinois at Chicago, Chicago, IL

Background: Covid-19-related measures have significantly altered the provision of palliative and end-of-life care by limiting in-person interactions and challenging the implementation of the traditional health care models. Telehealth has become an essential tool in delivering care, particularly in allowing patients to connect with their families and healthcare providers during the pandemic while slowing the spread of the virus. Although the adoption of telehealth during the pandemic has been examined in other healthcare contexts, limited research has studied the role of telehealth in the delivery of palliative care under Covid-19-related measures. This study examined US physicians' perspectives on the role of telehealth in the evolving delivery of palliative care throughout the Covid-19 pandemic.

Methods: We interviewed 29 palliative medicine and geriatrics specialists between April 2021 and March 2022 via Zoom. We asked physicians about their experiences providing palliative care during the Covid-19 pandemic, including the advantages and challenges of implementing telehealth in the palliative care context. Interviews were transcribed verbatim, and reflective thematic analysis guided the data analysis.

Results: Providing palliative care through telehealth during the pandemic allowed physicians to offer timely care and include other individuals involved in the care process since patients and families could easily attend virtual consults from different locations. However, telehealth options are often not user-friendly for older adults, generating dependency on family members and difficulties in using and accessing palliative care through technology for this population. Implementing telehealth to deliver palliative care was exhausting for physicians during the first stages of the pandemic, given the effort to make up for the in-person interaction.

Conclusions: Although telehealth became a vital care resource for delivering palliative care during the Covid-19 pandemic, some barriers limited the use and access to palliative care, particularly for older adults. The increased use of telehealth in palliative and end-of-life care during the pandemic generated a burden of exhaustion for physicians who had to adjust traditional face-to-face healthcare practices to virtual environments, highlighting the need for innovative palliative care guidelines that address the implementation of virtual models of care delivery for future pandemics.

CORRESPONDING AUTHOR: Laura Quintero Silva, MS, University of Illinois Urbana Champaign, Champaign, IL; lmq2@illinois.edu

---

Abstract citation ID: kaad011.0266

POSTER SESSION B: DYADIC INVESTIGATION OF POST-TRAUMATIC STRESS SYMPTOMS AND DAILY SLEEP HEALTH IN CANCER PATIENTS AND THEIR CAREGIVERS

Thomas C. Tsai, BS[1], Amanda Ting, PhD[2], Nirvi B. Ajmera, BS[1], Youngmee Kim, PhD[3]

[1]University of Miami, Miami, FL; [2]Palo Alto VA, Palo Alto, CA; [3]University of Miami, Coral Gables, FL

Cancer is a stressful and potentially traumatic experience for the patients and their caregivers. Poor sleep among persons affected by cancer may be due in part to the psychological tolls of cancer-related post-traumatic stress symptoms (PTSS). Less known is the degree to which cancer-related PTSS associates with one's own and their partner's sleep, which this study examined.

Patients newly diagnosed with colorectal cancer (*N*=118, 56.6 years old, 33.9% female) and their sleep-partner caregivers (55.1 years old) completed measures on four clusters of PTSS [intrusion, avoidance, alterations in arousal and reactivity (AAR), and negative alterations in cognitions and mood (NACM)]. Participants also completed the Consensus Sleep Diary for 14 consecutive days, from which sleep duration (SD), sleep onset latency (SOL), wake after sleep onset (WASO), and sleep efficiency (SE) were derived. Age, gender, diagnosis of psychiatric disorder, general distress, and patients' cancer stage were covariates.

Both patients and caregivers reported mild PTSS, normative SD and WASO, and suboptimal SOL (24.7 min and 25.1 min, respectively) and SE (83.0% and 83.7%, respectively). Actor-partner interdependence modeling indicated that patients' longer SD was predicted by their own higher intrusion and lower AAR ($b \geq -.59$, $p \leq .039$), while caregivers' longer SD was predicted by their patients' higher intrusion ($b=.55$, $p=.023$). Patients' longer SOL was predicted by their own higher NACM and their caregivers' higher AAR ($b \geq 8.10$, $p \leq .024$), while caregivers' longer SOL was predicted by their own lower intrusion and higher AAR ($b \geq -11.00$, $p \leq .003$). Patients' longer WASO was predicted by their own higher NACM ($b=10.30$, $p=.042$), while caregivers' longer WASO was predicted by their own higher AAR and their patients' higher NACM ($b \geq 7.90$, $p \leq .036$). Finally, patients' poorer SE was predicted by their own lower avoidance and their caregivers' higher NACM ($|b| \geq .03$, $p \leq .047$), while caregivers' poorer SE was predicted by their own higher AAR and their patients' higher NACM ($b=-.05$, $p \leq .014$).

Findings revealed the unique individual and dyadic roles of PTSS clusters in various sleep health indicators, with a focus on the adverse effects of AAR and NACM. Investigation of psychobiological pathways linking cancer-related PTSS to sleep health is warranted. Dyadic sleep interventions tailored to address cancer-specific stress in the interpersonal context may improve the sleep health of both patients and caregivers.

CORRESPONDING AUTHOR: Thomas C. Tsai, BS, University of Miami, Miami, FL; ttsai@miami.edu

Abstract citation ID: kaad011.0267

POSTER SESSION B: IMPLEMENTATION MAPPING: A TOOL TO SUPPORT THE CLINICAL MANAGEMENT OF PATIENTS AT HIGH RISK OF INHERITED CANCERS

Caitlin Allen, PhD, MPH[1], Kevin Hughes, MD[1], Colleen Donahue, MD[1], Abbie Boisvert, BS[1], Kiersten Meeder, MPH[1]

[1]Medical University of South Carolina, Charleston, SC

Background: Individuals with pathogenic variants in cancer genes are at high-risk of developing advanced cancer or dying from cancer unless they undergo intensive screening and prevention based on guidelines. We use the five-step implementation mapping (IM) process to support a newly created Hereditary Cancer Clinic (HCC), a patient-centered integrated care model for the management of individuals and families with cancer genetic mutations.

Methods: As the first step in the IM process, we used CFIR to conduct a needs assessment with the implementation team, specialist stakeholders, and patients. Interviews were audio-recorded and transcribed, with codes developed by the study team based on a semi-structured interview guide.

Findings: The implementation team (n=7) and specialists (n=23) described the HCC as a necessary service for properly managing patients. The implementation climate for the HCC was high (receptivity), with facilitators including leadership engagement. The greatest motivators for specialists to participate in the clinical offering was to support patient needs and resources and high tension for change. Specialists stated that centralizing management of individuals through the HCC would enhance responsiveness to patients needs and streamline clinical workflows, as well as increase confidence among providers who are less familiar with genetics. High-risk patients (n=12) described the HCC as a "one stop shop" and opportunity for centralizing services and management compared to current standard (relative advantage).

Conclusion: With the completion of Step 1 in the IM process, we identified barriers and facilitators to clinical expansion. Steps 2-5 of IM are underway to match implementation strategies to address Step 1 findings, produce implementation protocols, and develop an evaluation plan to guide implementation of the HCC. By leveraging this unique clinical program, we demonstrated the utility of applying implementation science frameworks in clinical care settings and build evidence for use of IM to support precision medicine initiatives.

CORRESPONDING AUTHOR: Caitlin Allen, PhD, MPH, Medical University of South Carolina, Charleston, SC; caa224@musc.edu

---

Abstract citation ID: kaad011.0268

POSTER SESSION B: CARE ACCESS AND SUPPORT BARRIERS FOR EMOTIONAL AND MENTAL HEALTH CONCERNS AMONG INDIVIDUALS WITH CANCER

Melissa F. Miller, PhD, MPH[1], Kimberly P. Rogers, PhD[1], Kara Doughtie, MPH[1], Allison J. Applebaum, PhD[2], Elizabeth Archer-Nanda, DNP, APRN, PMHCNS-BC[3], Terry Evans, BS[4], Heather H. Goltz, PhD, LCSW, MEd, MPH[5], Nicole Peeke, LCSW[6], Alexandra K. Zaleta, PhD[1]

[1]Cancer Support Community, Philadelphia, PA; [2]Memorial Sloan Kettering Cancer Center, New York, NY; [3]Norton Cancer Institute, Louisville, KY; [4]CLL Society Support Network, Chula Vista, CA; [5]Prairie View A&M University, Prairie View, TX; [6]City of Hope, Duarte, CA

Background: Innovations in technology and biomedical treatment are transforming cancer care, yet many patients lack access to quality mental and behavioral health care. Cancer patients face substantial barriers to accessing care for emotional and mental health concerns due to practical barriers and shortages of qualified mental health providers, which have been exacerbated during pandemic conditions.

Methods: Cancer patients (N=658) who enrolled in the online Cancer Experience Registry completed a survey to assess mental health care access and barriers (Barriers to Access to Care Evaluation; Patient Satisfaction Questionnaire Short Form). Eligibility: 18+ years and reporting post-diagnosis emotional/mental health concerns. Frequencies and Cohen's *d* were calculated.

Results: The sample was 85% Non-Hispanic White, 77% women. Participants varied in age (mean=60 years; range: 22-85), time since diagnosis (median=4 years, range: < 1-49), and socioeconomic status (22% household income < $40K). The most common primary cancer diagnoses were breast (33%), colorectal (16%), and blood (13%); 16% reported metastatic disease, 60% remission. 67% experienced emotional/mental health concerns during treatment, 65% waiting for test results, 61% at initial diagnosis, 53% after treatment, 49% before treatment, 44% before screening test/scan, 41% while making treatment decisions, and 36% before follow-up exams. Among those with recurrence (n=178), 65% reported concerns when their cancer recurred; among those with metastatic disease (n=107), 51% when their cancer advanced. 53% sought/wanted professional care for emotional/mental health concerns since their diagnosis. However, health care experiences varied: only 33% indicated receiving professional mental health care referrals from their cancer care team, and 39% of those who sought/wanted care were unable to access care. Perceived barriers were significantly greater among those who did not access care, particularly attitudinal (d=0.62, p< .001; e.g., thinking the problem would get better by itself) and accessibility/convenience (d=0.62, p< .001; e.g., wait times). 55% were unsure where to get professional care; 30% did not feel they could afford care. 77% who sought care waited >1 week; 31% >2 weeks; 12% >4 weeks. 31% of those who accessed care used telehealth services; 19% travelled >1 hour roundtrip to access in-person care.

Conclusion: Our findings demonstrate the frequently unmet emotional/mental health needs of cancer patients across the care continuum. Care access barriers go beyond basic availability of services to include proximity, cost, and long waiting times. Telehealth, digital apps, and collaborative care models may improve awareness, convenience, and access to treatment. The results also underscore the importance of whole-person cancer care including integrated emotional/mental health screening and follow-up.

CORRESPONDING AUTHOR: Melissa F. Miller, PhD, MPH, Cancer Support Community, Philadelphia, PA; melissa@cancersupportcommunity.org

Abstract citation ID: kaad011.0269

POSTER SESSION B: DIFFERENCES IN CULTURAL FACTORS BETWEEN AFRICAN AMERICAN AND NON-HISPANIC WHITE PROSTATE CANCER SURVIVORS

Lisa M. Gudenkauf, PhD[1], Wenyi Fan, MSPH[1], Endrina Salas, MS[1], Kellie Zambrano, BS[1], Crystal A. Bryant, MPH[1], Yvelise Rodriguez, MS[1], Brent J. Small, PhD[2], Frank J. Penedo, PhD, FSBM[3], Jong Y. Park, PhD[1], Kosj Yamoah, MD, PhD[1], Heather S. Jim, PhD, FSBM[1], Clement K. Gwede, PhD, MPH, RN, FSBM[1], Brian D. Gonzalez, PhD[1]

[1]Moffitt Cancer Center, Tampa, FL; [2]University South Florida, Tampa, FL; [3]University of Miami, Miami, FL

Background: Racial/ethnic minority prostate cancer (PC) survivors experience worse clinical and patient-reported outcomes (PROs) than non-Hispanic white (NHW) survivors. Differences in history of perceived racial discrimination and sociocultural factors have previously been reported as correlates of clinical outcomes and PROs. However, group differences on these factors among PC survivors remains understudied. We sought to examine racial/ethnic differences in perceived racial discrimination and sociocultural factors in a large sample of African American (AA) and NHW PC survivors.

Methods: AA and NHW PC survivors were recruited from patients previously enrolled in a biobanking study or previously treated at Moffitt Cancer Center or University of Miami Sylvester Comprehensive Cancer Center. Eligible participants were $\geq$ 20 years old with biopsy confirmed primary PC diagnosed between 2013-2018. Participants completed PRO measures of perceived racial discrimination and sociocultural factors, such as church participation and religious beliefs, cancer fatalism, and medical mistrust. Differences between racial/ethnic groups were tested with Welch two sample t-tests.

Results: Compared to NHW survivors (n=228), AA survivors (n=256) were younger (M=70, SD=8 vs. M=72, SD=8; $p < .05$). AAs were more likely to be currently employed (32% vs. 20%) and less likely to be retired (58% vs. 78%). AAs were less likely to be married (69% vs. 80%), to have completed some college (73% vs. 88%), and to report household income >$50,000 (58% vs. 79%) ($p$s < .05). Compared to NHWs, AA survivors reported higher levels of discrimination ($p < .001$), religious behavior, religious beliefs, and fatalism (ps < .01). AAs reported less mistrust in medical professionals than NHWs (p=.006). Controlling for age, marital status, and education, racial/ethnic differences in religious behavior and beliefs, discrimination, and medical mistrust remained ($p < .05$).

Conclusion: Consistent with the broader cancer survivor population, AA PC survivors were younger and more socioeconomically disadvantaged than NHWs. AAs reported more history of perceived discrimination. AAs also reported higher levels of religious behavior, religious beliefs, and cancer fatalism. Lower medical mistrust was reported among AAs relative to NHWs, contrary to expectations. Future research should further test these relationships and determine the impacts of these factors on cancer-related coping, PC clinical outcomes, and other PROs.

CORRESPONDING AUTHOR: Lisa M. Gudenkauf, PhD, Moffitt Cancer Center, Tampa, FL; lisa.gudenkauf@moffitt.org

---

Abstract citation ID: kaad011.0270

POSTER SESSION B: PSYCHOSOCIAL AND SUPPORTIVE CARE CONCERNS IN YOUNG WOMEN WITH ADVANCED BREAST CANCER

Shoshana Rosenberg, ScD, MPH[1], Kate Dibble, PhD[2], Yue Zheng, MSc[2], Tal Sella, MD[2], Philip Poorvu, MD[2], Craig Snow, MHA[2], Jennifer Mack, MD, MPH[2], Ann H. Partridge, MD, MPH[2]

[1]Weill Cornell Medicine, New York, NY; [2]Dana-Farber Cancer Institute, Boston, MA

Background: Breast cancer is the most common cancer and the leading cause of cancer-related death among young women in the United States. However, under current treatment paradigms, many young women with advanced breast cancer live for years, enduring a high physical and psychosocial burden compounded by a disrupted life trajectory. To understand and address unmet care needs, we sought to characterize psychosocial and supportive care concerns in this population.

Methods: Beginning in September 2020, we invited young women diagnosed with stage 4 (de novo or recurrence of early stage) breast cancer and receiving care at Dana-Farber Cancer Institute to enroll to the Young, Empowered, and Strong (YES) study (NCT04379414). Participants complete a baseline survey and then receive access to the YES web-based portal designed to help self-monitor breast cancer-related symptoms/concerns and provide self-management resources. Descriptive statistics were used to characterize the study population and summarize the degree of potential salient concerns at enrollment including cancer progression, side effects, lifestyle factors, finances, fertility, social support, and familial cancer risk.

Results: Among 69 participants enrolled through August 2022, median age at advanced breast cancer diagnosis was 37 (range: 26-45) years; median time living with advanced breast cancer was 7 (range: 0.6-96) months. 96% (66/69) women completed a baseline survey: 88% were white, 3% Black, 6% Asian, and 6% Latina. Most (74%) were married/partnered; 47% were not currently working. 38% reported that their diagnosis caused at least some financial problems. Almost all women (94%) were somewhat or very concerned about their cancer worsening. Other common concerns (rated somewhat or very concerning) included the potential long-term impact of cancer on health (68%), treatment side effects (70%), how to check for signs of worsening breast cancer (61%), nutrition/diet (53%), exercise (59%), and finances (41%). One-third indicated they were somewhat or very concerned about body image and familial risk and approximately 1/4 were similarly concerned about future fertility.

Conclusion: Young women living with advanced breast cancer express a high level of concern about their care including psychosocial, health behavior, and cancer management issues. Ensuring optimal communication around care and prognosis is critical. Future follow-up will inform the efficacy of the YES intervention to help address these issues as well as to mitigate breast cancer-related symptoms in this patient cohort.

CORRESPONDING AUTHOR: Shoshana Rosenberg, ScD, MPH, Weill Cornell Medicine, New York, NY; shr4009@med.cornell.edu

Abstract citation ID: kaad011.0271

POSTER SESSION B: DEVELOPMENT OF PROVIDER-FOCUSED, THEORY-BASED TRAINING MATERIALS FOR EFFECTIVE HPV VACCINE RECOMMENDATIONS TO YOUNG ADULTS

Coralia Vazquez-Otero, PhD, JD, MPH[1], Mariana Arevalo, PhD, MSPH[2], Melody N. Chavez, MPH[3], Melinda L. Maconi, PhD[4], Carley Geiss, PhD[2], Veronica Barrios-Monroy, BA[2], Alissa Pena, BA[5], Joyce Cui, BS[6], Junmin Whiting, PhD[7], Susan T. Vadaparampil, PhD, MPH[2], Shannon M. Christy, PhD[2]

[1]University of Texas at San Antonio, San Antonio, TX; [2]Moffitt Cancer Center, Tampa, FL; [3]University of South Florida, Tampa, FL; [4]Moffitt Cancer Center, St. Petersburg, FL; [5]Moffitt Cancer Center, Zephyrhills, FL; [6]USF Morsani School of MEdicine, Tampa, FL; [7]Moffitt Cancer Center, Wesley Chapel, FL

Background: Despite the effectiveness of the human papillomavirus (HPV) vaccine, uptake and completion rates remain low among young adults (ages 18-26 years) in the United States (U.S.). Provider recommendation is the most influential factor in HPV vaccine acceptance. Evidence-based strategies for providers are needed to facilitate HPV vaccine recommendations to young adults. The goal of the current project was to develop provider training materials informed by Health Belief Model (HBM) and Theory of Planned Behavior (TPB) to foster effective HPV vaccination recommendations to patients ages 18-26.

Methods: Healthcare providers (n=11) (e.g., physicians, nurses) from primary care, family medicine, and/or OB/GYN clinics completed a semi-structured interview. Participants were shown HBM and TPB-informed training materials (e.g., presentation slides with HPV and HPV vaccine information) and provided feedback on the content, depth, layout, and format. Data were analyzed in NVivo using applied thematic techniques.

Results: Most participants identified as female (73%), White (73%), and non-Hispanic (91%). About 36% of the sample were family physicians and 27% were nurse practitioners. Common roles included prescribing and answering questions about vaccines. Overall, providers liked the materials. Participants suggested the content could be expanded to include more data about HPV, vaccine success, and approaches to: 1) reaching underserved groups, including the LGBTQ community, 2) changing views about the HPV vaccine being only for females, and 3) overcoming vaccine hesitancy. Providers appreciated the emphasis on cancer prevention, and had minor concerns about the format (e.g., font). However, they were not as interested in the 'role-playing' section of the training, and there was some confusion regarding the vaccine needs of the different age groups. Other suggested changes included specific stock photos used and reducing wordiness on some slides.

Conclusion: Providers' feedback on the training materials was favorable. Their insights facilitated the adaptation of materials, mainly in the areas of content, clarity, images, layout, and linguistics. Materials are being revised and additional providers will be interviewed for feedback. Findings will inform the development of provider-focused educational materials for a multi-level intervention to promote HPV vaccination among young adults.

CORRESPONDING AUTHOR: Coralia Vazquez-Otero, PhD, JD, MPH, University of Texas at San Antonio, San Antonio, TX; coralia.vazquez-otero@utsa.edu

---

Abstract citation ID: kaad011.0272

POSTER SESSION B: DISPARITIES IN TELEMEDICINE UTILIZATION AMONG ONCOLOGY PATIENTS DURING COVID-19

Jean M. Reading, PhD[1], Jingzhi Yu[2], Sam L. Battalio, MS[2], Donald Hedeker, PhD[3], Bonnie Spring, PhD, FSBM[4]

[1]Northwestern University Feinberg School of Medicine, Chicago, IL; [2]Northwestern University, Chicago, IL; [3]University of Chicago, Chicago, IL; [4]Northwestern University Feinberg School of Medicine, CHICAGO, IL

Objective: Telemedicine rapidly expanded during the COVID-19 pandemic, yet evidence is mixed on whether telemedicine enhances or worsens disparities in cancer care access/utilization. Some evidence shows an increase in telemedicine access among historically marginalized populations. At the same time, data also show a lower likelihood of telemedicine utilization among racial/ethnic minority patients with cancer. Therefore, this study sought to characterize telemedicine utilization in oncology as a function of race/ethnicity, insurance status, and residential neighborhood deprivation.

Methods: Patient data were extracted from Northwestern Medicine's cancer clinics in the greater Chicago area between 2020-2022. Patients were included if they were: 18 years or older; had at least two oncology diagnosis-related encounters; and lived less than 250 miles from clinic. Logistic regression analyses, controlling for age, estimated the odds of using tele-oncology services for Asian, Black, and Hispanic patients compared to non-Hispanic White (NHW) patients. Insurance status, days in the health system, distance to clinic, and neighborhood-level socioeconomic status (area deprivation index [API]) were included to examine interactions by race/ethnicity.

Results: The sample of 63,250 patients was 7% Asian, 4% Black, 9% Hispanic, and 81% White. Black patients with Medicare (OR: 1.14; CI: 1.01-1.28) or living in areas with higher neighborhood deprivation (OR: 1.08; CI: 1.05-1.11) were more likely to utilize tele-oncology services compared to NHW patients. Black patients with greater number of days in the health system were less likely to utilize tele-oncology services compared to NHW (OR: 0.99; CI: 0.99-1.00). Hispanic patients with Medicaid were less likely to utilize tele-oncology services compared to NHW (OR: 0.61; CI 0.49-0.77). Black patients with greater distance to clinic were less likely to use tele-oncology service compared to NHW patients (OR: 0.92; CI: 0.89-0.96).

Discussion: Our findings suggest telemedicine might enhance access to oncology services for minoritized patients living in areas with high neighborhood deprivation. The likelihood of telemedicine utilization was complex and differed by various factors including insurance status, distance to clinic, and number of days in a health system. Further investigation of patient and provider experience with telemedicine in oncology is warranted, specifically for minoritized patients with limited access to cancer care.

CORRESPONDING AUTHOR: Jean M. Reading, PhD, Northwestern University Feinberg School of Medicine, Chicago, IL; jean.reading@northwestern.edu

Abstract citation ID: kaad011.0273

POSTER SESSION B: PROSPECTIVE CHANGES IN PRIMARY CARE PATIENTS' FAMILY COMMUNICATION AFTER SKIN CANCER GENETIC TEST OFFER

Caroline Salafia, MA[1], Smita Banerjee, PhD, MS, BS[2], Elizabeth A. Schofield, MPH[3], David B. Buller, PhD, FSBM[4], Keith Hunley, PhD[5], Andrew Sussman, PhD[6], Dolores D. Guest, PhD, RD[7], Kimberly A. Kaphingst, ScD[8], Jennifer L. Hay, PhD, FSBM[9]

[1]University of Connecticut, Cromwell, CT; [2]Memorial Sloan Kettering Cancer Center, Bedford, NY; [3]Memorial Sloan-Kettering Cancer Center, New York, NY; [4]Klein Buendel, Inc., Golden, CO; [5]University of New Mexico, Albuquerque, NM; [6]University of New Mexico Comprehensive Cancer Center, ALBUQUERQUE, NM; [7]University of New Mexico Comprehensive Cancer Center, Albuquerque, NM; [8]University of Utah, Salt Lake City, UT; [9]Memorial Sloan Kettering Cancer Center, Brooklyn, NY

Melanoma is a serious, preventable form of skin cancer. Genetic testing for skin cancer risk may help increase awareness. We examined how an offer for testing for the melanocortin-1 receptor gene (MC1R) may have enhanced communication surrounding skin cancer within families, given the central role of family communication in risk awareness. Within a New Mexico study that randomized primary care patients (N = 600, 48% Hispanic) to *MC1R* test invitation or usual care, we examined frequency, targets (which family member), and topics of family communication around skin cancer at a 3-month follow-up (Aim 1). Frequency and targets were assessed on 4-point scales ("not at all" to "a lot"), asking participants how often they talked with family and with each target. Topics were assessed by asking participants whether they discussed a series of topics with family. We then assessed the impact of usual care, genetic test refusal, and test results (average or higher risk feedback) on frequency, targets, and topics of family communication using ANOVAs and Chi-Square tests (Aim 2).

Aim 1 analysis showed that at the 3-month follow-up, the average frequency of overall family communication was 2.3 out of 4 (between "a little" and "some"). The most common communication targets were spouses (M = 2.4) and children (M = 2.1); the most common topic was sun protection (87% of participants). Aim 2 analysis showed no significant differences in communication frequency. However, for communication targets, those who received high-risk feedback reported greater communication with their spouse compared to those in usual care. Lastly, we found that certain topics of communication such as "who had skin cancer in the family" and "your own risk of getting skin cancer" were discussed more by those who had testing (both receiving average and high-risk feedback) than by those in usual care or by test refusers ($p < .05$).

These findings provide important insight into family communication about skin cancer. The results indicate greater discussion with certain people and about certain topics when individuals had undergone genetic testing, highlighting the potential role that genetic testing can play in fostering family communication. Future research could provide deeper insight into *why* individuals talk to certain people and about certain topics more than others, as well as examine how family communication affects decision making regarding offers for cascade genetic testing or interpretation of results.

CORRESPONDING AUTHOR: Caroline Salafia, MA, University of Connecticut, Cromwell, CT; cali.salafia@uconn.edu

---

Abstract citation ID: kaad011.0274

POSTER SESSION B: INFORMATION SEEKING AMONG MEN NEWLY DIAGNOSED WITH LOCALIZED PROSTATE CANCER

Erin K. Tagai, PhD, MPH[1], Suzanne M. Miller, PhD, FSBM[1], Michael A. Diefenbach, PhD, FSBM[2], Allison Marziliano, PhD[3]

[1]Fox Chase Cancer Center, Philadelphia, PA; [2]Northwell Health, New York, NY; [3]Northwell Health, Manhasset, NY

The purpose of this study was to better understand information seeking among newly diagnosed localized prostate cancer patients before making a treatment decision. To engage in informed, high quality decision making, localized prostate cancer patients must learn about each treatment option, weighing each options' pros and cons. Many patients seek information from sources beyond their provider, including family, friends, and the Internet. However, research has not fully evaluated sociodemographics and medical characteristics associated with information seeking from various sources prior to treatment decision making. Using baseline data from a randomized controlled trial evaluating a prostate cancer treatment decision aid at two mid-Atlantic cancer centers, we evaluated the information seeking among different sources (e.g., doctor, spouse, Internet) and its relationship with patient characteristics (e.g., age, race/ethnicity, health literacy), mood state, and decisional conflict among newly diagnosed prostate cancer patients who had not yet made a treatment decision (N=320). Patients most commonly sought informational support from their doctor (90%), followed by their spouse (85%) and the Internet (79%) with a mean total of 2.14 information sources (SD=1.09). Participants with greater decisional conflict were more likely to seek information from their doctor (OR=1.04, 95%CI [1.01,1.06]) or more total sources (β=.21, p=.001), but those with lower decisional conflict sought information from friends (OR=0.99, 95%CI [0.98,0.99]) or the Internet (OR=0.98, 95%CI [0.96,0.99]). Additionally, patients with more negative mood state were less likely to seek information support from their spouse (OR=0.97, 95%CI [0.94,0.99]). Further, greater health literacy was associated with information seeking from patients' doctors (OR=1.36, 95%CI [1.12,1.65]) and more total sources (β=.14, p=.027). Finally, older patients (OR=0.90, 95%CI [0.84,0.96]) and non-Hispanic Black patients (OR=0.25, 95%CI [0.10,0.64]) as well as patients of all other race/ethnicities (OR=0.27, 95%CI [0.07,0.99]) were less likely to seek information on the Internet. Overall, newly diagnosed prostate cancer patients seek information from a variety of sources prior to making a treatment decision. However, patients may reach out to different sources depending on their mood state, decisional conflict, or sociodemographic characteristics, suggesting patients may need greater provision of supplemental, tailored informational support with the goal to ultimately improve treatment decision making.

CORRESPONDING AUTHOR: Erin K. Tagai, PhD, MPH, Fox Chase Cancer Center, Philadelphia, PA; erin.tagai@fccc.edu

Abstract citation ID: kaad011.0275

POSTER SESSION B: THE EFFICACY OF A HOME-BASED EXERCISE PROGRAM ON CANCER-RELATED FATIGUE IN PATIENTS WITH BREAST CANCER

Po-Ju Lin, PhD, MPH[1], Evelyn Arana-Chicas, DrPH[1], Alisha Chakrabarti, PhD[1], Richard F. Dunne, MD, MS[1], Kah Poh Loh, MBBCh BAO, MS[1], Umang Gada, MS[1], Karen M. Mustian, PhD, MPH[1]

[1]University of Rochester Medical Center, Rochester, NY

Background: Up to 80% of women with breast cancer (BC) experienced cancer-related fatigue (CRF) while receiving radiation therapy (RT). Even after the completion of treatment, BC survivors continue experiencing CRF for months or years. Exercise is considered a possible non-pharmacologic treatment option for treating CRF. We conducted a phase II randomized controlled trial (RCT) to assess the efficacy of a home-based exercise program on CRF in BC patients receiving RT and BC survivors.

Methods: BC patients who have been scheduled to receive RT and BC survivors who completed primary treatment were recruited and randomized to a 6-week exercise intervention, Exercise for Cancer Patients (EXCAP©®), or standard care (Control). The EXCAP©® intervention is a structured home-based exercise program that combines aerobic walking and resistance band exercises. EXCAP participants received individualized and progressive walking and resistance band exercise prescriptions. All participants were provided with a pedometer and daily diaries to monitor their walking steps and exercises at pre- and post-intervention. CRF was assessed via the Multidimensional Fatigue Symptom Inventory, which generates a total score indicating overall CRF level and five CRF subdomains including general, physical, emotional, and mental CRF as well as vigor at pre- and post-intervention. T-tests and ANCOVAs were used to examine within- and between-group differences.

Results: Ninety women with BC (55.5 ± 9.6 years, 88% white, 47% undergoing RT, 46% receiving hormonal therapy) were enrolled. From pre- to post-intervention, EXCAP participants demonstrated a statistical trend in reducing overall CRF (-4.9 ± 2.6, $p < 0.07$) and significant improvements in physical CRF (-1.0 ± 0.5, $p = 0.05$) and emotional CRF (-1.4 ± 0.6, $p < 0.02$), while standard care controls did not show any changes. Compared to standard care controls, EXCAP participants showed significantly greater improvements in overall (-8.3 ± 3.3, $p < 0.02$), general (-3.2 ± 1.3, $p < 0.02$), and physical CRF (-2.0 ± 0.7, $p < 0.01$) at post-intervention. EXCAP participants also showed greater vigor than standard care control (1.8 ± 1.0, $p = 0.08$) at post-intervention. No group differences were seen in emotional or mental CRF.

Conclusions: The home-based EXCAP©® program combining walking and resistance band exercises improves overall, general, and physical CRF in BC patients receiving RT and BC survivors. Future phase III RCTs are needed to confirm these promising findings.

Funding: NCI K07CA120025, UG1CA189961, T32CA102618.

CORRESPONDING AUTHOR: Po-Ju Lin, PhD, MPH, University of Rochester Medical Center, Rochester, NY; po-ju_lin@urmc.rochester.edu

---

Abstract citation ID: kaad011.0276

POSTER SESSION B: REVISITING THE LUNG CANCER SCREENING ELIGIBILITY CRITERIA TO PROMOTE EQUITY AMONG BLACK INDIVIDUALS

Abdi T. Gudina, PhD[1], Lee Kehoe, PhD[2], Evelyn Arana-Chicas, DrPH[2], Sarah Hardy, MD[2], Sule Yilmaz, PhD[2], Jeremy McGuire, PhD[2], Katherine Rieth, MD[2], AnaPaula Cupertino, PhD[3], Charles S. Kamen, PhD, MPH[2]

[1]University of Rochester Medical Center, ROCHESTER, NY; [2]University of Rochester Medical Center, Rochester, NY; [3]University of Rochester Medical Center, Department of Public Health Sciences and Department of Surgery, Rochester, NY

Background: Blacks are disproportionately affected by lung cancer compared with all other racial and ethnic groups. Early detection using low-dose computed tomography (LDCT) reduces lung-cancer-specific mortality by 20% among high-risk individuals. Blacks are less likely than Whites to meet lung cancer screening criteria under both the former (2013) and the updated (2021) United States Preventive Services Task Force (USPSTF) guidelines. The purpose of this study was to assess racial disparities (Blacks vs. Whites) in lung cancer screening (LCS) eligibility and to propose tailored eligibility criteria for Blacks.

Methods: Data for this study were obtained from the Behavioral Risk Factor Surveillance System (BRFSS), a population-based survey conducted annually by the Centers for Disease Control and Prevention. Our analyses were restricted to the 24 U.S. states where the BRFSS survey was administered to collect data on lung cancer screening from 2018-2020. 180,733 subjects were included in the final analysis. We sought cut-off points (*age, smoking pack-years, and time since quit smoking)* at which Blacks were equally likely as Whites to be eligible for LCS to establish tailored criteria for Blacks. Multivariable logistic regression models (in which survey weights, sampling cluster, and strata were considered) were used to model the associations between the predictor and the outcome variable.

Results: While we kept the 2021 USPSTF criteria for Whites (i.e., age 50 – 80 years, $\geq$20 smoking pack-years, and < 15 years since quit smoking), we created tailored criteria for Blacks by reducing the minimum age to 45 years and decreasing the cumulative number of cigarettes smoked to 10 pack-years (with < 15 years since quit smoking). Under the tailored criteria, Blacks (OR: 1.01; 95%CI: 0.87 - 1.16) had the same odds of eligibility for LCS as Whites. The odds of eligibility for LCS by sex under the tailored criteria did not differ significantly between Black men (OR: 1.10; 95%CI: 0.89 - 1.36) and Black women (OR: 0.90; 95%CI: 0.75 - 1.08) compared to their respective Whites counterparts.

Conclusions: Our study identified cut-off points based on *age* and *smoking pack-years* at which Blacks were equally likely to be eligible for LCS as Whites. These tailored criteria for Blacks eliminate the disparities between Blacks and Whites in LCS eligibility. Future studies should test the sensitivity and specificity of these tailored criteria.

CORRESPONDING AUTHOR: Abdi T. Gudina, PhD, University of Rochester Medical Center, ROCHESTER, NY; Abdi_Gudina@urmc.rochester.edu

Abstract citation ID: kaad011.0277

POSTER SESSION B: CANNABIS USE AND ACCEPTANCE AMONG CANCER SURVIVORS IN THE US

Sunny Jung J. Kim, PhD, MS, MA[1], Hannah M. Ming, MPH[1], Viktor Clark, BA, MS[2], Autumn Lanoye, PhD[3], Amy L. Olex, PhD[1], Tamas S. Gal, PhD, MBA[1], Susan Hong, MD, MPH, FACP[3], Vanessa B. Sheppard, PhD[1]

[1]Virginia Commonwealth University School of Medicine, Richmond, VA; [2]Virginia Commonwealth University, Powder Springs, GA; [3]Virginia Commonwealth University Massey Cancer Center, Richmond, VA

Objective: With the shifting policies and legal landscape concerning marijuana, we aim to determine patterns of cannabis use, perceived benefits/risks, and social norms among cancer survivors across states with different marijuana policies to identify the granularity and specificity of the cannabis use/acceptance trends.

Methods: We leveraged online panel-based recruitment methods to facilitate data acquisition for various subgroup analyses by geographic and demographic units. We conducted an online survey among adults with a history of cancer across all the states with different levels of the marijuana laws: 1) legalized, 2) decriminalized and/or medical only, 3) fully illegal and/or CBD oil only. We assessed sociodemographic, cancer-specific, behavioral/psychological, and treatment-related characteristics as well as parameters of cannabis use (e.g., frequency).

Results: Based on a total of 747 respondents, 375 were eligible and completed the survey: 22.9% of participants were non-White (n=86) and 228 (60.8%) were female. Two thirds of participants (n=235) had ever used cannabis, while 84 participants currently used cannabis. Cannabis legality in the state of residence was not associated with attitudes toward cannabis use (Fs< 1). Participants who reported living in states where cannabis use was legal were more likely than those living in cannabis-illegal states to be current cannabis users, F(2, 120)=9.36, p=0.09. 1. Top three reasons of use were to: treat chronic pain, improve depression/mood, and alleviate nausea/stomach upset. Current cannabis users (M=2.65, SD=.89) had greater anxiety than current nonusers (M=2.28, SD=86), t=2.17, p=.03. Among current users, 72.6% had a physician's recommendation for medicinal cannabis use, and 76 (90.5%) had cancer doctors or providers that knew about their cannabis use. However, current cannabis users (M=3.54, SD=.83) had greater healthcare system mistrust than non-users (M=3.11, SD=.88), t=2.62, p=.01.

Discussion: The present study provides nationwide evidence on the prevalence and factors related to cannabis use in cancer survivors, which can be used for developing educational communication strategies for cannabis-based medicines among cancer survivors. Further investigation on factors related to patient-provider communication regarding cannabis use among cancer survivors is warranted.

CORRESPONDING AUTHOR: Sunny Jung J. Kim, PhD, MS, MA, Virginia Commonwealth University School of Medicine, Richmond, VA; sun.jung.kim@vcuhealth.org

---

Abstract citation ID: kaad011.0278

POSTER SESSION B: A MIXED METHODS APPROACH TO EXAMINE ADVANCE CARE PLANNING COMPLETION AMONG PATIENTS WITH BREAST CANCER

Marcia M. Tan, PhD, MPH[1], Dario Villamar, MD[1], Clarissa Huard, MPH[1], Lian Nicholson, MA[1], Patricia I. Moreno, PhD[2]

[1]University of Chicago, Chicago, IL; [2]University of Miami Miller School of Medicine, Miami, FL

Background: Advance care planning (ACP), a process that optimizes future medical treatment and end-of-life care, is extremely low for patients with advanced cancer, particularly among minoritized patients. Community health workers (CHW), through their trusted and unique relationships with patients, have the potential to empower and support patients in engaging in ACP conversations with their providers in the oncology setting; yet there is no standardized training on ACP for CHW. The current study used a mixed-methods approach to examine ACP documentation and identify provider and CHW needs of completing ACP discussions among patients with breast cancer.

Methods: Quantitative data on ACP documentation (i.e., power of attorney and advanced directive) and demographics were extracted from the Clinical Research Data Warehouse from a large medical center in Chicago, IL and analyzed using descriptive statistics. Subjects (N=7,782) were women who had a diagnosis of breast cancer between 2016 and 2021. Qualitative data on barriers and facilitators to ACP discussions, as well as CHW training needs, were collected from two focus groups (N=5 providers, N=5 CHW) and one individual interview (N=1 provider) and transcribed and coded for themes.

Results: Power of attorney and advanced directive documentation was low (4.27% and 5.7%, respectively) among patients (30% Black/African American, 59% White, 4% Asian/Mideast Indian, and 3% Other/More than one race). All six providers reported working primarily with African American patients, and identified time constraints and timing (e.g., patient's disease course) as major barriers to ACP discussions; they also noted the structural barriers and injustices that their patients face during medical care. Both providers and CHW reported that introducing ACP earlier in treatment as routine conversation would make conversations more successful, and that CHW could help normalize ACP within this patient population. However, CHW discussed that they lacked the tools and skills to have ACP conversations, largely because existing formal trainings in ACP are inaccessible due to cost.

Discussion: Poor ACP documentation among patients with breast cancer may be due to competing priorities of the provider to discuss/treat the patient's disease, leading to ACP completion occurring late in treatment. Integrating CHW into the care model to begin these conversations earlier may increase ACP completion and continuation of the ACP process throughout treatment. Needed are trainings for CHW that are accessible to them and relevant to their model of care.

CORRESPONDING AUTHOR: Marcia M. Tan, PhD, MPH, University of Chicago, Chicago, IL; mmtan@uchicago.edu

Abstract citation ID: kaad011.0279

POSTER SESSION B: A TELEHEALTH DYADIC LIFE REVIEW INTERVENTION FOR OLDER ADULTS WITH ADVANCED CANCER AND THEIR CAREGIVERS IS ACCEPTABLE

Lee Kehoe, PhD[1], Charles S. Kamen, PhD, MPH[1], Katherine Rieth, MD[1], Jeremy McGuire, PhD[1], Abdi T. Gudina, PhD[2], Sule Yilmaz, PhD[1], Evelyn Arana-Chicas, DrPH[1], Sara J. Hardy, MD[1], Kathi L. Heffner, PhD[1], Supriya G. Mohile, MD, MS[1], Kimberly Van Orden, PhD[1]

[1]University of Rochester Medical Center, Rochester, NY; [2]University of Rochester Medical Center, ROCHESTER, NY

Background: Older adults with advanced cancer (Pt) and their caregivers (CG) experience high levels of distress. Distress affects emotional health, physical health, communication, and relationship closeness in both the older adult and their caregiver. Few interventions have addressed the older adult with advanced cancer and caregiver pair, defined as a dyad, to improve relationship closeness and mitigate psychological distress.

Methods: This is an ongoing single-arm feasibility study testing the acceptability of a telehealth Dyadic Life Review (DLR) intervention in older patients (age 65+) with stage III or IV cancer of any type and their caregivers (age 50+). Demographics, emotional health, physical health, and relationship measures were administered before- and after- the telehealth DLR intervention began. The Unidimensional Relationship Closeness Scale measures perception of relationship closeness using a Likert-scale from 1 (Strongly Disagree) to 7 (Strongly Agree), with a lower average score indicating a lack of relationship closeness and a higher average score indicating greater relationship closeness. Older adults and caregivers underwent an 8-week telehealth DLR intervention, adapted from an evidence-based individual life review intervention. Each session focused on a period of the life span, such as childhood, adolescence, etc.. We examined preliminary data on relationship closeness for three dyads and generated themes about acceptability in each dyad's intervention sessions and exit interviews.

Results: Three dyads were examined for relationship closeness and acceptability of the intervention. Dyad 1 was a married couple together for 60+ years with higher average relationship closeness (Pt: 6.7; CG: 6.6). Dyad 2 was also a married couple together 60+ years with low relationship closeness (Pt: 3.3; CG: 1.9). Dyad 3 was a father/daughter pair with Pt average relationship closeness of 5.3 and CG average score 6.5. Preliminary coding of sessions and exit interviews generated themes of acceptability of intervention across all three cases. Five dyads have been consented and recruitment remains ongoing, results of the first 3 dyads are presented here with ongoing analysis of relationship closeness and acceptability updated for future presentation.

Conclusions: A telehealth dyadic life review intervention is acceptable to older adults with advanced cancer and caregiver dyads of varying relationship closeness and relationship type. Future analysis of the effect of telehealth DLR on distress and relationship closeness will be completed.

CORRESPONDING AUTHOR: Lee Kehoe, PhD, University of Rochester Medical Center, Rochester, NY; lee_kehoe@urmc.rochester.edu

---

Abstract citation ID: kaad011.0280

POSTER SESSION B: INTERPERSONAL MINDFULNESS: EXPLORING A NOVEL APPLICATION OF MINDFULNESS FOR COPING WITH COLORECTAL CANCER

Lauren A. Zimmaro, PhD[1], Danny Middleton, BS[2], Kristen A. Sorice, BA[2], Efrat Dotan, MD[2], Carolyn Y. Fang, PhD[2], Jennifer B. Reese, PhD, FSBM[2]

[1]University of Colorado School of Medicine, Philadelphia, PA; [2]Fox Chase Cancer Center, Philadelphia, PA

Background: Mindfulness as it occurs within interpersonal interactions ["interpersonal mindfulness" (IM)] is a novel application of the traditionally solitary, introspective practice of mindfulness. IM involves being attentive, accepting, and receptive to the present moment experiences of oneself and of the other person during a social interaction. Given the importance of interpersonal relationships for coping with cancer, IM may hold particular relevance to enhancing patients' relationships and psychosocial outcomes. However, IM has yet to be examined in the cancer context. Therefore, we aimed to characterize IM and explore its associations with patient demographic and medical characteristics and with psychosocial outcomes (distress, resilience, social well-being, positive relations with others) in a sample of patients with colorectal cancer (CRC).

Methods: Patients with CRC (N=52, M age=64.7 (SD=12.0), 40% male, 71% partnered, 10% Black/African American, 28% stage IV, 17% in current treatment, 25% rectal) completed a self-report survey of demographic variables (age, race, gender, marital status) and psychosocial measures including interpersonal mindfulness (Interpersonal Mindfulness Scale), distress (HADS), resilience (CD-RISC-10), social well-being (FACT-C subscale), and positive relations with others (Ryff subscale). Medical characteristics (metastatic status, colon vs. rectal disease site, current treatment status) were obtained via chart review. Statistical analyses included descriptive statistics, correlations, t-tests, and hierarchical regressions.

Results: Patients endorsed moderate overall interpersonal mindfulness (M=107.3, SD=15.5, range=37-134). IM was lower among patients receiving current treatment vs. not in treatment (M=94.3 vs. 110.0, t(50)=2.96, p=.005), but did not relate to other medical or demographic variables (p's >.15). In models controlling for age, metastatic disease, and current treatment, higher IM was associated with lower distress (B=-.214, p< .001), higher resilience (B=.267, p< .001), greater social wellbeing (B=.150, p=.003), and more positive relations with others (B=.062, p=.039).

Conclusions: Our results add to the emerging science of mindfulness and its application to interpersonal relationships in people with cancer. While our initial findings signal a potential positive role of interpersonal mindfulness for enhancing psychological and social outcomes, future work should elucidate its unique contribution above and beyond that of trait mindfulness and within more specific interpersonal contexts (e.g. in intimate couples, patient-caregivers, and patient-provider relationships).

CORRESPONDING AUTHOR: Lauren A. Zimmaro, PhD, University of Colorado School of Medicine, Philadelphia, PA; lauren.zimmaro@gmail.com

Abstract citation ID: kaad011.0281

POSTER SESSION B: RESULTS OF A PILOT YOGA INTERVENTION ON SLEEP AND FATIGUE FOR WOMEN WITH THORACIC, GYNECOLOGICAL, AND GASTROINTESTINAL CANCERS

Stephen D. Ramos, PhD[1], Elizabeth L. Kacel, PhD[2], Grace A. Hanvey, MS[3], Kelsey Bacharz, MA[3], Adaixa Padron, PhD[4], Sonia Mesa, Yoga Alliance YACEP E-RYT Continuing Education Provider[5], Irene M. Estores, MD[3], Deidre B. Pereira, PhD, ABPP[3]

[1]University of California, San Diego/San Diego State University, La Mesa, CA; [2]NorthShore University Health System, Evanston, IL; [3]University of Florida, Gainesville, FL; [4]Tampa General Hospital, St. Petersburg, FL; [5]University of Florida/Clinical-Health Psychology, Miami, FL

Introduction: At an epidemiological level, non-engagement in moderate-to-vigorous physical activity among individuals with poor sleep relates to an amplified risk of all-cause and cancer-specific mortality (Huang et al., 2021). Research suggests a bidirectional relationship between sleep and cancer, particularly among individuals actively receiving radio-chemotherapy (Mogavero et al., 2021). Insomnia specifically is two to three times more prevalent among individuals living with cancer (Ma et al., 2021). Women with cancer experience an even greater impact to sleep, with impacted sleep persisting and declining 4-12 months post-treatment initiation among women with breast cancer (Chang & Change, 2020). Yoga is an alternative mind-body intervention that has been well studied in women with sleep problems (Wang et al., 2020) and women with breast cancer with regard to fatigue and sleep (Dong et al., 2019; McCall, 2018); however, there is limited research investigating the impact of yoga. The purpose of this study is to evaluate the effects of a pilot yoga intervention on sleep and fatigue for women living with thoracic, gynecological, and gastrointestinal cancers.

Methods: Women with gynecologic (n = 87), gastrointestinal (n = 18), and thoracic cancers (n = 18) were enrolled in a 10-week group yoga intervention and completed pre/post-intervention validated assessments, including the Pittsburgh Sleep Quality Index (PSQI) and the Functional Assessment of Chronic Illness Therapy – Fatigue (FACIT-F). Of the 123 total participants, 48 contributed pre-intervention data and were analyzed. Mixed linear models evaluated pre/post-change in PSQI Global score and all 7 subscale scores and FACIT-F total scores following the yoga intervention.

Results: The sample on average received their cancer diagnosis at 57.73 (11.03) years old and had 14.41 (2.58) years of formal education. Participants were primarily White (81.3%), and approximately 43% were married. There was a significant improvement in PSQI sleep duration (b = -.42, SE = .18, p = .028) from pre- to post-intervention; however, all other sleep and fatigue analyses were non-significant.

Discussion: This study demonstrates significant improvements in sleep duration from pre- to post-yoga intervention among women with gynecologic, GI, or thoracic cancers – cancers that are relatively understudied in integrative medicine research compared to breast cancer. Future research should explore whether these improvements persist in a randomized clinical trial design with an appropriate control/comparison group.

CORRESPONDING AUTHOR: Stephen D. Ramos, PhD, University of California, San Diego/San Diego State University, La Mesa, CA; stephenramosphd@gmail.com

---

Abstract citation ID: kaad011.0282

POSTER SESSION B: SHARED DECISION-MAKING IS ESSENTIAL TO IMPROVE THE ADHERENCE TO SELF-CARE IN PATIENTS WITH HYPERTENSION AND COMORBIDITIES

Kyoung Suk Lee, PhD, RN, MPH[1], Jihyang Lee, MSN, RN[1]

[1]College of Nursing, Seoul National University, Jongno-gu, Seoul-t'ukpyolsi, Korea

Background: Adhering to therapeutic regimens (e.g., lifestyle modifications) is important for patients with hypertension to manage their blood pressure. However, most patients with hypertension experience a broad range of co-existing chronic morbidities, and they are asked to simultaneously adhere to multiple therapeutic regimens for their comorbidities and hypertension. The complexity of managing multiple conditions including hypertension may adversely affect their adherence to self-care. Shared decision-making, which is a key component of patient-centered care, can be essential to decrease the burden for patients to simultaneously managing multiple conditions and hypertension. However, few studies have tested the relationship between shared decision-making and self-care in patients with hypertension and comorbid conditions. The purpose of this study was to examine whether shared decision-making was associated with adherence to overall self-care for chronic conditions and hypertension-specific self-care in this population.

Methods: A total of 376 participants with hypertension and at least one additional chronic condition were included in this study. Participants were asked to complete the questionnaires: 1) the 9-item Shared Decision-Making Questionnaire for patients' perceived involvement in medical decision-making process; 2) the Partners In Health Scale for overall self-care for chronic conditions; and 3) the maintenance domain of the Self-care of Hypertension Inventory for hypertension-specific self-care. To examine the relationship between shared decision-making and overall and hypertension-specific self-care, multiple linear regression models were performed after adjusting for the following covariates: the number of chronic conditions that had been diagnosed or treated, depressive symptoms, perceived health status, age, gender, and living arrangement.

Results: Participants had two additional comorbidities with hypertension (mean age 52 years, 28.9% female). Shared decision-making was associated with a great adherence to overall and hypertension-specific self-care (all p-values < 0.001) after adjusting for covariates. The amount of the variances explained by shared decision-making was 18.1% for overall self-care and 3% for hypertension-specific self-care.

Conclusion: Shared decision-making was associated with greater overall and hypertension-specific self-care. This finding suggests that patients' involvement in medication decision-making helps to improve their adherence to overall and disease-specific self-care.

CORRESPONDING AUTHOR: Kyoung Suk Lee, PhD, RN, MPH, College of Nursing, Seoul National University, Jongno-gu, Seoul-t'ukpyolsi, Korea; kyounglee@snu.ac.kr

Abstract citation ID: kaad011.0283

POSTER SESSION B: STRONG HEARTS HEALTHY COMMUNITIES: AN URBAN ADAPTATION OF AN EFFECTIVE CARDIOVASCULAR DISEASE PREVENTION INTERVENTION

Phrashiah Githinji, PhD, RDN[1], Priscilla Ayine, PhD[1], Anita On[1], Deyaun L. Villarreal, PhD[1], Jacob Szeszulski, PhD[1], Chad D. Rethorst, PhD[1], Alexandra MacMillan Uribe, PhD[1], Rebecca A. Seguin-Fowler, PhD, RDN, LD, CSCS[2]

[1]Texas A&M AgriLife Institute for Advancing Health through Agriculture, Dallas, TX; [2]Texas A&M AgriLife Institute for Advancing Health through Agriculture, College Station, TX

Background: Poor diet quality, inadequate physical activity, and obesity are important modifiable cardiovascular disease (CVD) risk factors. Evidence-based interventions (EBIs) can improve these behaviors and CVD outcomes but must be tailored to specific populations and contexts. Adaptation of EBIs may be more efficient and effective than developing new interventions for each population and context. Strong Hearts Healthy Communities (SHHC) is an EBI that has demonstrated effectiveness to reduce CVD-related health behaviors and outcomes among women from rural, medically underserved communities. With the goal of informing SHHC adaptation for urban Black and Latinx women, this study aimed to characterize their health goals and needs using qualitative methods.

Methods: Focus groups were conducted with urban Black and Latinx adult women, BMI ≥ 25, who engaged in ≤ 150 minutes per week of moderate physical activity. Data was coded using a team-based, deductive, and thematic analysis approach that included multiple coders and in-depth discussions with the research team; NVivo 12 software was utilized.

Results: Four focus groups (n=18; 79% Black and 21% Latinx) were conducted, from which three themes emerged: 1) *Participants had positive attitudes towards setting health goals and a healthy lifestyle.* Interests included personalized nutrition and learning practical skills (e.g., portion control). Motivation for physical activity was influenced by its perceived accessibility, familiarity, or enjoyability. 2) *Culture influenced food and stress management behaviors.* Food represented an expression of love and community but making healthier food choices was often stigmatized. Culture generated a hesitancy to discuss stress or mental health, and how participants managed stress varied across generations (i.e., stress was discussed more openly among younger generations). 3) *Social support influenced the achievement of health goals.* Support from family and friends was only beneficial when they had similar health interests. Otherwise, participants preferred external support from those with similar health goals.

Conclusions: Adaptation of SHHC for urban Black and Latinx women, or similar interventions, should emphasize personalized nutrition and practical skills for healthy eating, with accessible, familiar, and enjoyable exercises. Stress management should cater to cultural and generational differences, while social support should be based on common health goals.

CORRESPONDING AUTHOR: Phrashiah Githinji, PhD, RDN, Texas A&M AgriLife Institute for Advancing Health through Agriculture, Dallas, TX; phrashiah.githinji@ag.tamu.edu

---

Abstract citation ID: kaad011.0284

POSTER SESSION B: SYSTEMIC BARRIERS AND RACE-BASED INEQUITIES IN CARDIOVASCULAR OUTCOMES & PREVENTATIVE GUIDELINE ADHERENCE

Jaclyn Schwartz, PhD, OTR/L[1], Emily Kringle, PhD, OTR/L[2], Catherine Hoyt, PhD, OTD, OTR/L[3], Kelly Harris, PhD, CCC-SLP[3], Suzanne Burns, PhD, OTR/L[4]

[1]Washington University in St. Louis School of Medicine, St. Louis, MO; [2]University of Minnesota, Minneapolis, MN; [3]Washington University in St. Louis School of Medicine, Saint Louis, MO; [4]University of New Mexico School of Medicine, Albuquerque, NM

In their position statement, SBM recognizes that structural racism is a fundamental cause of disparities in cardiovascular disease and calls for researchers and policy makers to better understand and develop proactive strategies to address gaps in clinical care. The study advances that mission by describing inequities in cardiovascular outcomes, adherence to preventative health guidelines, and the impact of systemic barriers due to race on health management. Using the US Behavioral Risk Factor Surveillance System (BRFSS) 2019 data (a cross-sectional random telephone survey completed by the Centers for Disease Control and Prevention and State Health Departments), we analyzed current rates of cardiovascular outcomes, adherence to preventative health guidelines, as well as systemic barriers associated with race found in the data set in US adults. The American Heart Association's Life's Simple Seven were used to guide discussion of preventative health behaviors and included the behaviors of: 1) stop smoking, 2) eat better, 3) get active, 4) lose weight, 5) manage blood pressure, 6) control cholesterol, and 7) reduce blood sugar. A QuantCrit lens guided the analysis by emphasizing the centrality of racism in large data and common measures. In terms of cardiovascular outcomes, hypertension ranged from 26% in Asian Americans to 52% in Black Americans, myocardial infarction ranged from 2% in Asian Americans to 9% in American Indian/Alaskan Natives, and stroke ranged from 2% in Asian Americans to 7% American Indian/Alaskan Natives. Less than half of people adhered to the guidelines on being a healthy weight or being physically active. There were large race base disparities. For example, there was a 7.9% differential between groups in getting cholesterol checked to a 26.7% differential in being a healthy weight. Systemic barriers also demonstrated large disparities across racial groups. Lack of health care coverage affected 6.1% of White Americans to 14.8% of Native-Hawaiian and other Pacific Islanders. Food insecurity ranged from 5.8% in Asian Americans to 28.7% of American Indian/Alaskan Natives. Poverty indicated by a family income of less than $25,000 ranged from 20.4% of White Americans to 47.6% of Hispanic Americans. The findings of this study support the SBM position statement on cardiovascular disease. First, there are large race-based disparities in cardiovascular disease. Second, systemic barriers such as poverty, lack of medical access, and food insecurity disproportionately affect marginalized communities and likely contribute to the disparity in outcomes. These findings on disparities in outcomes as well as preventative health guidelines will help clinicians, researchers, and policy makers to construct more effective tailored solutions to address cardiovascular disease in the US.

CORRESPONDING AUTHOR: Jaclyn Schwartz, PhD, OTR/L, Washington University in St. Louis School of Medicine, St. Louis, MO; jaclyns@wustl.edu

Abstract citation ID: kaad011.0285

POSTER SESSION B: PERCEIVED CONTROL AND BLOOD PRESSURE: RACIAL CONSIDERATIONS IN A SYSTEMATIC REVIEW

Zachary E. Magin, BA[1], Crystal L. Park, PhD[1], Jamilah George, MDiv[1]

[1]University of Connecticut, Storrs, CT

Background: Greater perceived control over life circumstances is related to better health and well-being in many domains. Emerging literature suggests that cardiovascular functioning in particular may benefit from greater perceived control. Racial health disparities highlight the need for increased research to identify psychosocial factors, like perceived control, that may reduce an already elevated disease risk among racially marginalized populations. The current study sought to describe and evaluate the existing evidence on the relationship between perceived control and three markers of cardiovascular functioning: resting blood pressure, ambulatory blood pressure, and blood pressure reactivity to a lab stressor or task, with specific consideration toward race.

Methods: A systematic search was conducted using PsycINFO, PubMed, Scopus, CINAHL, and Embase. Studies published in English that used an adult sample without a specific medical condition and quantitatively examined the relationship between perceived control and blood pressure were included.

Results: 19 studies met inclusion criteria. Just over half of studies (7 of 12) that examined relations between perceived control and resting blood pressure reported negative associations. None of the seven studies that included a laboratory stress paradigm found significant effects of perceived control on blood pressure reactivity. Findings from the only study that measured ambulatory blood pressure revealed a negative relationship between perceived control and ambulatory blood pressure. Most of the studies did not report race (10 studies). The four studies that examined the relationship between perceived control and resting blood pressure among only Black individuals found a negative relationship, while findings on the relationship between perceived control and blood pressure were mixed across the remaining five studies that included mostly White participants.

Discussion: Findings from the current review provide some evidence for a salutary relationship between perceived control and resting and ambulatory blood pressure but not blood pressure reactivity. Methodological concerns may account for some of these differences. Furthermore, findings from this review suggest that perceived control may serve as an important protective factor against cardiovascular disease for Black Americans, who face systemic racism and have an associated higher risk of cardiovascular disease.

CORRESPONDING AUTHOR: Zachary E. Magin, BA, University of Connecticut, Storrs, CT; zachary.magin@uconn.edu

---

Abstract citation ID: kaad011.0286

POSTER SESSION B: SLEEP AND CARDIOVASCULAR HEALTH AMONG WOMEN VETERANS: AHA'S ESSENTIAL 8 AND DELAYING NEEDED CARE

C. Amanda Schweizer, PhD, MPH[1], Bevanne Bean-Mayberry, MD, MHS[2], Catherine Chanfreau, PhD[3], Jennifer L. Martin, PhD[4], Claire Than, PhD[2], La Shawnta Jackson, DrPH, MPH[2], Erin Finley, PhD, MPH[5], Alison Hamilton, PhD, MPH[3], Melissa Farmer, PhD[2]

[1]VAGLAHS HSR&D Center for the Study of Healthcare Innovation, Implementation, and Policy, Los Angeles, CA; [2]VAGLAHS HSR&D Center for the Study of Healthcare Innovation, Implementation, and Policy, North Hills, CA; [3]VAGLAHS HSR&D Center for the Study of Innovation, Implementation, and Policy, North Hills, CA; [4]Geriatric Research, Education, and Clinical Center/Department of Medicine UCLA, North Hills, CA; [5]Veterans Evidence-based Research, Dissemination, and Implementation Center (VERDICT), North Hills, CA

The American Heart Association recently added "healthy sleep" (i.e., sleeping 7-9 hours/night) to Life's Simple 7, now "Life's Essential 8," a list of key behaviors/factors affecting cardiovascular (CV) health. Sleep disturbance is common among women Veterans, however, the burden of their sleep problems compared to the other 7 of Life's Essential 8 is unknown. We describe the frequency of sleeping outside recommended guidelines and examine the association of Life's Essential 8 with delaying needed care.

Methods: We recruited women VA primary care users who received at least one component of a CV toolkit to complete a survey, which included items assessing (1) Life's Essential 8: sleep, diabetes, blood pressure, lipids, body weight, tobacco use, exercise, diet, (2) mental health symptoms, and (3) delaying needed care in the past six months. We used logistic regression to model self-report of delaying care (yes/no).

Results: All women in the analytic sample (N=214) reported having at least one CV risk factor, and 68.3% reported sleeping outside of recommended guidelines (with 96.7% reporting sleeping < =6 hours/night). Seventy-three percent of women with diabetes and 85% of current smokers reported poor sleep. In a logistic regression model, poor sleep (OR=2.36;95%CI:1.18-4.73) and current smoking (OR=5.11;95%CI:1.75-14.89) were the Life's Essential 8 metrics associated with increased odds of delaying care. After adjusting for mental health symptoms, only current smoking (OR=4.26;95%CI:1.25-14.50) and mental health (OR=4.15;95%CI:2.13-8.11) remained significant.

Conclusions: All women in our sample reported one or more CV risks covered by Life's Essential 8 and most reported poor sleep. We found a significant association of sleep disturbance with delaying care. While the effect of sleep disturbance may overlap with mental health symptoms, it also indicates a need for preventive screening to identify women at risk for sleep disturbances, and for behavioral interventions (e.g., Cognitive Behavioral Therapy for insomnia) to reduce CV risk and increase overall engagement in care. These approaches could be integrated into routine VHA care as is currently done for tobacco use screening and smoking cessation treatment. Furthermore, given the lack of stigma related to sleep problems, discussing these problems with women Veterans could open pathways for engagement in lifestyle change programs, which may ameliorate delayed care.

CORRESPONDING AUTHOR: C. Amanda Schweizer, PhD, MPH, VAGLAHS HSR&D Center for the Study of Healthcare Innovation, Implementation, and Policy, Los Angeles, CA; Catherine.Schweizer@va.gov

Abstract citation ID: kaad011.0287

POSTER SESSION B: EXPERIENCES OF CARDIAC PATIENTS ATTENDING A NEW VIRTUAL CARDIAC REHABILITATION PROGRAM

Matthew R. Fuda[1], Pooja Patel[2], Judy Van Es[2], Eva Lonn[1], Karen Mosleh, MSc[1], J D Schwalm, MD, MSc, FRCP(C)[1], Jacob Crawshaw, PhD[1]

[1]McMaster University, Hamilton, ON, Canada; [2]Hamilton Health Sciences, Hamilton, ON, Canada

Background: Following an acute cardiac event, procedure, and/or surgery, patients are advised to complete a cardiac rehabilitation (CR) program which is considered a key pillar of secondary prevention care. Unfortunately, the COVID-19 pandemic limited in-person delivery of CR programs resulting in many programs transitioning to virtual (video and telephone) delivery. At a large tertiary hospital in our local health region (Hamilton, Ontario, Canada), we sought to explore the experiences of cardiac patients attending a recently transitioned virtual CR program.

Methods: In a small cross-sectional study, online surveys were sent to patients attending a virtual CR program between May-Sep 2022. The survey was developed with input from relevant research and clinical teams and piloted with patient partners. The survey comprised categorical, continuous (7-point Likert scales), and free-text questions. Categorical and continuous values were reported as percentages and mean ± SD, respectively. Free-text responses were coded into themes using a basic content analysis approach.

Results: A total of 30 surveys were completed (31% response rate). Most respondents were between 60–79 years old (73%), male (63%), and identified as White (90%). 83% of CR visits were done exclusively by video rather than telephone or both. Respondents rated their ease of joining their virtual CR visits as very high (6.0 ± 1.3) and 66% preferred either an exclusively virtual or hybrid (virtual and in-person) format. Respondents rated their overall satisfaction with the program as very high (6.0 ± 1.1). From the free-text responses, three themes were generated summarizing positive and negative aspects of the virtual CR program: *Content/structure* (e.g., content perceived to be informative and engaging; some preference for personalized care over a group format); *Environment/practicality* (e.g., comfort and cost-saving of attending from home; some technical difficulties during virtual visits); and *Staff support/delivery* (e.g., caring manner of staff; differing presenting styles).

Discussion: This study found that a virtual CR program was well-received by cardiac patients from our local health region with many indicating a preference for virtual or hybrid delivery. However, these data lack generalizability given that this was a single site evaluation. We also lack comparison data for those attending in-person CR. Our virtual CR program likely requires further refinement to ensure it meets the needs of all patients along with a wider evaluation of its effectiveness (versus traditional, in-person CR) across our health region and province.

CORRESPONDING AUTHOR: Karen Mosleh, MSc, McMaster University, Hamilton, ON, Canada; spithokd@mcmaster.ca

---

Abstract citation ID: kaad011.0288

POSTER SESSION B: PARENTS' EXPECTATIONS AND EXPERIENCES REGARDING TREATMENT FOR THEIR CHILD'S LIFE-THREATENING CONGENITAL HEART DEFECT

Alistair Thorpe, PhD[1], Rebecca K. Delaney, PhD[1], Nelangi M. Pinto, MD[1], Elissa M. Ozanne, PhD[1], Mandy L. Pershing, MS[1], Lisa M. Hansen, BA[1], Linda M. Lambert, APRN[1], Angélica R. Ortiz Andino, BS[1], Kirstin Tanner, BS[1], Angela Fagerlin, PhD[1]

[1]University of Utah School of Medicine, Salt Lake City, UT

Background: Parents of a fetus diagnosed with a life-threatening congenital heart defect (CHD) face complex and emotion-laden treatment decisions. Understanding parents' experiences and values during this difficult time is critical for providing support and facilitating shared decision making (SDM). The aim of this study was to explore parents' reflections on their experiences with clinicians, their expectations and involvement in treatment decisions, and their values.

Methods: We conducted a longitudinal survey study (09-2018 to 12-2020) with parents of a fetus diagnosed with a life-threatening CHD (e.g., hypoplastic left heart syndrome) who chose between termination, comfort-directed care, or surgery. Parents completed surveys with validated measures at 3 timepoints: diagnosis (T1), post-treatment decision (T2), and 3 months post-treatment decision (T3). Outcome measures included parents' expectations and reflections on shared-decision making, satisfaction with provider communication, perceived usefulness of consultations, and their decision values.

Results: Our sample included 23 parents, with a mean age of 27 years (SD=4). Most were female (78%), non-Hispanic White (87%), and had some college education (83%). 16 parents chose surgery and 7 chose comfort-directed care. No parents chose termination.

Overall, parents reported high satisfaction with their doctor's communication post-decision (M=4.26, SD=1.11; max=5) and that the information they were given during consultations at diagnosis (M=5.35, SD=0.93; max=6) and post-decision (M=5.18, SD=1.10) was useful. Most parents expected the treatment decision to be made collaboratively (T1=91%) and, when reflecting post-decision, felt that it had been (T2=86%). Half of parents (11/22) had consistent SDM perceptions: their expectation of their involvement in the treatment decision was the same as their post-decision reflection on how the decision was made. A higher proportion of parents who chose surgery had consistent SDM perceptions (67%) compared to those who chose comfort directed care (14%). Parents commonly reported that "their child have as little pain and discomfort from treatment as possible" and "trying any treatment that could help their child live as long as possible" were the most important values when making their decision (at both T2 and T3). We found no differences in reported values based on parents' SDM perceptions, their treatment decision, or their child's outcome.

Conclusion: In the present study, parents reported high satisfaction with their doctor's communication and felt their consultations were useful. However, many parents reported not perceiving themselves as involved in treatment decisions as they had expected, particularly those who chose comfort-directed care. Future work should explore how this disparity between expected vs. perceived involvement impacts parental wellbeing.

CORRESPONDING AUTHOR: Alistair Thorpe, PhD, University of Utah School of Medicine, Salt Lake City, UT; alistairthorpe8@gmail.com

Abstract citation ID: kaad011.0289

POSTER SESSION B: EVALUATING NETWORK ADEQUACY OF VISION CARE SERVICES FOR CHILDREN IN ARIZONA: CROSS SECTIONAL STUDY

Rizwana Biviji, PhD, MS[1], Daniel Sheridan, MS[2], Nikita Vora[3], Faith Kyaruzi, MS[1], Cindy M. Reynolds, MS[4], Swapna Reddy, JD, DrPH, MPH[1]

[1]Arizona State University, Phoenix, AZ; [2]Arizona State University, Scottsdale, AZ; [3]Emory University, Scottsdale, AZ; [4]University of Arizona, Phoenix, AZ

Background: Vision screening and eye exams are crucial not only for improving eyesight in children, but also for discovering diseases early and enabling educational performance. Vision challenges are one of the most common disabling conditions in childhood. As high as 28% of school-age children have vision issues that may impact their ability to develop, learn, and acquire literacy and reading skills. Vision problems are correctable with timely diagnosis and treatment; however, inadequate networks can prevent children from accessing timely, comprehensive, and high-quality care.

Objective: The study aims to determine where pediatric eye care network adequacy (capacity to provide local vision services for children) exists in the state of Arizona and where there are gaps in receiving vision care for children.

Methods: This cross-sectional study was designed to test pediatric vision care network adequacy in the state of Arizona via a “secret shopper” phone survey conducted through calls to practices accepting Medicaid and/or commercial insurance. We contacted providers following a standardized script to schedule a routine appointment on behalf of 10 and 3-year-old patients enrolled in either a Medicaid or commercial plan. The study tested multiple components of children’s access to vision care services, including reliability of provider directory information, time until next available appointment, bilingual service offerings, ages served, region of practice and types of care available. Independent T-test was used to study the mean difference in appointment availability at the practice level for children covered under Medicaid versus commercial insurance.

Results: We contacted 556 and 510 practices in Arizona on behalf of Medicaid and commercial insurance holders respectively. The average wait time for the next available appointment was 13 days for both insurance types. No significant differences were observed in appointment wait times between callers with commercial insurance and those insured through Medicaid (P= 0.783). As high as 69% providers accepted the stated commercial insurance (Blue Cross Blue Shield of Arizona or Avesis) and only 26% accepted Medicaid (AHCCCS). And 57% providers accepting commercial insurance and 35% accepting Medicaid offer bilingual services.

Conclusions: Our findings underscore the need to improve access to vision care services for children in Arizona, especially racial/ethnic minorities, low-income groups, and rural residents.

CORRESPONDING AUTHOR: Rizwana Biviji, PhD, MS, Arizona State University, Phoenix, AZ; Rizwana.Biviji@asu.edu

---

Abstract citation ID: kaad011.0290

POSTER SESSION B: LATINO PRESCHOOL PARENT, TEACHER, AND DIRECTOR PERCEPTIONS OF RETURN TO EARLY CARE AND EDUCATION DURING THE COVID-19 PANDEMIC

Analise Nicholson, BS, BA[1], Rebecca E. Lee, PhD[2], Meg Bruening, PhD, MPH, RD[3], Nathan Ashok, BS Medical Studies[4], Camila Nadalet, BS Foods and Nutritional Sciences[4], Bin Suh, PhD, RN[5], Hector Valdez, MA[6]

[1]Arizona State University, Peoria, AZ; [2]Center for Heath Promotion & Disease Prevention, Edson College, Arizona State University, Phoenix, AZ; [3]The Pennsylvania State University, University Park, PA; [4]Arizona State University, Phoenix, AZ; [5]Arizona Department of Health Services, Mesa, AZ; [6]Arizona State University, Edson College of Nursing and Health Innovation, Center cor Health Promotion and Disease Prevention, Phoenix, AZ

Background: Early care and education (ECE) sites serve as important hubs for social, emotional, and physical learning development of preschool aged (3-5 years) children. The COVID-19 pandemic impacted ECE enrollment and attendance. Preschool aged children in the US were ineligible for COVID-19 vaccines until June 2022. We aimed to identify perceptions of parents and preschool teachers and directors to enhance safe return-to-ECE efforts during the pandemic.

Methods: Focus groups (n=7; 22 participants) were conducted during Summer 2021 with ECE teachers and directors in Arizona to examine perceptions of COVID-19 testing for families and staff at ECE sites and explore current and possible COVID-19 mitigation strategies. Preschool parents from underserved families in Phoenix (n=41) completed a brief survey during Spring 2021 to measure their perceptions of benefits of in-person ECE for themselves and their children, thoughts on COVID-19 mitigation strategies, and timing for safe return to school. Focus groups were transcribed and analyzed for themes using constant comparison.

Results: Focus groups analysis showed 4 themes: 1) perceptions of saliva-based COVID-19 testing, 2) logistical strategies for COVID-19 testing at ECE sites; 3) challenges and successes with current COVID-19 mitigation strategies; 4) ideas to support improved COVID-19 mitigation, including outdoor garden-based curriculum. Parents rated peace of mind about the child’s education as the most important benefit for themselves of in-person ECE (74.6%), and social development for children as the most important benefit for their children (54.4%). Over 40% of parents reported it would not be safe for children to return to in person learning until 2022, about one year in the future from the time they were completing surveys.

Conclusions: Teachers and directors supported COVID-19 mitigation strategies including saliva-based testing at the ECE site and outdoor gardening education to improve safe return to schools. Parents reported key benefits to both themselves and their children from having their children attend in person ECE. Support is needed for ECE sites to remain safely open in the face of pandemics.

CORRESPONDING AUTHOR: Analise Nicholson, BS, BA, Arizona State University, Peoria, AZ; analise.nicholson@asu.edu

Abstract citation ID: kaad011.0291

POSTER SESSION B: SAM SYSTEM AND HPA AXIS RESPONSES TO CHALLENGE AMONG NORMAL AND OVERWEIGHT/OBESE PRESCHOOLERS

Tiffany Phu, MA[1], Jenalee Doom, PhD[1], Delia Vazquez, MD[2], Sarah Watamura, PhD[1], Julie Lumeng, MD[2], Alison L. Miller, PhD[3]

[1]University of Denver, Denver, CO; [2]University of Michigan, Ann Arbor, MI; [3]University of Michigan School of Public Health, ANN ARBOR, MI

The sympathetic-adrenal-medullary (SAM) system and hypothalamic-pituitary-adrenal (HPA) axis are two biological stress responsive systems that coordinate adaptation to stressors. Coordination across the SAM system and HPA axis is theorized to support optimal functioning (Bauer et al., 2002). Alterations in SAM and HPA reactivity to stressors have individually been associated with child overweight/obesity (OV/OB). The current study tests whether SAM and HPA coordination in response to a stressor differs for children with normal weight vs. OV/OB.

Methods: Participants were 252 preschoolers (51% female, M_{age}= 4.21 years, SD_{age}=0.53). Most families had low income (78% with ≤150% of the federal poverty line). During a lab visit that included a 20-minute social challenge paradigm with delay and frustration tasks, participants provided 5 saliva samples (baseline, prize selection, challenge reactivity, free play, and recovery). Saliva was assayed for alpha amylase (SAM) and cortisol (HPA). Height and weight were measured during this visit in a standardized manner and body mass index (BMI) calculated, then used to determine weight status per CDC standards for age and sex.

Results: Cross-lagged panel models assessed bi-directional effects of the 5 alpha amylase and cortisol samples across the lab visit, covarying for age. Analyses were stratified by weight status (normal vs. overweight/obese, defined as ≥ 85th percentile BMI). For preschoolers with normal weight, higher alpha amylase at baseline was associated with higher cortisol challenge reactivity, b=0.06, p=.047, and higher cortisol at baseline was associated with lower alpha amylase challenge reactivity, b= -0.37, p=.045. Preschoolers with normal weight also demonstrated concurrent positive correlations between alpha amylase and cortisol at samples 1 (r=.35, p=.009) and 2-5 (r=.04, p=.03). For preschoolers with OV/OB, one cross-lagged relationship emerged: higher cortisol when arriving at the lab visit (anticipatory response) predicted lower alpha amylase challenge reactivity, b= -0.47, p=.028, with no concurrent associations between alpha amylase and cortisol.

Discussion: Results suggest that OV/OB at preschool age may be associated with a decoupling of SAM and HPA coordination during stress. Future research should address whether decoupling has health consequences, and whether it is a stable feature of OV/OB in this age range that may reflect changes in how preschoolers physiologically respond to stressors.

CORRESPONDING AUTHOR: Tiffany Phu, MA, University of Denver, Denver, CO; tiffany.phu@du.edu

---

Abstract citation ID: kaad011.0292

POSTER SESSION B: PSYCHOSOCIAL INTERVENTIONS FOR YOUTH WITH INFLAMMATORY BOWEL DISEASES: A META-ANALYSIS

Sara Lampert-Okin, MS[1], Meghan Howe, BA[1], Rachel N. Greenley, PhD[1]

[1]Rosalind Franklin University of Medicine and Science, North Chicago, IL

Youth with inflammatory bowel diseases (IBD) are at risk for impaired health related quality of life (HRQoL) and social functioning, and symptoms of depression and anxiety are also common in this patient group. Several interventions targeting these psychosocial outcomes exist, but small sample sizes and heterogeneity in both design and construct operationalization pose challenges for understanding their potential benefits. The current meta-analytic review sought to examine intervention effects across the four aforementioned psychosocial outcome domains, while also exploring whether effect sizes varied as a function of methodological and intervention characteristics.

Methods: This review was conducted in accord with the meta-analytic reporting standards of the American Psychological Association. Seven articles met eligibility criteria for inclusion by including youth < 18 years of age with IBD, reporting on at least one relevant psychosocial outcome and including sufficient data for computation of an effect size.

Results: *Intervention Characteristics:* 86% of interventions utilized CBT either exclusively or as part of a multicomponent strategy. 86% of studies utilized randomized designs; among these, a summary of the comparison groups are as follows: 50% wait-list control, 33% active treatment (e.g., psychoeducation, supportive therapy), and 17% treatment as usual. *Effect Sizes*: 21 effect sizes were reported across the 7 studies. Overall, intervention effect sizes ranged from d = 0.15-1.21, with an average effect size of d = 0.54. The average effect size for HRQoL outcomes was d = 0.36, for depression outcomes was d = 0.66 for anxiety outcomes was d = .70, and for social functioning outcomes was d = 0.26. Poster will also describe differences in effect sizes as a function of intervention characteristics.

Conclusions: Results of this meta-analytic review indicate variability in intervention effects, with the strongest support for intervention efficacy in the domains of anxiety and depression. Additional work is needed to develop evidence-based interventions to enhance psychosocial functioning of youth with IBD.

CORRESPONDING AUTHOR: Sara Lampert-Okin, MS, Rosalind Franklin University of Medicine and Science, North Chicago, IL; sara.lampertokin@my.rfums.org

Abstract citation ID: kaad011.0293

POSTER SESSION B: ASSOCIATIONS OF STRESS AND COPING WITH WEIGHT AND WELL-BEING IN OVERWEIGHT AFRICAN AMERICAN ADOLESCENTS AND THEIR PARENTS

Taylor R. White, BS[1], Mary Quattlebaum, BA, MA[2], Marie Filatov, BS[2], Dawn K. Wilson, PhD, FSBM[3]

[1]University of South Carolina, Tarrant, AL; [2]University of South Carolina, Cayce, SC; [3]University of South Carolina, Columbia, SC

Stress and coping may be important factors to consider among African American families to increase engagement in health promotion interventions. This study presents baseline data from the Linking Exercise for Advancing Daily Stress (LEADS) Management ongoing feasibility trial. Initial findings from Project LEADS support the viability of incorporating stress management and coping strategies into a family-based health promotion program among African Americans, however, few previous studies have examined the associations of stress and coping as predictors of body mass index (BMI) and well-being in health promotion programs. The primary aim of this study was to examine baseline associations of stress and coping on predicting weight-related outcomes and well-being in overweight African American adolescents and their parents. Baseline data were collected from 48 African American adolescents and parents (24 dyads; adolescent: M_{age}=14.56±1.77; M_{BMI}%=97.7; 55.6% female; parent: M_{BMI}=42.10±6.86; 100% female) who participated in the ongoing LEADS feasibility trial. Measures included objectively assessed BMI, well-being as measured by the Multicultural Quality of Life Index, Perceived Stress as measured by the Perceived Stress Scale, Family Coping as measured by the Family Crisis Oriented Personal Evaluation Scales, and Daily Hassles as measured by the Hassles and Uplifts Scale. Hierarchical linear regression analyses, controlling for age and gender, demonstrated that adolescent-reported family coping (*B*=1.51, *SE*=0.66, *p*=0.042) was a significant predictor of adolescent *z*BMI, indicating that greater levels of family coping were associated with higher adolescents zBMI. This unexpected finding may shed light on the fact that that greater family coping may be an indicator of greater family stress given that these factors were correlated in the current study (r=0.38, p=0.079). Further regression analyses also demonstrated that parent-reported perceived stress (*B*=-1.49, *SE*=0.33, *p*< 0.001) and daily hassles (*B*=-1.77, *SE*=0.79, *p*=0.037) were both predictive of well-being, indicating that higher reported stress and daily hassles were associated with lower self-reported well-being scores among parents. These preliminary findings suggest that stress and coping may be important factors to incorporate into future interventions that focus on weight-related outcomes and well-being among African American adolescents and their parents.

CORRESPONDING AUTHOR: Taylor R. White, BS, University of South Carolina, Tarrant, AL; trw9@email.sc.edu

---

Abstract citation ID: kaad011.0294

POSTER SESSION B: A LATENT CLASS ANALYSIS OF HEALTH BEHAVIORS AMONG MIDDLE SCHOOL STUDENTS: IMPLICATIONS FOR FAMILY & SCHOOL LEVELS INTERVENTIONS

Shu-Fang Shih, PhD, MSc, MBA[1], Chelsea D. Williams, PhD[2], Jelaina R. Shipman, MA[2], Cecelia Valrie, PhD[2]

[1]Virginia Commonwealth University, Richmond, VA; [2]Department of Psychology/Virginia Commonwealth University, Richmond, VA

Children's engagement in risky and health-promoting behaviors has long-term health and social impacts. However, the majority of existing work has been variable-centered, and more person-centered evidence (e.g., Latent Class Analysis; LCA) is needed to inform the design of future interventions to improve children's wellbeing. This study used data from middle school students who completed the 2019 Youth Risk Behavior Surveillance System established by the CDC to monitor the prevalence of health behaviors among youth. LCA was utilized to identify patterns of health-related behavior exhibited by subgroups of middle-school children. Subgroups were identified using 18 health behaviors encompassing safety-related behaviors, dietary behaviors, physical activity, screen time, sleep, sexual behaviors, and substance use. The total sample size used for the LCA was 73,435. The predictors for the LCA included grades, gender, race, and food insecurity. Data were analyzed using Stata 16 and using full information maximum likelihood estimation for missing data. Results suggested that a three-class solution fit the data set best. Group 1: "Generally healthy behaviors" group (37%) exhibited primarily positive health behaviors. Group 2: "Elevated risky behaviors" group (47%) engaged in more risky health behaviors than group 1, but engaged in low initiation of sexual activity and substance use. Group 3: "Substance use" group (16%) engaged in more risky health behaviors overall, including more initiation of sexual activity and substance use. Findings highlight the need for family- and school-level interventions focusing on multiple aspects of middle schoolers' health-related behaviors to promote long-term positive health and development.

CORRESPONDING AUTHOR: Shu-Fang Shih, PhD, MSc, MBA, Virginia Commonwealth University, Richmond, VA; shihs2@vcu.edu

Abstract citation ID: kaad011.0295

POSTER SESSION B: A QUALITATIVE STUDY OF THE COMPOUNDING EFFECTS OF STRESS ON HEALTH AMONG AFRICAN AMERICAN PARENTS

Sydney M. Levine[1], Colby J. Kipp, MA[2], Dawn K. Wilson, PhD, FSBM[1], Asia M. Brown, MA[1], Mary Quattlebaum, BA, MA[3], Haylee M. Loncar, MA[4], Demetrius Abshire, PhD, RN[5], Allison M. Sweeney, PhD[1]

[1]University of South Carolina, Columbia, SC; [2]University of South Carolina, Oklahoma City, OK; [3]University of South Carolina, Cayce, SC; [4]University of South Carolina, Columbus, IN; [5]University of South Carolina College of Nursing, Columbia, SC

African American (AA) adults show higher rates of overweight and obesity (49.6%) than their White counterparts (44.7%) (Hales et al., 2020). Moreover, AAs are also at greater risk for chronic stressors, including racial stress and discrimination, that may contribute to poor health behaviors related to weight gain. However, no previous family-based intervention among AAs has specifically integrated a focus on building culturally salient coping skills for racial stress (racial socialization, cultural assets) to improve physical activity (PA) and weight-related outcomes. These strategies may be important coping strategies for improving self-regulation and health outcomes among AAs. The current qualitative study was conducted with parents from the Families Improving Together (FIT) for weight loss trial (Wilson et al., 2022) at post-intervention to explore perceptions of stress and coping, health behaviors, and recommendations for future health promotion programs for AA families. Specifically, we sought to gain insight on parental perspectives of stress and coping to inform the development of a family-based health promotion and stress management program—Linking Exercise for Advancing Daily Stress (LEADS) Management—targeting PA and weight-related outcomes among AA families. AA parents were predominately female (96%; aged M = 49.73, SD = 10.88) and were overweight or obese (M = 37.63, SD = 8.21). Interview transcripts were coded using deductive and inductive approaches. Two coders completed ratings (n=14 transcripts) and interrater reliability was acceptable (r = 0.71-0.80). Themes addressed perceptions of stressors, consequences of stress, health behaviors related to stress, coping strategies, sources/types of social support, and recommendations for the LEADS health promotion program. Respondents (80%) described their responsibilities as a caregiver as being a significant source of stress. Work responsibilities (76%) and financial struggles (60%) were also commonly reported stressors. Participants reported physical and emotional consequences of daily stress related to health behaviors such as making poor food choices (50%), loss of appetite (36%), and decreased PA (33%). Overall, 75% of the participants attributed physical symptoms to chronic stress (e.g., fatigue, body aches, heart racing, chest pain, high blood pressure, muscle tension, digestive problems, and weight gain). Themes related to coping strategies included physical isolation (75%) as the most used, followed by prayer/mediation, (70%), and social support (55%). These results were used to inform the development of the LEADS trial essential elements for integrating a culturally tailored stress and coping component to improve PA and weight outcomes in health promotion programs for AA families.

CORRESPONDING AUTHOR: Sydney M. Levine, University of South Carolina, Columbia, SC; levinesm@email.sc.edu

---

Abstract citation ID: kaad011.0296

POSTER SESSION B: THE IMPACTS OF COUNSELLING SERVICE ON CHILDREN'S BEHAVIOR PROBLEMS, COPING STRATEGIES AND RESILIENCE IN RESIDENTIAL CARE HOME

Caitlin K.P. Chan, PhD[1], Ted C.T. Fong, PhD[2], Connie Y.T. Leung, MSocSc, MPsyMed, AFHKPS[1], Rainbow T.H. Ho, PhD[1]

[1]Centre on Behavioral Health, The University of Hong Kong, Hong Kong, N/A, Hong Kong; [2]Centre on Behavioral Health, University of Hong Kong, Hong Kong, N/A, Hong Kong

Background: Counselling services in local residential care homes, addressing residents' in-depth emotional issues, are usually in high demand but scarce. To fill the service gap, a project introducing a counsellor post to four local homes was launched in May 2016. This study examined the efficacy of adding a counsellor post for children residents in enhancing children's wellbeing, and also the coping strategies and resilience of the children during Covid-19 pandemic.

Research Design: A quasi-experimental design, counselling group and control group with repeated measurements was adopted. A total of 484 child residents were recruited from the 4 residential care homes. Children's behavior problems were rated 6 times by house parents since June 2019 and every 6 months until December 2021. A subsample of 141, 137, and 105 children also completed a self-report questionnaire on coping strategies and resilience in July 2021, November 2021, and February 2022 respectively. Latent growth modelling was used to analyze the growth trajectories in children's behavior problems across the study period. The effects of the counselling service were examined via regression analysis. Changes in coping strategies and resilience were analyzed via the Time x Counselling group effect using repeated measures analysis of variance (ANOVA).

Results: Result showed that counselling had a direct effect on internalizing behavior problems (p = 0.032), catastrophizing strategy (F = 4.02, p = 0.048) and resilience (F = 4.42, p = 0.14) of the child residents when compared with children in control group. The effects of counselling services on improving internalizing behavior problems were consistent across the children with and without SEN (F = 12.54, p < 0.01), in which the latter reported a greater extent of declines (F = 5.78 – 16.47, p < 0.05).

Conclusions: The findings indicated the urgent need of an effective and long-term counselling service for children living in the residential homes as it helps enhance children's wellbeing, coping strategies and resilience. A structured and regular counselling service should be provided to all residents by staff who is properly trained and experienced in counselling.

CORRESPONDING AUTHOR: Caitlin K.P. Chan, PhD, Centre on Behavioral Health, The University of Hong Kong, Hong Kong, N/A, Hong Kong; kpcchan@hku.hk

Abstract citation ID: kaad011.0297

POSTER SESSION B: A TEAMWORK MODEL FOR REDUCING ROLE CONFLICTS AMONG STAFF IN RESIDENTIAL CHILD CARE HOMES: A MIXED METHODS STUDY

Caitlin K.P. Chan, PhD[1], Ted C.T. Fong, PhD[2], Connie Y.T. Leung, MSocSc, MPsyMed, AFHKPS[1], Serena C.Y. Lee, BPsych[1], Rainbow T.H. Ho, PhD[1]

[1]Centre on Behavioral Health, The University of Hong Kong, Hong Kong, N/A, Hong Kong; [2]Centre on Behavioral Health, University of Hong Kong, Hong Kong, N/A, Hong Kong

Background: A counselling service scheme has been introduced to 4 residential child care homes of Hong Kong since 2016. Role conflict was reported frequently among staff in the home setting. The current study aimed to examine the benefits to workers by adding a counsellor in care home settings. It also explored the teamwork among workers of the 4 homes and attempted to develop a good practice model for improving the residential child care service.

Research Design: A single-group and mixed-methods study design was adopted. A total of 149 workers were recruited from the 4 residential care homes between June 2019 and May 2022. They filled in the self-report questionnaire at baseline and every 6 months on role stress (including domains of role ambiguity and role conflict), and burnout in the personal, work, and client domains. The 4 counsellors were invited for a focus group and individual interviews, while the centre in-charges of each home were invited to individual interviews to develop the teamwork model. Latent growth modelling and regression analysis were used to analyse the growth trajectories in role stress and job burnout of the workers and the relationships between changes in role stress and job burnout. Thematic analysis was conducted to investigate the interviewees' experience and the effectiveness of the project.

Results: Change in role conflict showed significant and positive effects on personal burnout ($\beta = 0.23$, SE = 0.08, $p < 0.01$), work burnout ($\beta = 0.27$, SE = 0.09, $p < 0.01$), and client burnout ($\beta = 0.24$, SE = 0.12, $p = 0.04$). It suggests that managing the role conflict of the workers could effectively lower the levels of burnout across various domains and improve their occupational well-being. Three elements for a good teamwork model emerged from the interviews: 1) responsible management, 2) trust and transparency, and 3) no overlaps in job duties. The interviewees stated that a responsible management could largely reduce role conflicts among workers because it helped develop a trustworthy and transparent work environment so that different parties could work closely but independently (without overlaps in job duties) to promote understanding of children, and make arrangements to accommodate their personalities and needs.

Conclusion: The findings highlighted the importance of managing role conflict and establishing a good teamwork in the residential child care home to maximize the benefits of counselling to both children and staff.

CORRESPONDING AUTHOR: Caitlin K.P. Chan, PhD, Centre on Behavioral Health, The University of Hong Kong, Hong Kong, N/A, Hong Kong; kpcchan@hku.hk

Abstract citation ID: kaad011.0298

POSTER SESSION B: PARENTS' PERCEPTIONS OF AN INFANT PHYSICAL ACTIVITY MEASUREMENT PROTOCOL: A QUALITATIVE STUDY

Priyanka Chaudhary, BS, MPH[1], Brian Knarr, PhD[2], Jong-Hoon Youn, PhD[2], Michaela Schenkelberg, PhD[2], Danae Dinkel, PhD[2]

[1]UNO, Omaha, NE; [2]University of Nebraska at Omaha, Omaha, NE

Background: Physical activity is associated with a variety of benefits in early childhood including motor skills and cognitive development. Researchers are increasingly using accelerometry to monitor infant physical activity; however, few studies have reported parents' perceptions of the data collection procedures. This information is critical as these procedures can impact the recruitment and retention of participants as well as the quality of the data.

Objective: To explore the acceptability of a home-based infant physical activity data collection protocol by parents.

Methods: This qualitative case study was part of a pilot study to develop an accelerometer-based methodology to accurately assess infant movement. A semi-structured interview explored parents' (e.g., parents, n=21) perceptions of the home data collection procedures with infants (6-15 months). Accelerometers were placed on the waist and right ankle of the infant. Accelerometers were worn for 4 consecutive days and parents documented their child's dominant activity for every 30-minute time block (e.g., independent playtime; in the restricted device; held/carried; feeding; sleeping). Feasibility was explored via a post-assessment interview. Data were analyzed using a thematic analysis approach. Data were analyzed using a thematic content analysis using the NVIVO software (Version 13).

Results: Overall, parents felt the protocol was feasible. However, only 18% did not feel comfortable having the accelerometer around their infant's waist as they felt it could hurt their child. Further, 40% of parents mentioned filling out the diary was burdensome as they often had trouble remembering to fill it out. When asked about the length of data collection, almost 90% of parents felt 4 days was ideal; however, 10% of parents preferred fewer days of monitoring. Parents recommended including a customized accelerometer band length, flexibility with the days and time for home data collection, reduced time intervals in the diary from 30-minutes to 15-minutes, and a need for more diverse activities represented in the activity diary.

Conclusion: Most parents found the home data collection to be acceptable, but they reported several challenges including the difficulty of completing the activity diary. Additional research is needed to develop an infant physical activity assessment methodology that 1) reduces parent burden, 2) collects valid and reliable data, and 3) differentiates between types of movement which aligns with infant movement guidelines.

CORRESPONDING AUTHOR: Priyanka Chaudhary, BS, MPH, UNO, Omaha, NE; pchaudhary@unomaha.edu

Abstract citation ID: kaad011.0299

POSTER SESSION B: DEVELOPING AND MEASURING REACH OF EARLY CANCER DIAGNOSIS CHANNELS USING NOMINAL GROUP TECHNIQUE WITH AN URBAN POOR COMMUNITY

Nurhyikmah Binti Mohamad Lothfi, MPH[1], Yew Kong Lee, PhD[1], Prashwin Singh[1], Nur Aishah Mohd Taib, MBBS, MSurg, PhD[1]

[1]University of Malaya, Kuala Lumpur, Kuala Lumpur, Malaysia

Despite higher health standards in urban areas, urban poor continue to face cancer disparities. Most health communication campaigns to promote behavior change often adopt a top-down approach in developing messages (i.e., cues to action) and channels (i.e., modes of dissemination) without considering communication barriers among the urban poor. As such an inclusive, community-based approach is needed to adapt local community norms, beliefs, and practices when designing a cancer campaign.

This study aimed to identify and measure reach of channels for dissemination of early cancer diagnosis messaging in a 6-week campaign in an urban poor community in Malaysia.

The study was conducted between Oct. 2021 – June 2022 using a community based participatory action research approach during the COVID pandemic to identify channels for dissemination of early cancer diagnosis messages for breast, colorectal, cervical, and lung cancer. A two-phase mixed-method study design was adopted. In Phase 1, community leaders and cancer patients in the pilot site developed cancer messages and channels using the online nominal group technique (NGT). An expert panel comprising of relevant clinical specialists provided guidance on the accuracy of the messages. In Phase 2, campaign messages were disseminated for 6 weeks on two platforms (WhatsApp, Facebook). Weekly data on reach of messages were collected via community leaders self-reported dissemination (for WhatsApp) and Facebook Analytics.

In Phase 1, n=9 community members participated in the NGT: a cancer patient group (n=5) and a community leader group (n=4). After voting, the top three identified channels were: (1) WhatsApp or other social media, (2) community leaders, and (3) health programs of which (1) and (2) were selected for Phase 2 due to pandemic restrictions.

In Phase 2 (April 19 – June 1, 2022), a total of n=23 WhatsApp messages were disseminated through n=24 community leaders (residential block chairpersons n=11, community navigators n=12, and local mosque leaders n=1). The self-reported reach for each weekly cancer message was n=7,963 breast, n= 8,012 colorectal, n=7,955 cervical, n=8,100 lung cancer, n=8,103 cancer navigation, and n=7,675 cancer prevention.

For Facebook, a total of n=30 posts were disseminated with n=36 tags of relevant local Facebook profiles. The reach (estimated number views for specific post) for weekly cancer messages posts was n=8,017 breast, n=1,593 colorectal, n=9,030 cervical, n= 15,640 lung cancer, n=6,017 cancer navigation, and n=2,366 cancer prevention.

An online community-based approach to identify channels for cancer early diagnosis information is feasible in an urban poor setting. The community preferred to use online platforms to disseminate cancer-related messages. Targeting community channels are necessary to allow a more localized dissemination and promote early cancer diagnosis among the urban poor.

CORRESPONDING AUTHOR: Nurhyikmah Binti Mohamad Lothfi, MPH, University of Malaya, Kuala Lumpur, Kuala Lumpur, Malaysia; nurhyikmahlothfi@um.edu.my

---

Abstract citation ID: kaad011.0300

POSTER SESSION B: NAFLD SCREENING AS A STRATEGY TO PROMOTE CHANGES IN DIET, PHYSICAL ACTIVITY, AND BODY WEIGHT IN MEXICAN-ORIGIN ADULTS

Edgar A. Villavicencio, MPH[1], Adriana Maldonado, PhD[1], Rosi Vogel, BBA, MBA[1], David O. Garcia, PhD[1]

[1]University of Arizona, Tucson, AZ

Non-alcoholic fatty liver disease (NAFLD) rates are highest among Mexican-origin (MO) adults. Screening for NAFLD includes non-invasive tests, such as a FibroScan®, which allows for immediate feedback of results and discussion of modifiable risk factors to reduce risk. It is unknown how NAFLD screening impacts lifestyle modification for this high-risk subpopulation. Therefore, we conducted a follow-up telephone survey to assess self-reported changes in lifestyle behaviors and body weight in MO adults after receiving a FibroScan®. Eligible participants (n=297) were MO adults from a previous cross-sectional study focused on NAFLD screening including result feedback. After receiving consent, the following questions were asked: 1) Did receiving the liver scan as part of the previous study motivate you to change your physical activity habits/ nutrition habits? and 2) Did you lose weight after receiving your liver scan? If so, how much weight did you lose? A total of 202 MO adults (women=134; men=68) completed the survey. Average time between screening (pre) and follow-up (post) was 13.6 ± 2.9 months. Most participants indicated modifying physical activity (75%; n=152) and nutritional habits (82%; n=166). Of the total sample, 58% (n=117) reported losing weight, with an average of 12 ± 7.3 lbs. However, weight change from pre-to post- assessment for this sample was non-significant (-1.6 ± 18.18 lbs.). NAFLD screening with a FibroScan® and result feedback appears to be a viable strategy to initiate short-term behavior change and weight loss for MO adults. Efforts to complement screening with lifestyle modification support are warranted to sustain changes long-term.

CORRESPONDING AUTHOR: Edgar A. Villavicencio, MPH, University of Arizona, Tucson, AZ; evillavicencio@arizona.edu

Abstract citation ID: kaad011.0301

POSTER SESSION B: EXPOSURE TO CHEMICALS IN DO-IT-YOURSELF RELAXERS IS ASSOCIATED WITH INCREASED RISK OF BREAST CANCER DIAGNOSIS IN BLACK WOMEN

Jazma L. Tapia, PhD[1], D. Bing Turner, MPH[2], Tonya Fairley, Certified Trichologist[3], Maggie Hawkins, MPH, CHES[4], Tiah Tomlin-Harris, MS[5], Adana A. Llanos, PhD, MPH[6], Lindsey S. Trevino, PhD[7], Dede K. Teteh, DrPH, MPH[8]

[1]Division of Health Equities, Department of Population Sciences, City of Hope Comprehensive Cancer Center, Duarte, CA; [2]Heritage Wellness Collective, Claremont, CA; [3]TS Fairley Hair Restoration Center, Covina, CA; [4]California State University Fullerton and California State University Los Angeles, Riverside, CA; [5]My Style Matters, Inc, Fairburn, GA; [6]Mailman School of Public Health, Columbia University, New York, NY; [7]Division of Health Equites, Department of Population Sciences, City of Hope Comprehensive Cancer Center, Duarte, CA; [8]Department of Health Sciences, Crean College of Health and Behavioral Sciences, Chapman University, Orange, CA

The *Bench to Community Initiative* (BCI) is a community-based participatory research project in partnership with community stakeholders, bench, and behavioral scientists. The goal of BCI is to understand the biological and sociocultural impact of endocrine disrupting chemical (EDC) exposures from hair products used by Black Women (BW). Hair product use for BW begins prior to puberty and often continues throughout adulthood. Hair products containing EDCs (e.g., parabens) might contribute to increased risk of early onset breast cancer (BC) and poorer outcomes. Therefore, the purpose of this study was to assess the relationship between characteristics of hair product use and BC risk for BW.

Methods: Participants completed a 41-item online survey between 2020-2022. Multivariable logistic regression models (adjusting for age at menarche and diagnosis) were used to determine associations between the use of hair products over the life course and the likelihood of a BC diagnosis among BW. History of use over the life course responses included *childhood and adulthood use*, *childhood only use*, *adulthood only use*, *past-use,* and *non-use* of *relaxers* (Do-it-Yourself [DIY] or salon), *conditioners*, and *hair dyes*.

Results: Most participants (N=433) were age 39.4±8.8 years with a mean age at menarche of 12.9±2.9 years. Participants diagnosed with BC (38%) had a mean age at diagnosis of 37.4±8.8 years. We observed no significant associations between *hair dye* or *conditioner use,* and BC diagnosis. BW reporting DIY relaxer use in *adulthood only* had 3.2 greater odds of BC diagnosis (95% CI: 1.25-8.25) than *non-users*. BW reporting DIY relaxer use in *childhood and adulthood* had 4.9 times greater odds of BC (95% CI: 1.09-22.8) than *non-users*. Similarly, relative to *non-use*, *past-use* (OR 4.96, 95% CI: 1.37-18.0) and *childhood* use (OR 4.19, 95% CI: 1.13-15.6) were associated with increased odds of BC diagnosis.

Discussion: These findings indicate a significant association between prolonged relaxer use and BC diagnosis among BW. This association is further supported by our recent BCI laboratory results showing propyl and butyl parabens promote pro-tumorigenic effects in BC cell lines (West African & European ancestry). Therefore, interventions to reduce adverse exposures to EDCs from hair products across the lifespan is warranted.

CORRESPONDING AUTHOR: Jazma L. Tapia, PhD, Division of Health Equities, Department of Population Sciences, City of Hope Comprehensive Cancer Center, Duarte, CA; Jtapia@coh.org

---

Abstract citation ID: kaad011.0302

POSTER SESSION B: STRATEGIES TO INCREASE RACIAL AND ETHNIC DIVERSITY IN A COMMUNITY WEIGHT MANAGEMENT PROGRAM: THE LOG2LOSE TRIAL

Shauna Malone[1]

[1]Duke University School of Medicine, Durham, NC

Research objective: Obesity disproportionately affects individuals from racial and ethnic minority (REM) groups, yet REM are greatly underrepresented in clinical trials. Log2Lose is a weight management clinical trial being conducted at 2 sites: the University of Wisconsin-Madison and Duke University in Durham, NC. Our goal at the Duke site is to work with community partners to increase the proportion of REM who participate in the Log2Lose trial.

Methods: Over the last wo years, our community-engaged strategies to increase diversity have evolved across 3 Cohorts of recruitment. For Cohort 1, we conducted 2 community Consultation Studios (CCS) with Latinx and Black community members who provided input on recruitment and outreach strategies to reach REM communities. We met with two community advisory boards comprised of REM groups (i.e., Veteran Research Engagement Panel; African Methodist Episcopal Zion Health Equity Advocates & Liaisons) who provided feedback on recruitment strategies. REM community members reviewed the protocol, contributed to our recruitment plans and materials, and helped co-host community events to build awareness for obesity research globally, and Log2Lose specifically. Other strategies included working with a local African American COVID Taskforce to promote the study at community vaccination events. In Cohorts 2 and 3, Log2Lose research staff participated in community engagement activities and conducted outreach through public radio, social media, and cable channels that have a higher share of REM consumers, including partnering with a Historically Black College and University radio station. Recruitment and enrollment windows also varied in length and by the time of year.

Results: We randomized 296 participants, 47% were from REM groups (Cohort 1 = 50/109; Cohort 2 = 44/95; Cohort 3 = 45/92). We had the highest proportion of Latinx (9%) and Black (31%) participants in Cohort 1. We observed trends of greater REM diversity in Cohorts with short recruitment and enrollment windows (34 vs 55 days). We also observed slightly higher rates of REM diversity in Cohort 3 which was recruited over the fall (49%), compared to Cohort 1, which was recruited over the summer (46%)

Conclusion: Recruitment efforts at Duke University to prioritize a diverse sample of adults with obesity resulted in high rates of REM participation in the study. Partnering with REM groups in the community helped to increase racial and ethnic diversity in the study. We also observed trends in the length of recruitment windows and the season of recruitment. Future studies seeking to have racially diverse samples may want to consider the time of year for recruitment, and shorter recruitment windows to maintain interest and engagement in the trial.

CORRESPONDING AUTHOR: Shauna Malone, Duke University School of Medicine, Durham, NC; shauna.malone@duke.edu

Abstract citation ID: kaad011.0303

POSTER SESSION B: UNDERSTANDING PSYCHOLOGICAL SOURCES OF VACCINE-RELATED ATTITUDES AND BEHAVIORS

Lisset Martinez-Berman, MS[1], Blair T. Johnson, PhD[2]

[1]University of Connecticut, Windsor, CT; [2]University of Connecticut, Storrs, CT

Even though the flu vaccine is present in people's lives every year, some people still hold anti-vaccination attitudes or are vaccine-hesitant and do not vaccinate themselves or their children. These attitudes are known to be detrimental to vaccination intentions and vaccine uptake. Thus, it is crucial to understand why people hold such attitudes toward vaccines so that researchers can find better ways to frame health messages to promote vaccine uptake. The current study brings together contrasting theoretical perspectives to understand better what makes a person more or less favorable to the annual flu vaccine. No prior study has applied attitude structure literature to understand vaccination attitudes using the tripartite model. This model proposes that attitudes are comprised of affects, behaviors, and cognitions. This study fills this gap in the literature by using the tripartite model to conceptualize vaccination attitudes and examined the role of habits and transportation (i.e., the extent to which a person is immersed in a story or narrative world). The study identifies and compares items from pre-existing vaccination attitude scales that measure affect, behavior, and cognition. Participants were recruited by targeting four states: Mississippi, Massachusetts, Oklahoma, and Oregon (based on their 2019-2020 flu vaccination coverage rates and their looseness-tightness scores; a plan meant to gather participants who may hold more negative attitudes toward vaccines). The results suggest that vaccination attitudes are based more on affects than on cognitions. Habits were shown to be an important predictor of vaccination intentions, associated with frequent flu vaccination in the past five years, and associated with the habits of their social networks. Transportation was a significant predictor of vaccination attitudes and intentions. Overconfidence was a significant predictor of vaccination attitudes, but not intentions. Tightness (i.e., a cultural dimension in which people should conform to the local norms more than those in looser locales) at individual and state levels did not correlate with each other and did not predict vaccination attitudes and intentions. This study suggests a new way of conceptualizing vaccination attitudes and shows the importance of other factors that can predict vaccination attitudes and intentions.

CORRESPONDING AUTHOR: Lisset Martinez-Berman, MS, University of Connecticut, Windsor, CT; lisset.martinez-berman@uconn.edu

---

Abstract citation ID: kaad011.0304

POSTER SESSION B: AWARENESS OF EXPERIENCING GAMBLING-RELATED HARM: DO I HAVE A GAMBLING PROBLEM?

Marcos Lerma, MA[1], Abby McPhail, MA, MS[1], Rory A. Pfund, PhD[1], James P. Whelan, PhD[1]

[1]The Institute of Gambling Education Research, The University of Memphis, Memphis, TN

Over two million individuals meet the criteria for gambling disorder in the US. Although treatment for gambling disorder is efficacious, only 10% of those individuals seek treatment. Additionally, there is inconclusive evidence about what predicts whether a person seeks treatment for gambling-related harms. An interesting recent study casts a new twist on the problem as reportedly about 40% of those who appear to have a gambling problem report being aware of that problem. The aim of this study was to explore which DSM-5 criteria for gambling disorder are associated with perceived awareness and gambling problem severity.

Participants (n=472; $Mage$=35.37, SD=10.18; 58% male) who self-reported gambling at least weekly were recruited via Amazon Mechanical Turk. Those consenting completed a questionnaire packet that asked about demographics, gambling behaviors, perception of having a gambling problem, their perceived level of gambling problem severity, and gambling disorder symptoms.

Results indicated that 65.7% of participants reported that their current gambling behavior might be problematic. A logistic regression was used to assess the association between awareness of having a gambling problem and gambling disorder symptoms. Problem awareness was significantly associated with higher odds of needing to gamble with more money to feel excitement (OR=2.78, $p< .01$), causing money problems (OR=1.86, $p< .05$), and causing problems at work (OR=2.82, $p< .01$) or school (OR=1.89, $p< .05$), and lower odds of spending a lot of time thinking about ways to get money to gamble (OR=.458, $p< .05$). A linear regression model was used to assess the association between perception of gambling problem severity and gambling disorder symptoms. Perception of gambling problem severity was positively associated with spending a lot of time thinking about gambling (b=.921, $p< .01$). There were no other significant associations observed.

These findings suggest that financial distress is driving individuals' self-perceptions of gambling problems. Surprisingly, the perceived severity of the problem was related to a preoccupation with gambling rather than thinking about ways to get money to gamble. Such findings point to the need to explore the sequence of symptom experience that relates to decisions about having a problem and needing treatment.

CORRESPONDING AUTHOR: Marcos Lerma, MA, The Institute of Gambling Education Research, The University of Memphis, Memphis, TN; mlerma@memphis.edu

Abstract citation ID: kaad011.0305

POSTER SESSION B: THE EFFECTS OF INDUCING ANTICIPATED REGRET ON AUTONOMOUS MOTIVATION AND SEASONAL FLU VACCINATION

Austin S. Baldwin, PhD, FSBM[1], Catherine N. Moden, PhD[2]

[1]Southern Methodist University, Dallas, TX; [2]Rocky Mountain Regional VA Healthcare System, Dallas, TX

Objective: Meta-analytic evidence indicates that anticipated regret is strongly associated with health behavior intentions and moderately associated with health behavior (Brewer et al., 2016). However, it remains unclear why anticipated regret influences behavior. We hypothesized that anticipated regret influences health behavior by increasing autonomous motivation and tested the hypotheses in the context of seasonal flu vaccination.

Methods: In Fall 2020, healthy young adults who had not yet received a seasonal flu vaccine (N=262) were randomized to complete (1) anticipated regret questions about the seasonal flu and vaccine, (2) an open-ended anticipated regret prompt about the seasonal flu and vaccine, or (3) no anticipated regret questions or prompts. Participants then completed measures of motivation and vaccination intentions. In Spring 2021, participants (n=218; 83% follow-up response rate) reported whether they had received a flu vaccine the previous fall/winter. We tested hypotheses that inducing anticipated regret results in higher autonomous motivation, intentions, and vaccination rates, and that autonomous motivation mediates the effects of anticipated regret on intentions and vaccination.

Results: Participants in the two anticipated regret conditions reported higher autonomous motivation than those in the control condition, F(1,260)=4.86, p=.03, d=0.29. There were no differences between the two anticipated regret conditions. However, anticipated regret participants did not report stronger intentions nor higher vaccination rates. Autonomous motivation was a strong predictor of both intentions (B=.77, p< .0001) and vaccination (OR=2.37, 95% CI: 1.61,3.50) and there was a significant indirect effect of anticipated regret through autonomous motivation on intentions (B=.27, 95% CI: .02,.43) and vaccination (OR = 1.30, 95% CI: 1.03,1.82).

Conclusion: As hypothesized, inducing anticipated regret about not getting a flu vaccine resulted in higher autonomous motivation for vaccination. Findings indicated anticipated regret influences intentions and vaccination through its effect on autonomous motivation. Anticipated regret questions and prompts may be effective intervention tools to elicit autonomous motivation for vaccination. Implications for theory and interventions will be discussed.

CORRESPONDING AUTHOR: Austin S. Baldwin, PhD, FSBM, Southern Methodist University, Dallas, TX; baldwin@smu.edu

---

Abstract citation ID: kaad011.0306

POSTER SESSION B: EXAMINING DECISIONAL SATISFACTION AND SATISFACTION WITH DIALYSIS AMONG PATIENTS UNDERGOING IN-CENTER AND HOME DIALYSIS

Miriam E. Velez-Bermudez, PhD, MPH[1]

[1]University of New Mexico, Iowa City, IA

Objective: The present study examined the combined associations of dialysis modality, race and ethnicity, psychosocial factors, and healthcare-related factors on both decisional satisfaction regarding the dialysis modality decision-making process, and satisfaction with dialysis among patients undergoing in-center dialysis and home dialysis.

Methods: Survey measures were utilized to collect data from patients undergoing dialysis in the southeast region of a largely rural, Midwestern US state, from December 2021 to April 2022. Participants were 18 years or older, undergoing dialysis, and had the cognitive ability to provide consent. Hierarchical regression analyses were used.

Results: Ninety participants completed survey materials (46 [51%] in-center dialysis, 60 [67%] male, 60 [67%] White and non-Hispanic, mean [SD] age, 61.64 [15.68]). Descriptive analysis suggested White and non-Hispanic race was associated with increased odds of undergoing home dialysis over in-center dialysis. Additionally, analyses showed that undergoing home dialysis, greater satisfaction with dialysis, and greater perceived quality of nephrology care predicted decisional satisfaction. Further, undergoing in-center dialysis, greater decisional satisfaction, lower fatigue severity, lower perceived discrimination in healthcare, and reporting a lack of pre-nephrology barriers to healthcare was associated with greater satisfaction with dialysis.

Conclusions: Although preventive measures such as engaging in shared decision-making processes prior to dialysis initiation should still be pursued, there is a need to support patients already undergoing dialysis. Based on these findings, future research should examine ways to reduce decisional regret and improve satisfaction among patients already undergoing dialysis.

CORRESPONDING AUTHOR: Miriam E. Velez-Bermudez, PhD, MPH, University of New Mexico, Iowa City, IA; miriam-velez-bermudez@uiowa.edu

Abstract citation ID: kaad011.0307

POSTER SESSION B: PREDICTORS OF LONELINESS AMONG OLDER ADULTS WITH DM

Emma Cho, RN, BSN[1], Alexandra Garcia, PhD, RN, FAAN[1]

[1]The University of Texas at Austin, Austin, TX

Physical activity is a key factor for managing diabetes mellitus (DM) in older adults. Yet 28% of adults aged 50 and older reported engaging in no physical activity. Loneliness is a risk factor for physical inactivity and 35% of adults aged over 45 reported feeling lonely. Individuals with DM are about twice as likely to have functional limitations and to have depression than those without DM, which can further increase the risk of physical inactivity and loneliness. This study examines the predictors of loneliness and examines how well loneliness along with demographic characteristics, functional limitation, social support, and depressive symptoms predict physical activity in older adults with DM. Research on predictors of loneliness in older adults with DM has not been conducted so far in the U.S.; study results conducted in different countries have been inconsistent, and research has not examined the impact of loneliness on physical activity in older adults with DM. Finding factors that predict loneliness will inform development of tailored interventions needed to reduce loneliness among older adults with DM and potentially increase their physical activity levels.

This study is a secondary analysis of data from the National Social Life, Health, and Aging Project (NSHAP) study that included a national sample of U.S. adults over 50. Hierarchical regression analysis was used to predict the variance accounted for by functional limitation, social support, depressive symptoms on loneliness. Multinomial logistic regression was used to predict the variance accounted for by functional limitation, social support, depressive symptoms, and loneliness, on physical activity.

The sample was composed of 557 adults with DM aged 50 years or older. The mean age was 66.9±9.8. The significant predictors of loneliness were minority race/ethnicity, high education, low social support, and high depressive symptoms ($p < .05$). However, only functional limitation ($p < .001$) and female gender ($p = .006$) were significantly associated with physical activity. Older adults with DM who are females were two times more likely to being inactive as opposed to active and who had functional limitations were three times more likely to be physically inactive. This study analyzed existing and robust national level data and found that loneliness among older adults with DM is increased by depressive symptoms, high levels of education, minority race/ethnicity, and low income. Gender and functional limitations predicted physical activity; however, loneliness did not directly predict physical activity. The ordinal level measurement of physical activity reported in the dataset prevented mediation analysis. The 3-item scale used to measure loneliness may not have captured all aspects of loneliness. Future research should repeat the study with continuous measures of physical activity and more robust measure of loneliness.

CORRESPONDING AUTHOR: Emma Cho, RN, BSN, The University of Texas at Austin, Austin, TX; emma.cho@utexas.edu

---

Abstract citation ID: kaad011.0308

POSTER SESSION B: THINK FAST: LINKING AMBULATORY MEASURES OF COGNITIVE AND METABOLIC FUNCTION AMONG INDIVIDUALS WITH DIABETES

Patrick J. Smith, PhD, MPH[1], Rhonda Merwin, PhD[2]

[1]University of North Carolina at Chapel Hill, Chapel hill, NC; [2]Duke University Medical Center, Durham, NC

Background: Diabetes mellitus (DM) and poorer metabolic function are increasingly implicated as risk factors for Alzheimer's Disease and Related Dementias (ADRD). Individuals with DM are 2-3 more times likely to develop DM and experience a more rapid progression. Prior data in DM samples have suggested that greater fluctuations in blood glucose over time have been associated with more precipitous cognitive decline and progression of neurodegeneration. Despite the untoward impact of blood glucose variability (BGV) on cognitive outcomes, the impact of poor glucose control on daily cognitive functions and activities of daily living is inconsistent, with some DM individuals exhibiting greater cognitive resilience despite wide glucose variability.

Methods: We sought to examine the associations between clinical and ambulatory measures of cognitive functioning with blood glucose variations collected in an ecologically valid, ambulatory setting. Participants with diabetes ($n = 20$) were recruited and asked to wear a continuous glucose monitor for one week, during which measures of ambulatory cognitive functioning were collected in tandem with blood glucose levels. Prior to ambulatory assessments, participants wore actigraphy monitors to assess both physical activity and sleep quality, as well as completing measures of clinical neuropsychological functioning and background information. Clinical neuropsychological measures included measures of Executive Function (Trail Making Test Parts A & B, Controlled Oral Word Association Test, Animal Naming Test, Digit Span Test, Digit Symbol Substitution Test) and Memory (California verbal learning test, Benton Visual Memory Test – Revised), and estimates of premorbid intellectual functioning (Weschler Test of Adult Reading). Ambulatory measures of cognition included the Digit Symbol Matching Test, the Digit Span Task, and the Alternating Task Switching Test.

Results: Participants included 20 individuals with widely varying clinical and demographic backgrounds (mean age = 49 [SD = 13]; mean CGM glucose = 177 [SD = 50]; mean actigraphy steps = 9687 [SD = 2410]). Performance on clinical neuropsychological measures was variable, despite participants average performance levels tending to score in the average range for measures of general intellect (estimated FSIQ = 110 [SD = 8]), Executive Function (t = 51 [SD = 6]) and Memory (t = 55 [SD = 7]). Participants exhibiting $\geq$ impaired subtest were more often observed on tasks of Executive Function (30%) compared with Memory (15%). Reduced reaction time on ambulatory cognitive measures associated with lower Executive Function ($r = -0.61$, $P = .015$) and Memory ($r = -0.60$, $P = .016$) performances. Analyses linking changes in BGV and lifestyle behaviors to cognitive performance are ongoing.

Conclusions: Ambulatory measures of cognitive performance associate with clinically validated measures in DM.

CORRESPONDING AUTHOR: Patrick J. Smith, PhD, MPH, University of North Carolina at Chapel Hill, Chapel hill, NC; patrick_smith@med.unc.edu

Abstract citation ID: kaad011.0309

POSTER SESSION B: TYPE 1 DIABETES MANAGEMENT DURING EMERGING ADULTHOOD: HOW DO DIFFERENT SOURCES OF SUPPORT MODERATE STRESS?

Silas B. Boggess, BS[1], Cynthia A. Berg, PhD, FSBM[2], Deborah J. Wiebe, PhD, MPH[3]

[1]University of Utah, salt lake city, UT; [2]University of Utah, Salt Lake Cty, UT; [3]University of California, Merced, Merced, CA

Emerging adults (EA) with type 1 diabetes (T1D) experience general stressors (GS) in addition to diabetes stressors (DS), which may be buffered by support from their social network. We examined whether support from friends, romantic partners, and mothers buffered the associations between stressors and negative affect, blood glucose and self-care and whether buffering differed by stressor type.

This is a secondary data analysis of 99 EA (M_{age} = 18.8, 72 females and 27 males) who participated in a larger longitudinal study. Participants indicated daily (yes/no) whether they experienced five DS and five GS items, recorded BG, and indicated how helpful their friend, romantic partner, and mother were in providing support for their diabetes that day. Out of 99 EA, 69, 76, and 86 reported having contact with friends, romantic partners, and mothers, respectively, and subsequently reported support on at least one day of the diary. They also reported their experience of nine negative affect and six self-care items each day.

Data were aggregated across the 14 days of the daily diary via multiple regression. The results indicated that DS was associated with greater negative affect ($p = .002$) and lower self-care ($p < .001$), and GS was associated with lower negative affect ($p < .001$), and mothers’ support with greater self-care ($p = .043$) and lower NA (DS, $p = .048$; GS, $p = .025$). The associations between DS and self-care and DS and mothers’ support were qualified by a significant DS · μothers’ support interaction ($F(2,69) = 12.71$, $p = .003$). The test of simple slopes indicated that DS was more strongly associated with more lower self-care when mothers’ support was lower ($b = -.67$, $t(68) = -5.75$, $p = 0$) than when it was higher ($b = -.20$, $t(68) = -2.14$, $p = .0358$). Contrary to our expectation, romantic support did not significantly moderate associations. Friend support also did not moderate the effect of either stressor.

The significant buffering effect of mothers’ support suggests that DS may be less associated with self-care when mothers provide support even during emerging adulthood. It may be especially important to employ interventions for EA to bolster parental support at the high-risk time of EA. Offsetting the effect of stressors effect on health is likely key to slowing the progression of chronic illnesses like T1D that require daily management.

CORRESPONDING AUTHOR: Silas B. Boggess, BS, University of Utah, salt lake city, UT; sibogg@gmail.com

---

Abstract citation ID: kaad011.0310

POSTER SESSION B: PERCEPTIONS OF VETERANS WITH TYPE 2 DIABETES AND HEALTHCARE PROFESSIONALS ABOUT MOBILE ACCESS TO EXERCISE SUPPORT

Dora Lendvai, PhD, RN[1], Garrett I. Ash, PhD[2], Selene Mak, PhD[3], Allison Warren, PhD[4], Noel B. Quinn, PhD[4], Meera Swaminath, BS[5], Angela G. Younger, APRN[4], Elias K. Spanakis, MD[6], Barbara I. Gulanski, MD, MPH[4], Juanita Montoya, BS[7]

[1]VA Connecticut Healthcare System, New Haven, CT; [2]Yale University, Woodbridge, CT; [3]VA Greater Los Angeles Healthcare System, Los Angeles, CA; [4]VA Connecticut Healthcare System, West Haven, CT; [5]Yale School of Public Health, New Haven, CT; [6]VA Maryland Healthcare System, Baltimore, MD; [7]Southern Connecticut State Univeresity, New Haven, CT

Background: The prevalence of type 2 diabetes (T2D) is ~2.5x higher among Veterans compared to the general population, prompting the VA to prioritize diabetes self-management education, support, and coverage of continuous glucose monitors (CGM) for selected Veterans. These resources require targeting to exercise, an essential first-line treatment and adjunctive to medications for T2D.

Purpose: Assess perspectives of Veterans with T2D and their healthcare professionals (HCPs) regarding exercise and the acceptability of potential components for a mobile application.

Methods: Recruited Veterans by opt-out letter after clinic visits. Recruited HCPs by professional networking. Semi-structured phone interview including visual examples of potential application components. Likert-style rating of components for usefulness.

Results: Ten Veterans and 9 HCPs. Rapid qualitative techniques were used to identify themes.

<u>1) Health goals:</u> Most Veterans had goals that could be aided by exercise, including weight loss and increased physical fitness/function. Veterans and HCPs reported perceived barriers to exercise such as fatigue. Veterans shared that they would benefit from social support to model or guide proper and safe exercise and/or an accountability coach or mechanism for sustaining progress.

<u>2) Enthusiasm for CGM:</u> CGM was viewed as a collaborative tool for communication between Veterans and HCPs. Veterans’ and HCPs’ comments endorsed CGM use for insulin adjustments, prevention of hypoglycemia, and a tool to inform lifestyle strategies based on personal blood glucose responses to foods and exercises. Yet, they cautioned that fine-tuning glucose control through CGM could distract from behavioral management approaches like general exercise and diet education.

<u>3) CGM within exercise app:</u> Veterans viewed examples of CGM visualized with other biometrics (exercise, diet, sleep) and most rated it extremely useful. HCPs thought CGM was better discussed during clinical visits due to potential barriers in using technology and differences in knowledge about diabetes physiology. HCPs were interested in ways of encouraging Veterans to view CGM data for retrospective trends rather than momentary values and recognized that appealing displays in an exercise app might enhance Veterans’ engagement in their diabetes self-management.

<u>4) Other app features:</u> The majority of Veterans and HCPs rated “exercise video library” and “automated video selection based on starting CGM value” to be very or extremely useful. Other features (“virtual group exercise”, “text-based coaching”) had mixed usefulness ratings.

Conclusion: This information will inform the design of an intervention for Veterans with T2D that combines two ideas that have previously shown feasibility, acceptability, and efficacy to improve biomarkers: 1) CGM, and 2) specific guidance to tailor lifestyle to optimize the glycemic response.

CORRESPONDING AUTHOR: Dora Lendvai, PhD, RN, VA Connecticut Healthcare System, New Haven, CT; dora.lendvai@va.gov

Abstract citation ID: kaad011.0311

POSTER SESSION B: PROVIDER COUNSELING ON THE PSYCHOSOCIAL ASPECTS OF TYPE 2 DIABETES MANAGEMENT

Brenna O. Kirk, MPH[1], Ranjita Misra, PhD, CHES, FASHA, FESG[1], Sarah Lipinski, MS[1]

[1]West Virginia University School of Public Health, Morgantown, WV

Background: West Virginians have a higher burden of diabetes (16.2%) and its associated co-morbid conditions. Psychosocial factors, such as diabetes distress (DD), complicate effective diabetes self-management in T2DM adults. DD is distinct from depression and refers to the often-hidden emotional burdens, stresses, and worries that result from managing T2DM. This study examined providers' psychosocial counseling to improve T2DM self-management and its association with patient-related factors.

Methods: A statewide convenience sample of 1360 individuals living with T2DM completed an online survey. Multiple linear regression predicted provider counseling for managing the psychosocial aspects of diabetes management, adjusting for confounding factors in the model.

Results: Mean age was 58.2±12.4; 64% were female. Participants had multimorbidity (mean 4.5±2.0 chronic diseases). Participants reported moderate to high DD (38%) and diagnosis of a mood disorder (e.g., depression, anxiety; 42%). Almost half (43%) reported no psychosocial counseling for coping or managing the stress/emotional effects of diabetes by their healthcare team. Older age (p=0.005) and diagnosis of a mood disorder (p< 0.001) were significant predictors of providers offering psychosocial counseling after controlling for gender, income, and education. Individuals with a mood disorder were 3.2x more likely to receive any psychosocial advice than their counterparts. Higher DD did not impact provider counseling.

Conclusion: Although providers adequately addressed the psychosocial effects of T2DM among patients with diagnosed mood disorders, psychosocial counseling during routine diabetes clinical care visits appears to be missing for a large subset of patients with moderate to high diabetes distress. Adding diabetes distress screening into routine clinical practice for diabetes management could increase providers' awareness of the psychosocial challenges their patients may be experiencing. Increased provider awareness could lead to brief counseling or referral to other resources such as diabetes support groups or programs, which are useful tools in reducing diabetes distress and further, improving overall diabetes management and related health outcomes.

CORRESPONDING AUTHOR: Brenna O. Kirk, MPH, West Virginia University School of Public Health, Morgantown, WV; bok0001@mix.wvu.edu

---

Abstract citation ID: kaad011.0312

POSTER SESSION B: INSULIN MISUSE AND FAMILY FACTORS IN YOUTH WITH TYPE 1 DIABETES

Luiza Mali, PhD[1], Stephanie Morris, MS[1], Alexandra Barth, PhD[2], Eileen Davis, PhD[1], Janine Sanchez, MD[1], Alan M. Delamater, PhD, FSBM[1]

[1]University of Miami Miller School of Medicine, Miami, FL; [2]University of California, San Diego, Miami, FL

Introduction: Previous research has found family factors associated with insulin misuse (IM; omission and restriction) for the purpose of weight control in youth with type 1 diabetes (T1D). However, these studies have considered a limited sociodemographic context and recruited primarily White participants. We examine data from our psychosocial screening program and investigate the demographic and psychosocial correlates of insulin misuse in a culturally diverse and low-income group of patients.

Methods: 234 youths with T1D (age range=12-24 years, *M*=15.2 years, 58.1% female, 65% Hispanic, 73.9% eligible for subsidized health insurance) completed a psychosocial screener prior to their outpatient clinic visit, including measures of diabetes-related family conflict and disordered eating behaviors (DEBs including IM for weight control), as well as depression and anxiety. The survey also included items about stress related to disagreements with parents concerning insulin use and food consumption and satisfaction with family life. Data on ethnicity, gender, insurance status, and glycosylated hemoglobin A1c were obtained from medical records.

Results: IM for weight control was endorsed by 5.1% of youth and 24.4 % reported DEBs. Mean A1c was 8.2% with 72% of youths above 7%. Females were more likely to endorse DEBs as well as insulin misuse ($p < .001$). IM was associated with stress related to parental disagreement about insulin use ($p < .05$) and diabetes-related family conflict ($p < .01$). Youth were divided into three independent groups (no disordered eating [NDE], DEBs without insulin misuse, IM with or without DEB); differences between groups were found in family conflict (p < .001), with the highest level of conflict in youth who endorsed IM and lowest levels in NDE group. Youth with DEB (8.7%) and IM (9.1%) had higher A1c than NDE (8.0%; p < .05). No significant differences between IM and other groups were found with respect to satisfaction about family life, disagreements about insulin use, depressive symptoms, and anxiety.

Discussion: These findings indicate that DEBs are common and that diabetes-related stress and family conflict are important correlates of IM for weight control in a primarily ethnic minority, economically disadvantaged sample of urban youth with T1D.

Conclusions: Diabetes-related family factors are important to consider in the evaluation of IM in low-income minority youth with T1D; future studies should target these factors in behavioral interventions to address insulin misuse and suboptimal glycemic control.

CORRESPONDING AUTHOR: Alan M. Delamater, PhD, FSBM, University of Miami Miller School of Medicine, Miami, FL; adelamater@med.miami.edu

Abstract citation ID: kaad011.0313

POSTER SESSION B: DOES DELAY DISCOUNTING MODERATE OR MEDIATE THE EFFECT OF FINANCIAL INCENTIVES ON PHYSICAL ACTIVITY IN A YEAR-LONG INTERVENTION?

Vincent Berardi, MS, PhD[1], Marc A. Adams, PhD, MPH[2], Chad Stecher, PhD[2], Michael Todd, PhD[2], Mindy L. McEntee, PhD[2]

[1]Chapman University, Orange, CA; [2]Arizona State University, Phoenix, AZ

Purpose: To investigate whether delay discounting, defined as an individual's tolerance for withholding reinforcement, either moderated or mediated the effects of contingent financial incentives for physical activity goals within a year-long intervention.

Methods: Healthy, inactive adults (n=512) were randomized to a twelve-month, 2x2 factorial mHealth intervention that evaluated adaptive versus static daily MVPA goals and immediate versus delayed financial reinforcement to increase accelerometer-measured MVPA. For each participant, the average number of daily MVPA bout minutes was calculated i.) for a 10-day baseline; ii.) for the last 4-14 days before the trial ended; and iii.) for a 4 -13 day follow-up at 24 months. Delay discount rate, calculated as the geometric mean of all Monetary Choice Questionnaire items, was also assessed at i.) the beginning of the baseline; ii.) the end of the intervention; and iii.) at the beginning of the follow-up period. Moderation was assessed via a structural equation model that included an interaction term for baseline delay discounting and intervention type (immediate vs. non-immediate). A simplex, longitudinal structural equation model with contemporaneous intervention effects was used to assess whether delay discounting mediated the effects of immediate reinforcement and adaptive goals on MVPA.

Results: Immediate rewards significantly increased daily MVPA by 6.3 min at 12 months (95% CI: 2.7, 9.8) and marginally increased discounting (i.e., made participants less tolerant of delay) by 0.63 units (95% CI: 0, 1.2). The indirect effect of immediate rewards on 12-month daily MVPA through changes in delay discounting was marginally significant, with an increase of 2.1 min (95% CI: -0.1 to 3.9). For the 24-month measurement, the direct effect of immediate rewards was a statistically significant 3.3 min increase in MVPA (95% CI: 1.5, 5.0), while the indirect effect was a marginally significant increase of 2.4 min (95% CI: -0.3 to 4.5). Delay discounting did not moderate the increase in MVPA associated with immediate rewards. Neither moderation nor mediation effects were not found for adaptive versus static goals.

Conclusions: The receipt of proximal rewards for achieving daily PA was associated with participants becoming less tolerant of delay. But in contrast with findings from other domains, higher discounting had a beneficial effect, which may be due to PA's ability to serve as a reinforcer itself, which could obfuscate its relationship with discounting. These results add important nuance to the conceptualization of financial incentives as a PA promotion strategy.

CORRESPONDING AUTHOR: Vincent Berardi, MS, PhD, Chapman University, Orange, CA; berardi@chapman.edu

---

Abstract citation ID: kaad011.0314

POSTER SESSION B: COPING WITH COVID: EXAMINING COPING BEHAVIORS IN PEOPLE WITH TYPE 2 DIABETES AND DEPRESSION AT THE START OF THE PANDEMIC.

Benjamin Weitz[1], Dedeepya Billa[2], Ben Gerber, MD[3], Daniel J. Amante, PhD, MPH[3]

[1]University of Massachusetts Amherst, Worcester, MA; [2]University of Massachusetts Lowell, Worcester, MA; [3]UMass Chan Medical School, Worcester, MA

Background: People with type 2 diabetes (T2D) have a high prevalence of depression. How those with T2D and depression coped with the COVID-19 pandemic may have a significant impact on their diabetes self-management.

Objective: To examine the self-reported coping behaviors of adults with T2D with and without depression during the first six months of the pandemic.

Methods: We accessed the All of Us Researcher Workbench, a cloud-based platform where approved researchers can analyze All of Us data. We created a cohort of 6,666 adults (age 21+) with T2D (concept code 44054006) who completed the COVID-19 Participant Experience (COPE) survey in either May, June, or July 2020. We analyzed responses to the question: "In the past month, to cope with social distancing and isolation, are you doing any of the following? Please select all that apply." Reported behaviors from the first survey completed were summarized and comparisons made between those with a depressive disorder (concept code 35489007) and those without using two-sample tests for proportions.

Results: The cohort of adults with T2D was 56% female with a mean (SD) age of 63.3 (12.0) years. Racial/ethnic distribution was 76.1% White, 10.4% Black or African American, 1.9% Asian, and 7.6% Hispanic/Latino. Among the cohort, 41.6% had depression. Those with depression reported the following behaviors more frequently ($p < .001$): 'eating high fat or sugary foods' (24.3% vs 13.9%), 'eating more food than usual' (27.0% vs 17.7%), 'eating less food than usual' (8.2% vs 4.9%), 'contacting a healthcare provider' (17.4% vs. 9.1%), 'smoking more cigarettes or vaping more' (4.6% vs 1.9%). They also reported 'connecting with others, including talking with people you trust about your concerns and how you are feeling' more often (33.4% vs. 30.0%, $p < .01$). Those not depressed more often reported 'engaging in healthy behaviors like trying to get healthy, well-balanced meals, exercising regularly, getting plenty of sleep, or avoiding alcohol and drugs' (48.9% vs 39.0%, $p < .001$).

Conclusions: Adults with T2D and depression reported more behaviors that adversely affect diabetes self-management and reported less engagement in "healthy behaviors" to cope with pandemic isolation and social distancing. Future work will estimate the impact of coping behaviors on physical and mental health and inform the development of interventions to better support adults with diabetes and depression.

CORRESPONDING AUTHOR: Daniel J. Amante, PhD, MPH, UMass Chan Medical School, Worcester, MA; daniel.amante@umassmed.edu

Abstract citation ID: kaad011.0315

POSTER SESSION B: EXAMINING THE FEASIBILITY AND ACCEPTABILITY OF STUDENT-LED TYPE 2 DIABETES PREVENTION INTERVENTIONS

Jenifer J. Thomas, PhD[1], Bhibha M. Das, PhD, MPH, FACSM[2], Aya Mistica[3], Grace Soske, Bachelor's[1], Annika Hankenson[1], Alexis King[4], Hannah Olin[5], Matilda Schiewe[1], Caitlin Stout[1], Megan Switzer[1], McKinzie Wade[1]

[1]University of Wyoming, Laramie, WY; [2]East Carolina University, Greenville, NC; [3]University of Wyoming, Wheatland, WY; [4]University of Wyoming, Miami, FL; [5]University of Wyoming, Strasburg, CO

Introduction: Prevention of type 2 diabetes (T2DM) remains a public health concern as nearly 38% of adults in the United States have prediabetes. In rural areas, individuals experience risk factors that contribute to T2DM health disparities such as geographic location, unhealthy behaviors, and limited access to healthcare facilities and professionals. Lay health educator-delivered T2DM prevention programs may be sustainable and translatable in rural communities, as they have shown promise elsewhere. The aim of this research project was to understand the feasibility and acceptability of a T2DM prevention intervention delivered by students for rural populations. Notably, the study examined at risk individuals' perceptions of facilitators and barriers to student-led intervention implementation.

Methods: The study used a qualitative descriptive research method. Individuals in rural areas who identified as being at-risk for developing T2DM were recruited for this study. Twenty individuals participated in seven focus groups via Zoom conferencing system. Participants viewed an example student facilitation video and were asked their opinion. Follow up questions focused on prior experiences with and thoughts on student-led programs, and suggestions for future programs in rural areas. Focus groups were transcribed and coded by members of the research team.

Results: Content analysis revealed two themes; students as facilitators and program implementation. Participants emphasized beneficial student facilitator characteristics and skills such as being engaging, supportive, knowledgeable, and credible. Regarding future implementation in rural areas, participants suggested programs be accessible and tailored to the community and include active learning components.

Discussion: Overall, focus group participants were supportive of training students to be facilitators. Based on our results, it is important for at risk individuals to be involved in facilitator training and program planning. Community based participatory research processes are important for prevention planning in rural areas as a way to increase credibility and trust. Understanding community needs, resources, and values will create effective programming and eventually reduce the rates of T2DM and other chronic diseases.

CORRESPONDING AUTHOR: Jenifer J. Thomas, PhD, University of Wyoming, Laramie, WY; jthoma41@uwyo.edu

---

Abstract citation ID: kaad011.0316

POSTER SESSION B: THE IMPACT OF A HEALTHY FOOD INTERVENTION ON UNIVERSITY STUDENTS' PURCHASING BEHAVIOR

Elizabeth Racine, DrPH, RD[1], Stacy Fandetti, BS[2], Faizeh Hatami, PhDc[3], Keith Murphy, MSPH, PhDc[3], Rajib Paul, PhD[3]

[1]Texas A&M AgriLife Research Center at El Paso, El Paso, TX; [2]University of North Carolina at Charlotte, Charlotte, NC; [3]UNC Charlotte, Charlotte, NC

Objective: This paper examines the impact of three university food environment changes on student food purchasing.

Background: As emerging adults transition to college, it is helpful to examine the role of the university food environment in establishing healthy food habits. Universities that provide a meal plan often have detailed records of students' campus food and beverage purchases. At a large public university in the southeast US, research faculty partnered with university food service leadership to implement three interventions that increased the placement, promotion, and access to three "better for you" food and beverage items: fruit, bottled water, and milk.

Methods: This study examined student fruit, water, and milk purchases pre- and post-intervention using university food sales data collected from 20 quick-service food outlets. Students who participated in the campus meal plan during the 2018-2019 and 2019-2020 school years were included in the study. To assess the efficacy of the interventions, we conducted an analysis using negative binomial regression on fruit, water, and milk transactions classified by the intervention (pre and post), controlling for race/ethnicity, international status, financial aid awarded, gender, health major, and student standing (e.g., freshman, sophomore). Then, we conducted interaction tests between each covariate and intervention.

Results: The study included fruit, water, and milk transactions made by 6,146 students. The student population was 42% racial/ethnic minority students, 53% financial aid recipients, and 56% female. Fruit purchases increased due to the intervention, more so for those not receiving financial aid. Milk purchases decreased because of the intervention. Water sales increased to different degrees depending on the student's financial aid status (those not receiving financial aid purchased more water) and gender (males purchased more water).

Implications: We made simple changes that were cost-effective and impactful. This study encouraged us to continue partnering with university food service leadership to design and test interventions to promote healthy food options. Given that most universities offer meal plans, and the sales data associated with meal plans is recorded and potentially available to researchers, an opportunity exists for many researchers affiliated with universities to study student purchasing behavior.

CORRESPONDING AUTHOR: Stacy Fandetti, BS, University of North Carolina at Charlotte, Charlotte, NC; sfandett@uncc.edu

Abstract citation ID: kaad011.0317

POSTER SESSION B: DO SOCIOCULTURAL ATTITUDES TOWARDS THIN APPEARANCE INFLUENCE LEVELS OF BODY DISSATISFACTION IN DAILY LIFE?

Alyssa Giannone[1], Adrienne S. Juarascio, PhD[1], Paakhi Srivastava, PhD[2]

[1]Drexel University, Philadelphia, PA; [2]Center for Weight, Eating, and Lifestyle Science (Drexel University), Philadelphia, PA

Sociocultural attitudes towards thin appearance have been strongly linked to body dissatisfaction in women with eating disorders. Less is known about how these attitudes influence body dissatisfaction in daily lives of women with binge eating. Given that within-person, within day fluctuations in body dissatisfaction are shown to trigger eating disorder behaviors, understanding the association between sociocultural attitudes towards thin appearance and body dissatisfaction may inform development of targeted interventions for body dissatisfaction. The aim of the study is to assess how sociocultural attitudes towards thin appearance relate to within-person, within day fluctuations in body dissatisfaction in women with binge eating. 25 adult females with binge eating (M_{age} = 36.38 ± 12.95 years, M_{BMI} = 30.64 ± 5.79 kg/m^2, 75.0% Caucasian), participating in a two-week ecological momentary assessment (EMA) study designed to assess daily fluctuations in body dissatisfaction, completed the Sociocultural Attitudes Towards Eating Quesstionare-4 (SATAQ-4) at baseline. Mean successive squared differences (MSSD) was used to estimate within-person, within day fluctuations in body dissatisfaction over two weeks. Women who endorsed greater family pressure to be thin, peer pressure, and thin internalization demonstrated low within-person, within day fluctuations in body dissatisfaction (Family pressure b = -0.17, p = 0.04; peer pressure b = -0.03, p = 0.03; thin internalization b = -0.17, p = 0.04). Women who endorsed greater social media use showed higher within-person, within day fluctuations in body dissatisfaction (b = 0.09, p = 0.02). If replicated, these findings may suggest that interventions targeting thin internalizations and deficits in coping with external pressures to be thin may benefit women who experience stable levels of body dissatisfaction within a day. Interventions targeting greater social media use and teaching coping skills to better manage fluctuations in body dissatisfaction levels may help women who experience greater fluctuations in body dissatisfaction within a day.

CORRESPONDING AUTHOR: Alyssa Giannone, Drexel University, Philadelphia, PA; arg349@drexel.edu

---

Abstract citation ID: kaad011.0318

POSTER SESSION B: EXAMINING URBAN-RURAL DIFFERENCES IN SCHOOL DISTRICTS' LOCAL WELLNESS POLICY IMPLEMENTATION ENVIRONMENTS

Swati Iyer, MS[2],[1], Alexandra MacMillan Uribe, PhD[2], Chad D. Rethorst, PhD[2], Rebecca A. Seguin-Fowler, PhD, RDN, LD, CSCS[3], Jacob Szeszulski, PhD[2]

[1]Texas A&M School of Medicine, Dallas, TX; [2]Texas A&M AgriLife Institute for Advancing Health through Agriculture, Dallas, TX; [3]Texas A&M AgriLife Institute for Advancing Health through Agriculture, College Station, TX

Background: Improving local wellness policies (LWPs) – policies created by districts to guide physical activity, nutrition, and other health practices in schools – are critical to preventing obesity and other chronic medical conditions among youth. Disproportionately higher rates of obesity in rural districts, as compared to urban districts, suggests that environmental differences may be affecting health behaviors and outcomes. Although there are exceptions, rural districts tend to have fewer financial, personnel, and technical resources. This study examined urban-rural differences in districts' structure for implementing LWPs.

Methods: A website audit of four education service regions in Texas was conducted in the Fall of 2021 and used to gauge processes and infrastructure for LWP implementation. Key identifiers included presence of a wellness plan (document with recommendations for implementing LWPs), triennial assessment (how schools assessed their policies), and school health advisory councils (SHACs). Unadjusted and adjusted (percent economically disadvantaged, revenue per student, students per school) regression models were used to examine urban-rural differences.

Results: Rural districts were less likely to have a wellness plan compared to urban districts in the unadjusted model (B=-0.327, p=.030). However, this difference was not statistically significant in the adjusted model (B =-0.033, p =.881). In both models, rural and urban districts were not significantly different in the presence of a triennial assessment. Rural districts were less likely to have a SHAC to support LWP implementation, compared to urban districts, in the unadjusted model (B = -0.803, p = < .001). In the adjusted model, this association was marginally significant (B = -0.388, p = .081), and revenue per student (B = 0.136, p = .089), and students per school (B = 0.003, p = .004) were important covariates.

Conclusion: School districts play a critical role in promoting student health and LWPs are a leverage point to help them achieve that goal. Organizations (e.g., Texas Education Agency) may consider strategies (e.g., increased financial, personnel and technical resources) aimed at providing rural districts with the infrastructure required for implementation of physical activity and nutrition policies.

CORRESPONDING AUTHOR: Swati Iyer, MS-2, Texas A&M School of Medicine, Dallas, TX; swatiyer@tamu.edu

Abstract citation ID: kaad011.0319

POSTER SESSION B: ASSESSING PILOT PRE AND POST CONSUMPTION OF UNHEALTHY FOODS AND BEVERAGES IN AN OBESITY PREVENTION STUDY AMONG LATINO CHILDREN

Patricia Trinidad, BS, MPH[1], Natalia Gatdula[2], Karely Rojas[3], Melawhy L. Garcia, MPH, PhD[4]

[1]California State University, Long Beach, Garden Grove, CA; [2]California State University, Long Beach, LONG BEACH, CA; [3]California State University Long Beach, NA, CA; [4]CSULB Center for Latino Community Health, Evaluation, and Leadership Training, Long Beach, CA

Background: According to the Centers for Disease Control and Prevention, during the years 2017-2022 Latino children in the US experienced the highest obesity prevalence (26.2%) when compared to other ethnicities. In response, obesity prevention strategies targeting food consumption behaviors have been implemented across the nation yet how effective they are remains to be seen. The purpose of this study was to determine whether there was a change in Latino 10–13-year old's consumption of unhealthy food and beverages at pre and post using pilot data from a family-based obesity prevention program. We hypothesized that there would be a decrease in consumption of unhealthy foods and beverages after completing four health education sessions.

Methods: The pilot sample included 44 Latino children ages 10-13 years old residing in the city of Long Beach. Online surveys containing questions on food and beverage consumption were administered to child participants. Paired sample t-test were conducted to assess changes between pre and post surveys.

Results: Among child participants' (N = 43) there was a significant decrease in average days of unhealthy food consumption from pre (M = 2.246, SD = 1.323) to post assessment (M = 1.429, SD = 0.792); $t(42) = -3.905$, $p < .001$. Although consumption for unhealthy beverages also decreased between pre (M = 0.649, SD = 0.496) and post (M = 0.497, SD = 0.441) among child participants (N = 44), it only approached statistical significance as $t(43) = -1.669$, p = .051.

Conclusion: In this pilot sample, we found a decrease in the consumption of unhealthy foods and unhealthy beverages from pre to post. A limitation was the small sample size, but these results indicate that the intervention may be succeeding in lowering unhealthy food and beverage consumption and changing behavior.

CORRESPONDING AUTHOR: Patricia Trinidad, BS, MPH, California State University, Long Beach, Garden Grove, CA; patricia.trinidad001@gmail.com

Abstract citation ID: kaad011.0320

POSTER SESSION B: ADVERSE CHILDHOOD EXPERIENCES ARE NEGATIVELY ASSOCIATED WITH TRAIT SELF-COMPASSION IN MEN WHO BINGE EAT

Natalie M. Papini, MA[1], Stephen D. Herrmann, PhD, EMBA[2], Nanette V. Lopez, PhD, MS/MS[1]

[1]Northern Arizona University, Flagstaff, AZ; [2]The University of Kansas Medical Center, Kansas City, KS

Background: Adverse childhood experiences (ACEs) are associated with binge eating in individuals in larger bodies. These early life experiences could be associated with self-compassion, an affect-regulation strategy that involves recognizing that suffering, failure, and inadequacies are part of being human and that the self, as well as others, deserve compassion. Previous work suggests self-compassion may act as a buffer against both depressive symptoms and disordered eating symptoms, though little is known about the associations between ACEs and self-compassion in adult men with comorbid overweight/obesity and binge eating disorder.

Methods: The present study investigated associations between ACEs and self-compassion in men who binge eat (Binge Eating Scale score of $\geq$ 18) and have overweight/obesity. Adult men (n = 182; 51.9% black, 48.1% white; Age = 34.8 ± 10.36 years; BMI = 32.4 ± 6.25 kg/m^2) who binge eat (Binge Eating Scale mean score = 36.1 ± 9.75) were recruited from a weight management health coaching program and completed measures of ACEs (11-item ACE Checklist), and the 12-item Self-Compassion Scale Short Form (SCS-SF). Data were analyzed using linear regression, adjusting for age, race, socioeconomic status (SES) and body mass index (BMI).

Results: Linear regression revealed a negative association between ACE and SCS-SF scores ($B = -.051$, $p < 0.001$) and age ($B = -.018$, $p = 0.002$). Individuals from the high SES group (annual personal income of ≥ $80,001) reported significantly higher SCS-SF scores than those in the mid SES group (annual personal income of $40,001-80,000). In total, the model accounted for 20.4% of the variability in SCS-SF scores ($R^2 = 0.204$).

Discussion: ACEs may be an early life factor that reduces an individual's ability to be self-compassionate in adulthood. Greater understanding of the link between ACEs and self-compassion in men who binge eat could inform future interventions and programs designed to reduce binge eating in this population. Future studies should confirm these findings of an inverse relationship between ACEs and self-compassion in men who binge eat. Additionally, future work could explore if the inverse relationship between ACEs and self-compassion exists in men across a wider range of BMIs, such as those without overweight or obesity who binge eat.

CORRESPONDING AUTHOR: Natalie M. Papini, MA, Northern Arizona University, Flagstaff, AZ; Natalie.Papini@nau.edu

Abstract citation ID: kaad011.0321

POSTER SESSION B: THE RELATIONSHIP BETWEEN HOUSEHOLD SOCIAL DISCOURAGEMENT OF HEALTHY EATING AND PSYCHOLOGICAL CONTROL OF EATING

Marny M. Ehmann, BA[1], Nicole T. Crane, MS[1], Charlotte J. Hagerman, PhD[1], Meghan L. Butryn, PhD, FSBM[1]

[1]Drexel University, Philadelphia, PA

U.S. adults find it challenging to engage in healthy eating behaviors. Previous research suggests that household social support is a critical component of the home food environment that predicts several aspects of eating behavior (e.g., intake of vegetables). However, little is known about how household social discouragement of healthy eating, a construct that describes social exchanges that hinder efforts to engage in healthy eating (e.g., offering up unhealthy foods), relates to psychological control of eating (i.e., cognitive restraint, uncontrolled eating, emotional eating) and kilocalorie (kcal) intake. Given evidence that social discouragement diminishes personal confidence in controlling eating, it was hypothesized that higher social discouragement would be associated with higher disinhibited eating and kcal intake. The present study investigated the relationships between household social discouragement of healthy eating and 1) psychological control of eating and 2) kcal intake, as well as psychosocial moderators of these relationships, in a sample of two cohorts of U.S. adults (N=62) prior to a 20-week behavioral nutrition intervention. At baseline, social discouragement of healthy eating was measured using a modified version of the Social Support for Diet questionnaire and psychological control of eating was measured using the Three-Factor Eating Questionnaire (TFEQ). Kcal intake was assessed using the Automated Self-Administered 24-hour Dietary Assessment Tool (ASA-24; cohort 1) and Diet History Questionnaire (DHQ-III; cohort 2). Regression analyses showed that higher social discouragement predicted higher uncontrolled eating (p = .01) and higher kcal intake (p = .03). Moderation analyses revealed that higher social discouragement was associated with higher uncontrolled eating in those with higher reported relationship quality with adult household member(s) (p = .02). Results suggested that household social discouragement of healthy eating is related to overeating. This relationship may be bidirectional, such that perceived social discouragement of healthy eating reduces the ability to control eating, or that individuals who experience uncontrolled eating perceive household members as more discouraging of healthy eating efforts. Future research should investigate which household environmental factors contribute to social discouragement of healthy eating and examine potential mediators of the proposed relationships.

CORRESPONDING AUTHOR: Marny M. Ehmann, BA, Drexel University, Philadelphia, PA; mme52@drexel.edu

---

Abstract citation ID: kaad011.0322

POSTER SESSION B: LIMITING HIGH VS. MAXIMIZING LOW ENERGY-DENSE FOODS: A PILOT RANDOMIZED TRIAL OF SIMPLIFIED MOBILE DIETARY SELF-MONITORING

Julianne M. Power, PhD, MS[1], Brooke T. Nezami, PhD[2], Nisha C. Gottfredson, PhD[3], Suzanne Phelan, PhD[4], Kathryn E. Muessig, PhD[5], Deborah F. Tate, PhD[5]

[1]MAHEC, Brevard, NC; [2]University of North Carolina at Chapel Hill, Apex, NC; [3]UNC Gillings School of Global Public Health, Chapel Hill, NC; [4]Cal Poly, San Luis Obispo, CA; [5]University of North Carolina at Chapel Hill, Chapel Hill, NC

Background: Digital weight loss interventions are effective for weight loss and engagement in such interventions, especially with dietary self-monitoring, is crucial for success. However, engagement with dietary self-monitoring consistently declines over time. Simplified forms of dietary self-monitoring in which individuals monitor only a subset of foods can reduce participant burden and promote engagement with self-monitoring. Monitoring and restricting intake of high energy-dense (ED) foods has been effective for weight loss. Monitoring and maximizing intake of low ED foods may be an equally or more effective approach for weight loss because low ED diets lower energy intake while maintaining food volume, promoting greater satiety than diets that restrict portions. No studies have compared the effects of simplified dietary self-monitoring targeting high ED food intake to simplified dietary self-monitoring targeting low ED food intake on engagement with dietary self-monitoring, weight loss, or dietary intake.

Objective: Compare the feasibility and efficacy of simplified dietary self-monitoring targeting restriction of high ED foods (i.e. “Red Foods” or high-calorie, high-fat foods) to simplified dietary self-monitoring targeting promotion of low ED foods (i.e. “Green Foods” or fruits, vegetables, lean proteins, etc.) using the Traffic Light Approach on engagement with self-monitoring, self-reported weight change, and dietary intake at 3 months among overweight or obese young adults.

Methods: This study was 3-month a parallel-group randomized controlled pilot trial. Overweight or obese young adults (N = 60) were recruited using email lists and advertisements on social media. All participants received an Internet-based dietary intervention with a focus on weight loss that included personalized dietary goals, weekly feedback, and behavioral lessons. Participants were encouraged to weigh frequently. The only difference between the two groups was the types of foods participants were instructed to monitor and the dietary goals participants were given. Primary outcomes were adherence to dietary self-monitoring and goals at 3 months. Secondary outcomes were self-reported weight change and dietary intake assessed via two 24-hour dietary recalls.

Results: There were no between-group differences in adherence to dietary self-monitoring or goals over 3 months. A greater proportion of participants in the high ED Red Food group (23.1%) achieved 5% weight loss at 3 months compared with the low ED Green Food group (0%). Diet quality significantly increased for participants in both groups, and there were no between-group differences in change over time.

Conclusions: Simplified dietary self-monitoring targeting low ED Green Food promotion may improve diet quality, however, limiting high ED Red Foods may be a more effective simplified self-monitoring strategy for weight loss.

CORRESPONDING AUTHOR: Julianne M. Power, PhD, MS, MAHEC, Brevard, NC; juliannempower@gmail.com

Abstract citation ID: kaad011.0323

POSTER SESSION B: PHENOTYPES OF NEGATIVE EMOTIONAL EATING IN BARIATRIC SURGERY CANDIDATES

Urvashi Dixit, MA[1], Jinbo He, PhD[2], Andrea Rigby, PsyD, MEd, MS[3], Hana Zickgraf, PhD[4]

[1]Unviersity of South Alabama, Mobile, AL; [2]Chinese University of Hong Kong, Shatin, N/A, Hong Kong; [3]Penn State Health Milton S. Hershey Medical Center, Middletown, PA; [4]Emory University, Atlanta, GA

Purpose: Prior research has established the pre-operative presence of emotional eating (EE; 38-40%) and its connection to depression, suicidality, and emotion dysregulation. Post-operatively, EE has been linked to grazing, snacking, and weight regain. Thus, given how serious the implications of EE for bariatric surgery patients are, obtaining a nuanced understanding of the varied compositions of EE patterns in this population may aid in the development of pre-operative, EE-focused interventions to make surgery more effective.

Procedure: 469 bariatric surgery candidates (75.2% female, 70.7% White, $\text{Age}_M = 42.23$, $\text{BMI}_M = 48.77$ kg/m^2) provided information on negative emotional overeating and undereating using the Adult Eating Behavior Questionnaire. Responses on these two subscales were used to classify patients into different classes using Latent Class Analysis (LCA). The emergent classes were then compared on quality of life, and symptoms of ARFID,binge eating, night eating, depression, and anxiety.

Results: LCA yielded a four-class solution: *emotional undereating* (25.8%), *emotional overeating* (23.4%), *emotional over-and-undereating* (15.4%), and *non-emotional eating* (35.4%). Of the four classes, the *emotional over-and-undereating* group exhibited the highest impairment in terms of overall ARFID symptoms, fear and selective presentations of ARFID, binge eating symptoms, depression, and anxiety. This group also reported the lowest quality of life. Their elevated binge eating symptoms were second only to the *emotional overeating* class. The *emotional undereating* class reported the highest appetite-ARFID symptoms. The *non-emotional eating* group reported the most adaptive scores for psychopathology and quality of life.

Conclusion: Overall, overeating in response to negative emotions either in conjunction with under-eating or exclusive overeating (i.e., *emotional over-and-undereating and emotional overeating*) is suggestive of higher psychopathology. Specifically, bariatric surgery patients who fluctuate between over and undereating seem to have the most elevated psychological and eating impairment and most in need of pre-operative psychosocial interventions to reduce EE and maintain low EE post-surgery. Thus, the use of a brief, 10 item EE measure is recommended.

CORRESPONDING AUTHOR: Urvashi Dixit, MA, Unviersity of South Alabama, Mobile, AL; ud2121@jagmail.southalabama.edu

---

Abstract citation ID: kaad011.0324

POSTER SESSION B: EMOTIONAL EATING AS A FUNCTION OF WEIGHT STATUS: TIME OF DAY, SLEEP QUALITY, AND FOOD TYPE

Urvashi Dixit, MA[1], Erica Ahlich, PhD[2]

[1]Unviersity of South Alabama, Mobile, AL; [2]University of South Alabama, Mobile, AL

Purpose: Emotional eating occurs in individuals across the weight spectrum, though previous research has demonstrated a positive association between BMI and emotional eating. Little research has sought to better characterize the experience and manifestation of emotional eating across those with overweight/obesity (OW/OB) compared to those without OW/OB. In particular, differences in time of day and type of food consumed during emotional eating episodes could have important implications for health outcomes.

Procedure: In total, 461 participants were included from an undergraduate research pool (52.9% female, 63.6% White, $\text{Age}_M = 21.12$, $\text{BMI}_M = 24.51$ kg/m^2) and 365 participants were included from Amazon's MTurk (59.2% female, 82.5% White, $\text{Age}_M = 40.77$, $\text{BMI}_M = 27.20$ kg/m^2). Data were collected online via self-report. Participants in both samples were dichotomized based on BMI ≥ 25. Comparative analyses were conducted using chi-square analyses and t-tests.

Results: In the undergraduate sample, people with overweight/obesity were more likely to have a sweet diet food during an emotional eating experience ($p = .010$), deal with emotional eating on a greater number of days ($p = .001$), and report lower sleep quality ($p = .009$), compared to those without overweight/obesity. There was no significant difference in time of day of emotional eating. In the MTurk sample, people with overweight/obesity were more likely to have salty foods during an emotional eating episode ($p = .042$), and report emotional eating on a greater number of days ($p < .001$), compared to those without overweight/obesity. No differences emerged in sleep quality or time of day across those with and without OW/OB in this sample. Lower sleep quality was associated with a greater number of emotional eating days for those with and without OW/OB in the MTurk sample ($ps < .001$), but only for those with OW/OB in the undergraduate sample ($p = .009$).

Conclusion: Overweight/obesity was associated with more frequent emotional eating in both samples.Food types consumed during episodes of emotional eating may differ across those with and without OW/OB, and across community vs college samples. No differences were found in time of day, with the majority describing a pattern of evening emotional eating, but sleep quality showed important associations with emotional eating. Future work should continue exploring characteristics of emotional eating that could inform prevention and treatment efforts.

CORRESPONDING AUTHOR: Urvashi Dixit, MA, Unviersity of South Alabama, Mobile, AL; ud2121@jagmail.southalabama.edu

Abstract citation ID: kaad011.0325

POSTER SESSION B: BARRIERS, FACILITATORS & STRATEGIES TO IMPROVE WATER ACCESS & INTAKE IN FAMILY CHILDCARE HOMES: THE DRINK WELL STUDY

Kim M. Gans, PhD, MPH[1], Alison Tovar, PhD, MPH[2], Vanessa Esquivel[1], Sarah Warykas[1], Viviana Zambrano[1], Michelle Miller[1], Patricia M. Risica, DrPH[2]

[1]University of Connecticut, Storrs, CT; [2]Brown University, Providence, RI

Introduction: Drinking water supports child health and is a healthy, low-cost alternative to sugary beverages (SSB). Water and SSB access in childcare play an important role in child beverage intake and nutrition. Little research has been done in family childcare homes (FCCH), which may be higher risk settings. Water may not be accessible, or commonly offered to children in FCCH, so feasible, acceptable interventions to increase drinking water access, availability and intake are needed. The Drink Well project is a mixed methods study to better understand how to increase water availability/accessibility in FCCH and improve young children's beverage intake.

Methods: We are conducting formative interviews with FCCH providers (FCCPs) in low income communities to determine barriers and strategies to improve water availability/accessibility and children's intake. Then, we will conduct an intervention pilot of environmental approaches to increase water availability/accessibility in the FCCH (e.g. providing water bottles, water stations, water filters, water testing/safety strategies, technical assistance, educational materials for children/families, etc.) with 40 FCCP (50% Latina) operating FCCH in low income neighborhoods in RI, MA & CT that care for children aged 6-60 months. Pre and post-surveys will assess feasibility, acceptability and efficacy of these approaches.

Results: As of 9/8/22, we have conducted 18 formative interviews with FCCP (47% Latina), which have shown the following barriers to providing water to children in FCCH and getting them to drink it: children not liking the taste of water; parents don't role model drinking water or provide water for their children; other beverages are prioritized by parents & FCCP; perceived poor water quality; worry about mess if children self-serve water; fear that if children drink too much water they won't eat meal/milk; children will have accidents if drink before nap; lack of supplies/equipment (water bottles, filters, stations, educational materials, etc.). Interviews will be completed by November. Baseline surveys will begin in October and will be completed by Feb. 2023. Data will include: water source at FCCH, how often drinking water, milk, juice and SSB are provided to children at meals or snacks, how water is made available to children indoors and outside, availability of self-serve water, types of water served to children, factors influencing water provision, attitudes about and challenges to offering water and to children drinking water, equipment for serving water; knowledge about national beverage guidelines and children's water needs, etc.

Discussion: The Drink Well project addresses important research gaps related to beverage access and intake in FCCH, and can inform future research & policy to impact low-income/ethnic minority children at highest risk for poor diet & weight-related health disparities.

CORRESPONDING AUTHOR: Kim M. Gans, PhD, MPH, University of Connecticut, Storrs, CT; kim_gans@brown.edu

Abstract citation ID: kaad011.0326

POSTER SESSION B: WALK AND PLAY: FEASIBILITY AND ACCEPTABILITY OF COGNITIVE TRAINING WITH GAMING AND WALKING

Katherine Barnhill[1], Sarah-Jeanne Salvy, PhD[2], Arash Asher, MD[3], Jun Gong, MD[4], Celina H. Shirazipour, PhD[5], Marcio Diniz, PhD[6], Aaron R. Seitz, PhD[7], Gillian Gresham, PhD[4], Michael Sobolev, PhD[8]

[1]Cedars-Sinai Medical Center, Santa Monica, CA; [2]Cedars-Sinai Medical Center, playa vista, CA; [3]Cedars-Sinai Medical Center, Beverly Hills, CA; [4]Cedars-Sinai Medical Center, Los Angeles, CA; [5]Cedars-Sinai Medical Center, West Hollywood, CA; [6]Cedars Sinai Medical Center, Los Angeles, CA; [7]University of California - Riverside, Department of Psychology, Riverside, CA; [8]Cedars-Sinai Medical Center, Glendale, CA

Background: Cognitive training and leisure-time physical activity are known to have a beneficial impact on cognitive functioning. Yet, only a few studies have investigated whether combining cognitive training and physical activity confer additional benefits than those provided by these approaches delivered separately.

Purpose: To evaluate the feasibility of supplementing a leisure walk regimen with gamified inhibitory control training (PolyRules!) among older adults endorsing cognitive impairments.

Methods: Our team developed and tested the impulse control training mobile app, PolyRules!, which utilizes gamification and adjusts to users' impulse control proficiency. The study was designed to evaluate a walking regimen with or without PolyRules! for a total of 4 weeks, including 3 weeks of study intervention. Participants were recruited from CSMC and UC Riverside. Exclusion criteria included: individuals in active cancer treatment; individuals with clinically significant peripheral neuropathy or musculoskeletal disease; individuals with a neurodegenerative disease; individuals taking medications that may affect cognitive function; and individuals with visual impairments that may affect their use of a mobile app. All participants were required to wear an activity monitor (Fitbit Charge 5) for the study, including the one-week lead-in period. Participants (N=30) were randomly assigned to one of two conditions after the first week: (1) Walking Only (walking 30 minutes a day for three weeks) or (2) Walking + PolyRules! (alternating days of walking for 30 minutes and days of playing PolyRules! for 30 minutes). Feasibility was evaluated based on adherence to the intervention (< 20% attrition; >60% completion of walking and cognitive training regimen or walking alone regimen). Qualitative interviews were conducted at the end of study timepoint to assess acceptability of walking and gaming regimens.

Results: From 91 screened individuals, 40.7% (37) consented for study participation. There was a 13.5% drop out rate due to personal health complications, over a 5-month period, with 30 participants completing the study (Average Age: 62 years, 83.33% Female, 73.33% cancer survivors). In the walking condition (n=15), 93.33% participants completed all required days of walking. In the walking and gaming condition (n=15), 86.67% of participants completed all assigned PolyRules! sessions. Secondary outcome analysis revealed an increase in step count of 22.8% (1,323 steps) in the walking condition and 16.67% (1,200 steps) in the walking and gaming condition compared to the first week prior to intervention. Qualitative interviews indicated acceptability of both conditions.

Conclusions: The implementation of a cognitive training and walking regimen or walking only regimen is feasible. Future research will assess efficacy of gamified inhibitory control training and walking on cognitive functioning.

CORRESPONDING AUTHOR: Katherine Barnhill, Cedars-Sinai Medical Center, Santa Monica, CA; katherine.barnhill@cshs.org

Abstract citation ID: kaad011.0327

POSTER SESSION B: AN 8-WEEK PODCAST INTERVENTION IMPROVED ANTI-FAT ATTITUDES IN UNIVERSITY STUDENTS

Abigail Pye, BS[1], Melissa Goode, BS[2], Natalie M. Papini, MA[2], Nikole Squires, MS, CHES[2], Nanette V. Lopez, PhD, MS/MS[2], Dawn Clifford, PhD, RDN[2]

[1]Northern Arizona University, FLAGSTAFF, AZ; [2]Northern Arizona University, Flagstaff, AZ

Dieting and disordered eating are prevalent in late adolescence and early adulthood. Given the links between dieting and disordered eating, weight inclusive approaches are needed

to promote health and well-being, independent of weight status. Podcasting has become a popular method to share health messages, though few studies have been conducted on its efficacy within health behaviors and attitudes. The current study aimed to assess the efficacy of an 8-week Weight-Inclusive Podcast (WIP) intervention on reducing anti-fat attitudes and weight and health attitudes.

Participants (n=45, 80% white) were recruited through two sections of a Nutrition Across the Lifespan course at a large Southwestern public university and were placed either into the control (n=29) or intervention (WIP) group (n=16). The WIP series included 8 weekly podcasts with weight inclusive health professionals addressing how to live a diet-free lifestyle and reduce societal weight stigma throughout the lifecycle. The control group listened to 8 different podcasts that addressed nutrition across the lifecycle but did not address topics related to weight inclusivity. Anti-fat attitudes and weight and health attitudes were assessed pre- and post-intervention utilizing the Anti-Fat Attitudes Scale (AFAS) and the Health and Weight Attitudes Scale (HWAS), a scale that measures attitudes about weight inclusive approaches to promoting health and well-being.

A two-way ANOVA revealed significant effects of time for AFAS (F (1,43) = 10.22, p= .003) and HWAS (F (1, 43) = 53.52, p=.001). In addition, there was a significant interaction effect of time by condition for AFAS with improvements in the WIP group from baseline (M= 29.81, SD= 5.24) to post-intervention (M=25.25, SD= 6.22). There was no significant interaction effect of time by condition for HWAS.

Listening to weight-inclusive podcasts reduced anti-fat attitudes in pre-professional undergraduate nutrition students. Podcasts may be a tool to influence weight stigma in the care provided by future allied health professionals.

CORRESPONDING AUTHOR: Abigail Pye, BS, Northern Arizona University, FLAGSTAFF, AZ; aep287@nau.edu

---

Abstract citation ID: kaad011.0328

POSTER SESSION B: SUPPORTIVE ACCOUNTABILITY (HEALTH COACHING) IN A DIGITAL LIFESTYLE INTERVENTION FOR HISPANIC FAMILIES

Vanessa Morales, MSPH[1], Vanina Pavia Aubry, MD[1], Rafael O. Leite, MS[2], Yanexy Rivera, MPH, MA[3], Cristine Concha-Gomez, MSEd[1], Roberto M. Benzo, PhD, MS[4], Blanca S. Noriega Esquives, MD, PhD[5], Maria Estevez, BS[1], Rana Saber, MS, MSL, PMP[6], Sara M. St. George, PhD[7]

[1]University of Miami, Miami, FL; [2]University of Miami, Coral Gables, FL; [3]University of Miami School of Nursing and Health Studies, Miami, FL; [4]University of Miami, Miami Beach, FL; [5]University of Miami, Sylvester Comprehensive Cancer Center, Miami, FL; [6]Northwestern University, Chicago, IL; [7]University of Miami Miller School of Medicine, Miami, FL

Background: Human support increases adherence to digital interventions through accountability to a coach who fosters a trusted bond ("supportive accountability"). We developed and piloted a family-based digital lifestyle intervention known as *Healthy Juntos* (*Healthy Together)* for Hispanic adolescents and their parents. The intervention targets improvements in physical activity and diet through changes in family communication/positive parenting, behavioral skill-building, and autonomy support. Intervention participants receive Fitbits, access to our web-based app and have eight weekly coaching sessions with a bilingual health coach over 10-12 weeks. This study examines the delivery of supportive accountability (health coaching) in our pilot RCT of *Healthy Juntos*.

Methods: We randomly assigned parent-adolescent dyads (n=25) to *Healthy Juntos* or a digital health referral control condition. We trained health coaches in motivational interviewing and a protocol that prioritized domains covered during sessions (e.g., physical activity, healthy eating). Health coaches documented the duration and focus of each session, their listening attitude, and family goals. Two independent evaluators rated coaching fidelity using the Motivational Interviewing Treatment Integrity (MITI) scale. We calculated descriptive statistics to characterize these indicators.

Results: Parents assigned to the intervention condition completed 6.0±2.6 of 8 coaching sessions, which were 18.8±8.3 minutes long. The most frequently reported domains discussed during sessions were user engagement/tech issues (56%), physical activity (53%), healthy eating (39%), and family health activities (31%). Parents set goals during 92% of sessions and reported that they accomplished a previous goal during 81% of sessions. Health coaches were most likely (48%) to rate themselves as practicing active listening between 25-50% of the time during sessions. Fidelity for each session, measured on a 1 (low) to 5 (high) scale, was 4.39±0.6.

Conclusions: Although the health coaching component of *Healthy Juntos* was delivered with high fidelity, we identified areas for improvement (e.g., decreasing time spent on user engagement/tech issues, increasing time spent on lifestyle modification). In a second pilot of *Healthy Juntos*, we have made procedural modifications (e.g., a more formalized family onboarding and support process) to maximize user engagement and intervention progress during health coaching sessions.

CORRESPONDING AUTHOR: Vanessa Morales, MSPH, University of Miami, Miami, FL; vxm450@miami.edu

Abstract citation ID: kaad011.0329

POSTER SESSION B: IMPLEMENTATION AND PRELIMINARY EFFECTIVENESS OF A DIGITAL HEALTH TOOL TO PROMOTE BEHAVIOR CHANGE: PREVENT PILOT FINDINGS

Callie Walsh-Bailey, MPH[1], Min Zhao, MS[2], Zoe M. Miller[1], Kianna Zucker[3], Cynthia Herrick, MD, FACP[4], Neil H. White, MD, CDE[4], Ross C. Brownson, PhD[1], Randi Foraker, PhD, MA, FAHA, FAMIA, FACMI[5], Maura Kepper, PhD[3]

[1]Brown School, Washington University in St. Louis, Saint Louis, MO; [2]Division of Biology and Biomedical Sciences, Washington University School of Medicine, Saint Louis, MO; [3]Washington University in St. Louis, Saint Louis, MO; [4]Division of Endocrinology, Washington University School of Medicine, Saint Louis, MO; [5]Division of General Medical Sciences, Washington University School of Medicine, Saint Louis, MO

Background: Youth overweight and obesity is a major public health concern and increases risk of poor cardiovascular health (CVH) and chronic disease. Healthcare providers play a key role in health behavior counseling and weight management, yet few tools exist to support care teams in providing tailored evidence-based behavior change interventions to patients. PREVENT is a digital health tool designed to be used by clinicians at the point of care to engage patients in behavior change education and goal setting. We report implementation outcomes and preliminary effectiveness findings from pilot feasibility testing of PREVENT.

Methods: We trained healthcare providers (N=5) in a children's hospital outpatient clinic to use the PREVENT tool, which includes a patient cardiovascular health profile, tailored physical activity and nutrition goals, an interactive community resource map and digital resource repository, and delivers summaries and automated follow-up to patients. Patients aged 12-18 (N=36) were randomized to use PREVENT with their provider during their routine visit (N=18) or usual care control (N=18). We collected patient EHR and self-report health behavior data at baseline and 3 months post-intervention. We collected implementation data via direct observation, and post-intervention surveys and interviews with providers and intervention patients. We performed quantitative, qualitative, and mixed-methods analyses.

Results: Providers spent an average of 6.5 minutes using PREVENT. Patients received an average of 6.5 resources. Patients and providers had overall positive perceptions of PREVENT (mean ratings for satisfaction, acceptability, feasibility, and other implementation outcomes ranged from 3.8-4.1). Only intervention patients increased their knowledge of ways to improve heart health (p=.01), though the change was not significantly different compared to controls. Compared to the control group, intervention patients improved their overall CVH score and blood pressure (p-values < .05). Qualitative findings offer insights on components of PREVENT patients and providers found most helpful, including data visualizations and personalized concrete goals, and recommendations for improvement, such as integration with the EHR.

Discussion: PREVENT may help healthcare providers offer evidence-based care to promote behavior change and improve CVH. Findings suggest that PREVENT is feasible and well-received, yet can be further improved by greater integration with clinic workflows. Addition work is ongoing to refine PREVENT based on user feedback and to co-develop implementation plans to support sustained use. Lessons learned may inform other efforts to implement digital tools for health promotion.

CORRESPONDING AUTHOR: Callie Walsh-Bailey, MPH, Brown School, Washington University in St. Louis, Saint Louis, MO; callie.w@wustl.edu

---

Abstract citation ID: kaad011.0330

POSTER SESSION B: ASSOCIATIONS BETWEEN SOCIODEMOGRAPHIC CHARACTERISTICS AND RANDOMIZATION IN A DIGITAL HEALTH HYPERTENSION INTERVENTION

Hailey Miller, PhD RN[1], Sandy Askew[2], Miriam B. Berger, MPH[3], Elizabeth J. Trefney, BSPH, BA[4], Dori Steinberg, PhD, RD[5], Gary G. Bennett, PhD[3]

[1]Johns Hopkins University, Baltimore, MD; [2]Duke University, Ocoee, FL; [3]Duke University, Durham, NC; [4]Duke University, Raleigh, NC; [5]Equip Health, Chapel Hill, NC

Background: Enrolling people from diverse backgrounds in clinical trials is fundamental to inform care for all communities. Yet, clinical trials often lack representation among key sociodemographic groups. To increase diversity in participation, it is critical to identify groups who are disproportionately lost to follow-up prior to enrollment. The objective of this analysis was to identify differences in randomization by sociodemographic characteristics in the Nourish trial.

Methods: Nourish, a 12-month trial, randomized adults with hypertension to an attention control arm or a digital health intervention (DHI) that included dietary tracking, nutrient goal setting, tailored feedback, skills training and health coaching. Potential participants completed several screening steps before randomization: baseline survey; dietary survey; orientation visit; dietary tracking; and enrollment visit.. We used chi-square and t-tests to examine the association between sociodemographic characteristics and completion of screening/randomization.

Results: Nourish randomized 301 adults, 65% of whom identified as female. The mean age was 54 ± 13 years. The majority of participants (53%) identified as White, followed by Black/African American (31%), and Hispanic/Latino (7%). There was no significant association between gender, race, or ethnicity identities and randomization. Adults were more likely to be randomized if they were older (mean 54 vs. 52 years); had a higher education level and lower BMI (mean 32 vs. 34 kg/m^2), ($p< .01$). Those who used desktops/laptops or tablets to regularly access the internet were more likely to be randomized than those who used cell phones (53% and 63% vs. 44%, $p=0.01$). Adults who had used weight, physical activity, and diet apps were more likely to be randomized than those who had not (49% vs. 40%, 53% vs. 34%, and 49% vs. 40%, respectively, $p< .02$). Lastly, randomized adults reported fewer days in which their mental health was "not good" in the last 30 days compared to those not randomized (mean 4 vs. 6 days, $p=0.001$).

Conclusion: Older age, higher education, lower BMI, prior exposure to health apps, and better mental health were associated with successful randomization within a DHI for hypertension, indicating the need for additional support or tailored resources to promote diverse participation. Identifying innovative solutions at all stages of clinical trial processes is important to obtain generalizable results and translate findings into practice.

CORRESPONDING AUTHOR: Hailey Miller, PhD RN, Johns Hopkins University, Baltimore, MD; hmille45@jhu.edu

Abstract citation ID: kaad011.0331

POSTER SESSION B: USABILITY OF THE HEART FAILURE HEALTH LITERACY (H2LIT) APP

Mia Cajita, PhD, RN[1], Karen M. Vuckovic, PhD, APRN, ACNS-BC[1], Spyros Kitsiou, PhD[1], Nathan Tintle, PhD[1], Susan L. Dunn, PhD, RN, FAHA, FAAN[1]

[1]University of Illinois Chicago, Chicago, IL

Introduction: Low health literacy (HL) has been identified in 24% to 39% of people with heart failure (HF). People with low HL have difficulty processing health information, have poorer adherence to HF self-care, and experience poorer health outcomes. Despite the significant negative impact of low HL on HF self-care and HF outcomes, existing HF self-care apps are not designed for people with low HL.

Methods: We developed and tested the Heart Failure Health Literacy (H2Lit) web-based app using an iterative approach and leveraging the Loop 11 system, an online usability testing platform. H2Lit aims to empower HF patients by improving their HL in addition to providing them with simplified health information. Participants used the System Usability Scale (SUS)—which consists of 10 items and uses a 5-point Likert scale—to rate the usability of H2Lit. The participants' HL was assessed using the 6-item Newest Vital Sign. A total of 44 study participants examined the usability of H2Lit in four separate, non-overlapping rounds of iterative testing, with healthy participants in rounds 1-3 and participants with HF in round 4.

Results: Of the 44 participants, 15 (34%) had low HL (2/10 (20%) in the HF group). Participants were middle-aged adults (mean age 47.6 (standard deviation (SD) 15.4) years), mostly White (31/44, 70%), and primarily college-educated (31/44, 70%). H2Lit had a mean usability score of 74.1 (SD 18.5) (good usability) in round 1; 67.5 (SD 18.8) (high-marginal usability) in round 2; 85.3 (SD 10.9) (excellent usability) in round 3; and 82.5 (SD 12.2) (excellent usability) in the final round. For the final round, there was no significant difference in the mean usability ratings between participants with low HL and those with adequate HL (p=0.88). Additionally, 80% (8/10) of the HF participants agreed that they would continue to use H2Lit, and 80% (8/10) would recommend H2Lit to other people with HF.

Conclusions: The final iteration of H2Lit with HF participants had excellent usability. Our next step will be to pilot test the H2Lit intervention for feasibility and preliminary efficacy, leading to future large-scale, well-powered interventional studies with diverse samples. If determined to be efficacious, H2Lit would be an easily scalable and low user burden HF self-care intervention.

CORRESPONDING AUTHOR: Mia Cajita, PhD, RN, University of Illinois Chicago, Chicago, IL; mcajit2@uic.edu

---

Abstract citation ID: kaad011.0332

POSTER SESSION B: MANAGING HYPERTENSION WITH REMOTE PATIENT MONITORING AND HEALTH COACHING: 1YR OUTCOMES OF OCHSNER'S DIGITAL MEDICINE PROGRAM

Lea Martin, PhD[1], Constanza Villalba, PhD[2], Kent Boyer, MA[3], Richard Milani, MD[4]

[1]Ochsner Health, Pittsburgh, PA; [2]Ochsner Health, Watertown, MA; [3]Ochsner Health, Las Cruces, NM; [4]Ochsner Health / University of Queensland, New Orleans, LA

Introduction: Although hypertension is a well-recognized cause of cardiovascular disease, impacting nearly half (47%) of US adults, blood pressure (BP) control rates have deteriorated nationally, particularly for those who suffer from social disadvantage where hypertension mortality is highest. Digital health has the potential to close gaps in healthcare equity as it can resolve barriers such as transportation and access to care. We sought to compare the efficacy of coaching type (digital versus human) on BP control in diverse populations with hypertension.

Methods: We compared BP control status, systolic, and diastolic values in Medicaid and Non-Medicaid patients assigned to either digital or human coaching. All patients submitted BP readings using a Bluetooth BP cuff, were assigned a pharmacist to adjust medications as needed, and had an initial enrollment call with a health coach to review program goals, set expectations, and answer questions. Digital coaching patients received weekly automated text messages designed to educate them about hypertension and condition management, whereas human coaching patients had regular calls with their health coach to discuss similar topics. Outcome variables were examined across three timepoints (90, 180, and 365-days) using a linear mixed methods approach. Models included covariates known to impact BP, such as age and smoking status.

Results: In the Medicaid sample (n=534), digital coaching patients were more likely to have controlled BP and lower diastolic BP than human coaching patients ($ps \leq .001$); there was a trend ($p = .055$) for digital coaching patients to have lower systolic BP. These outcomes were driven by positive change in digital coaching and a lack of change or even slight negative change in human coaching over time. In the non-Medicaid sample (n = 2617), digital coaching patients were less likely to have controlled BP ($p < .001$) and had higher systolic ($p = .049$) and diastolic ($p = .017$) BP. We observed a consistent, although not always significant, time by coaching type interaction pattern that suggests more favorable outcomes for human coaching at 90-days. This difference disappears at 180-days and remains non-significant or trending at 365-days.

Discussion: Digital health offers great promise in the management of chronic conditions, but more research is needed to understand under what conditions and for whom digital interventions work best. This work offers insight into the yearlong performance of a digital coaching version of an established hypertension control program. For Medicaid participants, digital coaching performed better than traditional human coaching. For those not in Medicaid, we saw that human coaching resulted in better hypertension outcomes – although investigation into the specific timepoints suggest there is important nuance in how this difference manifests over time.

CORRESPONDING AUTHOR: Lea Martin, PhD, Ochsner Health, Pittsburgh, PA; lea.martin@ochsner.org

Abstract citation ID: kaad011.0333

POSTER SESSION B: MESSAGE FREQUENCY AND ITS ASSOCIATIONS WITH DAILY PHYSICAL ACTIVITY IN A DIGITAL BEHAVIOR CHANGE INTERVENTION

Jingchuan Wu, MA[1], Deborah L. Brunke-Reese, BS[2], Constantino Lagoa, PhD[3], David E. Conroy, PhD, FSBM[4]

[1]Penn State University, State College, PA; [2]Penn State University, University Park, PA; [3]The Pennsyvania State University, University Park, PA; [4]The Pennsylvania State University, University Park, PA

Background: Digital message interventions are a low-cost way to promote behavior change. Messages can engage users and expose them to behavior change techniques; but they can also disrupt ongoing activities without supporting behavior change. This study reports a secondary data analysis from the Random AIM trial (NCT03907683) to test the hypotheses that daily physical activity will have (a) positive associations with the frequency of behavior change-relevant message content, and (b) negative or null associations with the frequency of irrelevant message content.

Methods: Insufficiently-active young adults (N=80; age 18-29) wore Fitbit smartwatches with activity trackers and installed the RA smartphone application on their smartphones for six months. Each day, they received zero to six randomly-selected and timed digital messages from three content libraries: Move More (40%), Sit Less (40%), or Inspirational Quotes with no physical activity relevance (20%). Participants were asked to acknowledge the message receipt within 30 minutes before it disappeared from their device.

Results: On average, each participant received (M±SD) 1.35±1.12 Move More prompts/day, 1.36±1.12 Sit Less prompts/day, and 0.71±0.82) Inspirational Quote prompts/day. Participants responded to 81.4% of prompts within 30 minutes of display on the smartphone with no differences in response rates as a function of the content library ($p > .05$). A mixed linear model revealed that daily step counts were not associated with the frequency of Move More or Sit Less messages (all $p \geq .20$), but were negatively associated with the control quotes ($b=-97$, $p=.03$). Daily moderate-to-vigorous PA duration was not related to the frequency of any prompts ($p > .05$).

Conclusions: Increasing the frequency of digital messages in a physical activity intervention is not associated with greater physical activity. This strategy may even backfire if message content is not relevant to behavior change and only disrupts a user's behavior. Aside from mere message frequency, effective engagement may require greater attention to the timing of messages to ensure participants have opportunities to be active following message receipt.

CORRESPONDING AUTHOR: Jingchuan Wu, MA, Penn State University, State College, PA; jingchuan@psu.edu

---

Abstract citation ID: kaad011.0334

POSTER SESSION B: HOW MUCH FOOD TRACKING DURING A COMMERCIAL DIGITAL WEIGHT LOSS PROGRAM IS ENOUGH TO PRODUCE CLINICALLY SIGNIFICANT WEIGHT LOSS?

Ran Xu, PhD[1], Richard Bannor, MPH[1], Michelle I. Cardel, PhD, MS, RD, FTOS[2], Gary Foster, PhD[3], Sherry Pagoto, PhD, FSBM[4]

[1]University of Connecticut, Department of Allied Health Sciences, Storrs, CT; [2]WW International, Inc.; University of Florida College of Med, Gainesville, FL; [3]WeightWatchers (WW(, Newtown Square, PA; [4]University of Connecticut, Storrs, CT

Behavioral weight loss interventions prescribe daily food tracking as it is a strong predictor of weight loss. However, food tracking is burdensome and adherence declines over time. It is unclear how much food tracking is enough to produce clinically significant weight loss. Our study objective was to identify levels of food tracking adherence that best predict ≥ 3%, ≥ 5%, and ≥ 10% weight loss, and to identify distinctive food tracking trajectories among participants in a single-arm trial of a 6 month commercial digital weight loss program (WeightWatchers; WW). We used data from 153 participants (69.9% female; 57.5% White; mean age = 41.1 years, sd = 13.8; mean BMI = 31.8kg/m2, sd = 5.0). Receiver operating characteristics (ROC) curve analysis was conducted to identify the optimum threshold of food tracking that can predict ≥ 3%, ≥ 5%, and ≥ 10% weight loss at 6 months. We performed time series clustering analysis on weekly food tracking data to identify and compare trajectories on weight loss at 6 months. Mean weight loss of participants was 5.1% (sd = 5.6) over 6 months, 63.4% lost ≥ 3%, 51% lost ≥ 5%, and 14.4% lost ≥ 10%. On average participants tracked on 39.1% of days (sd = 30.8). We observed a significant correlation between participants' percent of days tracking food and percent weight loss ($r = -0.43$, $p < 0.001$). ROC analyses showed the optimum threshold of food tracking was 28.5% of the intervention days to achieve ≥ 3% weight loss (AUC = 0.820, $p < 0.001$), 39.4% to achieve ≥ 5% weight loss (AUC = 0.744, $p < 0.001$), and 67.1% to achieve 10% weight loss (AUC = 0.712, $p = 0.002$). Time series clustering analyses identified 3 food tracking trajectories (high, medium, and low trackers). High trackers tracked 6-7 days a week across 24 weeks and this declined to 5.4 days a week by week 24. Medium trackers started tracking 6-7 days per week and steadily declined to less than 1 day a week by week 24. Low trackers tracked an average of 2-3 days a week in week 1 and completely stopped by week 12. Trajectories differed significantly in weight loss at 6 months ($F = 14.08$, $p < 0.001$). High trackers experienced the most weight loss (mean = 9.4%; sd = 3.8), followed by medium (mean = 4.8%; sd = 5.3) and low trackers (mean = 2.4%; sd = 5.8). Perfect food tracking adherence might not be necessary to achieve clinically significant weight loss in behavioral weight loss programs. Further research is needed to inform food tracking prescriptions in behavioral weight loss programs and identify ways to reduce the burden of food tracking.

CORRESPONDING AUTHOR: Richard Bannor, MPH, University of Connecticut, Department of Allied Health Sciences, Storrs, CT; richard.bannor@uconn.edu

Abstract citation ID: kaad011.0335

POSTER SESSION B: AN ONLINE PLATFORM FOR THERAPIST TRAINING AND DELIVERY OF COGNITIVE-BEHAVIORAL THERAPY GUIDED SELF-HELP FOR EATING DISORDERS

Laura D'Adamo, BA[1], Marie-Laure Firebaugh, LMSW[2], Zafra Cooper, PhD[3], Denise E. Wilfley, PhD[4], Ellen E. Fitzsimmons-Craft, PhD[4]

[1]Drexel University, Philadelphia, PA; [2]Washington University in St. Louis, St. Louis, MO; [3]Yale School of Medicine, New Haven, CT; [4]Washington University School of Medicine, St Louis, MO

Objective: Most individuals with eating disorders (EDs) do not receive evidence-based treatment, and traditional methods of training therapists have limited accessibility and sustainability. Online platforms can provide training in a widely accessible format and support ongoing treatment use. Cognitive-behavioral therapy guided self-help (CBTgsh) can be delivered by non-specialist providers, making it particularly suitable for widespread implementation. This study employed a user-centered design process to develop an online platform for training in CBTgsh and supporting implementation. Usability testing was conducted with therapists and patients in two cycles to inform iterative refinements.

Methods: The platform hosted patient-facing self-help content and self-monitoring functionality and therapist-facing training modules, session checklists, and abilities to view patient self-monitoring data. In Cycle 1, therapists (n = 4) and adults with binge-spectrum EDs (n = 4) completed a 30-minute testing session to test platform functionality. Therapist and patient usability of the platform was assessed via the System Usability Scale (SUS; 0-100), the Usefulness, Satisfaction, and Ease of Use questionnaire (USE; 19-133), and qualitative interviews, which informed refinements. In Cycle 2, therapists (n = 5) were trained in CBTgsh using the online platform and subsequently used the platform to deliver CBTgsh to their patients with binge-spectrum EDs (n = 5) over 3 weeks. Therapist and patient usability was again assessed.

Results: In Cycle 1, therapists (mean SUS = 83.1 ± 12.6; mean USE = 111.5 ± 15.2) and patients (mean SUS = 86.3 ± 18; mean USE = 124.5 ± 9.3) reported good usability of the platform. Qualitative feedback highlighted ease of use of the platform and suggested improving visualization of self-monitoring records. In Cycle 2, following use of the platform for 3 weeks in treatment, therapists (mean SUS = 77.5 ± 10.2; mean USE = 98.8 ± 25.1) and patients (mean SUS = 66.0 ± 15.9; mean USE = 71.0 ± 27.6) reported acceptable usability. Qualitative feedback highlighted the numerous forms of therapist training materials and suggested including functionality for tracking completion of content and graphing patients' weight in the platform.

Conclusions: Lower usability scores in Cycle 2 were likely partly driven by the fact that participants were asked to use the platform as part of treatment rather than test functionality in a single testing session as in Cycle 1. Thus, this study informed key refinements needed to meet the needs of therapists and patients for use of the platform in routine care. Following refinements, an open pilot trial, currently underway, is testing the use of the platform during 12 weeks of treatment with therapist-patient dyads. Pilot study design and acceptability data will be presented.

CORRESPONDING AUTHOR: Laura D'Adamo, BA, Drexel University, Philadelphia, PA; lad374@drexel.edu

---

Abstract citation ID: kaad011.0336

CITATION AWARD WINNER

POSTER SESSION B: ADAPTING A SEXUAL AND REPRODUCTIVE HEALTH PROGRAM FOR LATINA TEENS AND THEIR MOTHERS: FORMATIVE RESEARCH FINDINGS

Katherine G. Merrill, PhD[1], Jacqueline Fuentes, BS, MPH[1], Angela Sedeño, PhD[2], Susana Salgado, BA[3], Sara Vargas, MA, LMFT[4], Jennifer K. Cano, BA[3], Geri Donenberg, PhD[1]

[1]University of Illinois Chicago, Chicago, IL; [2]The Kedzie Center, Chicago, IN; [3]Centro Romero, Chicago, IL; [4]The Kedzie Center, Chicago, IL

Latina teens are disproportionately impacted by adverse sexual and reproductive health outcomes (SRH), including sexually transmitted infections and unplanned pregnancy, compared to other groups. Parents—and mothers, in particular—play an important role in influencing teen girls' sexual behavior practices but there is little focus on the Latina mother-daughter relationship among SRH programs. Using a community-based participatory research process, we conducted formative research to inform the adaptation of an existing evidence-based mother-daughter SRH program originally developed for African American girls and their mothers. We sought to understand the SRH challenges unique to Latina teens and ways to address these challenges. In partnership with two community-based organizations (CBOs) in Chicago, we conducted six focus group discussions, including three with CBO staff (n=21), two with Latina teens (aged 14-18 years) (n=11), and one with mothers of Latina teens (n=5). We thematically coded the six transcripts using MAXQDA. Four themes emerged: 1) *Latino cultural and gender norms as highly impactful of SRH.* These norms—relating, for instance, to gender roles, machismo, family expectations, and "toxic" relationship dynamics—play a notable role in shaping Latina teens' SRH practices. One teen explained her frustration that the Latino community "want[s] to normalize women having kids but they don't want to normalize having sex." 2) *Mothers as conveyors of SRH.* While the mother-daughter relationship in Latino households "tends to be closer, especially emotionally," Latina teens and mothers rarely talk about SRH issues, which are "taboo." 3) *Enthusiasm for mother-daughter SRH programming.* Latina teens and mothers are eager to learn more about SRH topics affecting teens, including how to better communicate with each other on these topics. As one mother said, "Most of us [mothers]…we haven't sat down to talk with [our daughters] openly like that… but it would be good for us all to talk." 4) *Ensuring opportunities for joint and separate discussions.* When structuring a SRH program for Latina teens and their mothers, the inclusion of both separate and joint sessions for the teens and mothers is preferrable. Findings will directly inform the curriculum adaptation and support with the refinement of intervention components to be tested in a pilot optimization trial using the multiphase optimization strategy (MOST).

CORRESPONDING AUTHOR: Katherine G. Merrill, PhD, University of Illinois Chicago, Chicago, IL; kgm@uic.edu

Abstract citation ID: kaad011.0337

POSTER SESSION B: THE USE OF FOCUS GROUPS TO ELICIT STUDENT FEEDBACK IN PLANNING A SCHOOL-BASED PILOT TRIAL

Riley L. Wolynn[1], Beth L. Hoffman, PhD, MPH[1], Jaime E. Sidani, PhD, MPH, CHES[1]

[1]University of Pittsburgh School of Public Health, Pittsburgh, PA

Introduction: We updated an existing online media literacy-based tobacco prevention program, AD IT UP, which is designed to be delivered in high schools. Research indicates that including students early in the research process helps identify strategies for effective delivery of health education programming. Thus, prior to pilot testing the updated AD IT UP program, we sought input from students on how best to implement the program and specific trial design aspects.

Methods: We conducted focus groups with 9th-grade students from 3 study schools (2 per school); schools were located in urban, suburban, and semi-rural locations. Participants were shown portions of the AD IT UP program by the facilitators followed by a guided discussion to gather feedback about students' initial impressions of the program. Additionally, students were asked about: (1) preferred setting for delivery (e.g., health class, physical education), (2) preferred frequency (e.g., in one day, over multiple days), and (3) curriculum infusion (e.g., part of a class day, homework, extra credit). Focus groups were audio-recorded and transcribed using Otter.ai software. We used qualitative content analysis to identify overarching themes.

Results: Focus groups ranged in size from 5-10 students; in total, 47 9th-grade students participated. Overall, students reported that the interactive format of the AD IT UP program and the media literacy approach were appealing. Most students agreed that the AD IT UP program was less authoritarian and more interactive than other tobacco prevention programming. Although most students identified health class as the ideal setting for the trial, some identified classes specific to their school (e.g., freshman seminar). In addition, most students preferred completing AD IT UP in small groups during class over multiple class days.

Conclusions: High school students were willing to participate in focus groups and provided substantial feedback to guide the implementation of the pilot trial. The information gleaned from the focus groups provided guidance when selecting the setting, frequency, and type of curriculum infusion specific to each school. Our findings suggest that eliciting feedback from representatives of the target population prior to designing and implementing the trial may be of value for implementation success.

CORRESPONDING AUTHOR: Riley L. Wolynn, University of Pittsburgh School of Public Health, Pittsburgh, PA; RIW22@pitt.edu

---

Abstract citation ID: kaad011.0338

POSTER SESSION B: USING EVIDENCE-BASED INTERVENTION MAPPING TO ADAPT THE CHANGE CLUB CURRICULUM INTO STRONG TEENS FOR HEALTHY SCHOOLS CHANGE CLUB

Ashlee Gardner, MS[1], Alexandra MacMillan Uribe, PhD[1], Chad D. Rethorst, PhD[1], Rebecca A. Seguin-Fowler, PhD, RDN, LD, CSCS[2], Jacob Szeszulski, PhD[1]

[1]Texas A&M AgriLife Institute for Advancing Health through Agriculture, Dallas, TX; [2]Texas A&M AgriLife Institute for Advancing Health through Agriculture, College Station, TX

Background: Evidence-based interventions (EBIs) play a vital role in improving physical activity and healthy eating behaviors and environments. Change Club (CC) is a civic engagement EBI that facilitates the empowerment of adults in underserved communities to improve environments for physical activity and healthy eating. Using EBI Mapping, a systematic process to understand the design, delivery, and implementation of existing EBIs, we adapted CC to help students identify healthy eating and physical activity environmental changes that are more relevant to the school setting and incorporate positive youth development in a new curriculum: Strong Teens for Healthy Schools Change Club (STHS). This study describes the adaptation process and discusses differences between CC and STHS.

Methods: The CC curriculum was analyzed using EBI Mapping, which helps authors identify the audience, setting, practical applications (i.e., curriculum activities), theory-based behavioral change methods (e.g., active learning, discussion), and psychosocial behavioral determinants (e.g., knowledge, skills) that affect individual-level health behaviors (e.g., physical activity). Adaptions were made to components of CC to develop STHS, and EBI Mapping was used to recharacterize STHS. Similarities and differences between the CC and STHS interventions were recorded and summarized.

Results: CC included 72 practical applications, 125 methods, and 132 determinants, whereas STHS consisted of 55 practical applications, 78 methods, and 85 determinants. The three most common practical applications were lectures (n=39; 54.2%), breakout pairs (n=19; 26.4%), and group activities (n=11; 15.3%) in CC, whereas the STHS curriculum mostly used discussions (n=18; 32.7%), small group activities (n=14; 25.5%), and whole group activities (n=12; 21.8%). In CC, the three most used methods were advance organizers (n=37; 29.6%), discussions (n=30; 24.0%), and goal setting (n=16; 12.8%), whereas STHS used active learning (n=29; 37.2%), participation (n=17; 21.8%), and discussion (n=5; 6.4%). In both curricula, knowledge (CC: n=72; 54.5%, vs. STHS: n=24; 28.2%) and subjective norms (CC: n=17; 12.9% vs. STHS: n=8; 9.4%) were two of the top three most used determinants.

Conclusion: Usage of EBI Mapping led to the substitution of age-appropriate content, discussions, and activities (e.g., interactive games, limited lectures, hands-on activities) for middle school students; however, the targeted determinants – a potential mechanism of behavior change – remained consistent. Subsequent expert review and testing of the STHS curriculum will evaluate if these adaptations (e.g., more active learning) maximize the benefits of STHS and improve implementation in the school setting.

CORRESPONDING AUTHOR: Ashlee Gardner, MS, Texas A&M AgriLife Institute for Advancing Health through Agriculture, Dallas, TX; ashlee.gardner@ag.tamu.edu

Abstract citation ID: kaad011.0339

POSTER SESSION B: FINDING CONSENSUS: DEVELOPMENT OF A COMPREHENSIVE CROSSWALK OF FOUR IMPLEMENTATION SCIENCE FRAMEWORKS

Cristina Gago, PhD, MPH[1], Audrey Renson, PhD, MPH[1], Jocelyn Cruz, MPH[1], Lorna E. Thorpe, PhD[1], Antoinette Schoenthaler, EdD, FACH[1]

[1]NYU Langone Health, New York, NY

Background: Many novel implementation frameworks have been published in the last ten years, each offering guidance for evaluation planning and rollout. While this rapid influx offers benefits, it also introduces methodological challenges for researchers and on-the-ground implementers. Cross-framework inconsistencies serve as fundamental barriers to effective evaluation planning and deployment. In response, we developed a concise, tabulated crosswalk of four widely-used Implementation Science frameworks and their constructs, which may help facilitate implementation evaluation design.

Methods: Our team of population health researchers conducted a review of published implementation and dissemination frameworks for evaluating and scaling diverse, multi-level interventions. We then used web scraping techniques to identify and summarize key constructs, definitions, examples in practice, and validated metrics by implementation stage.

Results: From the review, we identified four key frameworks, including three that are widely cited: the Consolidated Framework for Implementation Research (CFIR); the RE-AIM model; and Proctor's Implementation Outcomes Framework (IOF) and one framework that uniquely maps implementation evaluation on a timescale: the Exploration, Preparation, Implementation, and Sustainment Framework (EPIS). Across these four frameworks, we identified 52 total constructs. Among these, 28 were unique and 24 were partially or fully overlapping. Overall, most aligned constructs served the preparation and implementation stages, with only one pertaining to specifically to maintenance, exposing a measurement gap. Most EPIS and CFIR constructs aligned on pre- and early-implementation metrics, with IOF and RE-AIM articulating outcomes that map to mid-and post-implementation. CFIR offered the most unique constructs (n=9), most of which focused on intervention characteristics and process.

Conclusion: By comparing key constructs across widely-used implementation frameworks, this crosswalk serves as a roadmap to inform evaluation of contextual *determinants* of implementation readiness and success; adaptation of *modifiable* implementation practices over time; and assessment of implementation *outcomes*. In doing so, this tool offers a comprehensive, easy-to-access compendium of metrics which evaluators may reference across intervention stages.

CORRESPONDING AUTHOR: Cristina Gago, PhD, MPH, NYU Langone Health, New York, NY; cristina.gago@nyulangone.org

---

Abstract citation ID: kaad011.0340

POSTER SESSION B: AN OVERVIEW OF RECOMMENDATIONS FROM THE U.S. PREVENTIVE SERVICES TASK FORCE AND IMPLICATIONS FOR FUTURE RESEARCH.

Camilla A. Rivera[1], Giovanna Blanco[2], Giovanni Marquez, BS[3], Dakota A. Dolister[4], John M. Ruiz[3]

[1]University of Arizona, Tucson, AZ; [2]California State University Northirdge, Northridge, CA; [3]The University of Arizona, Tucson, AZ; [4]University of Arizona, Surprise, AZ

Overview: The U.S. Preventive Services Task Force (USPSTF) is dedicated to improving healthcare via preventative medicine. The USPSTF utilizes a grade scale of A, B, C, D, and I to classify preventative care recommendations formed by available evidence and efficacy. Grades A through D denote varying levels of support for public uptake of recommendations, whereas I-grades indicate a lack of adequate evidence to classify the recommendation and highlight areas of need for future investigation.

Objective: The current study assembled an overview of USPSTF recommendations to evaluate grade assignments and trends among I-graded recommendations to support future investigative efforts from the behavioral medicine community.

Methods: Data was collected from the USPSTF's online repository for recommendations. I-grade recommendations were reviewed along several major characteristics: year published, intervention type, population demographics, and occurrence. The preventative measure categories provided by the USPSTF: Counseling, Preventative medication, and Screening were also utilized. Research gaps, classified as insufficient evidence for definitive grading of recommendations, were reviewed and categorized by content analysis.

Results: Between 2011 and 2022, 103 graded recommendations were published. Of those, 59 had single grades (8 A, 15 B, 1 C, 8 D, and 27 I), and nearly half (~45.76%) of single graded recommendations were graded I. The significant composition of I-grades is consistent when adding recommendations with multiple grades (~44.66%). Screening is the most prevalent type of preventative service, with ~72.82% of total published recommendations categorized as such (including recommendations with multiple service types). Of the 27 total recommendations with only I-grades, ~96.29% were Screenings. Every I-grade is given in conjunction with a reported research gap. The three most common gaps reported pertain to potential benefits and harms (~74.07% of all gaps) of the treatment, long-term impact on quality of life and health outcomes (~74.07% of all gaps), and the need for a diverse sample (~40.74% of all gaps).

Conclusion: Examining the trends among I-graded recommendations offers important insight into key areas of need in preventive health research and highlights populations currently underrepresented in preventive medicine research. Findings suggest a greater need for researchers to develop effective screening services to support preventative health benefits and investigation of other preventive services.

CORRESPONDING AUTHOR: Camilla A. Rivera, University of Arizona, Tucson, AZ; camillarivera@arizona.edu

Abstract citation ID: kaad011.0341

POSTER SESSION B: DOES TRUST IN SOURCES OF INFORMATION EXPAND THE HBM'S EXPLANATORY POWER AT PREDICTING COVID-19 PROTECTIVE BEHAVIORS ENGAGEMENT

Lia Bauert, BS in Public Health[1], Virgina Gil-Rivas, PhD[1], Megan McComas, PhD[2], Rachel C. Uri, MA Psychology[1]

[1]University of North Carolina at Charlotte, Charlotte, NC; [2]Atrium Health Levine Children's Hospital, Charlotte, NC

Trust in health information sources (e.g., government, scientists) about reducing the infection risk can improve protective behavior uptake during pandemics. Researchers evaluated whether the Health Belief Model (HBM) constructs–perceived risk, perceived self-efficacy, and perceived effectiveness–explain individuals' endorsement of COVID-19 protective behaviors. In addition, researchers tested if trust in various sources of information moderated the relationship between HBM constructs and protective behaviors. Data from 147 adults were collected via an electronic survey between August 2020 and December 2020. Most participants (82.31%, N = 121) trusted scientists, health professionals, and organizations (SHPO) for COVID-19 information, while only 4.76% trusted the government. A multiple linear regression tested the HBM constructs' explanatory ability to predict protective behaviors. The model was statistically significant (F(7,136) = 3.43, p = .002) and accounted for 11% of the variance. Perceived risk of COVID-19 (b = 0.19, p < .001) and perceived effectiveness of protective behaviors (b = 0.15, p = .03) were found to be positively associated with more protective behaviors, while perceived self-efficacy to engage in protective behaviors was not statistically significant. Due to the small sample of participants categorized as trusting the government the most for COVID-19 information, the planned moderation regression was abandoned. Instead, Post Hoc tests were conducted to determine if adding trust in the government and trust in SHPO would increase the model's explanatory power. A bivariate correlation was conducted to determine if the HBM construct model would include trust in government and SHPO. The Pearson correlation between the trust sources was statistically significant (r(146)= .56, p< .001), and only trust in SHPO was significantly correlated with protective behaviors (r(146)= .24, p< .004). Given the intercorrelation between trust sources, model 2 only added trust in SHPO. The resulting model with HBM and trust in SHPO was found to be statistically significant (F(8,135) = 3.85, p < .001) and accounted for 14% of the variance. While perceived risk (b = 0.21, p < .001) and trust in SHPO (b = 0.15, p = .02) were statistically significant positive predictors, perceived effectiveness was no longer a statistically significant predictor. Implications of these findings include affirming public health messages and using SHPOs to increase message efficacy.

CORRESPONDING AUTHOR: Lia Bauert, BS in Public Health, University of North Carolina at Charlotte, Charlotte, NC; lbauert@uncc.edu

Abstract citation ID: kaad011.0342

POSTER SESSION B: REPAIRING INSTITUTIONAL BETRAYAL IN HEALTHCARE ORGANIZATIONS

Fallon Richie, MA[1], Jennifer Langhinrichsen-Rohling, PhD[2]

[1]UNC Charlote, Lakewood, OH; [2]UNC Charlotte, Charlotte, NC

Institutional betrayal is a betrayal trauma that occurs between an organization/system and individuals who depend on that system for care. Originally applied to systems responding to sexual assault allegations, the construct has been extended to healthcare organizations. The consequences of healthcare institutional betrayal (HIB) include patient healthcare disengagement and greater health organization and provider distrust, highlighting the public health implications of uncorrected HIB (Smith, 2017). Little is currently known about corrective actions to help repair HIB and re-instill trust. Thus, this project examined the perceived effectiveness of three repair strategies following HIB. The goal was to determine whether certain actions, undertaken by a healthcare provider or a healthcare administrator, following HIB can repair the individual-system relationship. Repair was measured by the restoration of trust and the mitigation of healthcare disengagement.

Undergraduate participants (N=198; 58% women; 53% White) read a vignette depicting HIB. Following this, they completed measures of institutional betrayal, trust in healthcare, and expectations for future healthcare encounters. Next, participants were randomly assigned to one of four conditions—interpersonal repair by a physician, interpersonal repair by a healthcare administrator, organizational repair by a healthcare administrator, or no repair (control condition). As predicted, participants who were randomly assigned to one of the repair conditions (vs. control) reported significantly lower HIB scores at post-test, F(3, 190) = 23.85, p< .001, and higher positive expectations for future healthcare encounters, F(3, 193) = 5.77, p< .001. Similarly, participants randomly assigned to any repair condition (vs. control) reported significantly higher trust in healthcare at post-test, F(3,191)=15.69, p< .001. No differences were found among experimental conditions.

Results indicate that interpersonal and organizational reparative actions post-HIB influence patients' beliefs about the healthcare system. Post-HIB repair, participants reported decreased institutional betrayal, increased healthcare system trust, and increased positive expectations for future healthcare. Given the documented negative sequelae to HIB, this study's finding that relatively small actions can facilitate individual-system repair is clinically meaningful.

CORRESPONDING AUTHOR: Fallon Richie, MA, UNC Charlote, Lakewood, OH; fallon.j.richie@gmail.com

Abstract citation ID: kaad011.0343

POSTER SESSION B: A STRUCTURAL EXAMINATION OF HANDWASHING INTENTION OF PHYSICIANS AND NURSES IN TAIWAN: APPLYING THE EXPANDED HEALTH BELIEF MODEL

I-Hsin Chang, MS, RN[1], Jiun-Hau Huang, SM, ScD[2]

[1]National Taiwan University Hospital, Taipei, Taipei, Taiwan (Republic of China); [2]National Taiwan University College of Public Health, Taipei, Taipei, Taiwan (Republic of China)

Background: Most of the healthcare-associated infections are transmitted through the hands of healthcare workers. However, prior research showed that their prevalence of handwashing adherence was below 40% in Taiwan. Hence, based on the 5 main constructs of the Health Belief Model (HBM), this study further expanded HBM to structurally examine the handwashing intention and associated factors among physicians and nurses in Taiwan.

Methods: HBM-related variables and background information were collected through an anonymous online survey among healthcare workers in district hospitals, regional hospitals, and medical centers. Exploratory factor analysis (EFA), bivariate analysis, and multivariate analysis were performed to explore HBM factors associated with handwashing intention.

Results: A total of 705 healthcare workers (103 physicians and 602 nurses) participated in this survey. On the basis of the EFA, HBM was expanded to an 11-factor structure: 1 for perceived susceptibility, 3 for perceived severity, 2 for perceived benefits, 4 for perceived barriers, and 1 for cues to action. Overall, 4 HBM factors were associated with healthcare workers' handwashing intention: perceived benefits about infection prevention (AOR=2.84), perceived benefits about praiseworthy work (AOR=1.70), perceived barriers related to time (AOR=0.36), and cues to action (AOR=1.89). In particular, physicians were found to value the benefits of infection prevention (AOR=14.27), while nurses stressed the importance of feeling competent at work (AOR=2.99). Notably, hospital policy mandating handwashing was significantly linked to elevated handwashing intention for both physicians and nurses (AOR=4.43).

Conclusions: Through stratified comparisons, this study found that physicians and nurses held different perspectives toward handwashing. According to our findings, it is crucial to provide physicians with empirical evidence regarding the efficacy of handwashing in preventing infections. By contrast, praising nurses' handwashing practice during unit meetings might help reinforce their beliefs in their professionalism if they adhere to handwashing guidelines. Lastly, in the face of emerging infectious diseases such as COVID-19, our study findings provide practical implications and insights into how to increase handwashing intention and adherence among healthcare workers.

CORRESPONDING AUTHOR: I-Hsin Chang, MS, RN, National Taiwan University Hospital, Taipei, Taipei, Taiwan (Republic of China); R06850006@ntu.edu.tw

---

Abstract citation ID: kaad011.0344

POSTER SESSION B: DEVELOPMENT OF A THEORETICALLY GUIDED NARRATIVE VIDEO TO INCREASE HPV VACCINE UPTAKE IN A HISPANIC MAJORITY COLLEGE POPULATION

Sara Fleszar-Pavlovic, PhD[1], Linda D. Cameron, PhD, FSBM[2]

[1]Sylvester Comprehensive Cancer Center, University of Miami, Miami, FL; [2]University of California, Merced, Merced, CA

Background: Although the overall percentage of adults who have received the recommended doses of the Human Papillomavirus (HPV) vaccine has increased, rates are still low, particularly for Hispanic populations. Advancements in interventions are essential to increase vaccine uptake. This study develops and refines a theoretically-guided narrative video to promote HPV vaccine intentions and uptake among a Hispanic-majority university population.

Methods: The development and refinement of the health communication video was conducted in three phases in 2021. *Phase 1:* Guided by the Common-Sense Model and narrative communication, content experts created a script with input from trained undergraduate assistants. *Phases 2 & 3:* Script and video evaluations were conducted via one-on-one interviews with university students. Interviews consisted of a think-aloud portion, open-ended questions, and a brief survey. The think-aloud portion and open-ended questions examined language, comprehension, informativeness, realism, identification/transportation, character likability, and suggested improvements; data were analyzed using deductive thematic analysis. The 11-item brief survey assessed quality and informativeness. Results informed script and video refinements.

Results: *Phase 1:* The newly developed script included a college student telling her roommates about what motivated her to get the HPV vaccine and information on HPV, the vaccine, and HPV-related cancers. *Phases 2 & 3:* Participants (N=22; M_{age}=21.2 years) were female (59.1%), White (31.8%), Hispanic (50.0%), and were in their 3rd year (40.1%). Participants strongly agreed/agreed that the script/video was persuasive, interesting, believable, high quality, appropriate length, relevant to them, appealing, and they gained information ($\geq$ 80% script, $\geq$ 66.7% video). Thematic analyses revealed that the key aspects of narrative communication were present, and participants were able to comprehend the information presented. The thematic analyses also revealed important findings that had direct implications for the revisions of the script and video.

Conclusions: This project successfully developed and refined a theoretically guided health communication video for a Hispanic-majority university population containing information on HPV, the HPV vaccine, and HPV-related cancers. The health communication video is currently undergoing pilot testing to examine its efficacy in increasing HPV vaccine intentions and uptake.

CORRESPONDING AUTHOR: Sara Fleszar-Pavlovic, PhD, Sylvester Comprehensive Cancer Center, University of Miami, Miami, FL; sef144@med.miami.edu

Abstract citation ID: kaad011.0345

POSTER SESSION B: CAN SCIENCE HELP TO TREAT CANCER AND OBESITY? PUBLIC PERCEPTION FROM AROUND THE WORLD.

Patrycja Sleboda, PhD[1], Michael Sobolev, PhD[2], Geetanjali D. Datta, ScD, MPH[3]

[1]University of Southern California, Los Angeles, CA; [2]Cedars-Sinai Medical Center, Glendale, CA; [3]Cedars-Sinai, Los Angeles, CA

Background: Public support in science and the medical profession varies substantially by origin, socioeconomic status, race, education and other demographics factors. However, less is known about public support and belief that science can help to treat the rising incidence of cancer and obesity across the world.

Objective: Our over-arching aim was to explore the individual and country level characteristics that are associated with belief that science can help treat cancer and obesity across the world population.

Methods: Survey data of 2020 Wellcome Global Monitor conducted among more than 110,000 participants in 113 countries around the world, including 6 low-income, 32 lower middle income, 32 upper middle income, and 43 high-income countries were analyzed. Our main outcome was based on the question formulated as following: "In general, how much do you think science helps us treat the following health problems: Cancer/Obesity?" Multi-level binary logistic regressions treating participants as nested within countries, using random intercepts for each country, were run predicting belief that science can help us treat either cancer or obesity. We used individual level characteristics including subjective perception and beliefs (e.g., personal scientific knowledge and general trust in science) and socio-demographic (age, gender, educational attainment, and income in quintiles for the participant's country).

Results: Across the globe, majority of people expressed belief that science can help treat cancer (81.8%) and obesity (80.6%) with the lowest proportion in low-income countries (for cancer 66.4% and obesity 70.9%) and highest in the high-income countries (for cancer 89.7% and obesity 86.6%). Multi-level binary logistic regressions revealed that across the world, the most predictive subjective factors were general trust in science (Cancer: OR=2.16; 95% CI: 1.96-2.38; Obesity: OR=2.07; 95% CI: 1.74-2.45), trust in local government (Cancer: OR=1.44; 95% CI=1.24-1.68; Obesity: OR=1.44; 95% CI=1.24-1.68), and personal knowledge about science (Cancer: OR=1.51; 95% CI=1.22-1.86; Obesity: OR=1.51; 95% CI=1.22-1.86) as well as socio-demographics factors such as being among the poorest 20% in one's country (Cancer: OR=0.89; 95% CI=0.80-0.98; Obesity: OR=0.78; 95% CI=0.70-0.87), having high school degree (Cancer: OR=1.21; 05% CI=1.10-1.32; Obesity: OR=1.34; 95% CI=1.24-1.44) or college degree (Obesity: OR=1.24; 95% CI=1.06-1.45) and being a male (Cancer: OR=0.83; 95% CI=0.73, 0.94).

Conclusion: Belief in cancer- and obesity-related science is similar across the world but varies significantly by country income levels. Building trust in science and personal scientific knowledge can translate to public support for cancer and obesity research funding and interventions.

CORRESPONDING AUTHOR: Patrycja Sleboda, PhD, University of Southern California, Los Angeles, CA; ps_242@usc.edu

---

Abstract citation ID: kaad011.0346

POSTER SESSION B: VISUAL CONFORMITY AND SUBSTANCE ABUSE AMONG TRANSGENDER PEOPLE: DISCRIMINATION AND GENDER NON-AFFIRMATION AS MEDIATORS

Anastasia Poponina[1], Navi Huskey, MA[1], Kayley Estes, BA[1], Darcianne K. Watanabe, BA[1], Vida Pourmand, MS[1], Cameron R. Wiley, MA, MA[1], Tonia Poteat, PhD[2], Robert-Paul Juster, PhD[3], DeWayne P. Williams, PhD[1]

[1]University of California, Irvine, Irvine, CA; [2]University of North California, North Carolina, Chapel Hill, NC; [3]Centre de recherche de l'Institut universitaire en santé mentale de Montréal, Montreal, PQ, Canada

Past research has indicated that transgender and gender diverse (TG/GD) individuals experience disproportionately high rates of substance abuse behaviors relative to cisgender individuals (Hughto et. al., 2021). It has also revealed that TG/GD people experience high levels of discrimination (James et. al., 2016) as well as stressors unique to this population, including non-affirmation of gender (Testa et. al., 2015) and visual conformity (Dias et. al., 2021). Visual conformity, or the extent to which one is perceived as cisgender, is an issue experienced by TG/GD people when navigating a cisheteronormative society. Visual conformity impacts the experiences of TG/GD people, as individuals who conform less are more likely to be treated unfairly and victimized (Begun & Kattari, 2016). Therefore, in a sample of 253 GNC individuals (transmasculine= 70, transfeminine= 113, non-binary= 70, mean age= 38.88 (SD = 16.87) years), we analyzed the explanatory role of discrimination and gender non-affirmation in the relationship between visual conformity and drug use. Adjusting for race, mediation revealed that the relationship between visual conformity and DUDIT scores was fully mediated by discrimination and gender non-affirmation. Specifically, lesser visual conformity predicted higher everyday discrimination (Path A: B = -0.267, SE = 0.064, BootCI, [-0.396, -0.141], p < .001) which predicted higher gender non-affirmation (Path D21: B = 0.540, SE = 0.073, BootCI, [0.396, 0.064], p < .001), which was marginally associated with drug abuse (Path B: B = 0.246, SE = 0.150, BootCI, [-0.050, 0.541], p = .10), and the indirect effect was significant (B = -0.035, SE = 0.022, BootCI, [-0.091, -0.002], p < .05). This mediation-model suggests that substance abuse is not inherent to gender minorities, and instead is related to the societal mistreatment one receives for a non-conforming presentation. Thus, in discussions of visual conformity, it is important to emphasize it should not be a standard for a "successful" transition or the legitimacy of one's gender identity. Overall, our data is consistent with multiple theoretical models that have emphasized the role of unfair treatment in maladaptive health behaviors among TG/GD populations (Monro, 2000). Among social workers and mental health professionals, knowledge of issues affecting this population is paramount when serving them, especially in the prevention of substance abuse.

CORRESPONDING AUTHOR: Anastasia Poponina, University of California, Irvine, Irvine, CA; apoponin@uci.edu

Abstract citation ID: kaad011.0347

POSTER SESSION B: PREVALENCE OF PEDIATRIC SEVERE OBESITY IN MISSISSIPPI

Kisa K. Harris, MPH[1], Crystal Lim, PhD, ABPP[2], Xiaojian Liu, PhD, MS[3], Michael A. Welsch, PhD[4], Lei Zhang, PhD, MBA[5], William B. Hillegass, MD, PhD[6], Abigail Gamble, PhD, MS[6]

[1]Department of Population Health Science, University of Mississippi Medical Center, Jackson, MS; [2]University of Missouri, Columbia, MO; [3]Office of Health Data and Research / Mississippi State Department of Health, Madison, MS; [4]University of Mississippi Medical Center, Brandon, MS; [5]School of Nursing /University of Mississippi Medical Center, Madison, MS; [6]University of Mississippi Medical Center, Jackson, MS

The persistently high prevalence of pediatric obesity in the South is of critical public health concern. This study reports the prevalence of obesity and severe obesity in a pediatric patient population in Mississippi. Body mass index percentile (BMI%) and demographic information were extracted from electronic health records (EHRs) for patients 2 to 19 years old (n=15,085) with a primary care or endocrinology visit at the University of Mississippi Medical Center between January 1, 2013 and June 30, 2019. Primary outcomes included prevalence of obesity (> 95th BMI% to < 120% 95th BMI%) and severe obesity (≥ 120% of 95th BMI% or BMI ≥ 35), stratified by race/ethnicity, sex, age group, insurance type, and rural/urban residence. Data revealed 14.7% of patients were obese (95% CI, 14.1-15.2) and 17.4% were severely obese (95% CI, 16.8-18.1). The prevalence of obesity (15.8%) and severe obesity (30.0%) was highest among non-Hispanic Black females 2 to 19 years. Severe obesity among females was significantly higher in non-Hispanic Black 6 to 11-year-olds (23.1%; 95% CI, 21.0-25.3) and 12 to 19-year-olds (30.0%; 95% CI, 28.0-31.9) compared with to non-Hispanic White groups (13.2%; 95% CI, 10.8-15.5 and 20.1%; 95% CI, 17.8-22.4, respectively); however, within both racial groups, the prevalence of severe obesity was significantly higher in youth 12 to 19 years old compared with 6 to 11-year-olds. Among males, severe obesity was significantly higher in non-Hispanic Black compared with non-Hispanic White 6 to 11-year-olds (19.2%; 95% CI, 17.0-21.4 and 11.8%; 95% CI, 9.5-14.1, respectively) and 12 to 19-year-olds (21.9%; 95% CI, 20.0-23.7 and 16.5%; 95% CI, 14.4-18.6, respectively). Severe obesity was higher in all patients with public (19.5%; 95% CI, 18.8-20.2) compared with commercial (12.9%; 95% CI, 11.8-14.1) health insurance. Metropolitan youth had a lower prevalence of severe obesity (15.2%; 95% CI, 14.5-15.9) compared with micropolitan (25.0%; 95% CI, 23.2-26.8), small town (24.0%; 95% CI, 21.3-26.7), and rural (25.5%; 95% CI, 20.7-30.2) areas. There were no significant differences in obesity or severe obesity by race/ethnicity among rural patients. Rates of pediatric obesity and severe obesity were alarmingly high, indicating a severe health concern in Mississippi. There is an urgent need to elucidate contextual factors impacting the high rates of obesity and severe obesity in Mississippi youth and to address disparities that are based on race, place, age, and sex.

CORRESPONDING AUTHOR: Kisa K. Harris, MPH, Department of Population Health Science, University of Mississippi Medical Center, Jackson, MS; kharris7@umc.edu

---

Abstract citation ID: kaad011.0348

POSTER SESSION B: 'BUT IS IT FEASIBLE?' PERCEIVED BARRIERS TO IMPLEMENTING MARGINALIZED COMMUNITY FEEDBACK AMONG HEALTHCARE PROFESSIONALS

Jamie D. Martina, MPH[1], César G. Escobar-Viera, PhD, MD[2]

[1]University of Pittsburgh Medical Center, Pittsburgh, PA; [2]University of Pittsburgh, Pittsburgh, PA

Purpose: By meeting the needs of individuals on behavioral, financial, and structural levels, harm reduction is a proven health equity approach for reducing adverse health, social, and behavioral outcomes among people who exchange sex, such as lowering incidence rates of HIV, insecure or unsafe housing, and substance use addiction. Community collaboration with sex workers is an important step for healthcare professionals to understand wrap-around care needs in order to achieve optimal health outcomes. This qualitative study seeks to understand healthcare professionals' perceptions of barriers and facilitators at the institutional level that may influence a hospital network's ability to open a novel sex and gender health clinic that meets marginalized communities' specifications.

Methods: We interviewed employees (n = 7) – 1 social worker, 2 nurse practitioners, 3 physicians, and 1 clinic administrator – from a hospital-based harm reduction health center in the U.S that is currently working to create a sexual and gender health clinic for people who exchange sex. Participants were asked to describe anticipated socioecological barriers and facilitators to implementing recommendations from a sex worker community advisory board. To be most useful for hospital planning committees, we coded only for barriers and facilitators at the institutional level of the socioecological model.

Results: At the institutional level, stigma held by health providers within the general hospital network, lack of harm reduction education among hospital staff, and discretionary funding that limit scope of care were the three most mentioned barriers to implementing CAB suggestions for a specialized sexual and gender health clinic. Physical space, provider accessibility, and resources were identified as primary facilitators to creating a novel sexual health clinic within a hospital institution.

Conclusion: Hospital health institutions, while able to reach more individuals within marginalized populations than a non-profit community health clinic, through greater access to funding and staff, are still widely perceived as untrustworthy sites among marginalized patient groups. Therefore, a hospital network may not be the ideal entity to erect a novel health clinic specifically for patient groups that face the most marginalization, specifically sex workers. This analysis of one hospital planning committee's perceived barriers and facilitators may influence other similarly resourced hospitals to collaborate outside the institutional level when attempting to implement marginalized populations' feedback.

CORRESPONDING AUTHOR: Jamie D. Martina, MPH, University of Pittsburgh Medical Center, Pittsburgh, PA; jdm216@pitt.edu

Abstract citation ID: kaad011.0349

POSTER SESSION B: MOTIVATIONAL INTERVIEWING FOR CANCER SURVIVORS: LESSONS LEARNED FROM A CULTURAL ADAPTATION FOR LATINA PARTICIPANTS

Damian Y. Romero Diaz, MA[1], Grey Freylersythe, BS, NBC-HWC[2], Tracy E. E. Crane, PhD, RDN[3], Steven Bethard, PhD[4]

[1]The University of Arizona, Charlotte, NC; [2]University of Miami, Miami, FL; [3]Miller School of Medicine, University of Miami, Miami, FL; [4]University of Arizona, Tucson, AZ

Background: Cultural adaptation of behavioral interventions is essential for providing healthcare to diverse populations. We outline the lessons learned from implementing a cultural adaptation for a large behavioral intervention, the "Lifestyle Intervention for oVarian cancer Enhanced Survival" (LIvES) study (GOG-0225), an NCI-funded clinical trial that ran from 2012 to 2020. LIvES tested whether women randomly assigned to a Motivational Interviewing (MI)-based telephone coaching intervention promoting daily activity and a healthy diet would improve progression-free survival compared to an attention control condition. In total, 1205 English and Spanish-speaking ovarian cancer survivors participated in this trial.

Intervention materials were developed in English and translated into Spanish. Bilingual personnel was hired and trained in MI coaching. However, cultural gaps beyond the language barrier prevented the Spanish-speaking participants from fully engaging and benefiting from the study.

Methods: The cultural adaptation at the planning stage of the LIvES study included: (a) bilingual coach hiring and training, (b) language translation of study protocols, questionnaires, and participant reference notebooks, and (c) using Spanish with self-identified Spanish speakers (n=10). No changes were made to the MI methodology, delivery, or protocol fidelity.

Results: Because the LIvES study was a multi-site intervention, finding local cultural brokers who could characterize each community's cultural needs was not feasible. There was also a lack of relevant cultural adaptation guidelines for heterogeneous groups of Latinas from varying cultural backgrounds. These issues created a mismatch between the study objectives and their implementation. For example, some participants did not want or did not know how to incorporate non-traditional foods such as kale into their diet; others could not easily do outdoor activities around their neighborhood for safety reasons. In response, two bilingual and bicultural Latina coaches acquired the function of cultural brokers and created a training manual providing insight into the participants' culture and situational context (including diverse recipes, traditional foods, and workout alternatives) and outlining culturally responsive communication strategies to strengthen the delivery of MI. This manual is openly available to help other studies plan for cultural compatibility.

Conclusion: Translating materials or hiring bilingual personnel is insufficient in behavioral interventions serving minorities. It is essential to employ cultural brokers in leadership positions who can apply insights into the community's cultural values during the planning stages and throughout the cultural adaptation design. Contextual and culturally-relevant materials and coaching strategies will positively impact any MI-based intervention.

CORRESPONDING AUTHOR: Damian Y. Romero Diaz, MA, The University of Arizona, Charlotte, NC; damianiji@email.arizona.edu

---

Abstract citation ID: kaad011.0350

POSTER SESSION B: SEXUAL AND GENDER MINORITY TEENS' ONLINE AND OFFLINE SAFETY DURING ROMANTIC OR SEXUAL INTERACTIONS WITH ONLINE-MET PEOPLE

Val Wongsomboon, PhD[1], Jacob Gordon, PhD[2], Elizabeth Eggert[2], Kathryn Macapagal, PhD[1]

[1]Northwestern University, Chicago, IL; [2]Northwestern, Chicago, IL

Many sexual and gender minority (SGM) adolescents meet their potential romantic or sexual partners online. This raises concerns for their safety, especially for SGM feminine adolescents (e.g., lesbian cisgender girls, transfeminine teens), as they experience large disparities in dating abuse and violence in both online and offline spaces. This study examined experience with online abuse and use of online/offline safety precautions in 310 SGM feminine adolescents (Mage = 16.4; 81% assigned female at birth; 62.6% gender minority). Thinking about their romantic/sexual interactions with someone they first met online, participants reported incidences of online abuse, what safety precautions they used when meeting potential partners online and in person, and the partner gender. Results showed that online abuse was very common for SGM feminine teens in this sample, with 80% reported experiencing at least one form of abuse from online-met partners. Half (50%) received unwanted sexual photos and 44% were pressured into sending sexual photos of themselves. Many also reported being scared or threatened by persistent requests to have sex even when they said no, verbal abuse/harassment, unwanted flirting, and online stalking. More than 90% reported using safety precautions during their online and in-person interactions. Common online safety precautions included not revealing too much personal information, verifying the person through video call, and checking out their social media. Common in-person safety precautions mostly involved participants' friends, such as sending friends a picture of the person before meeting, sharing location with friends, and texting them updates. For both online and in-person meetings, participants reported using safety precautions the most when meeting with cisgender men, followed by cisgender women. Whereas transgender and nonbinary individuals were often ranked last in terms of frequency of precaution use, suggesting that participants might feel safer with these partners. The findings suggest that SGM feminine adolescents in this sample were aware of the danger of online dating/relationships, which might not be surprising given the prevalence of online abuse in this population. That said, their perception of safety and the need for precautions could vary based on the gender of the person they meet with. Results can inform education and interventions for dating violence prevention in SGM feminine adolescents.

CORRESPONDING AUTHOR: Val Wongsomboon, PhD, Northwestern University, Chicago, IL; val.wongsomboon@northwestern.edu

Abstract citation ID: kaad011.0351

POSTER SESSION B: MEASURING ANTI-TRANSGENDER STIGMA IN LOW- AND MIDDLE-INCOME COUNTRIES: A SCOPING REVIEW

Tamar Goldenberg, PhD, MPH[1], Amanda E. Tanner, PhD[1], Jennifer Toller Erausquin, PhD[1], Sulianie Mertus, MPH[1], Mohammed Sheikh Eldin Jibriel, MS[1], Clare Barrington, PhD[2]

[1]University of North Carolina at Greensboro, Greensboro, NC; [2]University of North Carolina at Chapel Hill, Chapel Hill, NC

Background: Transgender and other gender diverse (trans) people face pervasive stigma in low- and middle-income countries (LMICs), contributing to health inequities. This scoping review examined anti-trans stigma measurement in LMICs, focusing on the consideration of local cultural context.

Methods: This study conformed to the Preferred Reporting Items for Systematic Reviews and the Meta-Analyses Extension for Scoping Reviews (PRISMA-ScR). We searched empirical studies published in English, Spanish, Arabic, or Russian during 2001-2021 in PubMed, WHO Global Index Medicus, and EBSCO. Eligible studies took place in LMICs and included trans participants (including studies using region-specific terms). Studies with both cisgender and trans participants were included if results were disaggregated. We excluded studies that did not measure anti-trans stigma, but we included studies that considered LGBTQ+ stigma more broadly. We extracted data based on location, study design, sample, outcomes, and stigma measures.

Results: We reviewed 1,699 titles/abstracts and 775 full-text articles, resulting in 63 quantitative papers in the scoping review (48 studies). Over 90% of the papers were published since 2018. Most studies occurred in Latin America and the Caribbean (48%) and East Asia and Pacific (29%). Sample sizes for trans participants ranged from ≤100 (16%) to >1200 (9%). While 77% of papers only included trans women, none focused exclusively on trans men. Most studies focused on HIV (39%) or mental health (30%) outcomes, with 25% including stigma as the study outcome. Anti-trans stigma was measured in multiple ways, with 44% using multiple individual items and fewer using one single item, one scale, multiple scales, or a combination. Most papers measured stigma at the interpersonal level (87%), with 63% measuring stigma across multiple levels. Measures often considered specific contexts (e.g., health care, family). Stigma measures were adapted based on local context (17%) and type of stigma (20%), with fewer using measures from the same local context (5%) or developing new context-specific measures (2%). Many papers did not include measure development/adaptation details (58%).

Conclusions: Context-specific work is needed across LMICs since many do not have any anti-trans stigma research. Further, more precise measurement considering unique experiences of trans communities can inform context-specific health interventions to support health equity for trans communities.

CORRESPONDING AUTHOR: Tamar Goldenberg, PhD, MPH, University of North Carolina at Greensboro, Greensboro, NC; tgoldenberg@uncg.edu

Abstract citation ID: kaad011.0352

POSTER SESSION B: ACCEPTABILITY AND FEASIBILITY OF PARENT COACHING TO COMPLETE SALIVA-DELIVERED PCR COVID-2019 TESTS FOR HISPANIC PRESCHOOLERS

Rebecca E. Lee, PhD[1], Michael Todd, PhD[2], Hyunsung Oh, PhD[3], SeungYong Han[2], Michelle Santana, MEd[4], Jaquelyn Aguilar-Troncoso, MD[5], Meg Bruening, PhD, MPH, RD[6], Sandra Genis, BS[2], Lisbeth Cantu Garcia, BS[7], Joseline Jimenez Sicaeros, AA[2], Joanna L. Kramer, DO, MPH[8], Vel Murugan, PhD, MBA[9], Analise Nicholson, BS, BA[10], Hector Valdez, MA[11], Michelle Villegas-Gold, PhD, MPH, MC[2]

[1]Center for Heath Promotion & Disease Prevention, Edson College, Arizona State University, Phoenix, AZ; [2]Arizona State University, Phoenix, AZ; [3]School of Social Work Arizona State University, Phoenix, AZ; [4]Arizona State University, Mesa, AZ; [5]Center of Health Promotion and Disease Prevention, Edson College of Nursing and Health Innovation: Arizona State University, Casa Grande, AZ; [6]The Pennsylvania State University, University Park, PA; [7]Arizona State University, Buckeye, AZ; [8]Phoenix Children's Hospital, Phoenix, AZ; [9]Arizona State University, Tempe, AZ; [10]Arizona State University, Peoria, AZ; [11]Arizona State University, Edson College of Nursing and Health Innovation, Center cor Health Promotion and Disease Prevention, Phoenix, AZ

Background: Early care and education (ECE; i.e., preschool) provides an important buffer for underserved children to enhance child developmental outcomes and school readiness. Universal back-to-school testing offered at ECE sites to screen for positive cases may help preschoolers safely return to, and stay in, ECE. We examined the acceptability and feasibility of using a quantitative polymerase chain reaction (qPCR) COVID-19 saliva test for young children (n=227, 54.0% girls: mean age=52.3 +/- 8.1 months) and their caregivers (n=70 teachers: mean=36.6 +/- 14.7 years; n=227 parents: mean=35.5 +/- 9.1 years) to mitigate the spread of COVID-19 and reduce days of school and work missed for households with children who test positive.

Methods: Participants were recruited at ECE sites serving low-income communities as part of the Rapid Acceleration of Diagnostic Testing – Underserved Populations (RADx-UP) **B**ack to **E**arly Care and Education Safely with **S**ustainability via **A**ctive **G**arden **E**ducation project (BE SAGE; NCT05178290). Parents followed a parent coaching protocol that directed them to use encouraging words, help the child to imagine favorite foods, model how to spit into a straw, watch a video of appetizing foods with the child, and help the child by holding the collection straw and vial for them. Trained community health workers supervised sample collection. After the test, children and parents completed 10-item interviewer-administered surveys in English or Spanish (with a "smiley face" visual analog scale for children) measuring demographics, test satisfaction, and difficulty or ease of completion.

Results: Over half (57.1%) of adults identified as Hispanic or Latino/a. A large majority (*n*=236, 82.2%) of participants preferred completing the study surveys in English, but about half (*n*=122, 49.2%) reported speaking a language other than English at home. Nearly all (90.7%) completed high school or equivalent, and 25.4% completed college. Rates of acceptability and feasibility were high (adults=76.3–95.5%; children=58.0–73.2%). Age of child was important: 25% of 3-year-olds' parents, 45% of 4-year-olds' parents, and 75% of 5-year-olds' parents reported testing was easy for their children. Also, 4- (78.3%) and 5-year-olds (76.0%) were equally likely to rate the test as fun to do. Linear and logistic regression models showed more favorable child and parent ratings were significantly positively associated with child age and whether the child was able to produce a saliva sample. Language preference was not associated with any outcomes.

Conclusions: Saliva sampling for COVID-19 at ECE sites using parent coaching is an acceptable and feasible strategy as an additional layer of protection for 4- and 5-year-olds, unaffected by language preference. Younger children (and their parents' efforts) struggled to complete the test; alternate testing strategies may be needed for them.

CORRESPONDING AUTHOR: Rebecca E. Lee, PhD, Center for Heath Promotion & Disease Prevention, Edson College, Arizona State University, Phoenix, AZ; releephd@yahoo.com

Abstract citation ID: kaad011.0353

POSTER SESSION B: COMADRES SALUDABLES: A WEB-BASED PROMOTORA TRAINING PROGRAM TO REDUCE OBESITY IN HISPANIC WOMEN

Debra M. Rios, DrPH[1], Guadalupe Cornejo, CHW, LMSW[2], Diane Deitz, PhD[3], Douglas W. Billings, PhD[3]

[1]ISA Associates, Rockville, MD; [2]Northwest Vista College, Converse, TX; [3]ISA Associates, Alexandria, VA

Background: Seventy-seven percent of Hispanic women are overweight/obese. An effective approach to addressing this epidemic is utilizing Promotores de Salud (community health workers). To optimize promotores ability to reach those in need, technology-based programs offer scalable solutions for training-of-trainers (TTT). *Methods:* Development of a web-based obesity intervention TTT for promotores – ***Comadres Saludables*** – was undertaken with a Federally Qualified Health Center (FQHC) and the San Antonio Community Health Worker Association (SACHWA). Focus groups were conducted with an FQHC advisory committee (AC) (n=8) and with Hispanic promotores (n=35). Focus group topics included use of technology, training needs and capabilities of promotores, and impact of the COVID-19 epidemic. A pilot test of the prototype program with promotores consisted of a usability test and a critical review of ***Comadres Saludables*** compared to the National Heart, Lung, and Blood Institute's (NHLBI) Su Corazón, Su Vida promotora manual. Following completion of the review, participants rated the ***Comadres Saludables*** prototype and NHLBI materials across 14-items measuring functionality and satisfaction. *Results:* AC subjects were all female with an average of 11 years' experience working in healthcare. Promotores were all certified in the State of Texas, had a mean age of 47 years, and had been practicing for 5.5 years. Findings from the AC focus groups indicated that promotores have access to web-based technology, but lack the training necessary for successful implementation of an obesity intervention in the community. Findings from the promotora groups indicated that almost all owned laptops (91%) and accessed the internet (97%). There was consensus across focus groups that training via technology was solidified during the Covid-19 pandemic, and most had used technology to both receive training and educate the community during the pandemic. Promotores agreed that cultural tailoring of obesity materials for Hispanic and low-income communities was a high priority. Usability testing yielded no critical errors. Overall, participants liked the ***Comadres Saludables*** prototype (μ =4.71) and strongly believed the fully developed ***Comadres Saludables*** program would help promotores implement effective obesity interventions for Hispanic women in the community (μ =4.89). Ninety-four percent indicated they would be interested in using the training. ***Comadres Saludables*** was rated as preferable to the NHLBI materials on 85% of dimensions. *Conclusions:* Promotores have access to technology and preferred the web-based ***Comadres Saludables*** TTT prototype to the NHLBI materials (88%). This culturally-tailored, easily accessible, and scalable obesity intervention training for promotores appears to be a promising option for reducing obesity among Hispanic women.

CORRESPONDING AUTHOR: Debra M. Rios, DrPH, ISA Associates, Rockville, MD; drios@isagroup.com

---

Abstract citation ID: kaad011.0354

POSTER SESSION B: PRENATAL STRESS PREDICTS POSTPARTUM HEALTH ANXIETY IN BLACK WOMEN

Alison Hipwell, PhD, ClinPsyD[1], Kelsey Magee, PhD[1], Candice Norcott, PhD[2], Kate Keenan, PhD[2], Michele D. Levine, PhD[1]

[1]University of Pittsburgh, Pittsburgh, PA; [2]University of Chicago, Chicago, IL

Background: Anxiety in the postpartum period affects up to 25% of mothers (Fawcett et al., 2019) and is associated with future health and parenting problems that have implications for offspring adjustment (Barker et al., 2011). Health-related anxiety is often overlooked despite a range of pain and physical symptoms that occur post-birth (e.g., mastitis, urinary incontinence, late postpartum hemorrhage), and evidence that postpartum stress contributes to declines in physical health (Hsu et al 2018). Black women experience disproportionate levels of stress as a result of factors including systemic racism, yet there remains limited understanding of modifiable factors that could inform preventive interventions, particularly during the postpartum period. We hypothesized that postpartum health anxiety would be preceded by prenatal stress in young Black women, and that this association would be attenuated by pre-existing feelings of resilience.

Method: Black postpartum individuals (*N*=149) participating in the 21-year, longitudinal Pittsburgh Girls Study (PGS) completed assessments in a peripartum substudy. Most participants (Mean age = 26.30 years, SD=0.54) had Medicaid insurance (74.5%) and 24% also received public assistance. Participants reported on stress appraisal (Perceived Stress Scale) and hardship (Difficult Life Circumstances scale) during and after pregnancy, and postpartum health anxiety (Health Anxiety Inventory) and depression (Edinburgh Postnatal Depression Scale). Resilience was assessed using the Brief Resilience Scale administered in the PGS prior to conception (PGS ages 22-25).

Results: Severity of postpartum health anxiety was high (M=11.1, SD=4.7) and approaching levels found in non-childbearing, clinical samples (Salkovskis et al, 2002). Postpartum stress and hardship were correlated but distinct constructs (r=.23, p< .05). Results of linear regression analysis revealed that prenatal perceived stress predicted postpartum health anxiety (β=.26, t=2.98, p< .01) after adjusting for sociodemographic factors, concurrent stress and the significant effects of postpartum hardship (β=.26, t=3.11, p< .01). Results showed no moderating effect of self-reported resilience on this association.

Discussion: Postpartum health anxiety is a common concern for Black identifying individuals. Our results suggest specific effects of type and timing of stress that could inform prevention targets for Black women.

CORRESPONDING AUTHOR: Alison Hipwell, PhD, ClinPsyD, University of Pittsburgh, Pittsburgh, PA; hipwae@upmc.edu

Abstract citation ID: kaad011.0355

POSTER SESSION B: GENDER MODERATES THE ASSOCIATION BETWEEN AGE AND COVID-19 VACCINATION STATUS IN AFRICAN-AMERICAN ADULTS

Capri G. Foy, PhD, MS[1], Shawnta L. Lloyd, PhD, MPH[2], Allison Caban-Holt, PhD[3], TanYa M. Gwathmey, PhD, MS[4], Kelvin Williams, DMin[2], Takiyah D. Starks, MS[2], Doreen R. Fortune, PhD[2], LaDrea R. Ingram, PhD[2], Goldie S. Byrd, PhD[5]

[1]Atrium Health Wake Forest Baptist, Division of Public Health Sciences, Department of Social Sciences and Health Policy, Maya Angelou Center for Health Equity, Winston-Salem, NC; [2]Atrium Health Wake Forest Baptist, Maya Angelou Center for Health Equity, Winston-Salem, NC; [3]Atrium Health Wake Forest Baptist, Winston-Salem, NC; [4]Atrium Health Wake Forest Baptist, Department of Surgery, Maya Angelou Center for Health Equity, Winston-Salem, NC; [5]Atrium Health Wake Forest Baptist, Department of Social Sciences and Health Policy, Director of the Maya Angelou Center for Health Equity, Winston-Salem, NC

Background: The COVID-19 pandemic has revealed significant differences in COVID-19 vaccination rates according to race and ethnicity, with African-Americans reporting lower rates compared to non-Hispanic whites and other racial and ethnic groups. Better understanding of factors associated with lower vaccination rates in African-Americans may inform strategies to improve rates in this population.

Objective: The purpose of this cross-sectional investigation was to assess whether COVID-19 vaccination status differed according to age, in a sample of 1,195 African-American adults ages 18 years or older who were congregants of faith-based organizations in the Piedmont Triad region of North Carolina. We also examined whether the association between age and COVID-19 vaccination status was moderated by gender.

Method: In August - September 2021, we administered a survey to assess experiences and perceptions of the COVID-19 virus and vaccine. Survey items were drawn from the Centers for Disease Control and Prevention (CDC) Vaccine Confidence Survey Bank as well as from a questionnaire developed to assess cultural medical mistrust. We utilized snowball sampling, in which local faith leaders informed their congregants of the opportunity to participate in the survey. The survey was administered via the Research Electronic Data Capture (REDCap) system, or via a pen-and-paper questionnaire. In this analysis, we assessed the association between age and having received at least one dose of a COVID-19 vaccine (yes vs. no) using unadjusted and adjusted logistic regression models. In an additional analysis, we examined the interaction of age and gender with COVID-19 vaccination status in the adjusted model. For all analyses, the *a priori* alpha significance level was set at $p < 0.05$.

Results: Approximately 86% of participants had received at least one dose of a COVID-19 vaccine at the time the survey was administered. The mean age (standard deviation) of participants was 51.33 (16.62) years, and the sample was comprised primarily of women (70.9%). The age by gender interaction term in the adjusted logistic regression model was significant ($p = 0.004$), prompting additional analyses stratified according to gender. In women, increased age was significantly associated with higher odds of COVID-19 vaccination (odds ratio = 1.09; $p< 0.001$). However, in men, the association was not significant ($p = 0.44$).

Conclusions: In African-American women, older age was significantly associated with receiving a COVID-19 vaccination, but not among African-American men. These differences may be informative in tailoring strategies to increase COVID-19 vaccination in African-American adults.

CORRESPONDING AUTHOR: Capri G. Foy, PhD, MS, Atrium Health Wake Forest Baptist, Division of Public Health Sciences, Department of Social Sciences and Health Policy, Maya Angelou Center for Health Equity, Winston-Salem, NC; cfoy@wakehealth.edu

---

Abstract citation ID: kaad011.0356

POSTER SESSION B: LONGITUDINAL ASSOCIATIONS BETWEEN ADOLESCENT SKIN COLOR SATISFACTION AND PSYCHOPHYSIOLOGICAL HEALTH OUTCOMES IN BLACK WOMEN

Jordan E. Parker, MA[1], Craig K. Enders, PhD[1], Stephanie L. Fitzpatrick, PhD[2], Mahasin S. Mujahid, PhD, MS, FAHA[3], Barbara A. Laraia, PhD, MPH, RD[3], Elissa S. Epel, PhD[4], A. Janet Tomiyama, PhD[1]

[1]University of California, Los Angeles, Los Angeles, CA; [2]Northwell Health; Kaiser Permanente Center for Health Research, Portland, OR; [3]University of California, Berkeley, Berkeley, CA; [4]University of California, San Francisco, San Francisco, CA

Objective: Although emerging studies examine the relationship between body dissatisfaction and disordered eating for Black women, it has not been established how racially-salient aspects of body image may have implications for pathological eating behaviors and longitudinal health outcomes.

Methods: In a longitudinal sample of 455 Black women, we examined whether skin color satisfaction across ages 10-15 was directly related to adult health outcomes at age 40 (e.g., disordered eating, self-esteem, self-reported health, depression, and cardiovascular risk). We also investigated the indirect impact of skin color satisfaction on adult health, mediated by body satisfaction and binge eating.

Results: No significant direct or indirect effects of adolescent skin color satisfaction were observed for depression or cardiovascular health outcomes. At ages 10 and 12, skin color satisfaction had negative and positive direct effects, respectively, on self-esteem. At age 15, greater skin color satisfaction was directly associated with greater self-reported health. Post-hoc analyses revealed that when additionally accounting for adolescent body satisfaction, greater skin color satisfaction was indirectly associated with greater self-esteem and self-reported health, alongside lower cardiovascular risk.

Conclusions: Although previous research suggests that in adolescence, Black girls' skin color satisfaction affects both body image and disordered eating behaviors, this association does not hold into midlife. Rather, post-hoc analyses suggest that the lasting effects of adolescent skin color satisfaction are mediated by the longitudinal stability of body satisfaction, which in turn, is associated with adult psychophysiological health.

CORRESPONDING AUTHOR: Jordan E. Parker, MA, University of California, Los Angeles, Los Angeles, CA; jordanparker@ucla.edu

Abstract citation ID: kaad011.0357

POSTER SESSION B: SOCIAL ISOLATION AND HEALTH OUTCOMES IN A DIVERSE COHORT OF PATIENTS AT A SAFETY NET HOSPITAL

Johanne Eliacin, PhD[1], Jyotsna Gutta, MPH[2], Joshua Vest, PhD, MPH[2]

[1]Roudebush VA Medical Center/ Regenstrief Institute/ National Center for PTSD, Boston VA Healthcare System, Indianapolis, IN; [2]Richard M. Fairbanks School of Public Health, Indianapolis, IN

Background: Social isolation is a global public health threat that affects individuals of all ages and backgrounds. The COVID-19 pandemic has highlighted and heightened the severity of social isolation, especially among vulnerable patient populations, who are disproportionally affected due to a high prevalence of chronic conditions, structural inequalities, and negative social determinants of health (SDoH). However, few research studies have focused on social isolation among socioeconomically disadvantaged and racially minoritized groups. This study investigated the association between social isolation, health outcomes, and social characteristics in a racially diverse sample of patients receiving care at a safety net health system emergency department (ED).

Methods: Data were collected from August 2021 to May 2022. Adult patients receiving care in the ED were invited to complete a survey assessing SDoH. The Berkman and Syme's Social Network Index (SNI) was included in the survey to measure social isolation. The SNI combines four components of social networks (partnership, interaction with family/friends, religious activities, and membership in organizations/clubs) into an index, ranging from 0/1 (most socially isolated) to 4 (least socially isolated). A total of 504 surveys were connected to patients' electronic medical records and zip codes. Data analyses included descriptive statistics, Chi-square tests, and ANOVAS.

Results: Overall, 159 (32%) of patients were identified as "most socially isolated" and 196 (39%) as "moderately isolated." No significant association between social isolation, sex or age was noted. However, participants in the 25-54 age group had the highest rates of social isolation. Hispanic identity and commercial insurance were identified as protective factors. A diagnosis of substance use disorder, but not mental illness, was associated with social isolation. Geographically, residing in a neighborhood with a high percentage of individuals without a car was associated with social isolation.

Discussion: Our study points to high rates of social isolation among diverse ED patients, which must be addressed to improve population health. It also highlights high rates of social isolation among patients under the age of 55 and suggests that future research explore the needs of this population. Hispanic identity was associated with low level of social isolation, which may reflect the migration history and social contexts of Hispanic populations in the hospital catchment area.

CORRESPONDING AUTHOR: Johanne Eliacin, PhD, Roudebush VA Medical Center/ Regenstrief Institute/ National Center for PTSD, Boston VA Healthcare System, Indianapolis, IN; johanne.eliacin@va.gov

---

Abstract citation ID: kaad011.0358

POSTER SESSION B: PEER AMBASSADOR STORIES TO ENHANCE THE REACH OF PREP, HIV TESTING, AND BEHAVIORAL HEALTH TREATMENTS TO LATINO MSM IN SOUTH FLORIDA

Jahn Jaramillo, MPH[1], Nequiel Reyes, MPH[1], Pranusha Atuluru[1], Kayla Taylor[2], Naomie Payen[3], Rana Saber, MS, MSL, PMP[4], Steven A. Safren, PhD[5], Audrey Harkness, PhD[3]

[1]University of Miami, Miami, FL; [2]Universtiy of Miami, Coral Gables, FL; [3]University of Miami, School of Nursing and Health Studies, Coral Gables, FL; [4]Northwestern University, Chicago, IL; [5]University of Miami, Coral Gables, FL

Introduction: Latino men who have sex with men (LMSM) in the United States are disproportionately affected by HIV. The goal of the current study was to conduct formative research to inform the content, design, and implementation of a scalable, low resource implementation strategy – peer ambassador stories – to leverage peer influence to scale up and disseminate PrEP, HIV testing, and behavioral health treatment to LMSM in South Florida.

Methods: We conducted semi-structured in-depth interviews with 20 LMSM to elucidate specific content, design, and implementation preferences from the intended recipients of "peer ambassador stories" – stories from peers meant to normalize using PrEP, HIV testing, and behavioral health treatment. Men were asked about the types of story prompts, and background information on the story contributors that would make stories more influential, preferences for types of features to include within the story platform (e.g., chat feature, ability to submit additional stories). Participants were also asked about design preferences (e.g., videos vs. written stories, website vs. app, potential name for the peer stories). Lastly, we asked participants for recommendations on how to ensure the final version of the peer ambassador tool would be used and shared within their community. We followed Hamilton and colleagues' guidelines for a rapid qualitative analysis.

Findings: Qualitative analyses identified 14 themes within seven major domains; key themes are highlighted here. LMSM viewed the peer ambassador tool as highly acceptable and appropriate. LMSM identified influential peer characteristics, including that featured peers should be experts based on training and/or lived experience, be recognized peers in the local LGBTQ+ community, and be from diverse and relatable backgrounds. Participants felt that the featured stories should be personal stories of seeking services and should humanize the person behind the story. In terms of features, design, and story format, participants preferred video and audio stories over written format, and recommended integrating the stories within a social media platform or through an email listserv. Additional features LMSM wanted within the peer story platform were a moderated chat feature and an online locator for healthcare services. Participants also provided guidance on naming and "branding" the app (e.g., using concise and bilingual name for the platform).

Conclusion: This study suggests that a peer ambassador approach is highly acceptable and appropriate for LMSM in South Florida, and articulates design, feature, and implementation preferences among consumers. Although we conducted this investigation to inform our own intervention development, the findings have broad implications for the informing development of other peer-based interventions to achieve EHE goals among LMSM in South Florida and nationally.

CORRESPONDING AUTHOR: Jahn Jaramillo, MPH, University of Miami, Miami, FL; jxj2046@miami.edu

Abstract citation ID: kaad011.0359

POSTER SESSION B: THE ASSOCIATION BETWEEN THE IMPORTANCE OF RELIGION OR SPIRITUAL BELIEFS IN LATINO ADULTS AND ENGAGEMENT IN HIV RISK BEHAVIORS

Giselle Garcia[1], Patricia Trinidad[2], Natalia Gatdula[2], Anthony Galeana[1], Melawhy L. Garcia, MPH, PhD[3]

[1]California State University Long Beach, Long Beach, CA; [2]California State University, Long Beach, LONG BEACH, CA; [3]CSULB Center for Latino Community Health, Evaluation, and Leadership Training, Long Beach, CA

Title: The Association Between the Importance of Religion or Spiritual Beliefs in Latino Adults' Day-to-Day Life and Their Engagement in HIV Risk Behaviors

Background: In the United States studies show that Latinos/Hispanics account for about 27% of HIV cases despite being about 18% of the population. Over 55 million Latinos identify to be Roman Catholic or other religious affiliations. Limited attention has been paid to the impact of religion or spiritual beliefs on engagement in HIV risk behaviors among Latino adults. This study tested the association of high importance of religion/spiritual beliefs and likelihood of engagement in certain HIV risk behaviors.

Methods: A Fisher's exact test was conducted with cross-sectional data of 98 Latino adults between the ages 23-33 years of age (mean age = 27.08). The adult participant was asked to select the level of importance for their religious or spiritual beliefs in their day-to-day life. This variable was recoded to be dichotomous: not important or very important. Participants were asked if they had ever had sex (vaginal, oral, or anal) and if they had ever had sex while under the influence of drugs or alcohol. Both variables were dichotomous: yes or no. The participants also recorded their likelihood to use any illegal drugs (including prescription drugs) to get high in the next six months via a scale: not at all likely, somewhat likely, or very likely.

Results: Of the 98 participants, 53.1% reported their religion/spiritual beliefs as not important and 46.9% as important. An association was established between a lesser likelihood of engagement in sex (vaginal, oral, or anal) and a higher importance of religion/spiritual beliefs (p= .014, Fisher's Exact Test, FET). An association was also established between a lesser likelihood to have sex while under the influence of drugs or alcohol and a higher level of importance for religion/spiritual beliefs (p= .014, FET). Lastly, an association was established between a lesser likelihood of using any illegal drugs to get high in the next 6 months and a high importance of religion/spiritual beliefs (p= .040, FET).

Conclusion: The findings support the hypothesis that high importance of religion or spiritual beliefs is positively associated with a lower likelihood of engagement in HIV risk behaviors. The observed association between religion/spiritual beliefs and HIV risk behaviors may be attributed to increased religious conservate thoughts about engaging in sex and/or drugs or an increased fear of sin within their religion/spiritual belief.

CORRESPONDING AUTHOR: Giselle Garcia, California State University Long Beach, Long Beach, CA; giselle.garcia@student.csulb.edu

---

Abstract citation ID: kaad011.0360

POSTER SESSION B: COMMUNITY HEALTHCARE PROVIDERS' PERSPECTIVES ON HIV PRE-EXPOSURE PROPHYLAXIS (PREP) USE AMONG BLACK WOMEN

Kayla D. Pitchford, MS[1], Sylvia Shangani, PhD[2], CHARLOTTE A. DAWSON, MS[3], Kristin E. Heron, PhD[4]

[1]Virgina Consortium Program in Clinical Psychology, North Dinwiddie, VA; [2]Boston University, Boston, MA; [3]Virginia Consortium Program in Clinical Psychology, ASHEVILLE, NC; [4]Old Dominion University, Norfolk, VA

The most at-risk population among women for HIV diagnosis in the U.S. are Black women, who account for 61% of all new HIV cases. Pre-exposure prophylaxis (PrEP) is a safe and effective HIV prevention method for people at risk of HIV acquisition. Despite being disproportionately affected by HIV, Black women's knowledge, perceived benefits, and uptake of PrEP remain low. The socio-ecological model may be useful for understanding why there is a low uptake of PrEP among Black women by examining the complex interplay between individual, relationship, community, and societal factors. The current study used the socio-ecological framework to explore provider perspectives on the barriers and facilitators of PrEP uptake among Black women in Eastern Virginia. Semi-structured in-depth interviews were conducted with a purposeful sample of one PrEP prescriber and 14 community healthcare workers who provide HIV testing and PrEP referral services at HIV testing clinics in community healthcare settings. Interviews were transcribed and reviewed by two coders and emergent themes were organized using the socio-ecological model. Healthcare providers identified barriers to PrEP uptake among Black women at the individual (e.g., basic needs not being met, lack of childcare, low medical literacy), interpersonal (e.g., perception partner(s) are safe), community (e.g., long waitlists, military culture lacks anonymity), organizational (e.g., clinic materials focus on men), and societal (e.g., PrEP ads focus on gay men, stigma, lack of trust in the medical community) levels. Providers also identified factors that facilitate PrEP uptake at the individual (e.g., flexible work schedule, current/past STI diagnosis), interpersonal (e.g., partner is HIV positive), organizational (e.g., more female screeners/providers, PrEP materials that include women, encouraging PrEP for everyone), community (e.g., making PrEP information available where Black women go), and societal (e.g., HIV education in schools) levels. These findings highlight unique barriers to accessing and taking PrEP for Black women in the U.S., and potential factors that could facilitate PrEP use. Both barriers and facilitators may be important targets for interventions aimed at improving uptake of PrEP among Black women. Future research focused on improving PrEP uptake among Black women should consider multi-level interventions that target barriers and facilitators for this group, to reduce the rates of HIV infections among Black women in the U.S.

CORRESPONDING AUTHOR: Kayla D. Pitchford, MS, Virgina Consortium Program in Clinical Psychology, North Dinwiddie, VA; kpitc001@odu.edu

Abstract citation ID: kaad011.0361

POSTER SESSION B: INCREASING YOUNG ADULTS' SAFE-SEX SELF-EFFICACY USING A VIDEO-BASED INTERVENTION ABOUT SAFE SEX DISCUSSIONS WITH SEX PARTNERS

Patricia Cabral, PhD[1]

[1]Occidental College, Los Angeles, CA

Half of all new sexually transmitted infections (STIs) reported each year are among young people 15 to 24 (CDC, 2019). Increasing communication about safe sexual practices can be useful in reducing sexual risk behaviors and the associated negative outcomes among youth (Widman et al., 2014). Specifically, it is important for young people to discuss safe sex practices with their sexual partner(s) to facilitate the uptake of safe sex strategies (e.g., use of condoms and other barrier methods). In fact, comfortable sexual communication is predictive of various safer sex practices, including a lower likelihood of being sexually active, older at first intercourse, and increased intentions to delay intercourse (Guzman et al, 2003). Furthermore, safe-sex self-efficacy, which is found to be associated with increased participation of safe sex practices (Addoh, Song, & Loprinzi, 2017), may be influenced by safe sex communication with sexual partners. Yet, communication about safe sex with sexual partners is a difficult task for many young people (Widman et al., 2014). Thus, this study examined the prevalence and quality of safe sex communication with sexual partner(s), safe-sex self-efficacy, and safe sex practices among young adults (*N* = 140; *M* age = 19.41, S.D. = 1.21; 80% female) who were randomly assigned to watch a brief online video-vignette that provided guidance for discussing safe sex with sexual partners. Safe sex communication with sexual partner(s), safe-sex self-efficacy, and safe sex practices were assessed prior to video intervention exposure and at two-week follow-up. Three hypotheses were tested: (H1) Safe-sex self-efficacy and safe sex communication prevalence and quality will be higher among participants who watched the video intervention at the 2-week follow-up in comparison to those who were not exposed to the video. (H2) Higher safe-sex self-efficacy will be associated with a higher prevalence of safe sex communication and quality of safe sex communication. Last, (H3) Safe-sex self-efficacy and safe sex communication will be positively related to safe sex practices (i.e., condom/barrier method use). Although frequency of safe sex discussions with a sexual partner was not significantly different between participants who did watch the video and those who did not, safe-sex self-efficacy significantly increased among participants that watched the video intervention (t = 1.10, df = 11, p = .05; *Pre-video self-efficacy M* = 12.25, *Post-video self-efficacy M* = 14.10). Moreover, safe-sex self-efficacy was associated with frequency of barrier methods for safe sex (β = .08, SE = .04, p = .05) Increasing safe sex self-efficacy through a brief online video intervention may be a cost-effective technique to increase safe sex practices among young adults.

CORRESPONDING AUTHOR: Patricia Cabral, PhD, Occidental College, Los Angeles, CA; pcabral@oxy.edu

---

Abstract citation ID: kaad011.0362

POSTER SESSION B: HIGH INTEREST IN USING LONG-ACTING INJECTABLE PREP FOR HIV PREVENTION IN NATIONWIDE SAMPLE OF MALAYSIAN MEN WHO HAVE SEX WITH MEN

Kiran Paudel[1], Sana Gupta[2], Jeffrey Wickersham[3], Iskandar Azwa[4], Antoine Khati[2], Mohd Akbar[4], Kamal Gautam[2], Roman Shrestha, PhD[5]

[1]Institute of Medicine, Tribhuvan University, Kathmandu, Bagmati, Nepal; [2]University of Connecticut, Storrs, CT; [3]Yale University, New Haven, CT; [4]University of Malaya, Kuala Lumpur, Kuala Lumpur, Malaysia; [5]University of Connecticut, South Windsor, CT

Background: HIV incidence in Malaysia remains disproportionately high among men who have sex with men (MSM). Although effective, the uptake of oral pre-exposure prophylaxis (PrEP) has been minimal among Malaysian MSM. The recent approval of long-acting injectable cabotegravir (CAB- LA) as PrEP for HIV could be an attractive alternative for MSM, particularly among those who face barriers to oral PrEP. This study reports on the awareness of long-acting injectable PrEP (LAI-P) and factors associated with interest in LAI-P use among a nationwide sample of MSM in Malaysia.

Methods: A cross-sectional online survey was conducted between August and September 2021 to explore perspectives on PrEP modalities among Malaysian MSM (N=870). Participants were recruited through purposive sampling via advertisements on two venues: geosocial networking (GSN) app for gay men (i.e., Hornet) and a popular social networking website for the general population (i.e., Facebook). Interest in LAI-P was examined by participant demographics, risk behaviors, and history of oral PrEP use using bivariate and multivariable logistic regression.

Results: While only 9.1% of participants were aware of LAI-P (80.9% had heard of oral PrEP), after being given a description of it, 86.6% were interested in using it, if made available. The most common concerns about LAI-P included high costs of treatment initiation and maintenance (67.2%) and fear of its potential long-term side effects (49.9%). The likelihood of using LAI-P was higher among those who had a prior history of HIV testing (aOR=1.9; 95% CI=1.2-3.2). Interestingly, despite the concerns related to potential high cost (aOR=3.4; 95% CI=2.1-5.5) and long-term side-effects (aOR=1.9; 95% CI=1.2-3.1), participants were interested in using LAI-P. Whereas, those who were afraid of (or disliked) syringes (aOR=0.2; 95% CI; 0.1-0.4) were less interested in using it.

Conclusion: A significant majority of Malaysian MSM expressed interest in PrEP use, especially in LAI-P formulation. Our results indicate the potential relevance of LAI-P as part of a comprehensive approach to HIV prevention among MSM at substantial risk of HIV infection. Future research is urgently needed to improve the understanding of strategies that could support access, uptake, and sustained adherence to LAI-P for MSM in low- and middle-income countries (LMIC), including Malaysia.

CORRESPONDING AUTHOR: Roman Shrestha, PhD, University of Connecticut, South Windsor, CT; roman.shrestha@uconn.edu

Abstract citation ID: kaad011.0363

POSTER SESSION B: STRUCTURAL VULNERABILITIES AND AWARENESS OF PREP AMONG PEOPLE WITH HETEROSEXUAL OR IDU HIV RISK BEHAVIORS IN BOSTON

Jasper S. Lee, PhD[1], Abigail W. Batchelder, PhD, MPH[1], Amelia M. Stanton, PhD[2], Laura Westphal, BA[3], Monina Klevens, DDS[4], Kenneth H. Mayer, MD[3], Conall O'Cleirigh, PhD[1]

[1]Harvard Medical School / Massachusetts General Hospital, Boston, MA; [2]Boston University, Boston, MA; [3]The Fenway Institute, Boston, MA; [4]Massachusetts Department of Public Health, Jamaica Plain, MA

Introduction: Pre-exposure prophylaxis (PrEP) use for HIV prevention has increased dramatically in recent years, but PrEP uptake has not been equal across all groups. One barrier to PrEP uptake is PrEP awareness, but little is known about structural factors relating to PrEP awareness among people who have either heterosexual or injection drug use HIV risk behaviors. To understand these factors, we analyzed data from the National HIV Behavioral Surveillance study (NHBS) collected from 2017-2019 in Boston, MA.

Method: Participants were either individuals who engaged in vaginal or anal sex with a person of the opposite sex (N=515) or people who injected drugs (PWID; N=451) in the past 12 months. Using logistic regression, we examined factors associated with PrEP awareness: ever experiencing homelessness, perceived HIV-related stigma, country of birth, history of any bacterial STD, chlamydia, and/or gonorrhea in the past 12 months, ever received a diagnosis of hepatitis C virus (HCV) in one's life, sexual orientation, and poverty. We controlled for race, ethnicity, age, gender, and education.

Results: Among people who engaged in heterosexual HIV risk behavior, 28% were aware of PrEP, and homelessness was associated with an increased likelihood of PrEP awareness (aOR=1.99, 95%CI[1.26,3.12], p=.003). Among PWID, 36.8% were aware of PrEP. Four factors were associated with increased likelihood of PrEP awareness in PWID: homelessness (aOR=2.11, 95%CI[1.09,4.31], p=.032); any bacterial STD (aOR=2.96, 95%CI[1.30,7.12], p=.012) or chlamydia (aOR=6.14, 95%CI[1.79,28.43], p=.008); and HCV (aOR=2.40, 95%CI[1.50,3.92], p< .001). In the combined sample, homelessness (aOR=2.25, 95%CI [1.61, 3.15], p< .001); HCV (aOR=2.18, 95%CI[1.52,3.14], p< .001); identifying as gay or lesbian, relative to identifying as heterosexual (aOR=3.71, 95%CI[1.13,14.20], p=.036); and identifying as bisexual (aOR=1.55, 95%CI[1.08,2.20], p=.016) were each associated with increased likelihood of PrEP awareness.

Discussion: Although having had an STD, HCV, or experiencing homelessness were associated with increased PrEP awareness, most participants at risk for HIV were unaware of PrEP. Additionally, people who have risk for HIV related to heterosexual activity or IDU who also have a bisexual or gay identity are more likely to be aware of PrEP. Efforts to increase PrEP awareness should also focus on individuals with substance use or heterosexual HIV risk behavior, and those who have not had a recent STD.

CORRESPONDING AUTHOR: Jasper S. Lee, PhD, Harvard Medical School / Massachusetts General Hospital, Boston, MA; jlee333@mgh.harvard.edu

---

Abstract citation ID: kaad011.0364

POSTER SESSION B: DEPRESSIVE SYMPTOMOLOGY, ALCOHOL USE, & IPV: IMPACT ON SAFER SEX PRACTICES FOR YOUNG BLACK SEXUAL MINORITY MEN WITH HIV (YBSMM+)

Stephen D. Ramos, PhD[1], Wilson Vincent, PhD, MPH[2], Dan E. Siconolfi, PhD, MPH[3], Lance M. Pollack, PhD[4], Keith J. Horvath, PhD[5], Susan M. Kegeles, PhD[4], Erik D. Storholm, PhD[5]

[1]University of California, San Diego/San Diego State University, San Diego, CA; [2]Temple University, Philadelphia, PA; [3]RAND Corporation, Pittsburgh, PA; [4]University of California, San Francisco, San Francisco, CA; [5]San Diego State University, San Diego, CA

Introduction: Young Black sexual minority men living with HIV (YBSMM+) experience socio-structural factors that elevate risk for depression and intimate partner violence (IPV). Depression and IPV contribute to difficulties maintaining safer sex practices for primary STI and secondary HIV prevention. Theory and research support claims that individuals facing these stressors may use alcohol to cope with these challenges – further increasing difficulties for safer sex practices; syndemic theory suggests these factors synergistically contribute to poor health outcomes. However, depression is heterogeneous in presentation and further investigation is needed to understand specific associations of phenotypic differences in depressive symptoms as they relate to specific risk behaviors. The purpose of this study was to assess differential associations of depressive subtypes as they relate to alcohol, IPV, and sexual risk for YBSMM+.

Methods: This cross-sectional secondary data analysis utilized data from 224 YBSMM+ recruited from the community in Dallas and Houston, Texas to participate in a longitudinal cohort study assessing HIV healthcare engagement. The current data were collected from the third timepoint between 2018-2020. Measures included the Participation in Difficult Sexual Situation scale, IPV-Gay and Bisexual Men scale, and the Center for Epidemiological Studies Depression (CESD). Self-reported drinking behaviors were categorized into abstinent, non-binge, binge, and heavy drinking categories using the CDC's guidelines. Hierarchical linear regression tested the associations of CESD subscales (positive affect, negative affect, somatic, and interpersonal), alcohol use, and IPV to difficulties maintaining safer sex practices.

Results: The overall model predicted approximately 38% of the variance in difficulties engaging in safer sex practices ($R^2 = 0.38$, $F[6, 132] = 12.25$, $p < .001$). After controlling for income, education, and history of incarceration, alcohol use ($b = 2.25$, $t(141) = 3.47$, $p < .001$), experiencing IPV ($b = 0.51$, $t(141) = 3.13$, $p = .002$), and interpersonal depression ($b = 1.79$, $t(141) = 3.58$, $p < .001$) were associated with increased difficulties maintaining safer sex practices. However, all other subscales of the CESD did not significantly associate to safer sex difficulties (*ps* > .05).

Discussion: Our findings showed that an interpersonal depressive vulnerability (e.g., beliefs that people are negatively evaluating oneself) may exist for YBSMM+ in relation to difficulties maintaining safer sex practices; however, this association did not exist for other depressive symptom types. Interpersonal components of depression may be particularly salient in driving the syndemic for these men. Future research is needed to examine and replicate this finding to better inform clinical practice and targeted intervention development for YBSMM+.

CORRESPONDING AUTHOR: Stephen D. Ramos, PhD, University of California, San Diego/San Diego State University, San Diego, CA; s4ramos@health.ucsd.edu

Abstract citation ID: kaad011.0365

POSTER SESSION B: SEXUAL ORIENTATION-RELATED DIFFERENCES IN HIV VULNERABILITY AMONG BLACK SEXUAL MINORITY MEN IN THE DEEP SOUTH

Ladectric Driver, PhD[1], John A. Schneider, MD, MPH[2], DeMarc A. Hickson, PhD[3], Liadh Timmins, PhD[4], Russell Brewer, DrPH, MPH[2], William Goedel, PhD, MA[5], Dustin T. Duncan, ScD[1]

[1]Columbia University, New York, NY; [2]University of Chicago, Chicago, IL; [3]Us Helping Us, People Into Living, Inc., Washington, DC; [4]Swansea University, Swansea, Wales, UK; [5]Brown University, Providence, RI

Objective: Stark inequities exist in HIV among Black cisgender sexual minority men (SMM); however, little attention has focused on the variance across measures of sexual orientation (i.e., sexual identity, sexual attraction, sexual behavior) and their associations with factors that enhance vulnerability to HIV among this priority, highly marginalized population. The present study explored the overlap across three measures of sexual orientation and investigated their individual association with the number of sexual partners they engaged in condomless sex, transactional sex, as well as HIV testing frequency, and adherence to biomedical HIV prevention among Black SMM residing in the Deep South.

Methods: Black SMM (*N* = 204) recruited from three statistical metropolitan areas (New Orleans and Baton Rouge, LA and Jackson, MS) between 2018 and 2020 completed audio computer-assisted surveys. Participants reported their sexual orientation in terms of identity, attraction, and behavior (i.e., sex with men only vs. sex with men and women), the number of sex partners with whom they engaged in condomless sex or transactional sex (i.e., buyers vs. sellers), and adherence to pre-exposure prophylaxis (PrEP) or antiretroviral treatment (ART) among current users. Multivariable models tested associations between each measure of sexual orientation and each HIV-vulnerability outcome.

Results: Less than one in four gay-identified men (22.5%) reported overlap in same-sex identity, attraction, and sexual behavior, while 17.1% of bisexual-identified men reported overlap across all three measures. Bisexual identity was associated with a greater number of partners who sold sex to participants (aPR = 2.75, 95% CI [1.27, 5.98], p < .001), while reporting attraction to men and women was associated with having fewer partners who sold sex to participants (aPR = 0.47, 95% CI [0.25, 0.88], p = .02). Bisexual identity was also associated with a higher frequency of HIV testing (aPR = 1.35, 95% CI. [1.04, 1.76]); however, engaging in sex with men and women was associated with less HIV testing (aPR = 0.66, 95% CI [0.49, 0.90]).

Conclusion: Heterogeneity exists across aspects of sexual orientation among Black SMM residing in the Deep South. We also found variations in HIV vulnerability depending on how sexual orientation was defined. HIV-related research among Black SMM in the Deep South should focus on more thorough investigations of sexual orientation including combinations of aspects to ensure unique subgroups vulnerable to HIV are not being missed in HIV prevention efforts.

CORRESPONDING AUTHOR: Ladectric Driver, PhD, Columbia University, New York, NY; ld2996@cumc.columbia.edu

Abstract citation ID: kaad011.0366

POSTER SESSION B: NEIGHBORHOOD POLICING, HIV VULNERABILITY, AND HIV STATUS NEUTRAL CARE AMONG BLACK SEXUAL MINORITY MEN IN THE US SOUTH

Ladectric Driver, PhD[1], DeMarc A. Hickson, PhD[2], Russell Brewer, DrPH, MPH[3], Cho-Hee Shrader, PhD, MPH[4], Maria Khan, PhD[5], William Goedel, PhD, MA[6], Liadh Timmins, PhD[7], Theo G M Sandfort, PhD[8], John A. Schneider, MD, MPH[3], Dustin T. Duncan, ScD[1]

[1]Columbia University, New York, NY; [2]Us Helping Us, People Into Living, Inc., Washington, DC; [3]University of Chicago, Chicago, IL; [4]ICAP at Columbia University, New York, NY; [5]New York University, New York, NY; [6]Brown University, Providence, RI; [7]Swansea University, Swansea, Wales, UK; [8]New York State Psychiatric Institute, New York, NY

Objective: In the era of the Black Lives Matter movement, greater attention is being placed on the impact of discriminatory policing practices on racial minority communities. Due to the intersection of race and sexual orientation, discriminatory policing practices are exceedingly harmful to sexual minority people of color relative to police discrimination based on race or sexual minority status alone. It is unknown whether Black sexual minority men (SMM) experience enhanced HIV vulnerability due to discriminatory policing. The present study examined associations between neighborhood-based discriminatory policing practices and behaviors that impact HIV vulnerability and prevention among 204 Black SMM from three metropolitan areas in the Deep South (i.e., New Orleans and Baton Rouge, LA, and Jackson, MS).

Methods: Participants recruited from community-based organizations between 2018 and 2020 completed survey items of neighborhood policing practices. Using baseline data, we examined associations of police neglect and excessive police force with the number of partners with whom participants had condomless sex or transactional sex (i.e., buyers vs. sellers) as well as HIV testing frequency, and adherence to pre-exposure prophylaxis (PrEP), or antiretroviral treatment (ART). Multivariable models tested associations between measures of neighborhood policing practices and each HIV-related outcome.

Results: Thirty percent of the sample reported that police neglect was a big problem in their neighborhood. A third (32.5%) also indicated that excessive police force was a big problem. In multivariable analyses, both neighborhood police neglect and excessive police force were associated with buying sex from more partners in the past six months (aPR = 4.00, 95% CI [2.51, 6.39]) and (aPR = 3.00, 95% CI [1.91, 4.72]) respectively. Neighborhood police neglect and excessive police force were also associated with poor medication adherence among PrEP and ART users combined (*b* = -1.22, 95% CI [-1.99, -0.46]) and (*b* = -1.01, 95% CI [-1.84, -0.19]) respectively. Finally, neighborhood police neglect was associated with testing for HIV less often (aPR = 0.68, 95% CI [0.51, 0.91]) and poor ART adherence among men with HIV (*b* = -2.02, 95% CI. [-3.31, -0.73]).

Conclusion: Findings suggest that neighborhood-based discriminatory policing practices in the Deep South impacts HIV vulnerability and prevention efforts among Black SMM and should be addressed to achieve Ending the HIV Epidemic goals in the US. Systemic change in neighborhood policing is needed to address the current landscape of discriminatory policing practices in racialized sexual minority communities. Evidence-based alternatives to policing could also be explored to increase neighborhood safety and limit the impact that discriminatory neighborhood policing practices have on HIV vulnerability and prevention efforts among Black SMM.

CORRESPONDING AUTHOR: Ladectric Driver, PhD, Columbia University, New York, NY; ld2996@cumc.columbia.edu

Abstract citation ID: kaad011.0367

POSTER SESSION B: MINDFUL PRACTICE WITH MEDICAL INTERPRETERS

Gretchen Roman, PT, DPT, PhD[1], Ronald Epstein, MD[2], Reza Yousefi-Nooraie, MSc, PhD[1], Steven Barnett, MD[2], AnaPaula Cupertino, PhD[3]

[1]University of Rochester Medical Center, Department of Public Health Sciences, Rochester, NY; [2]University of Rochester Medical Center, Department of Family Medicine, Rochester, NY; [3]University of Rochester Medical Center, Department of Public Health Sciences and Department of Surgery, Rochester, NY

Medical interpreters for language minority patients undergo training to ensure cultural awareness, language fluency, and competency within specialized settings, but do not necessarily receive training or support to cope with work-related stressors. We adapted and pilot tested a Mindful Practice in Medicine® program to specifically address the role challenges and patient- and system-based stressors faced by medical interpreters, which have only become more pressing during the COVID-19 pandemic. We hypothesized that medical interpreters would experience improved mindfulness, teamwork, stress, coping, resilience, and professional quality of life (QOL) when responding effectively to the demands at work. Eight medical sign language interpreters (40.3±9.5 years old; 8 female; 8 White, 8.9±6.1 years of experience) participated in eight weeks of mindful practice with weekly in person one hour meetings. Sessions involved formal and informal contemplative practice, didactic delivery of the week's theme (mindfulness, noticing, teamwork, suffering, professionalism, uncertainty, compassion, resilience), and mindful inquiry exercises. Outcomes (mean±SD) were gathered via survey at three timepoints (pre, post, and 1-mo), evaluated using nonparametric statistics, and compared with available norms. Survey response rates were 88%, 75%, and 75%, respectively. Two interpreters withdrew prior to the start of the intervention citing unrelated family reasons. Attendance ranged from one to six sessions (4.2±2.2). Differences across timepoints were appreciated for teamwork (pre=69.6±15.3; post=110.5±7.8; 1-mo=111.2±4.0; p=0.009), resilience (pre=18.8±4.9; post=24.7±1.5; 1-mo=21.2±3.9; p=0.036), and burnout (pre=24.3±6.4; post=20.3±6.9; 1-mo=20.5±2.9; p=0.038) with post-hoc comparisons revealing specific differences from pre to post for teamwork (p=0.027) and resilience (p=0.043) and from pre to 1-mo for teamwork (p=0.028) and burnout (p=0.027). Stress (pre=20.7±8.3; post=13.5±3.4; 1-mo=13.8±3.8) reduced from moderate to low/moderate and remained low/moderate. The professional QOL subscales for burnout and secondary traumatic stress (pre=23.7±5.1; post=21.3±4.5; 1-mo=21.2±5.0) reduced from moderate to low and remained low. Results demonstrate trends toward sustained improvement in teamwork, stress, and professional QOL. Currently, the intervention is also being delivered to medical spoken language interpreters. Future analyses will combine cohorts to attain greater power.

CORRESPONDING AUTHOR: Gretchen Roman, PT, DPT, PhD, University of Rochester Medical Center, Department of Public Health Sciences, Rochester, NY; Gretchen_Roman@urmc.rochester.edu

---

Abstract citation ID: kaad011.0368

POSTER SESSION B: ACES AND MENTAL & BEHAVIORAL HEALTH: EXAMINING MALTREATMENT VS. HOUSEHOLD DYSFUNCTION AND THE MODERATING ROLE OF SPIRITUALITY

Camille Garnsey, BA[1], Zachary E. Magin, BA[1], Crystal L. Park, PhD[1]

[1]University of Connecticut, Storrs, CT

Background: After years of research on the cumulative effects of adverse childhood experiences (ACEs) on a range of health outcomes, a small but growing body of research is beginning to suggest that different types of ACEs may be differentially associated with unique health outcomes. Yet little research has examined the differential impact of childhood maltreatment vs. household dysfunction on different domains of mental and behavioral health in young adults. Additionally, spirituality has been linked to positive health outcomes and conceptualized as a protective factor yet there is a lack of research examining this buffering effect in the context of ACEs.

Purpose: The present study examines the relative influence of childhood maltreatment vs. household dysfunction ACEs in predicting distress, substance use, and risky sexual behavior, in young adults and tests whether spirituality moderates the associations between ACEs and these mental and behavioral health variables.

Method: 314 college students completed the ACEs (ACE-Q) and measures of general mental (distress) and behavioral (substance use, sexual risk-taking) health. To compare the predictive power of childhood maltreatment and household dysfunction, three linear regression models were constructed for the outcomes of distress, substance use, and sexual risk-taking with both childhood maltreatment and household dysfunction subscales included as predictors. Spirituality was then examined as a moderator between ACEs (total ACEs, and each ACE type) for distress, substance use, and sexual risk-taking, respectively.

Results: Childhood maltreatment related more strongly to distress than did household dysfunction, but household dysfunction was a stronger predictor of substance use. In moderation analyses, the childhood maltreatment subscale interacted significantly with spirituality to predict distress (b = .03, SE = .01, p = .02), but no interactions were observed with substance use or sexual risk-taking.

Conclusions: Results support the notion that childhood maltreatment and household dysfunction ACEs are differentially linked to distinct mental and behavioral health consequences among young adults, which provides a strong rationale for considering distinct pathways of risk associated with different types of ACEs. It also suggests that maltreatment alone is not always reliably a more robust predictor of negative consequences associated with ACEs. Additionally, while spirituality is associated overall with better mental and behavioral health, it does not buffer the impacts of cumulative childhood adversity.

CORRESPONDING AUTHOR: Camille Garnsey, BA, University of Connecticut, Storrs, CT; camille.garnsey@uconn.edu

Abstract citation ID: kaad011.0369

CITATION AWARD WINNER

POSTER SESSION B: PERCEIVED BENEFITS FROM THE COVID-19 PANDEMIC: RELATIONSHIPS WITH RELIGIOUS/SPIRITUAL FACTORS

Allen C. Sherman, PhD[1], Adam Nack[2]

[1]Winthrop P. Rockefeller Cancer Institute, University of Arkansas for Medical Sciences, Little Rock, AR; [2]Behavioral Medicine, Winthrop P. Rockefeller Cancer Institute, University of Arkansas for Medical Sciences, Little Rock, AR

Notwithstanding the widespread upheaval and notable losses associated with the COVID-19 pandemic, some individuals have reported unexpected positive life changes as well. In studies of previous community disasters, perceived benefits have sometimes been related to religious/spiritual factors, but these relationships have received little empirical attention with respect to COVID-19. In the current study, we focused on three theoretically distinct religious relationships that have rarely been examined together in the context of a community disaster: perceptions of an affirming relationship with God, anger at God, and disappointment at God's distance during the pandemic. It was hypothesized that individuals who experienced God as more affirming would derive greater benefits during a communal health crisis, after controlling for demographic and pandemic-related variables.

A cross-sectional online survey was administered to community residents of a southern US state during the early phase of the pandemic. Relationships with God were evaluated with an adapted version of the Attitudes Toward God Scale-9, and perceived benefits from the pandemic were measured using the Illness Cognition Scale. Mean age was 51.5 (range 18-92), and socioeconomic status varied widely. In bivariate analyses, perceived benefits were significantly related to an affirming relationship with God ($p < .0001$), as expected, but not with anger at God or disappointment at God's distance (p's >.84). The association with a positive relationship with God remained significant in multiple regression analyses that adjusted for disruption in daily life caused by the pandemic and other significant pandemic and demographic variables ($\beta = .17$, $p < .0001$). In subsequent analyses, we controlled for additional variables theoretically linked with perceived benefits (i.e., severity of pandemic-related stress, perceived violations of core beliefs, and social support), and findings were undiminished ($\beta = .21$, $p < .0001$). In sensitivity analyses, we excluded participants were not religious, and the effects remained significant ($\beta = .11$, $p < .026$), consistent with prior studies that suggest that perceived connections with God may sometimes have relevance even for individuals who do not construe themselves as particularly religious. Overall, results imply that perceptions of an affirming relationship with God may help individuals construct positive outcomes in the face of a collective health emergency. Findings offer a foundation for longitudinal studies to examine temporal relationships, probe actual behavioral changes, and test the generalizability of these effects in more secular geographic regions.

CORRESPONDING AUTHOR: Allen C. Sherman, PhD, Winthrop P. Rockefeller Cancer Institute, University of Arkansas for Medical Sciences, Little Rock, AR; shermanallenc@uams.edu

---

Abstract citation ID: kaad011.0370

POSTER SESSION B: DEPRESSION AMONG CHILDREN WITH ADVERSE CHILDHOOD EXPERIENCES (ACES) AND THE ROLE OF FAMILY RESILIENCE: FINDINGS FROM NSCH DATA

Sanjaya Regmi, MPH[1], Satish K. Kedia, PhD, MPH, MS[2], Xichen Mou, PhD, MS[2], Guijin Lee, PhD[2], Patrick J. Dillon, PhD[3]

[1]Division of Social and Behavioral Sciences/School of Public Health/ The University of Memphis, Memphis, TN; [2]The University of Memphis School of Public Health, Memphis, TN; [3]School of Communication Studies, Kent State University at Stark, North Canton, OH

Background: Depression among children is a major public health concern in the US due to its economic burden and adverse impact on the families and communities. Depression among children can negatively affect the trajectory of child development by interfering their cognitive, emotional, academic, and social well-being. Adverse childhood experiences (ACEs) are the potential risk factors for the depression, but not all children who are exposed to ACEs develop depression. As family problems are the source of stressors for most of the ACEs, family resilience may mitigate the effect of ACEs in the outcome of depression. However, little is known about the impact of family resilience on depression after ACEs.

Methods: A cross sectional analysis of the 2018-2019 National Survey of Children's Health was conducted among children of 3-17 years. The dependent variable was clinician-diagnosed depression; no current diagnosis vs. current diagnosis of depression. Independent variables were reported ACEs; categorized into no ACE, one ACE, and two or more ACEs, and family resilience defined by the qualities of a family during difficult times like, talking about the problems in the family, working together to solve problems, believing on the strength of family members, and staying hopeful during difficult times. The family resilience was analyzed as higher score (all 4 qualities all the time), medium (2-3 qualities) and low (0-1 quality). Two models of multivariate logistic regression model (i) without resilience, and (ii) with resilience were used to estimate the associations between ACEs, depression, and family resilience adjusting for demographic covariates.

Results: Study sample consisted of 59,758 children, 5.3 % with reported diagnosis of current depression, 17.7 % with 2 or more ACEs and 83.45 % with higher family resilience. The children with two or more ACEs increased 8 folds likelihood of having depression compared to no ACEs (aOR = 8.329; 95% CI: 7.625-8.909), and family resilience confounded the effects by decreasing the strength of associations between ACEs and depression (aOR = 7.236; 95% CI: 6.345-7.587).

Conclusion(s): In this nationally representative sample, ACEs were found to be the important risk factors for developing the depression among children and family resilience was associated with slightly lower odds of a reported diagnosis of depression which can be addressed during interventions for childhood depression after ACEs.

CORRESPONDING AUTHOR: Sanjaya Regmi, MPH, Division of Social and Behavioral Sciences/School of Public Health/ The University of Memphis, Memphis, TN; sregmi@memphis.edu

Abstract citation ID: kaad011.0371

POSTER SESSION B: TRENDS IN PHYSICAL ACTIVITY AND STRESS AMONG COLLEGE STUDENTS DURING 19 MONTHS OF THE COVID-19 PANDEMIC: JUNE 2020 – JANUARY 2022

Wendy DeYoung, PhD[1], Rebecca Schulte, MPH[2], Kaigang Li, PhD[3]

[1]Colorado State University, Fort Collins, CO; [2]Colorado School of Public Health, Fort Collins, CO; [3]Colorado State University, Fort Collins, Colorado, CO

Background: Previous evidence has shown a decrease in physical activity (PA) and an increase in stress during the COVID-19 pandemic (COVID) among college students. However, most of this evidence comes from 2020 and it is unclear from the literature whether these trends in PA and mental health have sustained as the pandemic continues. This study aimed to discover longer term trends in PA and stress among college students as the COVID has continued and has transformed our daily lives.

Methods: Repeated cross-sectional data (N=2249 college students) were collected at a large U.S. Western University from three separate online surveys which were administered three periods during COVID-19 pandemic: June–September 2020, November 2020–January 2021, and December 2021–January 2022. Therefore, the data consist of 4 time points including time points 1, 2, and 3 during COVID and before COVID (data were recalled at time points 1 and 2). Self-reported minutes of vigorous PA (VPA), moderate PA (MPA), light PA (LPA) and sitting time (ST) in the last seven days were measured using the validated International Physical Activity Questionnaire (IPAQ). Self-reported perceived stress in the last month was measured (no data at time 1 during COVID) using the validated Perceived Stress Scale (PSS). General linear model was used to compare the data between the four time points.

Results: VPA amounts were 362, 268, 216, and 199 minutes; MPA amounts were 479, 394, 312, and 384 minutes; LPA amounts were 690, 625, 559, and 780 minutes; and ST amounts were 338, 486, 514, and 406 minutes, respectively, before COVID and at the time points 1, 2, and 3 during COVID. The PSS scores were 15.95 before COVID and 22.59 and 18.50 at the time points 2 and 3 during COVID.

Conclusion: Results indicate that overall physical activity has decreased since the start of the COVID-19 pandemic but has more recently increased towards pre-pandemic levels. However, there appears to be a shift in activity from more vigorous physical activity to moderate and light physical activity. Sitting time increased in the initial year of the pandemic but has started to decrease towards pre-COVID levels. Perceived stress significantly increased in the winter of 2020 but has receded closer to pre-COVID averages since early 2022. As society begins to live with a new normal of COVID-19 pandemic, there must be adaptations to maintain physical activity and promote mental wellbeing.

CORRESPONDING AUTHOR: Wendy DeYoung, PhD, Colorado State University, Fort Collins, CO; wendy.deyoung@colostate.edu

---

Abstract citation ID: kaad011.0372

POSTER SESSION B: CHANGES IN WELLNESS OUTCOMES ASSOCIATED WITH AN 8-WEEK RELATIONAL AGENT INTERVENTION BY CLINICAL LEVELS OF SYMPTOMATOLOGY

Stephanie Rapoport, MA[1], Emily Durden, PhD[1], Maddison Pirner, MPS[1], Andre Williams, PhD[1], Athena Robinson, PhD[1], Valerie Forman-Hoffman, PhD, MPH[1]

[1]Woebot Health, San Francisco, CA

Background: Research investigating the potential for digital mental health interventions (DMHIs) with integrated relational agents to improve mental health outcomes is in its infancy. By delivering evidence-based mental health interventions through tailored, empathic conversations, relational agents have the potential to help individuals manage their stress and mood, and increase positive mental health.

Aims: This study aimed to assess changes in stress, burnout, and resilience over 8 weeks associated with use of a smartphone app delivering mental health support through a relational agent, WB-LIFE, to evaluate demographic and clinical factors associated with changes in these outcomes, and to determine whether changes in the outcomes vary by clinical levels of symptomatology at baseline.

Method: This exploratory, single-arm, trial was conducted from May to July 2022. A total of 256 adults (mean age 39 ± 13.35; 72% females) recruited through social media advertising enrolled into the study. Participants completed an 8-week intervention period during which they were invited to use a smartphone app delivering cognitive behavioral therapy (CBT) through a relational agent called "Woebot". Findings include participant-reported measures of depression (PHQ-8), anxiety (GAD-7), stress (PSS), burnout (non-proprietary single item measure), and resilience (BRS) at Baseline and Week 8.

Results: Perceived stress and burnout significantly decreased over the 8-week intervention period (mean change -2.62 ± 6.69, $p < 0.05$; mean change -0.72 ± 1.46, $p < 0.05$, respectively), while resilience significantly increased over the same period (mean change 0.32 ± 0.74, $p < 0.05$). Unadjusted bivariate regression analyses showed that the reduction in stress and burnout over the study period was greater for participants with clinically elevated levels of mood symptoms compared to those without ($\beta = -2.00$, 95% CI [-3.70, -0.30]; OR = 3.51, 95% CI [2.05, 6.13], respectively). Despite differences in the magnitude of change, those without clinically elevated symptoms also had significant improvements in the outcomes (PSS: mean change -1.52 ± 6.80, $p < 0.05$; burnout: mean change -0.30 ± 1.20, $p < 0.05$; BRS: mean change 0.24 ± 0.69, $p < 0.05$).

Conclusion: Results of this exploratory study suggest that use of an agent-guided mental health intervention such as WB-LIFE may be associated with reductions in stress and burnout and increased resilience, even among those without clinically elevated symptoms of depression or anxiety.

CORRESPONDING AUTHOR: Stephanie Rapoport, MA, Woebot Health, San Francisco, CA; stephanie@woebothealth.com

Abstract citation ID: kaad011.0373

POSTER SESSION B: CO-DESIGNING RESEARCH WITH PEOPLE WITH INTELLECTUAL AND DEVELOPMENTAL DISABILITIES: A SCOPING REVIEW

Josee Li[1], Lauren Mitchell[2], Madeline Fowler, BS[3], Shreyas Hallur[4], India Rockett[5], Jennifer M. Gierisch, PhD[6], Michelle Scotton Franklin, PhD, APRN-BC[7]

[1]Trinity College of Arts & Sciences, Duke University, Newtown, PA; [2]Trinity College of Arts & Sciences, Duke University, Durham, NC; [3]Pontificia Universidad Católica de Chile, Chapel Hill, NC; [4]Trinity College of Arts and Sciences, Duke University, Phoenix, AZ; [5]Duke University School of Medicine, Durham, NC; [6]Duke University, Durham, NC; [7]Duke University School of Medicine, Ramseur, NC

Background and Aim: Participatory research methodologies include collaboration with people with intellectual and developmental disabilities (IDD) as co-researchers. These participatory strategies seek to increase inclusivity, autonomy, and empowerment by generating evidence centered on patient experiences to improve health and wellbeing. Yet, participatory engagement with the IDD community poses many challenges. Thus, we conducted a scoping review to systematically investigate the barriers and facilitators of meaningful engagement with the IDD community to foster patient-centered outcomes research. Findings will support co-design workshops with the IDD community to build inclusive research pathways.

Method: We conducted a systematic review of literature through MEDLINE, CINAHL, and PsychINFO. Eligibility criteria involved original peer-reviewed research studies that explored barriers, facilitators, or solutions to health-related research engagement with the IDD community. We used the Covidence platform to manage dual independent citation and full-text screening. Eligible articles were abstracted by one researcher and confirmed by another researcher. If the two researchers had a disagreement over an abstraction element for a particular study, this was discussed during the subsequent group meeting and consensus was achieved.

Results: We screened 2946 unique records and identified 128 articles that met selection criteria. Our preliminary findings support common barriers that are attitudinal (e.g. mistrust and bias, tokenism), structural (e.g. misaligned incentives between engagement goals and funding timelines), and logistical (e.g. fast-paced work, digital literacy gaps). Facilitators and solutions include affirming attitudes, with examples including mutual collaboration and an atmosphere of respect, openness, and enthusiasm. Another promising practice was incorporating structural supports such as interview administration practice, short presentations, and small-group technology learning sessions. Findings demonstrate the importance of considering sustainability of research engagement, such as connecting with organizations capable of transforming research findings into social change.

Conclusion: We systematically identified barriers and facilitators to participatory research with the IDD community across attitudinal, structural, and logistical themes. Given the importance of inclusive research that empowers the IDD community, we recommend that future studies consider implementing and further examining these promising practices in order to expand the evidence base for participatory research among the IDD community.

CORRESPONDING AUTHOR: Josee Li, Trinity College of Arts & Sciences, Duke University, Newtown, PA; josee.li@duke.edu

---

Abstract citation ID: kaad011.0374

POSTER SESSION B: CHANGES IN INDICATORS OF POSITIVE PSYCHOLOGICAL HEALTH AMONG USERS OF A DIGITAL MENTAL HEALTH SERVICE

Alexis Mitchell, MA[1], Sara Sagui-Henson, PhD[2], Cynthia Castro Sweet, PhD, FSBM[2], Camille E. Welcome Chamberlain, MSc[3], Brooke Smith, MS[2], Sara M. Levens, PhD[4], Myra Altman, PhD[2]

[1]University of North Carolina at Charlotte, Indian Trail, NC; [2]Modern Health, San Francisco, CA; [3]Modern Health, Honolulu, HI; [4]University of North Carolina at Charlotte, Charlotte, NC

Background: It is important to conceptualize mental health as involving more than symptom reduction. Positive indicators of mental health are essential to adopting a holistic view of mental health. Positive psychological factors are relevant to psychosocial functioning and adaptive coping, and are a focus of third-wave clinical interventions. With a sample of real-world users of a digital mental health platform, this study examined indicators of positive psychological health (including mindfulness, self-compassion, and psychological flexibility) and their relation to depressive symptoms.

Methods: A sample of 687 adults (55% white, 61% women, age $M = 33.9$ years) who registered for a digital mental health platform completed a survey of depression symptoms (PHQ-9), mindfulness (FFMQ-15), self-compassion (SCS), and psychological flexibility (AAQ-II) at baseline and 3-month follow-up. We examined changes in positive psychological factors and the moderating effect of baseline depressive symptoms.

Results: At baseline, 28% of the sample had none/minimal depressive symptoms, 35% were in the mild range, 23% moderate, 11% moderately-severe, and 4% with severe symptoms. Baseline depression and positive psychological factors were correlated, $rs > -.45$, $ps > .01$. Baseline depression ($M = 9.02$), mindfulness ($M = 38.58$), self-compassion ($M = 2.87$), and psychological flexibility ($M = 33.46$) significantly improved at follow-up ($ps < .001$) across all baseline depression severity levels. There was a significant moderating effect of baseline depression on change in self compassion ($R^2 = .56$, $p < .001$) and a trend for mindfulness ($R^2 = .48$, $p = .06$), where those with higher baseline depression had greater improvements than those with lower baseline depression. There was no significant interaction for psychological flexibility ($p = .67$).

Conclusion: This study demonstrates that improvements in indicators of positive psychological health are seen among new utilizers of a digital mental health platform. Depressive symptoms appear to influence the rate at which these changes are experienced, suggesting unique clinical implications of improving positive psychological health. The increases in mindfulness, self-compassion, and psychological flexibility provide encouraging support for future therapeutic efforts aimed at holistic improvements to mental health. Findings suggest a need for future research examining digital mental health engagement patterns in relation to improvements in psychological health.

CORRESPONDING AUTHOR: Alexis Mitchell, MA, University of North Carolina at Charlotte, Indian Trail, NC; amitch83@uncc.edu

Abstract citation ID: kaad011.0375

POSTER SESSION B: EXAMINING THE INTERSECTIONAL INTERNALIZED PREJUDICE AND PSYCHOLOGICAL DISTRESS AMONG LATINX SEXUAL MINORITY ADULTS

Roberto Renteria, PhD[1], J. Kyle Haws, Ph.D[2]

[1]Rosalind Franklin University, Denver, CO; [2]University of Colorado - Anschutz, Englewood, CO

Due to internalized prejudice (e.g., the adoption of negative societal views and attitudes towards one's minority identity), Latinx sexual minority adults experience worse mental health outcomes. Although prior research and theory suggest that internalized prejudice and worse mental health are strongly related, limited research has examined how these associations may be occurring on a more specific level. Identifying which aspects of internalized prejudice contribute to worse mental health outcomes has the potential of improving the ability to screen for and target experiences of internalized prejudice among Latinx sexual minority adults.

The network perspective on psychopathology offers a unique opportunity to understand the interplay between internalized prejudice and symptoms of depression and anxiety. According to this perspective, mental health is an emergent property generated through a system of interacting nodes (i.e., symptoms, behaviors, beliefs, and physiological processes). This approach suggests that specific aspects of internalized prejudice and symptoms of depression and anxiety may interact and mutually reinforce each other. This approach suggests that some nodes may have a stronger influence on other nodes in the system, making them appealing targets of intervention. Further, identifying nodes that connect internalized prejudice and symptoms of anxiety and depression has implications for understanding why certain constructs co-occur and how this co-occurrence is maintained.

Using network analyses, the goal of this study was to identify the influential aspects of internalized prejudice and symptoms of depression and anxiety in a sample of 320 Latinx sexual minority adults. In the combined internalized prejudice and mental health symptom network, *sexuality as a flaw* had the strongest associations with symptoms of anxiety and depression, whereas *psychomotor agitation/retardation* and *poor appetite* had the strongest associations with aspects of internalized prejudice. These findings elucidate the associations between internalized prejudice and psychological symptoms among Latinx sexual minority adults.

This study represents the first application of the network perspective to elucidate the precise nature of the relations among specific aspects of internalized prejudice and symptoms of depression and anxiety. The nodes identified here may be vital targets for assessment and future intervention within integrated behavioral health settings among Latinx sexual minority adults.

CORRESPONDING AUTHOR: Roberto Renteria, PhD, Rosalind Franklin University, Denver, CO; roberto.renteria@rosalindfranklin.edu

---

Abstract citation ID: kaad011.0376

POSTER SESSION B: DIVERSE STRATEGIES USED IN PEER SUPPORT INTERVENTIONS COMPLICATE EVIDENCE SYNTHESIS

Megan S. Evans, PhD, MS[1], Edwin B. Fisher, PhD, FSBM[2]

[1]Yale School of Medicine, West Haven, CT; [2]University of North Carolina at Chapel Hill, Chapel Hill, NC

Innovative approaches to care, such as peer support, are needed to address the substantial and frequently unmet needs of people with schizophrenia. While peer support services continue to expand in mental healthcare, findings from systematic reviews assessing their effectiveness are mixed. However, the services evaluated in these reviews often consist of diverse intervention approaches that common systematic review methods fail to consider. Here, we report an approach to evidence synthesis that accounts for the substantial heterogeneity in peer support interventions that reach people with schizophrenia.

From 135 interventions identified in a realist review of the literature, the 26 included here were evaluated in intervention trials or feasibility studies and provided at least one of seven peer support strategies: 'being there,' assistance in self-management, linkage to clinical care and community resources, social and emotional support, ongoing support, strategies explicitly based on shared lived experience or peer support values, and systems transformation. Reflecting diversity in approaches, no intervention reported all strategies, and no strategy was found among all 26 interventions. Results suggested especially the utility of interventions containing assistance in self-management and 'being there,' two very different but perhaps complementary approaches within peer support. Overall, the findings illustrate that peer support services are far too varied to evaluate as a single intervention.

Further complicating evidence synthesis, seven outcome types were identified: care utilization, recovery, symptoms and functioning, social outcomes, treatment engagement or adherence, satisfaction with services, and substance use. Programs including assistance in self-management were likely to report benefits in symptoms and functioning, recovery, and social outcomes. Those including 'being there' were likely to improve symptoms and functioning. Ongoing support was associated with benefits in symptoms and functioning, recovery, and social outcomes. Programs including strategies explicitly based on shared lived experience or peer support values were likely to report gains in recovery; and those including social and emotional support benefited social outcomes. As the evidence base grows, more nuances will likely emerge. We recommend researchers pose more focused evaluation questions regarding specific strategies or other features of peer support rather than attempting to evaluate a diverse field as if it were a single entity.

CORRESPONDING AUTHOR: Megan S. Evans, PhD, MS, Yale School of Medicine, West Haven, CT; megan.evans@yale.edu

Abstract citation ID: kaad011.0377

POSTER SESSION B: PEER SUPPORTED BEHAVIORAL MEDICINE AMONG PEOPLE WITH SERIOUS MENTAL ILLNESSES

Megan S. Evans, PhD, MS[1], Edwin B. Fisher, PhD, FSBM[2]

[1]Yale School of Medicine, West Haven, CT; [2]University of North Carolina at Chapel Hill, Chapel Hill, NC

People with serious mental illnesses, or SMI, die approximately 25 years earlier than the general population. There are multiple causes driving this staggering statistic; chief among them are cardiometabolic diseases. People with SMI experience a variety of behavioral risk factors for developing these diseases, including high rates of cigarette smoking, substance use, and sedentary behavior. In addition, many antipsychotic medications are known to be obesogenic and causally related to metabolic syndrome. Nevertheless, people with SMI receive fewer physical health check-ups, screenings, prescriptions, and procedures than their peers without SMI. Providers often misattribute physical symptoms to mental illness, delaying diagnosis and treatment. Additionally, therapeutic pessimism about the likelihood of people with SMI making behavior changes impacts providers' behavior. Further adding to the burden of disease, many people with SMI lack employment amidst a social safety net insufficient to overcome poverty. Given these factors, it is imperative to provide support for health behavior change to people with SMI. An innovative approach is physical health and wellness programs facilitated by mental health peer specialists, or people with lived experience of mental health conditions and recovery who are trained to support others experiencing similar conditions.

As part of a realist review of 355 published and grey literature sources on peer support services that reach people with schizophrenia, we identified 27 articles that described 15 unique peer support interventions focused on physical health and wellness among people with SMI. These encompassed two main types of approaches: peer-facilitated healthcare navigation programs and peer-supported health behavior change interventions. Demonstrating the importance of ongoing support for health behavior change, over half of the included programs (57%) lasted three months or longer. Most (71%) assisted participants in self-management such as by action planning, teaching self-management skills, and problem-solving. People with SMI were able to make improvements to their health in a variety of ways. Among the documented benefits were clinically significant weight loss, reduction in BMI, decreased pain, increased physical activity, increased health care utilization, increased screenings and detection of chronic diseases, and improved health literacy. Making health behavior changes alongside someone 'in the same boat' was recognized as an important benefit of peer programs. Potential areas for growth in the field are peer programs addressing physical and mental health conditions simultaneously as well as peer-supported smoking cessation programs.

CORRESPONDING AUTHOR: Megan S. Evans, PhD, MS, Yale School of Medicine, West Haven, CT; megan.evans@yale.edu

---

Abstract citation ID: kaad011.0378

POSTER SESSION B: ANOTHER CASE FOR SEX EDUCATION: COMFORT WITH SEXUALITY PREDICTS LOWER DEPRESSION AND ANXIETY IN COLLEGE STUDENTS

Christine M. Curley, MA, JD[1], Aviana O. Rosen, MS[2], Emilie M. Karovic[3], Blair T. Johnson, PhD[3]

[1]University of Connecticut, N Kingstown, RI; [2]University of Connecticut, Glastonbury, CT; [3]University of Connecticut, Storrs, CT

Positive sexuality - experienced through a broad range of consensual sexual activities - has been associated with psychological well-being, mental health, and physical health in adults. (See e.g., Flynn et al., 2016; Lindau & Gavrilova, 2010). Comprehensive sex education that includes positive sexuality has demonstrated effectiveness in improving in youth well-being (Goldfarb & Liberman, 2020). However, recent studies (Udea et al., 2020) suggest that emerging adults are engaging in less sexual activity, while at the same time college students are experiencing high levels of anxiety and depression. The present study examined the extent to which comfort with sexuality predicts lower depression and anxiety in college students.

We surveyed 680 undergraduate and graduate students (60.4 % women, age 18-29) from a Northeastern university. The sample was racially diverse (46.6% white; 22.2% Black; 23.9% Asian; 7.2 % other) and sexually diverse (83.4% heterosexual; 1.6% gay; 2.2% lesbian; 8.5% bisexual; 1.2% pansexual; 2.9% other) in relationships (83.5%), and sexually active within the past year (94%).

We assessed comfort with sexuality using the Multidimensional Measure of Comfort with Sexuality (MMCS) (Tromovitch, 2010) with items pertaining to comfort with sexuality, sexual activities, and communicating about sexual issues, developed for use with college populations; depression and anxiety were measured using two subscales from the Depression, Anxiety, and Stress Scales-21 (DASS-21; Lovibond & Lovibond, 1995).

No gender differences were found in comfort with sexuality; however, White students reported higher comfort levels than Black or Asian students, and sexual minority students reported higher comfort levels than heterosexual students. No differences were found in depression based on gender, race, or sexual orientation, except Asian students reported higher levels. With regard to anxiety, higher levels were reported by men, Black and Asian students, and heterosexual students.

We conducted hierarchical regressions to examine the extent to which MMCS predicted lower reported depression and anxiety, controlling for gender, sexual orientation, race/ethnicity, the importance of religion, relationship status and sexual activity.

Models showed that MMCS predicted both lower depression and lower anxiety, with no significant differences when gender, race/ethnicity and sexual orientation were separately added to the models.

Comfort with sexuality was higher for students who did not identify as heterosexual, supporting the view that discussions about sexual orientation among LGBTQ youth may foster not only positive sexuality but also improved well-being. Sexual education in college may confer benefits beyond knowledge of consent, sexual health, and sexual behavior and serve to improve the mental health and well-being of emerging adults by reducing depression and anxiety.

CORRESPONDING AUTHOR: Christine M. Curley, MA, JD, University of Connecticut, N Kingstown, RI; christine.curley@uconn.edu

Abstract citation ID: kaad011.0379

POSTER SESSION B: ASSOCIATIONS AMONG CAREGIVERS' CHOICE, SENSE OF PURPOSE, & LONELINESS: A COMPARATIVE ANALYSIS BETWEEN BLACK & WHITE CAREGIVERS

Yiqing Qian, MPH[1], Derrick Matthews, PhD[1], Edwin B. Fisher, PhD, FSBM[1], Kathryn E. Muessig, PhD[1], Lixin Song, PhD, RN, FAAN[2], Erin E. Kent, PhD, MS[1]

[1]University of North Carolina at Chapel Hill, Chapel Hill, NC; [2]University of Texas Health Science Center at San Antonio School of Nursing, San Antonio, TX

Caregivers, who are individuals caring for a family member or friend with serious health problems, often experience loneliness and social isolation, and these experiences can have adverse mental health impacts on both the caregivers and their care recipients. Objective conceptualizations of burden (e.g., caregiving hours) have been studied as predictors of loneliness. Less is known about whether loneliness is associated with perceived choice and sense of purpose from caregiving. Furthermore, cultural norms about family caregiving (e.g., familism, gender norms) and behavioral patterns of caregiving (e.g., types of tasks performed) differ between Black and White Americans. Applying ordinal logit regression in a population-based sample, this study aimed to examine a) difference in loneliness among non-Hispanic Black and White caregivers for adult care recipients, b) associations between choice and purpose with loneliness, and c) whether those associations with loneliness differ between Black and White caregivers.

In data from the 2020 Caregiving in the U.S. Study, 53% of Black caregivers (n=199) and 54% of White caregivers (n=801) reported having no choice in taking on caregiving responsibilities. On a scale of 1 (low) to 5 (high), the mean score of sense of purpose was 3.6 for Black caregivers and 3.3 for White caregivers. In Model 1 controlling for caregivers' socio-demographic characteristics (e.g., age, employment) and caregiving characteristics (e.g., hours, duration), Black caregivers reported lower levels of loneliness, 0.67 times as those reported by White caregivers (95%CI=0.47, 0.95). In Model 2, which tested associations of choice and purpose with loneliness while adjusting for race and additional covariates, caregivers who had no choice reported 2.46 times higher loneliness scores than caregivers who had a choice (95%CI=1.83, 3.29). In addition, higher sense of purpose scores were associated with lower loneliness scores (aOR=0.75, 95%CI = 0.66, 0.86). Models 3&4 with interaction terms found no significant difference by caregivers' race for the associations between choice and loneliness or purpose and loneliness.

Our study found Black caregivers reported lower levels of loneliness than White caregivers. For both Black and White caregivers, lack of choice and lower sense of purpose were associated with greater loneliness, with no significant differences in these associations across race. Sense of purpose may be more amenable to change than choice given circumstances, thus could be considered as an intervention target to reduce loneliness among caregivers.

CORRESPONDING AUTHOR: Yiqing Qian, MPH, University of North Carolina at Chapel Hill, Chapel Hill, NC; yqq@email.unc.edu

---

Abstract citation ID: kaad011.0380

POSTER SESSION B: BARRIERS AND FACILITATORS TO MENTAL HEALTH MANAGEMENT IN PEDIATRIC SETTINGS: A SYSTEMATIC REVIEW FOR RACIAL/ETHNIC MINORITIES

Laiba Chaudhry[1], Anjali Mercado[1], Harjinder Pawar[1], Wenhua Lu, PhD[1]

[1]The City University of New York School of Medicine, New York, NY

Introduction: Compared to Whites, racial/ethnic minority adolescents are at a higher risk for mental health and substance use (MHSU) issues but less likely to receive treatment. Primary care physicians are at the frontline of identifying and addressing these issues which, if left untreated, can lead to short and long-term social and health consequences such as school truancy, unemployment, and cancer. This systematic review aims to summarize barriers and facilitators to managing MHSU issues among racial/ethnic minority adolescents in U.S. pediatric settings.

Methods: Following the PRISMA guideline, we systematically searched four databases (CINAHL, Embase, PsychInfo, and PubMed) for empirical studies on barriers and facilitators to managing MHSU issues among racial/ethnic minority adolescents in pediatric settings.

Results: Eleven empirical studies met our inclusion criteria, among which nine (81.8%) focused on children and adolescents (0-22 years old) and two (18.2%) on parents' perspectives. Seven (63.6%) studies recruited mainly African Americans, and four (36.4%) focused on Hispanics. Based on the socio-ecological framework, eight (72.7%) studies identified adolescent-related barriers and facilitators to managing MHSU issues, including biological (e.g. age, gender, racial/ethnic identity), clinical (e.g. diagnosis status, symptom severity), and behavioral (e.g. school expulsion). Three (27.3%) studies identified parent-related factors including parental beliefs (e.g. fears about medication, stigma) and demographics. Six (54.5%) studies identified institutional/primary provider-related factors including hospital ownership status and resources, connection to outpatient services, emergency services arrival time and status (i.e. voluntary or involuntary admission), and history of mental health service and medication use. Lastly, six (54.5%) studies identified factors at the structural level, including insurance status, neighborhood characteristics, and household income.

Conclusion: To improve treatment use for MHSU issues, culturally appropriate destigmatizing interventions are needed for parents of racial/ethnic minority adolescents. More funding is also warranted to improve the number and service capacity of psychiatric units within hospitals, especially those in underserved minority communities. Further research is needed to identify other culture-related factors that influence racial/ethnic minority adolescents' service use in pediatric settings.

CORRESPONDING AUTHOR: Wenhua Lu, PhD, The City University of New York School of Medicine, New York, NY; wlu1@med.cuny.edu

Abstract citation ID: kaad011.0381

POSTER SESSION B: ARE THERE BENEFITS TO USING FIXED VERSUS RANDOM OR 2 VERSUS 4 SMARTPHONE-BASED ECOLOGICAL MOMENTARY ASSESSMENTS?

Jessica Becerra, MS[1], Dingjing Shi, PhD in Quantitative Psychology[2], Jamie M. Gajos, PhD[3], Blayne A. Barker, BA[4], Clayton Ulm, BS[5], Irene De La Torre, BS[4], Emily T. Hebert, DrPH[6], Megan E. Piper, PhD[7], Michael S. Businelle, PhD in Clinical Psychology[4]

[1]TSET Health Promotion Research Center, Stephenson Cancer Center, Oklahoma City, OK, USA, Oklahoma City, OK; [2]University of Oklahoma, Norman, OK; [3]Department of Human Development and Family Studies, University of Alabama, Tuscaloosa, AL, USA, Tuscaloosa, AL; [4]University of Oklahoma Health Sciences Center, Oklahoma City, OK; [5]TSET Health Promotion Research Center, Stephenson Cancer Center, Oklahoma, USA, Oklahoma City, OK; [6]Department of Health Promotion and Behavioral Sciences, UT Health School of Public Health, Austin, TX, USA, Austin, TX; [7]Center for Tobacco Research and Intervention, Department of Medicine, University of Wisconsin, Madison, Wisconsin, USA, Madison, WI

Background: Ecological momentary assessment (EMA) allows researchers to examine the association between dynamic variables (such as mood and affect) on health behaviors. However, there are no established best practices for EMA design. The purpose of the current study was to examine the impact of EMA scheduling, frequency, and measurement level on the variability of affect.

Methods: A nationwide randomized controlled trial (N = 434) was conducted using smartphone-based EMAs over a 28-day study period. The current substudy examined the main effects of 3 design conditions on affect variability: (1) number of EMAs per day (2 vs. 4), (2) EMA schedule (random vs. fixed), and (3) question response type (i.e., assignment to either 14 days of Likert-type then 14 days of slider-type or vice versa). Multilevel models assessed the within-person variability in affect by design condition. Specifically, the outcome was evaluated as the within-person standard deviation of happiness, stress, anger, fear, and relaxation.

Results: Participants were mostly White (71.7%), female (77.0%) and 48.3 years old (*SD* = 12.3) on average. Multilevel analyses indicated that the random EMA schedule increased the variability of slider-type questions more than the fixed EMA schedule for affective states including happiness ($t = -2.27$, $p < 0.05$), anger ($t = -2.58$, $p < 0.05$), and relaxation ($t = -1.97$, $p < 0.05$). Four daily EMAs (vs. 2) was associated with increased variance of Likert-type stress and anger, but not slider type stress and anger. Being assigned slider-type questions first significantly increased the variability of stress ($t = 2.03$, $p < 0.05$), anger ($t = 3.78$, $p < 0.05$), and relaxation ($t = 2.84$, $p < 0.05$) over the second half of the study period when they were asked as a Likert type questions. To summarize, the fixed vs. random factor affected the variability of feeling angry, relaxed, and happy. The 2 vs 4 EMAs per day factor affected the variability of feeling angry and stressed. The slider vs Likert type questions first factor affected the variability of feeling angry, stressed, relaxed, and afraid.

Conclusion: This study has broad applications for developing best practices guidelines for future studies utilizing EMA methodologies. Results indicate that the variance of reported affect is subject to fluctuate across study designs. Future work should continue to examine the impact that Likert vs slider type questions have on affect.

CORRESPONDING AUTHOR: Jessica Becerra, MS, TSET Health Promotion Research Center, Stephenson Cancer Center, Oklahoma City, OK, USA, Oklahoma City, OK; jessica-becerra@ouhsc.edu

---

Abstract citation ID: kaad011.0382

POSTER SESSION B: PSYCHOMETRIC PROPERTIES OF THE MODIFIED CAROLINA HPV IMMUNIZATION ATTITUDE AND BELIEFS SCALE (CHIAS) AMONG COLLEGE STUDENTS

Victoria M. Telles, MPH[1], Kristen Wells, PhD, MPH[2], Apurva Barve, MA, PhD[3]

[1]UCSD/SDSU, La Jolla, CA; [2]San Diego State University, San Diego, CA; [3]Google, Fremont, CA

Background: Efforts to increase HPV vaccination among college students have been hindered by a lack of understanding of attitudes and beliefs that influence uptake of the vaccine and few valid and reliable surveys measuring these constructs. Existing validated surveys focus on assessing HPV vaccine attitudes and beliefs among parents of adolescents and young adult women. The goal of this study is to examine the psychometric properties of a modified version of the Carolina HPV Immunization Attitude and Beliefs Scale (CHIAS) among a sample of undergraduate students at San Diego State University (SDSU).

Methods: Using convenience sampling we recruited and surveyed 217 undergraduate students (mean age: 18.95 years, 68% female; 32% male). We conducted an exploratory factor analysis of the 11-item CHIAS using principal components analysis. We examined the factor structure of the modified CHIAS by running a parallel analysis and a very simple structure (VSS) analysis, as well as fitting a series of factor models. A three-factor confirmatory model was fit. Convergent validity was concurrently assessed by examining Spearman's correlation of the total summed scores of the CHIAS, vaccine-related Self-Efficacy scale, and the Injection Phobia Scale (IPS-ANX).

Results: The three subscales demonstrated high internal consistency (perceived *barriers* $\alpha = 0.9$; *vaccine harms* $\alpha = 0.87$; *vaccine effectiveness* $\alpha = 0.77$). Results from the EFA and parallel analysis supported a three-factor model for this scale. Results from the CFA indicated that the variance explained by factors (h^2) substantially increased across all items, (i.e., .561 to .808). Two factors (i.e., harms and barriers) are clearly defined with multiple items. The third factor (i.e., effectiveness) has two items, which are strongly related and seem to stand alone on their loadings. Results from correlation analysis of all scales indicated the CHIAS was moderately, inversely correlated with the self-efficacy scale ($r = -0.38$) and minimally positively correlated with the IPS-ANX scale ($r = 0.21$), as expected.

Conclusion: The 11-item modified CHIAS is a valid and reliable measure of HPV vaccine attitudes and beliefs in our sample of college students. This robust measure of attitudes and beliefs regarding HPV vaccine among young college men and women provides researchers with a brief, standardized measure that can inform development of interventions to increase initiation and completion of the HPV vaccine dose among this population.

CORRESPONDING AUTHOR: Victoria M. Telles, MPH, UCSD/SDSU, La Jolla, CA; vtelles8494@sdsu.edu

Abstract citation ID: kaad011.0383

CITATION AND MERITORIOUS AWARD WINNER

POSTER SESSION B: THAT'S INAPPROPRIATE: MEASURING EDUCATOR SEXUAL MISCONDUCT BOUNDARY CROSSING BEHAVIORS

Stacie Lefeavers, MPH, RN[1], Julie Russo, MPH[1], Abigail Conley, PhD[1], Margaret Wallace, BA[2], Kellie E. Carlyle, PhD, MPH[1], Charol Shakeshaft, PhD[3], Emiola Oyefuga, PhD[1], Robert A. Perera, PhD[1]

[1]Virginia Commonwealth University, Richmond, VA; [2]Virginia Commonwealth University, Highland Springs, VA; [3]Virginia Commonwealth University, Ashland, VA

Background: The empirical knowledge base about adult sexual abuse of students in schools is primitive despite 1 in 10 public school children experiencing abuse by an educator. Educator sexual misconduct is any behavior of a sexual nature which may constitute professional misconduct. Boundary crossing behaviors (BCB) are "red flags" for potential abusive behavior and may or may not be sexual in nature. There is little in the existing research that measures what educators understand as BCBs for sexual misconduct, making it difficult to know exactly what content should be addressed in interventions and how to assess progress in preventing sexual misconduct. This study addresses this critical measurement gap by assessing the psychometric properties of a new scale, *Education Sexual Misconduct Boundary Crossing Behaviors.* Consistent with studies in sexual violence, the scale was developed within the framework of the Theory of Planned Behavior and tested alongside scales assessing the other key theoretical constructs.

Methods: After conducting a comprehensive search in the school employee sexual misconduct literature and a review of comparable measures, an initial item pool was developed and refined through consultation with subject area experts. The final instrument was deployed in a national sample of 314, K-12 school employees using Qualtrics and assessed attitudes and normative beliefs towards BCB, self-efficacy and intentions toward reporting BCB, and BCB behaviors. Exploratory factor analysis (EFA) was used to assess the factor structure of the items for each domain. Scree plots, simple structure, the chi-square test, and theoretical knowledge were used to determine an appropriate number of factors for each domain. All statistical analyses were performed in the R Version 4.4.2.

Results: EFA was conducted on each domain area in the pilot data survey on educator sexual misconduct training. Results from the EFA suggested that either one or two factors be retained for each domain. All items retained in the scale had acceptable standardized factor loadings (0.4 or higher). The estimated reliability using Cronbach's alpha ranged from 0.71 to 0.94. Results demonstrate the BCB scale and related theory of planned behavior BCB scales hold promise as valid instruments.

Discussion: This study presents the preliminary results of a new scale assessing BCB in the context of educator sexual misconduct. It helps close a gap in the field of sexual misconduct and offers important insights into educator attitudes that may need to be strengthened or modified in future interventions. The contribution to the field is strengthened by assessing the measure within one of the most commonly applied theoretical frameworks, the theory of planned behavior, making it more likely that the measure can be adapted to other, related domains of violence prevention.

CORRESPONDING AUTHOR: Stacie Lefeavers, MPH, RN, Virginia Commonwealth University, Richmond, VA; lefeaverss@vcu.edu

---

Abstract citation ID: kaad011.0384

POSTER SESSION B: ANALYZING THE RELATIONSHIP BETWEEN SELF-REPORTED HABITS, INTRINSIC MOTIVATION, AND OBJECTIVE BEHAVIOR

Rylan Fowers, BS[1], Chad Stecher, PhD[2]

[1]Arizona State University, Tempe, AZ; [2]Arizona State University, Phoenix, AZ

Background: Healthier habits can improve many physical and mental health outcomes, but habits are often difficult for people to form on their own. Understanding the habit formation process can inform new behavioral interventions, but existing measures of habit strength are limited to self-reports, which suffer from known biases. The purpose of this study was to better understand what self-reported habits mean by examining the relationships between measures of self-reported habit strength, intrinsic motivation, and objective behaviors.

Methods: Data from a 6-wave panel survey about app-based meditation was merged with objective meditation app usage data. The survey included the Self-Reported Behavioral Automaticity Index (SRBAI), the Intrinsic Motivation Inventory (IMI), and measures of participants' socioeconomic status. We used the app usage data to determine whether participants were meditating with both high frequency and low variability (HFLV) at the time of each survey wave, and then categorized survey responses as being either 1.) unexpected habit strength reports (i.e., SRBAI ≥ 16 but no HFLV, or SRBAHI < 16 with HFLV), or 2.) expected habit strength reports (i.e., SRBAI ≥ 16 with HFLV, or SRBAI < 16 and no HFLV). We then estimated regression models to determine predictors of unexpected habit responses using socioeconomic status and IMI. We estimated these models on the entire sample, and among two subsamples: 1.) unexpected habit responses among participants not showing HFLV, and 2.) unexpected habit responses among participants who were showing HFLV.

Results: The sample contained 2,429 participants who were mostly female (78%), employed (66%), and had an annual income above $100,000 (56%). 32% of survey responses were completed while participants were displaying HFLV, and the mean SRBAI was 11.15 (SD = 4.16; range 4 - 20). Across the entire sample, IMI was significantly associated with unexpected habit reports (OR = 1.22, SE = 0.11, p = 0.02). IMI also played a significant role when predicting unexpected habit strength among participants who were not displaying HFLV (OR = 1.52, SE = 0.22, p = 0.004). However, IMI was not associated with unexpected reports for the participants who were showing HFLV (OR = 0.83, SE = 0.18, p = 0.38).

Conclusion: The relationship between motivation and unexpected reports of strong habits suggests that self-reported habit measures may capture both those who have formed a habit as well as those who were motivated to form a habit. However, motivation was not predictive of unexpected reports of weak habits, which suggests that self-reported habit measures can successfully identify users who have not reached a state of automaticity, despite frequent and consistent meditation. These findings demonstrate the challenges in measuring habit strength through surveys and show how alternative measures, such as IMI, may be important intervention targets for promoting habits.

CORRESPONDING AUTHOR: Rylan Fowers, BS, Arizona State University, Tempe, AZ; rylanf@gmail.com

Abstract citation ID: kaad011.0385

POSTER SESSION B: IMPACT OF COVID-19 PANDEMIC AND TRANSITION TO REMOTE RECRUITMENT METHODS IN AN ONGOING WEIGHT MANAGEMENT CLINICAL TRIAL

Meena N. Shankar, MS, RD[1], Umelo A. Ugwoaba, MS, MPH[1], Andrea N. Brockmann, MA[1], Kelsey M. Arroyo, MS[1], Taylor N. Swanson, BA[1], Kelsey L. Barrett, BS[1], Kathryn M. Ross, PhD, MPH[1]

[1]University of Florida, Gainesville, FL

Introduction: The COVID-19 pandemic impacted clinical trial recruitment and resulted in study teams pivoting to remote recruitment strategies. Limited research has been published to outline alternative strategies, limitations, and success outside of using paid social media ads. Therefore, we examined the impact of switching to remote community-based recruitment methods on recruitment for an ongoing weight management clinical trial, with particular focus on the impact of these methods on recruitment of adults historically underrepresented in biomedical research.

Methods: Participants were recruited in 5 cohorts beginning in August 2019 and ending in August 2022. The study aimed to enroll 430 adults, with 36% of individuals from NIH-identified racial/ethnic minority groups. Cohort 1, which started prior to the COVID-19 pandemic, utilized traditional in-person community-based recruitment methods (e.g., attendance at health fairs, meetings with church leaders, and community events). Cohorts 2-5 utilized remote community-based recruitment methods (e.g., online meetings, email/phone outreach, and online newsletters/flyers).

Results: The trial ultimately enrolled 449 adults with obesity (female = 84%, non-Hispanic white = 64%; $M \pm SD$ age = 49.4 ± 11.4 years) in an initial behavioral weight-loss intervention. Cohort 1 enrollment included 78 participants, while Cohorts 2-5 included 82, 97, 90, and 102 participants, respectively. Minority participant enrollment was 35% in Cohort 1, followed by 26%, 35%, 34%, and 50% respectively for Cohorts 2-5; there was not a significant difference in the proportion of individuals recruited from historically underrepresented backgrounds in Cohort 1 compared to later cohorts (37%), $p = .700$.

Conclusion: Overall, the trial was able to meet pre-specified recruitment goals even after transition to remote methods. Some challenges related to a constricted timeline affected recruitment in Cohort 2; however, increasing lead time for community outreach allowed future cohorts to be successfully recruited using low-cost methods. Results suggest that remote recruitment methods can serve as an effective, low-cost, and efficient strategy in clinical trial recruitment. These methods allowed for broader outreach and flexible meeting times that resulted in efficiency and participation of multiple community stakeholders. Further analyses are needed to assess study retention and strategies to improve recruitment of men in weight management trials.

CORRESPONDING AUTHOR: Meena N. Shankar, MS, RD, University of Florida, Gainesville, FL; mns@phhp.ufl.edu

---

Abstract citation ID: kaad011.0386

POSTER SESSION B: PSYCHOMETRIC TESTING OF A CARING FOR SELF SURVEY FOR USE WITH CLERGY

Brook E. Harmon, PhD, RDN[1], John W. Nelson, PhD, MS, RN[2], Benjamin Webb, PhD[3], Karen Webster, DMin, ACSM-EP[4], Travis Webster, ThD, LMFT[4], Nathan T. West, PhD[5], Talsi L. Case, BS[1], Charolette Leach, MDiv, DMin[6]

[1]Appalachian State University, Boone, NC; [2]Healthcare Environment, New Brighton, MN; [3]Southern Illinois University Edwardsville, Edwardsville, IL; [4]Healthy Seminarians-Healthy Church non-profit, Murrysville, PA; [5]University of Alaska Anchorage, Anchorage, AK; [6]Atrium Health Wake Forest Baptist - FaithHealth Division, High Point, NC

Over 250,000 clergy in the U.S. serve as leaders and potential health promoters in their communities. Unfortunately, these same clergy are at high risk for chronic disease, mental health issues, and burnout. Efforts to help clergy enact self-care behaviors (e.g., healthy eating, physical activity, stress reduction) have had mixed results. The Caring Factor Survey - Caring for Self (CFS-CS) was initially developed within the field of nursing and measures the construct "caring for self" using a holistic lens that encompasses spiritual, physical, social, and mental health. This study aimed to assess the reliability and validity of the CFS-CS in a sample of clergy. Seventy ordained Christian clergy from across the U.S. who were actively ministering in a congregation were recruited. All participants completed the 10-item CFS-CS, demographic data, and two 7-point Likert scale items assessing the importance of caring for self and their effort to care for self every day. Cronbach's alpha, average inter-item correlations, and exploratory factor analysis were used to examine each CFS-CS item and the survey's factor structure. Correlations between the final survey and the Likert scale items were examined to assess predictive validity. Participants were, on average, 47.2 (±12.2) years old, primarily from the South (64.3%), white (88.6%), male (62.9%), and married (84.3%). Forty percent were Presbyterian and 20% were United Methodist. Most (64%) rated their health as very good or excellent. Initially, Cronbach's alpha was 0.8 and the average inter-item correlation was 0.27. One item, "I value opportunities that allow me to increase my knowledge and understanding about myself," did not perform well. When it was removed, Cronbach's alpha increased to 0.81 and the average inter-item correlation to 0.33. Analysis of the 9-item survey resulted in two factors, the three spirituality items and the remaining six items. Correlations between the 9-item survey and the Likert scale items measuring importance and effort towards caring for self were $r = .50$ and .677, respectively, $p < 0.001$ for both. The 9-item CFS-CS, Clergy was found to be a valid and reliable measure of caring for self among clergy. This is a positive step towards understanding the mindset of clergy with regards to self-care, which is fundamental in developing successful clergy health initiatives. Next steps include recruiting a larger sample and examining predictors of survey scores as well as associations between survey scores and health outcomes. Qualitative work is also needed to understand why increasing "knowledge and understanding" did not align with other items measuring caring for self among clergy.

CORRESPONDING AUTHOR: Brook E. Harmon, PhD, RDN, Appalachian State University, Boone, NC; harmonbe1@appstate.edu

Abstract citation ID: kaad011.0387

POSTER SESSION B: A 5-YEAR STUDY: DECREASED ALCOHOL USE AND INCREASED PREVALENCE OF ABSTINENCE

Andrea E. Krunnfusz, PhD[1], Chase A. Aycock, PsyD[2], Indika Mallawaarachchi, M.S.[3], Rosemary E. Estevez Burns, PhD[4], John Jones, PhD[1], Jordan M. Ellis, PhD[5], Daniel Cassidy, PhD[6], Robert C. Klesges, PhD[7], Xin-Qun Wang, M.S.[8], Gerald W. Talcott, PhD[9]

[1]United States Air Force, San Antonio, TX; [2]Air Force, San Antonio, TX; [3]University of Virginia, Dept PH, Charlottesville, VA; [4]Wilford Hall Ambulatory Surgical Center, San Antonio, TX; [5]Wilford Hall Ambulatory Surgical Center, SAN ANTONIO, TX; [6]United States Air Force, JBSA Lackland AFB, TX; [7]University of Virginia Medical School, Germantown, TN; [8]University of Virginia, Charlottesville, VA; [9]University of Virginia, Charlottesvile, VA

Introduction: Excessive drinking in the US military has been declared a "public health crisis" due to its high impact on the health and performance of service members (SMs). Despite several studies showing a decreased prevalence of hazardous use among young adults, trends of use within the military population are less clear. The purpose of the current study is to explore how the characteristics of drinking behaviors have changed over time in a population of recently enlisted members of the US Air Force.

Methods: From 2016 to 2020, we administered anonymous Alcohol Use Disorder Identification Tests (AUDITs) to 104,667 SMs to capture their drinking behaviors prior to initial Air Force military training. The AUDIT, an alcohol use screener with scores ranging 0-40 where 0 indicates abstinence, measures three factors: harmful use, hazardous use, and indications of dependence. AUDIT scores were summarized using mean and standard deviation (SD) and compared across years using Kruskal-Wallis test. A Poisson regression model was used to model the AUDIT total score and each of the three AUDIT factors.

Results: Across the five years, self-reported drinking as measured by AUDIT scores decreased: mean scores dropped from 3.75 (SD: 4.96) to 2.77 (SD: 4.23); ($p < 0.001$). Mean scores also decreased for harmful use: 0.72 (SD: 1.63) to 0.5 (SD: 1.34), hazardous use: 2.73 (SD: 3.20) to 2.09 (SD: 2.83), and dependence: 0.30 (SD: 0.99) to 0.19 (SD: 0.80). The proportion of SMs who reported abstinence from alcohol increased from 44.7% to 51.7%. When abstainers were removed from the sample, magnitude of the downward trend decreased. Mean AUDIT scores decreased from 6.67 (SD: 4.93) to 5.65 (SD: 4.49); ($p < 0.001$), and the three factors means followed a similar trend: harmful use from 1.29 (SD: 2.00) to 1.02 (SD: 1.77), hazardous use from 4.85 (SD: 2.82) to 4.25 (SD: 2.66), and dependence from 0.53 (SD: 1.27) to 0.39 (SD: 1.11).

Discussion: The increase in reported abstinence and decrease in problematic drinking behaviors among those who do consume alcohol are encouraging findings. They highlight the importance of understanding alcohol consumption-related behaviors in young adults; the power of 'peer pressure' and 'cultural norms' related to alcohol may be changing to favor non-drinking or responsible drinking behaviors. In increasing understanding and building upon such trends, more effective and targeted prevention efforts can address the alcohol crises facing the nation.

CORRESPONDING AUTHOR: Andrea E. Krunnfusz, PhD, United States Air Force, San Antonio, TX; akrunnfusz@gmail.com

Abstract citation ID: kaad011.0388

POSTER SESSION B: SLEEP-RELATED IMPAIRMENT AND TARGETS FOR CHANGE IN AIR FORCE TECHNICAL TRAINEES

Andrea E. Krunnfusz, PhD[1], Jordan M. Ellis, PhD[2], Rosemary E. Estevez Burns, PhD[3], Chase A. Aycock, PsyD[4], John Jones, PhD[1], Indika Mallawaarachchi, M.S.[5], Natalie Roy, PhD[1], Daniel G. Cassidy, PhD[3], Gerald W. Talcott, PhD[6]

[1]United States Air Force, San Antonio, TX; [2]Wilford Hall Ambulatory Surgical Center, SAN ANTONIO, TX; [3]Wilford Hall Ambulatory Surgical Center, San Antonio, TX; [4]Air Force, San Antonio, TX; [5]University of Virginia, Dept PH, Charlottesville, VA; [6]University of Virginia, Charlottesvile, VA

Introduction: Sleep disorders and sleep insufficiency are prevalent problems among U.S. service members (SMs) and threaten the readiness and resiliency of our forces. Despite this, little is understood regarding early military career sleep quality and sleep-related impairment. Future interventions will be improved by better understanding what motivates SMs to change their sleep behaviors and which behaviors SMs are most likely to change. The purpose of this study was to describe sleep-related impairment in a sample of SMs in entry-level, job-specific Air Force Technical Training and to identify both potential targets and motivators for future early career interventions.

Methods: SMs were administered the PROMIS Sleep-Related Impairment (SRI) 8a form, the Insomnia Severity Index (ISI), items gauging readiness to make specific behavioral changes to improve sleep, and items measuring perceived personal importance of sleep-related health outcomes. T-scores were calculated for the SRI scores, with $t = 50$ ($SD = 10$) representing the average for the U.S. general population.

Results: A sleep survey was administered to 154 SMs engaged in Technical Training (mean age or $M_{age} = 20.79$; 82.05% Male). On the SRI, 42.6% of SMs received a *t*-score of 60 or above ($M = 57.91$). On the ISI, 34.8% of SMs scored between 8-14 (subthreshold insomnia) and 10.3% scored above 15 (clinical insomnia); $M = 6.87$. SMs endorsed all sleep-rated aspects of health outcomes as highly important, with improved academic and work performance as being most important. SMs reported being more ready to set a more consistent wake time and bedtime, get 7-9 hours of sleep, and reduce/eliminate "all-nighters." SMs reported being least ready to use the bed only for sleep, implement app-based sleep self-monitoring, and watch a video about good sleep habits.

Discussion: Compared to the U.S. general population, SMs in Technical Training experience greater sleep-related impairment, with approximately one-third experiencing significant insomnia-related concerns. This understudied population would likely benefit from scalable secondary preventive interventions that are aimed at improving sleep quality and sleep-related behaviors, with possible emphasis on increasing motivation to keep a consistent sleep-wake schedule and engaging in self-monitoring of their sleep behavior. This study also provided specific sleep-related behavioral targets to which this population may be responsive in future interventions.

CORRESPONDING AUTHOR: Andrea E. Krunnfusz, PhD, United States Air Force, San Antonio, TX; akrunnfusz@gmail.com

Abstract citation ID: kaad011.0389

POSTER SESSION B: DOES RISKY ALCOHOL USE MODERATE TREATMENT OUTCOME OF PROBLEM-SOLVING TREATMENT FOR GULF WAR ILLNESS?

Laura M. Lesnewich, PhD[1], Shou-En Lu, PhD[2], Karly S. Weinreb, MA[3], Sharron O. Sparks, BA[4], David R. Litke, PhD[5], Drew A. Helmer, MD, MS[6], Wilfred R. Pigeon, PhD[7], Lisa M. McAndrew, PhD[5]

[1]War Related Illness and Injury Study Center, VA New Jersey Health Care System, East Orange, NJ; [2]Rutgers School of Public Health, Piscataway, NJ; [3]Montclair State University, Montclair, NJ; [4]Felician University, Rutherford, NJ; [5]WRIISC, VA NJHCS, East Orange, NJ; [6]Center for Innovations in Quality, Effectiveness & Safety, Michael E. DeBakey Veterans Affairs Medical Center, Houston, TX; [7]VISN 2 Center of Excellence for Suicide Prevention, Canandaigua VA Medical Center, Canandaigua, NY

Introduction: Problem-solving treatment (PST) is an evidence-based treatment for Gulf War Illness (GWI), a chronic multisymptom illness prevalent among Veterans who served in Operations Desert Shield/Storm. PST has been shown to reduce disability and problem-solving impairment associated with GWI, but little is known about individual characteristics that may affect PST outcomes. Risky alcohol use can negatively impact problem-solving ability and has been associated with poorer behavioral treatment outcomes. This secondary data analysis examined risky alcohol use as a moderator of PST outcome. We hypothesized that riskier alcohol use at baseline would predict less reduction in problem-solving impairment and disability over time among Veterans with GWI enrolled in a randomized clinical trial (RCT). Method: Participants were US Veterans who met the Kansas case definition of GWI and scored at least half a standard deviation higher (more disabled) than the standardized mean on the World Health Organization Disability Assessment Schedule (WHO-DAS). Participants were randomized to PST or a control intervention and were assessed at 4 timepoints. Measures included the WHO-DAS, Problem Solving Inventory (PSI), and Alcohol Use Disorders Identification Test-Concise (AUDIT-C). We conducted mixed model analyses controlling for intra-person and intra-provider correlations using random effects among individuals who were randomized to PST (n=135). We ran one model for each outcome measure: PSI (Model 1) and WHO-DAS (Model 2). Predictors in both models included time, baseline household income, baseline AUDIT-C, and the AUDIT-C×time interaction. Results: For Model 1, the main effect of time ($p< 0.0001$) was a significant predictor of PSI; the main effects of household income and AUDIT-C and the AUDIT-C×time interaction were not significant. Similarly for Model 2, the main effect of time ($p=0.0440$) was a significant predictor of WHO-DAS, and the main effects of household income and AUDIT-C and the AUDIT-C×time interaction were not significant. Discussion: Our hypothesis that risky alcohol use would moderate treatment outcome of PST for GWI was not supported. Results of both models suggested problem-solving impairment and disability decreased over time for participants who received PST, but risky alcohol use did not moderate these effects. Low levels of risky alcohol use in the sample may have limited power; alternatively, risky drinking may not systematically affect the course of PST outcomes among disabled Gulf War Veterans with GWI.

CORRESPONDING AUTHOR: Laura M. Lesnewich, PhD, War Related Illness and Injury Study Center, VA New Jersey Health Care System, East Orange, NJ; laura.lesnewich@va.gov

---

Abstract citation ID: kaad011.0390

POSTER SESSION B: A SYSTEMATIC REVIEW OF MULTIPLE HEALTH BEHAVIOUR CHANGE INTERVENTIONS IN PATIENTS WITH CHRONIC CONDITIONS

Carolina C. Silva[1], Justin Presseau, PhD[2], Zack van Allen[2], Paulina Schenk[3], John Dinsmore, PhD[1], Marta M. Marques, PhD[4]

[1]Trinity College Dublin, Dublin, Dublin, Ireland; [2]University of Ottawa, Ottawa, ON, Canada; [3]University College London, London, England, UK; [4]Nova Medical School, Lisboa, Lisboa, Portugal

Background: To address challenges of multimorbidity, interventions targeting more than one health behavior have the potential to be more synergistically effective. Previous reviews have synthesized multiple health behavior change (MHBC) interventions directed at specific populations (e.g. at risk for cardiovascular diseases), behaviors (e.g. smoking) or particular modes of delivery (e.g. eHealth).

Objective: To identify and summarize the components of MHBC interventions in patients across chronic conditions.

Methods: Following PRISMA guidelines, a search strategy was defined to identify MHBC interventions within five electronic bibliographic databases and studies identified in pre-existing reviews of MHBC interventions. Inclusion criteria limited studies to those using a randomized trial design. Study selection and data extraction were conducted independently by two researchers. A standardized data extraction form was created using existing ontologies and taxonomies covering study and sample details, and intervention components (e.g. behavior change techniques, theory usage, mode of delivery). Quality was critically appraised using the Risk of Bias 2 tool. For data analysis, components of studies were synthesized through frequencies and mapping of intervention components.

Results: Fifty-nine studies met the eligibility criteria, of these 25 focused on individuals with cardiovascular diseases, 15 with type 2 diabetes, 9 with hypertension, 7 with cancer, and 3 with multiple chronic conditions. The number of behaviors targeted ranged from 2 to 6 (mean = 3) and physical activity and eating were the most frequent ones. Behavior change techniques usage varied from 0 to 13 and the most commonly used were goal setting behavior (68%) and self-monitoring of behavior (39%). As for the use of theory to inform intervention development, the most frequently mentioned were the Transtheoretical Model (19%) and Social Cognitive Theory (16%), though 34 studies (58%) had no mention of any theory/model or, when mentioned, the extent to which a theory was used was often unclear.

Conclusion: Lack of standardization in the reporting of intervention components (e.g. number and frequency of contacts are often unclear) was identified, limiting the comparison and replication of these interventions. By leveraging existing classification systems, results of this review provide an in-depth overview of key components of current MHBC interventions directed at individuals with chronic conditions.

CORRESPONDING AUTHOR: Carolina C. Silva, Trinity College Dublin, Dublin, Dublin, Ireland; silvac@tcd.ie

Abstract citation ID: kaad011.0391

POSTER SESSION B: DEVELOPMENT AND INITIAL FEASIBILITY TESTING OF AN IMB-BASED ONLINE INTERVENTION TO PROMOTE HEALTHIER BEHAVIORS IN YOUNG WOMEN

Patrice Hubert, PhD, RDN[1], Valerie B. Duffy, PhD, RD[2], Tricia M. Leahey, PhD[2], Roman Shrestha, PhD[3], Loneke T. Blackman Carr, PhD, RD[2]

[1]Monell Chemical Senses Center, Philadelphia, PA; [2]University of Connecticut, Storrs, CT; [3]University of Connecticut, South Windsor, CT

Background: The Information Motivation Behavioral Skills (IMB) model is a useful framework to guide health behavior change programs. We aimed to test the design and program feasibility of an online tailored message program to inform motivational interviewing to creating personalized health behavior goals, and 9 weeks of follow-up, tailored messages.

Methods: Young adult women were recruited into the online tailored message program and then into the online motivational session and 9-week message follow-up. Design feasibility measures included recruitment and retention of target population, and program feasibility included the usability of tailored messages in creating participant-centered S.M.A.R.T goals, and response rates to program components.

Results: Benchmark goals for recruitment and retention feasibility were met. Response rates to program components started high, but decreased as participants proceeded from tailored program to motivational session and goal setting, to 9-week follow-up. The tailored messages were deemed effective in helping participants create S.M.A.R.T goals.

Conclusion: Overall feasibility in program design was demonstrated in this pilot trial. Benchmark goals for recruitment and retention were comparable to mean rates of successful interventions. Slight changes to recruitment timing may improve response rates to programs components.

CORRESPONDING AUTHOR: Patrice Hubert, PhD, RDN, Monell Chemical Senses Center, Philadelphia, PA; phubert@monell.org

---

Abstract citation ID: kaad011.0392

POSTER SESSION B: HEALTHCARE ACCESS AND HOME BLOOD PRESSURE MONITORING BEHAVIOR: A RELATED PROBLEM FOR CHRONIC KIDNEY DISEASE PATIENTS

Sadia Anjum Ashrafi, MPH[1], Andiara Schwingel, PhD[2]

[1]University of Illinois at Urbana Champaign, Urbana, IL; [2]University of Illinois Urbana Champaign, Champaign, IL

Introduction: Hypertension is prevalent among chronic kidney disease (CKD) patients and often contributes to accelerated disease progression and cardiovascular complications [1]. Home blood pressure monitoring (HBPM) is highly recommended among CKD patients for better disease management [2]. However, several factors, including healthcare access and utilization, has been found to impact patient HBPM behavior [3]. This study explored the relationship between healthcare access and HBPM behavior among CKD patients.

Method: This cross-sectional study included a total of 964 CKD patients (stage 1- stage 5) from the National Health and Nutrition Examination Survey (NHANES) datasets between 2013-2014.The predictor variable, limited healthcare access, was measured in three domains: no routine place for healthcare, being uninsured, and no healthcare visit in the past year. The outcome variable, HBPM behavior, was assessed in two parameters: if experienced HBPM in the past year and the frequency of HBPM in the past year. The covariates include race, sex, age, CKD awareness, education, and income status. Logistic regression was conducted to find the relationship between the variables.

Results: The adjusted model found that CKD patients with limited healthcare access were less likely to have HBPM in the past year compared to patients who had healthcare access (uninsured: OR = 0.613, CI = 0.384-0.976, p = 0.0394; no routine place for healthcare: OR = 0.316, CI = 0.164-0.612, p =0.0006; no health visit in the past year: OR = 0.381, CI = 0.199-0.728, p = 0.0035). In addition, patients with no routine place for healthcare were less likely to measure home blood pressure on a monthly or more frequent basis (monthly but less than weekly: OR = 0.169, CI = 0.040-0.720, p = 0.0162; weekly or more: OR = 0.273, CI = 0.105-0.712, p = 0.0079) compared to people who had a routine place for healthcare. CKD patients who had no healthcare visit in the past year were less likely to have weekly or more frequent HBPM than CKD patients who had any healthcare visit in the past year (OR = 0.230 CI = 0.080-0.663, p = 0.0066).

Conclusion: Our finding suggests that limited healthcare access is related to limited home blood pressure monitoring use. Public health efforts to slow CKD progression and cardiovascular complications should strive to improve patients' healthcare access.

References:

1. Judd, E., & Calhoun, D. A. (2015). Management of hypertension in CKD: beyond the guidelines. *Advances in chronic kidney disease*, *22*(2), 116-122.

2. Cohen, D. L., Huan, Y., & Townsend, R. R. (2014). Home blood pressure monitoring in CKD. *American journal of kidney diseases*, *63*(5), 835-842.

3. Tang, O., Foti, K., Miller III, E. R., Appel, L. J., & Juraschek, S. P. (2020). Factors associated with physician recommendation of home blood pressure monitoring and blood pressure in the US population. *American journal of hypertension*, *33*(9), 852-859.

CORRESPONDING AUTHOR: Sadia Anjum Ashrafi, MPH, University of Illinois at Urbana Champaign, Urbana, IL; ashrafi3@illinois.edu

Abstract citation ID: kaad011.0393

POSTER SESSION B: EFFECTS OF A COMMUNITY BASED LIFESTYLE WEIGHT MANAGEMENT PROGRAM IN BREAST CANCER SURVIVORS ON SELECT SOCIAL COGNITIVE OUTCOMES

Victoria R. DeScenza, PhD[1], Marcy Haynam, MS[2], Zachary L. Chaplow, PhD[3], Jessica D. Bowman, MS, ACSM-EP[4], Xiaochen Zhang, PhD, MPH[5], Stephanie Hohn, MS[4], Kathryn Dispennette, PhD[6], Ciaran M. Fairman, PhD, CSCS, CET[1], Maryam Lustberg, MD[7], Brian C. Focht, PhD[4]

[1]University of South Carolina, Columbia, SC; [2]Ohio State University Comprehensive Cancer Center, Columbus, OH; [3]The Ohio State University, Canal Winchester, OH; [4]The Ohio State University, Columbus, OH; [5]Fred Hutch Cancer Center, Bellevue, WA; [6]Utah Valley University, Highland, UT; [7]Smilow Cancer Hospital and Yale Cancer Center, New Haven, CT

Introduction: Lifestyle weight management (LWM) interventions result in meaningful weight loss and significant improvements in a variety of clinically-relevant outcomes among breast cancer survivors (BCaS). Following the established changes in physical activity (PA) and diet, it is crucial that these behaviors are maintained over time to achieve long term health benefits among BCaS at risk for increased morbidity and mortality. Unfortunately, theory-based behavioral PA interventions for BCaS in the community remains limited.

Purpose: The purpose of the single-arm pilot trial, Healthy New Albany Breast Cancer (HNABC) trial was to establish the feasibility and efficacy of implementing a group-mediated cognitive behavioral (GMCB) exercise and dietary intervention among overweight or obese BCaS.

Methods: A total of 21 BCaS (*M* age = 57.2 years, SD 9.3) were enrolled into the GMCB intervention. Assessments of social cognitive theory constructs were obtained at baseline, 3 months and 6 months using Satisfaction with Function and Appearance (SWF, SWA) and 12-item Physical Activity Regulation Scale (PASR-12).

Results: Findings from a completers analysis (n=7) yielded small to moderate effect increases in satisfaction with function and appearance (SWF: 3M *d*=.058 and 6M *d*= 0.35; SWA: 3M *d*= 0.56 and 6M *d*= 0.66). Furthermore, subscales of the PASR-12, self-monitoring (*d*= 1.16), goal setting (*d*= 0.62), and reinforcement (*d*= 0.27) saw positive effects at 6-months.

Conclusions: Collectively, the lifestyle intervention designed to promote the development, practice, and mastery of behavioral self-regulatory abilities resulted in favorable improvements. These findings underscore the relevance of delineating the patterns of change in key self-regulation and self-efficacy outcomes within the context of future longer duration lifestyle interventions among BCaS.

CORRESPONDING AUTHOR: Victoria R. DeScenza, PhD, University of South Carolina, Columbia, SC; descenza@mailbox.sc.edu

---

Abstract citation ID: kaad011.0394

POSTER SESSION B: EXPERIENTIAL AVOIDANCE, NEUROTICISM, AND HEALTH BEHAVIOR IN COLLEGE STUDENTS

James A. Bunde, PhD[1]

[1]University of South Carolina Upstate, Boiling Springs, SC

Experiential Avoidance (EA)--a type of psychological rigidity involving "the unwillingness to remain in contact with certain private content and the steps taken to avoid or alter such content"--has been implicated in various forms of psychopathology, and is a frequent target of intervention for the so-called "third-wave" cognitive behavioral therapies (e.g., Acceptance and Commitment Therapy (ACT)). The concept has been applied beyond the world of mental illness, to assorted health behaviors and attempted changes thereof, along with a broader construct entitled "Psychological Flexibility" (PF): i.e., "the ability to consistently choose valued behaviors--whether that means changing direction or staying the course--while remaining in non-judgmental, non-avoidant contact with one's ongoing experience" (even when that experience happens to be distressing). Several widely-used measures of EA/PF (constructs problematically treated as antonymous (or nearly so) in many investigations) suffer from conceptual and empirical difficulties--unacceptable overlap with neuroticism generally prominent among them--yet relatively few studies have employed the psychometrically-superior Multidimensional Experiential Avoidance Questionnaire (MEAQ; Gamez et al., 2011) in systematic evaluation of key EA/health behavior relationships. Even fewer have concurrently assessed neuroticism itself--a known predictor of many such behaviors--while targeting a young, racially diverse, and non-clinical population for investigation. The current study represents a broad-based, cross-sectional exploration of these questions in a sample of American college students. Four hundred and twenty-two undergraduates completed a 3-item Neuroticism (N) measure (Lang et al., 2011), the MEAQ, an extended series of health-related items (assessing self-perceptions of physical and mental health, activity restriction, diet, smoking, exercise, alcohol consumption, and sleep) adapted from the Center for Disease Control and Prevention's (CDC) Behavioral Risk Factor Surveillance System (BRFSS) questionnaires (CDC, 2017), and a brief demographic survey. Results suggest a complicated and heterogeneous network of relationships between EA/N and assorted health-related variables. Although bivariate associations--between the intercorrelated N, total EA, and EA facet scales on the one hand and critical behavioral risk factors on the other--were often significant (as expected), regression analyses revealed wide variability in patterns of unique contribution to these factors: e.g., 1) for N only, 2) for total EA only, 3) for N and total EA only, 4) for specific facets of EA only, 5) for total EA and specific EA facets only, etc. Implications of this farraginous constellation of relations for measurement, theory, and intervention are discussed.

CORRESPONDING AUTHOR: James A. Bunde, PhD, University of South Carolina Upstate, Boiling Springs, SC; jbunde@uscupstate.edu

Abstract citation ID: kaad011.0395

POSTER SESSION B: SOCIAL COGNITION CORRELATES OF SELF-MANAGEMENT BEHAVIORS IN PATIENTS WITH FAMILIAL HYPERCHOLESTEROLEMIA: A META-ANALYSIS

Rabia Majeed, MS Clinical Psychology[1], Martin S. Hagger, PhD[2]

[1]University of California, Merced, MERCED, CA; [2]University of California, Merced, Merced, CA

Familial Hypercholesterolemia (FH) is an inherited disorder leading to increased risk of premature cardiovascular disease. This risk can be ameliorated through adherence to pharmacological treatment and salient lifestyle behaviors: physical activity and healthy eating. Identifying theory-based, modifiable determinants of these behaviors may inform the development of interventions to promote participation in FH self-management behaviors. We aimed to identify the belief-based social cognition constructs likely to be associated with intentions to perform, and actual participation in, FH self-management behaviors in the extant research on FH, and estimate the averaged size and variability of the associations among these constructs, intentions, and behavior using meta-analysis. We also aimed to test a predictive model specifying the unique effects of the social cognition constructs on FH self-management behavioral intentions as well as the effects of past self-management behavior on these constructs and intentions. We conducted a systematic database search to identify studies (k=13, N=1505) reporting relations between constructs from social cognition theories and intention toward, or actual participation, in self-management behaviors in FH patients. Quality of the included studies was assessed using a validated checklist. Relations among the constructs and FH self-management behavioral intentions and past behavior were tested using random effects multi-level meta-analysis and meta-analytic structural equation modeling. We found non-zero sample-weighted averaged correlations among the key social cognition constructs (attitudes, norms, risk perceptions, self-efficacy), intentions, and past behavior. Structural equation modeling indicated non-zero averaged direct effects of attitudes, norms, self-efficacy, and past behavior on FH self-management behavioral intentions. There were also non-zero averaged indirect effects of past behavior on intentions mediated by the social cognition constructs. Adjusting the correlations for study quality as a covariate did not alter our conclusions. Findings provide evidence in support for the proposed model predicting FH self-management behavioral intentions, and indicate unique effects of the identified social cognition constructs on intentions when accounting for past behavior. The model provides important data on constructs that may be targeted in behavioral interventions promoting participation in FH self-management behaviors.

CORRESPONDING AUTHOR: Rabia Majeed, MS Clinical Psychology, University of California, Merced, MERCED, CA; rmajeed2@ucmerced.edu

---

Abstract citation ID: kaad011.0396

POSTER SESSION B: EATING TO COPE: ANALYZING RACIAL DIFFERENCES IN OVEREATING, PERCEIVED STRESS, AND DEPRESSION

Chinemerem Nwanze[1], Charlotte J. Hagerman, PhD[2], Evan M. Forman, PhD[2]

[1]Weight, Eating, and Lifestyle Science (WELL) Center Drexel University, Carlisle, PA; [2]Drexel University, Philadelphia, PA

Existing literature points to significant racial differences in the pervasiveness of obesity in the United States, with Non-Hispanic Black populations having disproportionately high rates. Standard contemporary weight loss interventions have also been found less effective for non-Hispanic Black individuals, especially Black women (Svetkey et al., 2012). Therefore, it is important to understand the factors that may be linked to harmful eating behaviors that may contribute to this disparity, so they can be appropriately addressed during behavioral weight control treatment.

One such factor is emotional eating. Previous research suggests that negative emotions (i.e., fear, distress, sadness), as well as discrimination, are linked to higher caloric intake, greater possibility of excess weight gain, and irregular meal planning for members of racial/ethnic minority groups (Pickett et al., 2020, Reid et al., 2016).

According to the Environmental Affordances Model (EAM) (Jackson et al., 2010), racial/ethnic minorities are faced with disproportionate amounts of chronic stress, often brought on by discrimination and inequality, that heighten their likelihood of engaging in maladaptive self-regulatory behaviors. These self-regulatory behaviors, which can include drug use, smoking, and emotional eating, may contribute to poor health outcomes in minority communities. However, research on the EAM in the context of behavioral weight loss interventions is limited.

We hypothesized that Black participants in behavioral weight loss programs face disproportionate amounts of stress and negative affect compared to white participants, which would lead to more overeating. Adults with overweight/obesity undergoing behavioral weight loss treatment (N=263) completed ecological momentary assessment (EMA) for 7 days, reporting their mood and whether they had overeaten (yes/no) since the last survey, six times per day. Responses on all measures were combined across all days to examine between-person relationships with these variables. There was a positive correlation between stress and overeating ($r = 0.23$, $p < .001$), as well as depression and overeating ($r = 0.16$, $p = .008$).

However, contrary to hypotheses, Black participants reported *lower* levels of both emotions than white participants did. Black participants also reported overeating *less* frequently than white participants did ($t = 3.54$, $df = 260$, $p < .001$). Depression and stress did *not* mediate the unexpected relationship between race and overeating.

Although these findings do not align with the EAM, it is possible higher distress tolerance among Black participants contributed to lower reports of negative emotion, and that differences in eating norms led to differences in reports of overeating. Our findings emphasize the need to further understand why Black participants benefit less from traditional behavioral weight loss programs.

CORRESPONDING AUTHOR: Chinemerem Nwanze, Weight, Eating, and Lifestyle Science (WELL) Center Drexel University, Carlisle, PA; nwanzec@dickinson.edu

Abstract citation ID: kaad011.0397

POSTER SESSION B: SIMILAR WEIGHT, SIMILAR ACTIVITY: PEER DYADS AND WEIGHT MAINTENANCE OUTCOMES

Tricia M. Leahey, PhD[1], Amy A. Gorin, PhD[1], Talea Cornelius, PhD, MSW, MS[2], Olivia Baker[3]

[1]University of Connecticut, Storrs, CT; [2]Columbia University Irving Medical Center, New York, NY; [3]University of Connecticut, Meriden, CT

Background: Peer-based interventions show promise in improving behavioral health outcomes, but little is known about how to assign previously unfamiliar peers to dyads to maximize intervention success. This study explored whether dyadic similarity in weight loss or physical activity was associated with better weight-loss maintenance in a randomized peer-based intervention.

Methods: Participants were 50 individuals (25 dyads) participating in the CHAMPS weight-loss maintenance trial. The trial involved two phases, an initial weight loss phase, followed by a maintenance trial that involved peer coaching. At the beginning of the maintenance trial, peer dyads were created based on peer similarity in age, sex, and initial weight loss. Multilevel models were estimated to account for interdependence due to dyad membership. First, an empty model with no predictors was estimated to examine the correlation between peers' weight change during maintenance. Next, separate models were estimated to test the association of similarity in objectively measured percent weight change (during the weight-loss phase), physical activity (PA), and steps with weight change during maintenance. The multiplicative interaction of similarity with one's own level of that variable was also tested. Similarity was defined by taking the absolute difference between peer variables and splitting these at the median.

Results: Peers' weight change during the maintenance phase was negatively correlated within dyads, r = -0.36, p = .040, suggesting that, the more successful one partner was at maintaining weight loss, the less successful their partner was. There were no main effects of similarity on weight change during maintenance, p > .13. Only the interaction of one's own PA with dyadic similarity in PA was significant, B = -0.05, p = .034; dyads with similarly high levels of PA were significantly more successful at maintaining weight loss v. those who did not have similar PA levels, B = -7.20, p = .037.

Conclusion: Interestingly, more successful peers tended to have partners who were less successful at maintaining lost weight. Further, only dyadic similarity in PA was associated with successful maintenance. Future research may consider examining social processes (e.g., social comparison, social norms) that may account for these effects.

CORRESPONDING AUTHOR: Olivia Baker, University of Connecticut, Meriden, CT; oliviaabaker1@gmail.com

---

Abstract citation ID: kaad011.0398

POSTER SESSION B: ENTRY LEVEL BEHAVIORAL SKILLS AND MINDSETS ASSOCIATED WITH WEIGHT LOSS

Katherine E. McManus-Shipp, MA, MA[1], Kayla F. O'Connor, MS[2], Tricia M. Leahey, PhD[2], Amy A. Gorin, PhD[2]

[1]University of Connecticut, Providence, RI; [2]University of Connecticut, Storrs, CT

Background: Understanding heterogeneity in weight loss outcomes remains an open area of investigation. Individuals enter treatment with varying levels of regulatory skills (e.g., planning abilities, ability to maintain a routine) and different expectations about the weight loss process (e.g., intentions and beliefs about costs-benefits). Exploring whether these skills and mindsets predict success may elucidate new targets for intervention. This study examined whether baseline regulatory skills and weight management mindsets differed between individuals who were able to achieve clinically meaningful weight loss (≥5%) in a 4-month online weight loss (WL) program and those who did not.

Method: Participants (n = 672; mean age = 50.42± 12.05 years; mean baseline weight = 94.47 + 18.34 kgs; 83.2% female; 74.4% college graduate or higher; 74.6% White; 15.5% Hispanic or Latino; 63% with an income $75,000 or higher; 60.8% married) were enrolled in a two-phase weight loss maintenance trial (CHAMPS trial), which included a 4-month online WL program (Phase I) followed by an 18-month maintenance program (Phase 2) for those who lost ≥5% of baseline weight in Phase I. Post hoc observational independent-sample t-tests explored baseline skill (i.e., TFEQ, BRIEF, routines) and mindset (i.e., intention, cost-benefit weight management) differences between those who were eligible (i.e., lost ≥5%) for Phase 2 and those who were ineligible (i.e., lost < 5%, did not complete Phase 1, or did not consent to Phase 2).

Results: Eligible (N = 281) and ineligible (N = 391) participants significantly differed on baseline raw scores for Inhibit (t = -3.324, p< 0.001, 95 % CI -.98 to -.25) and Emotional Control (t = -2.28, p = .011, 95% CI -1.39 to -.10), such that those who lost 5% or more had better executive functioning (EF). Surprisingly, there were no differences between the two groups on baseline weight, dietary restraint, intention, routine, cost-benefit, and planning and organization skills (ps >0.05).

Conclusion: Individuals who lost clinically significant amounts of weight in an online WL program entered treatment with stronger abilities to resist impulses, stop one's behavior at the appropriate times, and modulate emotion. Assessing and targeting these skills early in WL programs, especially for those who demonstrate lower EF abilities, may be helpful targets of intervention.

CORRESPONDING AUTHOR: Katherine E. McManus-Shipp, MA, MA, University of Connecticut, Providence, RI; katherine.3.mcmanus@uconn.edu

Abstract citation ID: kaad011.0399

POSTER SESSION B: ASSOCIATION BETWEEN ALCOHOL CONSUMPTION ON WEIGHT LOSS IN ADULTS WITH OBESITY COMPLETING A BEHAVIORAL WEIGHT LOSS PROGRAM

Kelsey L. Barrett, BS[1], Umelo A. Ugwoaba, MS, MPH[1], Taylor N. Swanson, BA[1], Andrea N. Brockmann, MA[1], Kelsey M. Arroyo, MS[1], Meena N. Shankar, MS, RD[1], Kathryn M. Ross, PhD, MPH[1]

[1]University of Florida, Gainesville, FL

Introduction: Higher levels of alcohol consumption have been associated with overweight and obesity. Results from the Look AHEAD trial demonstrated no association between alcohol intake and weight loss during a behavioral weight loss program, but these results have not been replicated in other samples.

Methods: The current study investigated the association between baseline alcohol consumption and weight loss in 324 adults with obesity ($M \pm SD$ age = 49.82± 11.47 years; BMI = 35.78± 4.13kg/m^2; 83.0% female, 77.5% White) who completed a 16-week behavioral weight loss program. Weight was assessed at baseline and Month 4 (end of intervention) via in-home e-scales. Participants self-reported quantity and frequency of beer, wine, and liquor consumption at baseline via items on the Munich Chronotype Questionnaire. Using categorization of weekly drinking from the National Institute on Alcohol Abuse and Alcoholism, participants were categorized as "nondrinkers," "light drinkers," or "moderate to heavy drinkers." ANOVAs were used to assess associations between baseline drinking category and weight change, and regressions were used to assess associations between whether individuals consumed beer, wine, or liquor (coded as yes/no) and weight change.

Results: At baseline, 45.1% of the participants reported never drinking alcohol, 41.4% reported light drinking, and 13.6% reported moderate to heavy drinking. Additionally, 24.4% of participants reported consuming beer, 41.0% consuming wine, and 25.9% consuming liquor; moreover, 28% reported consuming more than 1 type of drink. Participants lost an average of 7.02± 4.66% of their baseline weight by Month 4. No significant differences of weight change from baseline to Month 4 was found between nondrinkers, light drinkers, and moderate to heavy drinkers, all *p*s > .05. Finally, there were no associations between consumption of beer, wine, or liquor and weight change from baseline to Month 4, all *p*s > .05.

Discussion: Similar to the results from Look AHEAD, there was not a significant association between baseline alcohol consumption and weight loss in adults with obesity completing a 16-week weight loss program. These results suggest that behavioral weight loss interventions can be similarly beneficial for individuals regardless of their baseline alcohol consumption. Our sample included few heavy drinkers; therefore, future research should examine the potential impact of heavier drinking on weight loss.

CORRESPONDING AUTHOR: Kelsey L. Barrett, BS, University of Florida, Gainesville, FL; k.barrett@phhp.ufl.edu

---

Abstract citation ID: kaad011.0400

POSTER SESSION B: RECRUITMENT FOR A CULTURALLY-TAILORED LIFESTYLE INTERVENTION FOR HISPANIC PATIENTS WITH NON-ALCOHOLIC FATTY LIVER DISEASE

Natalia I. Heredia, PhD, MPH[1], Amelia Averyt, MD[2], Jessica Hwang, MD, MPH[3], Maria Fernandez, PhD[1], Cici Bauer, PhD[1], Lorna McNeill, PhD, MPH[3]

[1]UTHealth School of Public Health, Houston, TX; [2]Legacy Community Health, Houston, TX; [3]The University of Texas MD Anderson Cancer Center, Houston, TX

Background: Non-alcoholic fatty liver disease (NAFLD) can lead to adverse health outcomes, including cirrhosis, liver failure, and liver cancer. Hispanic/Latinos (heretofore Hispanic) have the highest rates of NAFLD of any U.S. racial/ethnic subgroup. The most effective treatment for NAFLD is weight loss, through healthy dietary changes and increased physical activity. The purpose of this study was to pilot test a culturally-appropriate behavioral lifestyle intervention (an adapted version of *Healthy Liver/Hígado Sano*) for Hispanic patients with NAFLD to assess its feasibility (recruitment, retention, satisfaction) and preliminary effectiveness (physical activity, diet, weight, liver enzymes).

Methods: We partnered with a Federally-Qualified Health Center in a predominately Hispanic community in Houston and received referrals of potential participants from a physician champion. Participants were contacted by study staff, assessed for interest and eligibility, and consented. Measures included self-administered questionnaires assessing demographic, psychosocial and behavioral variables, staff-measured height and weight, 7-day use of a hip-worn accelerometer, and collection of Electronic Medical Record data. Individuals were randomized into intervention or a usual-care control group. The intervention, *Healthy Liver/Hígado Sano,* is adapted from the Diabetes Prevention Program and involves 16 weekly, group-delivered sessions.

Results: We contacted 151 individuals referred by our partner, 25 of which were unreachable and 66 of which were not interested, mostly due to a lack of time. Of the 60 screened, 45 were eligible (ineligible: no NAFLD diagnosis, not Hispanic or no internet access). Of these 45, 17 were not interested in participating primarily due to limited time. We randomized 28 individuals 15 to the intervention and 13 to the control. Our sample is 87% female and 65% have an annual household income < $25,000/year. We have completed 5 of 16, Spanish-delivered weekly sessions with individuals currently in the intervention group. We anticipate follow-up data to be collected in December 2022 and will present on those findings.

Discussion: We experienced difficulties with recruitment, with only 16% of those referred ultimately being enrolled in the study, mostly due to problems reaching participants via phone, text or email and struggles to identify potential participants with sufficient time to be involved. Future intervention work with this low-income, FQHC population need to involve more in-person (COVID permitting), high-touch recruitment and retention efforts.

CORRESPONDING AUTHOR: Natalia I. Heredia, PhD, MPH, UTHealth School of Public Health, Houston, TX; natalia.i.heredia@uth.tmc.edu

Abstract citation ID: kaad011.0401

POSTER SESSION B: READINESS FOR LIFESTYLE CHANGE AMONG OVERWEIGHT AND OBESE RESIDENTS OF AN UNDER-RESOURCED TOWNSHIP IN SOUTH AFRICA

Andrew T. Fox, PhD[1], Lungi L. Tsolekile, PhD[2], Thandi Puoane, DrPH[2], Kathy Goggin, PhD[3], Ken Resnicow, PhD[4], Kandace Fleming, PhD[5], Frank T. Materia, PhD, MHS[6], Delwyn Catley, PhD, FSBM[6]

[1]Children's Mercy Kansas City, Lawrence, KS; [2]University of the Western Cape, Bellville, Western Cape, South Africa; [3]Children's Mercy Hospital Kansas City / University of Missouri Kansas City, Kansas City, MO; [4]University of Michigan, School of Public Helath, ann arbor, MI; [5]University of Kansas, Lawrence, KS; [6]Children's Mercy Kansas City, Kansas City, MO

Noncommunicable diseases (NCDs), such as cardiovascular disease and type 2 diabetes, are a burgeoning global health problem resulting in debilitating illness and 15 million premature, preventable deaths every year. Low- and middle-income countries (LMICs), such as those in sub-Saharan Africa, bear a disproportionate burden of these deaths and are projected to do so for the foreseeable future. Programs designed to improve diet and exercise are being adapted for use in LMICs but few studies have examined the readiness of local communities to undertake lifestyle modification programs. As part of a cluster-randomized trial (N = 494) evaluating an adapted version of the Diabetes Prevention Program in an under-resourced urban township in Cape Town, we assessed readiness for lifestyle change at baseline. Assessments included motivation and confidence to achieve 3 lifestyle change goals (exercise, diet, lose weight; 10-point scale), general optimism (1 item, "I expect things to work out for the best", 1 "I disagree a lot" to 5 "I agree a lot"), health fatalism (4 items, e.g., "My health is a matter of luck", 1 "I disagree a lot" to 5 "I agree a lot"), neighborhood walkability (1 item, 1 "Not at all pleasant" to 4 "Very pleasant"), and food insecurity (2 items, e.g., "We worried our food would run out…" 0 "Never true" to 2 "Often true"). Participants were highly motivated to exercise (M=7.72 SD=2.42), improve diet (M=7.97, SD=2.46) and lose weight (M=7.43, SD=2.76) and confident in their ability to do so (Ms=7.51, 7.61, 7.45, SDs=2.58, 2.58, 2.66, respectively). They were also very optimistic (M=4.62, SD=0.89). Neighborhood walkability was good (M=2.85, SD=0.96) although 30.1% of respondents reported that their neighborhood was not pleasant for walking. Participants also reported high levels of health fatalism (M=4.52, SD=0.60) and food insecurity (M=1.43, SD=0.71), with only 12.3% reporting "Never" to both food insecurity items. Readiness appears to be higher for psychological factors (e.g., motivation) than external factors (e.g., food insecurity). This is the only study we are aware of to examine individual readiness for a lifestyle intervention in a LMIC. Future research could be aimed at incorporating components into lifestyle intervention curriculums that specifically mitigate the barriers (e.g., by supplementing healthy food) and utilize the facilitating factors (e.g., by leading more exercise sessions with motivated participants) to improve outcomes.

CORRESPONDING AUTHOR: Andrew T. Fox, PhD, Children's Mercy Kansas City, Lawrence, KS; dtfox@cmh.edu

---

Abstract citation ID: kaad011.0402

POSTER SESSION B: BEHAVIORAL WEIGHT LOSS SUCCESS: ANDROID VS. IOS

Umelo A. Ugwoaba, MS, MPH[1], Andrea N. Brockmann, MA[1], Kelsey M. Arroyo, MS[1], Taylor N. Swanson, BA[1], Kelsey L. Barrett, BS[1], Meena N. Shankar, MS, RD[1], Simone Marini, PhD, MSc[1], Kathryn M. Ross, PhD, MPH[1]

[1]University of Florida, Gainesville, FL

Objective: Differential engagement during behavior change interventions based on smartphone operating system is an area which remains relatively unexplored in the literature, and it is unclear if operating system may affect intervention recruitment or participant outcomes. The current study explored potential differences in demographic characteristics, engagement in dietary self-monitoring, and weight loss outcomes for Android and iOS users who participated in a behavioral weight loss program.

Methods: Adults with obesity (N=320, M±SD BMI=35.8±4.1 kg/m^2; age=50.0±11.4 years, 83.1% female, 74.1% White) completed a 16-week, group-based behavioral weight loss program between January 2020 and April 2022. During the program, participants were asked to self-monitor their weight, dietary intake, and physical activity daily, using a study provided e-scale and the FatSecret smartphone application. In comparisons of characteristics between Android and iOS users, one-way ANOVAs were used for continuous variables and chi-square or Fisher's exact tests were used for categorical variables.

Results: Participants self-monitored caloric intake an average of *(M±SD)* 85.4±22.4% of days and lost an average of 7.1±4.7% of their baseline weight during the program. There was a significant association between operating system and household income, p=.02, such that there was a greater proportion of iOS users in higher household income categories. No significant differences were found between the two groups for percentage of days tracked, weight change, or other demographic characteristics including race, ethnicity, age, and highest education, all ps >.05.

Discussion: The difference in household income between Android and iOS users may be attributable to the greater variety in price points of Android phones. The absence of significant associations across self-monitoring, percent weight change, and the remaining demographic characteristics indicate that special considerations based on smartphone operating system may not be necessary during behavioral weight loss programs. Moreover, results suggest that the choice to implement an intervention using one smartphone operating system versus another may not meaningfully impact recruitment in relation to race/ethnicity, age, or education.

CORRESPONDING AUTHOR: Umelo A. Ugwoaba, MS, MPH, University of Florida, Gainesville, FL; uugwoaba@phhp.ufl.edu

Abstract citation ID: kaad011.0403

POSTER SESSION B: TEMPTING CUES IN THE HOME FOOD ENVIRONMENT AND UPTAKE OF STIMULUS CONTROL STRATEGIES AMONG BEHAVIORAL WEIGHT LOSS PARTICIPANTS

Nicole T. Crane, MS[1], Evan M. Forman, PhD[1], Amy A. Gorin, PhD[2], Michael Lowe, PhD[1], Brandy-Joe Milliron, PhD[3], Meghan L. Butryn, PhD, FSBM[1]

[1]Drexel University, Philadelphia, PA; [2]University of Connecticut, Storrs, CT; [3]Department of Nutrition Sciences, Drexel University, Philadelphia, PA

Obesogenic cues in the home food environment (HFE) are a frequent target of behavioral weight loss (BWL) treatment via stimulus control, which focuses on maximizing availability of healthy foods and minimizing foods that make it difficult to meet calorie goals. Despite being a common component of BWL, little work has been done to explore participant utilization of stimulus control. Given that tempting HFE cues are a large barrier to weight loss, a deeper understanding of stimulus control usage, and factors that may influence its uptake, has large clinical utility. This study aimed to 1) examine usage of stimulus control in BWL and 2) determine how household (HH) characteristics relate to utilization. Participants (N = 71) were adults enrolled in 12 weeks of BWL who self-reported the most tempting foods in their HFE, HH characteristics, and usage of stimulus control strategies (5-point Likert frequency scale). At baseline, sweets were the most common tempting food, followed by salty snacks and processed/frozen foods (e.g., pizza). At 3 months, only 11.1% of participants eliminated all tempting foods from the HFE. On average, 2.27 of the top 5 tempting foods remained in the home. BWL participants reported using stimulus control sometimes/often during the program (M = 3.42, SD = 0.77). Keeping tempting foods out of the grocery cart (M = 4.11) or off the list (M = 3.93) were most frequently endorsed, followed by limiting portions (M = 3.86) and storing items in less visible locations (M = 3.80). Storing foods in opaque containers was least frequently used (M = 2.01). Strategies targeting food availability (i.e., types of foods in the HFE) were used more frequently than strategies targeting accessibility (i.e., where/how foods are stored in the HFE), $p <$ .001. Utilization of stimulus control did not differ based on HH member's dietary habits/weight loss interests, HH size, or presence/number of children. Results suggests moderate uptake of stimulus control in BWL, yet, only a small subset of participants succeeded in eliminating the most salient food cues in their HFE, suggesting room for improvement in stimulus control implementation. Strategies for modifying food availability, particularly for grocery shopping, appear to be the most highly adopted, while skills modifying accessibility of foods in the HFE may be less relevant. Uptake of stimulus control in BWL appears to be unrelated to HH factors. Future work can help identify variables that are associated with uptake of stimulus control to better characterize those who are at risk for poor adoption.

CORRESPONDING AUTHOR: Nicole T. Crane, MS, Drexel University, Philadelphia, PA; nvt24@drexel.edu

Abstract citation ID: kaad011.0404

POSTER SESSION B: WEIGHT LOSS MAINTENANCE AFTER A MOBILE COMMERCIAL BEHAVIOR CHANGE PROGRAM (NOOM WEIGHT): OBSERVATIONAL CROSS-SECTIONAL STUDY

Christine May, PhD[1], Matt Cox-Martin, PhD[2], Annabell Ho, PhD[2], Meaghan McCallum, PhD[2], Caroline Chan, BA[2], Kelly Blessing, BA[2], Heather Behr, PhD[2], Paige Blanco, MPH[2], Siobhan Mitchell, PhD[2], Andreas Michaelides, PhD[2]

[1]Noom Inc., WILBRAHAM, MA; [2]Noom Inc., New York, NY

Background: Long-term weight maintenance is considered a substantial challenge that requires better understanding. Researchers have called for more data on long-term maintenance, as the proportion of individuals who maintain significant weight loss (i.e., at least 5-10% weight loss 1-2 years after completing a program) varies greatly depending on the program. A considerable gap in the literature exists: there is limited, if any, data on weight maintenance after use of a fully digital commercial program in real-world settings; most data come from clinical and/or in-person settings.

Methods: Therefore, we conducted a cross-sectional observational study of individuals (N=840) who finished using a commercial digital behavior change program (Noom Weight) 6-24 months ago and lost 10%+ of their weight on the program. Participants completed a one-time survey on their current weight and behaviors. A random subsample (N=157) received a cellular connected digital scale to validate self-reported weight measurements. Weight loss maintenance was calculated using self-reported (survey) and/or objective (digital scale) current weight as a percentage of each participant's original body weight when they started Noom. Results are reported based on when participants completed and unsubscribed from the program (6 mo, 12 mo, 18 mo, and 24 mo ago). There was no significant difference between self-reported and objective weights.

Results: Survey results suggest that 64% of participants maintained at least 5% weight loss 2 years after completing the program (82% at 6 mo, 75% at 1 year, and 58% at 18 mo). 42% of participants maintained at least 10% weight loss at 2 years (56% at 6 mo, 49% at 1 year, and 41% at 18 mo). Regression analysis showed that program engagement (B=0.02, s.e.= 0.002, p< .001) and current habitual (i.e., automatic) snacking (B=0.18, s.e.=0.06, p=.002) and exercise (B=0.18, s.e.=0.07, p< .001) behaviors, as measured by the Self-Report Habit Index, were positively associated with the amount of weight loss maintained.

Conclusions: The design was retrospective with no control group, but allowed for observation of real-world maintenance from actual consumers of a digital commercial program. This data contributes to the limited evidence base on weight maintenance after this type of program, with results comparing favorably to previous studies. Future studies should evaluate the amount of maintenance in other digital real-world settings and the role of habitual behaviors.

CORRESPONDING AUTHOR: Christine May, PhD, Noom Inc., WILBRAHAM, MA; christinem@noom.com

Abstract citation ID: kaad011.0405

POSTER SESSION B: UNDERSTANDING THE EXPERIENCE OF SOCIAL UNDERMINING OF WEIGHT MANAGEMENT BEHAVIORS

Kellie B. Cooper, MS[1], Megan McVay, PhD[1]

[1]University of Florida, Gainesville, FL

Background: Social undermining may lead to dietary and exercise lapses (i.e., eating/drinking or physical inactivity that is likely to cause weight gain, and/or put weight loss at risk), making it an important consideration in weight management research. However, little is known about the prevalence and characteristics (e.g., source, setting) of social undermining experiences.

Methods: This mixed-methods study employed ecological momentary assessment (EMA) methods and individual interviews to understand the prevalence and characteristics of weight management-related social undermining experiences within a general population of adults trying to lose weight. Social undermining of weight management behaviors was defined as any social interaction or event that threatens goal attainment for eating behaviors or physical activity, whether intentional or not. Over a two-week period, participants were sent five text prompts daily surveying whether they experienced social undermining related to weight-loss efforts, the source and setting of undermining, their response, and whether undermining led to a dietary or exercise lapse. Interviews probed for more details on reported undermining instances, and sought to gain an understanding of the consequences of undermining and potentially helpful strategies for handling undermining.

Results: Participants (n=30) were 80% female and 54% White, with an average age of 39 years (range: 20-71) and an average BMI of 30.6 kg/m^2. Participants reported an average of 4.5 social undermining instances per week (range: 0-31; median: 4). The majority (71%) of undermining experiences were related to dietary behaviors. Undermining led to dietary or exercise lapses in almost half (47%) of the reported instances. Undermining was most often experienced at home (44%) and work (17%) and from spouses/significant others (20%) or other family members (27%). Qualitative interviews suggested that undermining derailed participants from their goals by contributing to future lapses, even in the absence of additional undermining; that participants believe that most undermining was unintentional, even when others were aware of their weight management goals; and that undermining sometimes related to cultural food norms around expectations to accept foods offered by family and friends.

Conclusion: These results can inform the development of strategies to reduce undermining and the negative effects of undermining in future weight management interventions.

CORRESPONDING AUTHOR: Kellie B. Cooper, MS, University of Florida, Gainesville, FL; k.cooper@ufl.edu

---

Abstract citation ID: kaad011.0406

POSTER SESSION B: HIGH RATE OF ERRORS IN BRIEF PAIN INVENTORY COMPLETION AMONG ADULTS WITH SICKLE CELL DISEASE

Julia A. O'Brien, PhD, RN[1], Donald J. Bearden, PhD[2], Kim E. Ono, PhD[2], Enrico M. Novelli, MD[1], Charles R. Jonassaint, PhD, MHS[1]

[1]University of Pittsburgh, Pittsburgh, PA; [2]Children's Healthcare, Atlanta, GA

Background: Adults living with sickle cell disease (SCD) experience severe acute and chronic pain. The Brief Pain Inventory (BPI) is a self-report scale used to evaluate pain severity and interference that is frequently used in SCD research studies and clinical settings. During a prior study our group completed, we found that 51% of the BPI forms had incongruent pain intensity among the numeric scale items. While adults with SCD are known to be at risk for neurocognitive deficits due to silent and overt strokes, how this may impact their ability to accurately complete surveys of pain is understudied. Given the importance of knowing whether the BPI is a valid measure of pain in adults with SCD, we set out to evaluate the validity and reliability of BPI scores in patients living with SCD, and whether errors on the BPI were associated with lower neurocognitive function.

Methods: A secondary analysis of 71 completed BPI forms was conducted. The BPI was collected via pen and paper as part of the parent study. The BPI questionnaires were evaluated for errors or inconsistencies, which included the following: 1) indicating no pain but reporting above-zero pain intensity or above-zero pain interference; 2) reporting conflicting scores on the pain intensity numeric scales; or 3) missing one or more items. Descriptive statistics of the sample and rate of errors on the BPI were evaluated. In addition, T-tests were used to evaluate whether the subgroup that erred on the BPI had lower cognition, evaluated by the Repeatable Battery for the Assessment of Neuropsychological Status (RBANS) and the Hopkins Verbal Learning Test-Revised (HVLTR).

Results: Out of the 71 BPI forms completed, 22 (31%) had at least 1 error; 6 patients (8.5%) indicated no pain but reported above-zero pain intensity on subsequent items; 18 patients (25.4%) had conflicting scores on the pain intensity numeric scales; 2 patients (2.8%) gave the same score for all pain intensity numeric scales; and 1 patient (1.4%) had one or more missing items on the pain intensity numeric scales. In addition, patients who committed at least one error while completing the BPI had significantly lower RBANS modified visuoconstruction index and total index scores, and significantly lower HVLTR total recall T-Scores.

Conclusions: In this sample of adults with SCD, we found that almost one-third of the participants had committed at least one type of error while completing the BPI. In addition, this study found preliminary evidence that individuals who are likely to err while completing this measure may have worse neurocognitive function. Revisions to the BPI may improve its validity, especially in populations affected by neurocognitive impairments. New approaches to measuring pain and other patient-reported outcomes that do not rely on complex phrasing or numeric scales are also needed, so that these outcomes can be better measured among underserved patient populations.

CORRESPONDING AUTHOR: Julia A. O'Brien, PhD, RN, University of Pittsburgh, Pittsburgh, PA; jao99@pitt.edu

Abstract citation ID: kaad011.0407

POSTER SESSION B: ASSOCIATIONS BETWEEN DEPRESSIVE SYMPTOMS AND PAIN INTERFERENCE IN ADULTS WITH CHRONIC PAIN: A CROSS-LAGGED PANEL ANALYSIS

Nina Winsick, MS[1], Rachel Aaron, PhD[2], Stephen Wegener, PhD[3], Claudia Campbell, PhD[4], Chung Jung Mun, PhD[5]

[1]Edson College of Nursing and Health Innovation- Arizona State University, Gilbert, AZ; [2]Johns Hopkins School of Medicine, Baltimore, MD; [3]John's Hopkins, Balt8more, MD; [4]Johns Hopkins, Baltimore, MD; [5]Edson College of Nursing and Health Innovation, Arizona State University, Phoenix, AZ

Background: Chronic pain is one of the most widely experienced chronic health conditions that substantially hampers one's quality of life. Previous studies have highlighted the disproportionate prevalence of depressive symptoms within this population, prompting further investigation into the relationship between pain interference (i.e., the extent to which pain impacts one's ability to perform daily tasks and activities) and depressive symptoms. A growing body of literature has also indicated predictive effects of depression on pain-related experiences. However, less is known about the temporal associations between pain interference and depressive symptoms over a long period of time.

Aims: The present study sought to investigate the reciprocal effects between pain interference and depressive symptoms over two years among adults with chronic pain in the U.S.

Methods: Adults with chronic pain (N=1,453) were surveyed three times via Amazon's MTurk online crowdsourcing platform: baseline (T1), one-year follow-up (T2), and two-year follow-up (T3). Pain interference was assessed by the Brief Pain Inventory–Short Form and depressive symptoms were assessed by the 4-item PROMIS Emotional Distress-Depression scale. A cross-lagged panel model was conducted based upon structural equation modeling framework.

Results: The model fit was excellent (RMSEA< .001; CFI= 1.00, SRMR= .003). Within each time point, pain interference and depressive symptoms were significantly and positively correlated. All auto-regressive effects for both pain interference and depressive symptoms were significant, indicating stability of these variables over time. In terms of cross-lagged effects, bi-directional effects were found from T1 to T2 (pain interference T1 to depressive symptoms T2: β=0.45, *p* < .001; depressive symptoms T1 to pain interference T2: β=0.02, *p* < .05). However, only depressive symptoms significantly predicted subsequent changes in one's pain interference level (β=0.02, *p* < .01), but not vice versa (β=0.07, *p* = .51) from T2 to T3.

Conclusions: Our findings (1) further solidify the known positive association between depressive symptoms and pain interference; and (2) demonstrate, across lengthier time frames, that symptoms of depression precede changes in pain interference. These findings suggest that treatment of depression may be important to the improvement of daily functioning in adults with chronic pain.

CORRESPONDING AUTHOR: Nina Winsick, MS, Edson College of Nursing and Health Innovation- Arizona State University, Gilbert, AZ; nmwinsic@asu.edu

---

Abstract citation ID: kaad011.0408

MERITORIOUS AWARD WINNER

POSTER SESSION B: DOES ADIPOSITY MEDIATE THE RELATION BETWEEN CALORIE INTAKE AND CHRONIC PAIN IN YOUTH?

Jaclyn Fishbach[1], Mary C. Davis, PhD[2], Leah Doane, PhD[2], Kathryn Lemery-Chalfant, PhD[3]

[1]Arizona State University, Scottsdale, AZ; [2]Arizona State University, Tempe, AZ; [3]Arizona State University, Tempe, AZ, AZ

Pediatric chronic pain is a common health condition that impacts children's quality of life and increases risk for future chronic pain. Data are limited but point to a positive relation between total caloric intake and risk for chronic pain. Moreover, research in adolescents and adults suggests that adiposity may mediate the association. No study to date has evaluated this mediational chain. The current study tested the hypothesis that greater caloric intake longitudinally predicts increased chronic pain via adiposity in late childhood.

The sample of 657 children was drawn from an ongoing longitudinal study of Arizona twins (51% female, 59% White, 20% Hispanic/Latino). Caregivers reported twins' average caloric intake (via three days of food diaries at twin age 8), adiposity was assessed via waist circumference (at twin age 9), and caregivers reported twins' chronic body pain (via summing body sites with at least monthly pain for each of five body sites at twin age 10). Twins consumed *M*=1747.59 calories/day (*SD* = 436.87), comprised of 33.5% fats (*SD* = 7.7), 14.7% protein (*SD* = 4.3), and 55.7% carbohydrates (*SD* = 30.0), 41.0% of which were added sugars. Twins' waist circumference was *M*=23.68 inches (*SD* = 3.79), and they experienced *M*=0.92 (*SD* = 1.16) body sites with at least monthly pain. Of note, 44.4% of the sample experienced monthly pain in at least one body site and 25.2 % in at least two body sites.

Multilevel regression models accounting for twins clustered within families and including gender, age at the age 8 assessment, pubertal status, race/ethnicity, and family socioeconomic status as covariates, showed that caloric intakepredicted waist circumference (b=.001, *SE*=.000, *p*= .02), which in turn predicted chronic pain (b=.037, *SE*=.018, *p*= .05). However, mediation analyses (R mediation; Tofighi & MacKinnon, 2011) revealed that waist circumference did not mediate the caloric intake-chronic pain relation.

The current study replicated findings in the literature, prospectively linking caloric intake with adiposity, and adiposity with chronic pain in a diverse sample of children. Taken together, the findings suggest that efforts to prevent child pain would benefit by not only targeting adiposity via reduced caloric intake, but also addressing multiple risk factors associated with both adiposity and pain (e.g., poor sleep quality, stress, physical activity, depression).

CORRESPONDING AUTHOR: Jaclyn Fishbach, Arizona State University, Scottsdale, AZ; jaclynfishbach@gmail.com

Abstract citation ID: kaad011.0409

POSTER SESSION B: NOT THE SAME ANYMORE: PREDICTORS OF EXACERBATED SELF-IMAGE IN THOSE WITH RHEUMATOID ARTHRITIS

Valeria Bailey, AA[1], Dustin Goerlitz, MA[2], Sara Hayes, MPH[3], Amanda Lipski, MBA[3], Amy Wachholtz, PhD, MDiv, MS, FSBM[1]

[1]University of Colorado Denver, Denver, CO; [2]University of Colorado Denver, LAKEWOOD, CO; [3]Health Union, LLC, Philadelphia, PA

INTRODUCTION: It is well known that rheumatoid arthritis (RA) has negative impacts on self-identity, which is linked to exacerbated health and quality of life. It is therefore crucial to elucidate factors of exacerbated self-perception in those with RA. Toward expanding that literature, we hypothesized RA severity, RA unpredictability, limited functionality, decreased ability to work, often needing to change or cancel plans, difficulty having intimate or sexual relationships, and trouble participating in physical activities to be significant predictors of exacerbated self-perception due to RA.

METHOD: Data was collected from 3856 respondents to a national survey of those with rheumatoid arthritis in the United States (M_{age} = 60.15 years, 94.3% female, 91.1% Caucasian). Predictors of exacerbated self-perception were analyzed via hierarchical linear regression with SPSS version 28.

RESULTS: Although significant when entered in a model alone (β=.811, $p<$ .001), RA severity was no longer significant when entered in the full model (β=.044, p=.354). The full model showed limited functionality due to RA (β=.114, $p<$ .001), decreased ability to work (β=.115, $p<$ .001), often needing to change or cancel plans (β=.197, $p<$ .001), difficulty having intimate or sexual relationships (β=.165, $p<$ .001) and trouble participating in physical activities (β=.157, p=< .001) as significant predictors over and above RA unpredictability (β=.127, $p<$ .001), (R^2=.390, $F_{7,3848}$=352.994, $p<$ .001).

DISCUSSION: In line with our hypotheses, all factors significantly predicted exacerbated self-perception, with the exception of RA severity when entered in the full model. This is intriguing as our results point toward decreased quality of life and functionality as stronger drivers of exacerbated self-perception, beyond RA severity alone. Future studies are encouraged to build on these results by examining mediational models to further elucidate the multi-factorial dynamic of RA and negative self-perception.

CORRESPONDING AUTHOR: Valeria Bailey, AA, University of Colorado Denver, Denver, CO; valeria.bailey@ucdenver.edu

---

Abstract citation ID: kaad011.0410

POSTER SESSION B: IDENTIFYING PAIN AND PSYCHOSOCIAL DIFFERENCES AMONG HISPANIC AND NON-HISPANIC WHITE YOUTH WITH CHRONIC PAIN

Joaquin E. Moreno, BA, BSA[1], Samantha Bento, PhD[2], Ayeong (Jenny) Kim, BA[1], Sarah Nelson, PhD[3]

[1]Boston Children's Hospital, Boston, MA; [2]Boston Children's Hospital, Palo Alto, CA; [3]Boston Children's Hospital/Harvard Medical School, Boston, MA

Chronic pain is prevalent among millions of Americans and can negatively impact cognitive processes, mental health, and overall quality of life. Hispanics are among the fastest-growing populations in the United States, yet chronic pain in youth remains severely understudied. This study aims to compare pain, related psychosocial factors (pain intensity, pain catastrophizing, anxiety, and depression), and Fear of Pain Questionnaire scores (FOP) in Hispanic vs. Non-Hispanic White (NHW) youth with chronic pain. Based on prior studies from adult literature, it was hypothesized that Hispanic youth would report a higher average in pain intensity, pain catastrophizing, anxiety, depression, and FOP scores when compared to the NHW cohort. The current study included eighty-four Hispanic (36%) and NHW (64%) youth, ages 12-18 years (M = 15.47, SD = 1.56). Data was obtained from the Boston Children's Hospital Chronic Pain Data Repository, and each cohort's age and sex were adjusted before analysis. Wilcoxon Rank Sum Tests (Mann Whitney) were performed to compare mean differences in pain intensity, pain catastrophizing, anxiety, depression, and FOP scores across both groups. Bivariate correlations were also performed to identify trends that would guide future research. Our results showed no statistically significant differences in mean scores between each group, though it is possible that the small sample size used may have obscured group differences. Correlation comparisons of the full sample showed significant associations. Notably, pain catastrophizing was significantly and positively correlated with anxiety (r = .707, p< .001), depression (r = .539, p < .001) and patient FOP score (r = .825, p < .001). FOP was also significantly positively associated with anxiety (r = .662, p < .001) and depression (r = .612, p < .001). Pain intensity did not show any significant differences in correlation with any variable (p > .05). The present study is novel in that we explored how pain and psychosocial factors may differ in a chronic pain cohort of Hispanic vs. NHW youth. Our correlation analysis results highlight how adolescence may be a critical period for intervention in Hispanic populations to prevent or delay risks associated with CP in future adult populations. Future research should aim to increase diversity among pediatric chronic pain studies to further reduce health disparities among underrepresented ethnic and racial minority populations.

CORRESPONDING AUTHOR: Joaquin E. Moreno, BA, BSA, Boston Children's Hospital, Boston, MA; Joaquin.Moreno@childrens.harvard.edu

Abstract citation ID: kaad011.0411

POSTER SESSION B: PERCEIVED BARRIERS TO PHYSICAL ACTIVITY MATTER: THE MEDIATING ROLE OF SELF-EFFICACY

Anqi Deng, PhD[1], Nicole Zarrett, PhD[2]

[1]University of South Carolina, West Columbia, SC; [2]University of South Carolina, Columbia, SC

Despite the well-recognized benefits of physical activity (PA), 25% of U.S. adults do not accrue enough daily PA to protect their health and the prevalence of adult physical inactivity continues to grow (CDC, 2022). Driven by numerous barriers, adult daily moderate-to vigorous (MV)PA is particularly low in under-resourced communities (CDC, 2020). These barriers include lack of motivation, poor access to facilities, neighborhood/community safety concerns (Mendoza-Vasconez et al., 2016), work responsibility challenges such as multiple jobs, long working hours, lack of time (Bantham et al., 2022), financial constraints (Smith et al., 2017) and cultural considerations (Edgerly et al., 2009). Previous research on adult's self-efficacy for PA suggests that having a high PA self-efficacy may serve as a powerful protective factor that can overcome contextual barriers to PA, however, to our knowledge, little to no previous studies have examined the potential mediating role of self-efficacy in adults within underresourced communities The current study set out to examine the relations between barriers, self-efficacy and daily moderate-to-vigorous PA (MVPA) among adults within underserved communities using 7-day accelerometry wear. To address gaps in previous research, the aims of the proposed study are threefold and include an examination of 1) the amount and types of barriers experienced within under-resourced communities, 2) how barriers, self-efficacy, and PA may differ within underresoured communities by race, and 3) whether self-efficacy mediates the negative impact of barriers on adult MVPA. Baseline data were collected in under-resourced communities as part of a larger NIH funded trial to promote MVPA of adult program staff and enrolled youth in 14 afterschool programs (n = 53; 49% female; 32% Black, African American, or multi-racial). Linear regression analyses indicated that adults that identified as a racial minority reported both higher self-efficacy scores (β = 2.47; p < .001) and greater perceived barriers scores (β = 2.46; p < .001), however, there were no differences in daily MVPA by race (β = -5.98, p =.60). Mediation analyses showed that perceived barriers were positively related with self-efficacy (coefficient = .32, p < . 001) and negatively related to daily MVPA. Likewise, self-efficacy (the mediator variable) was significantly and positively related with daily MVPA (coefficient = 11.42, p = .02). However, the indirect effect was not significant (indirect effect = -3.63; 95% CI, -.36 to 6.89), indicating self-efficacy was not a significant mediator in this model. Findings suggest that although self-efficacy positively predicts daily MVPA, it did not significantly attenuate the negative impact of barriers on daily MVPA among adults within underserved communities. Implications for policy and practice will be discussed.

CORRESPONDING AUTHOR: Anqi Deng, PhD, University of South Carolina, West Columbia, SC; anqid@email.sc.edu

---

Abstract citation ID: kaad011.0412

POSTER SESSION B: PREDICTING PHYSICAL ACTIVITY BEHAVIOR AMONG COLLEGE STUDENTS USING THE MULTI-PROCESS ACTION CONTROL MODEL

Carah D. Porter, BSc[1], Denver M. Brown, PhD[1]

[1]The University of Texas at San Antonio, San Antonio, TX

Previous research has demonstrated that physical activity engagement declines during the transitional period from high school to college. With physical activity being tied to many health outcomes as well as adjustment to college life, it is imperative to understand theory-based correlates for the purpose of informing interventions. Theoretical advances have underscored the importance of extending beyond traditional social cognitive variables to also examine post-intentional processes. For example, the Multi-Process Action Control model (M-PAC) includes the addition of regulatory and reflexive processes, which help to explain why many fail to close the intention-action gap. The purpose of this study was to utilize the M-PAC framework to examine the independent and additive ability of reflective, reflexive, and regulatory processes for predicting moderate-to-vigorous physical activity (MVPA) among a sample of college students at a Hispanic-Serving Institution. A total of 647 participants (Mean age = 19.54 ± 1.86 years; 61.5% female, 36.2% male, 1.1% other) completed an online survey that included the International Physical Activity Questionnaire as well as physical activity-related measures of instrumental and affective attitudes, perceived capability and opportunity, behavioral regulation, habit and identity. Hierarchical linear regression models were computed to examine how the M-PAC framework predicted MVPA. Findings showed that reflective, regulatory, and reflexive processes accounted for 7.3%, 3.6%, and 5.5% of the variance in MVPA, respectively. The final model revealed that only the reflexive processes – identity (B = 39.75 ± 11.75 SE, p > .001) and habit (B = 40.85 ± 9.17 SE, p > .001) – were significant predictors of MVPA. Collectively, these findings further support the importance of considering post-intentional processes for explaining physical activity behavior. Evidence indicates campus-based interventions should include behavior change techniques that target physical activity habit and identity formation to assist students in maintaining physical activity levels during this turbulent life stage.

CORRESPONDING AUTHOR: Carah D. Porter, BSc, The University of Texas at San Antonio, San Antonio, TX; carah.porter@my.utsa.edu

Abstract citation ID: kaad011.0413

POSTER SESSION B: A MODELING APPROACH TO CHARACTERIZE AND QUANTIFY RESILIENCE FROM PHYSICAL ACTIVITY DATA: IMPLEMENTATION AND APPLICATION.

Dario Baretta, PhD[1], Sarah Koch, PhD[2], Ines Cobo[2], Gemma Castano, PhD[2], Rafael de Cid, PhD[3], Anna Carreras[3], Joren Buekers, PhD[2], Judith Garcia-Aymerich, PhD[2], Jennifer Inauen, PhD[1], Guillaume Chevance, PhD[2]

[1]Institute of Psychology - University of Bern, Bern, Bern, Switzerland; [2]Barcelona Institute for Global Health, Barcelona, Catalonia, Spain; [3]Institut de Recerca Germans Trias i Pujol IGTP, Badalona, Catalonia, Spain

Rationale: Consistent physical activity (PA) is key for health and well-being; however, various events (e.g., pandemic outbreaks, acute diseases) can act as stressors for PA, and thus may be followed by a decrease in PA levels. The process of recovering from such stressors and bouncing back to the previous state of PA can be referred to as resilience. Quantifying resilience is fundamental to assess the impact of stressors on daily PA and to identify factors and strategies to foster adaptive capacities. However, PA time series are typically characterized by evident daily fluctuations that mask the underlying trajectory and, therefore, prevent from detecting the point in time when the system consistently recovers from the stressor.

Objective: In this paper, we present a methodological approach to identify the recovery point and ultimately quantify the resilience process from PA data using the area under the curve (AUC).

Methods: As use case to illustrate the methodology, we quantified resilience in step count for eight participants following the stressor represented by the start of the first COVID-19 lockdown (March 15, 2020). Step count time series were collected in [Location masked for review], as part of the [Study name and reference masked for review], in the period between October 1, 2019 and September 30, 2020. Steps were collected daily using wrist-worn devices. The methodology is implemented in R and a tutorial is available on Open Science Framework.

Results: We applied the following analytical steps to each participant's time series. 1) We calculated the pre-stressor baseline level for step count as the median step count before the first COVID-19 lockdown. 2) We fitted multiple growth models (i.e., linear, quadratic, generalized additive) to each participant's post-stressor time series and identified the best model using the Bayesian information criterion (BIC). 3) We used the fitted values from the selected model to identify the point in time when the participants recovered from the stressor (bouncing back to the baseline level). 4) We quantified the AUC and, ultimately, resilience as the cumulative difference between baseline level and each fitted value before the recovery point. Further resilience features were extracted to capture the different aspects of the process and will be presented.

Conclusions: This paper offers a methodological guide to quantify resilience from PA data and proposes a ready-to-go toolbox that can be easily applied by interested researchers and foster further scientific investigation in different ways. For instance, it allows to *i*) explore the determinants of the resilience process for PA, *ii*) identify intervention strategies that improve individuals' adaptive capacities and promote faster resilience, and *iii*) use the provided indicators of resilience as outcomes to test the effectiveness of interventions aiming at reducing the impact of stressors on PA.

CORRESPONDING AUTHOR: Dario Baretta, PhD, Institute of Psychology - University of Bern, Bern, Bern, Switzerland; dario.baretta@unibe.ch

---

Abstract citation ID: kaad011.0414

POSTER SESSION B: PHYSICAL THERAPISTS' BARRIERS AND FACILITATORS TO PROMOTING PHYSICAL ACTIVITY AMONG PATIENTS WITH NEUROLOGICAL DISORDERS

Winston Kennedy, PT, DPT, MPH, PhD[1], April B. Bowling, MA, ScD[1]

[1]Merrimack College, North Andover, MA

Background: In 2011, it was estimated that nearly 100 million Americans were affected by one or more neurological disorders (ND). Physical therapists (PTs) work with people with ND to promote function and participation in activities of daily living. PTs are positioned to provide physical activity (PA) promotion for their patients with ND, however it has been found that they do this inconsistently. To understand why PTs are promoting PA inconsistently for their patients with ND, we investigated PTs' barrier and facilitators to promoting PA for their patients with ND.

Methods: We conducted semi-structured interviews with PTs licensed in the US who work with patients with ND. Participating PTs were purposively recruited from a national survey sample to reflect diverse demographics and professional settings. Development of the semi-structured interview guide was informed by the Theoretical Domains Framework (TDF) to allow for PTs to describe barriers and facilitators related to domains that are associated with implementation behaviors of evidence-based clinical interventions such as PA promotion. A combination of evidenced-based qualitative strategies, also called a pragmatic approach, was utilized to meet the needs of this study. Qualitative analysis was both deductive using a TDF-based codebook, and inductive using modified grounded theory to capture themes arising outside of the TDF theoretical framework.

Results: A total of 10 participants completed interviews. The majority of the sample worked in the outpatient clinical setting and was evenly split between working with adults and children. Facilitators were constructed to have 3 categories; personal, professional, and patient related. Barriers had 2 categories; professional and patient related. Examples of facilitators that were constructed from responses included a personal sense of responsibility to learn about PA promotion (personal), having PT-specific education on PA and people with disabilities (professional), and patients being highly motivated (patient related). Examples of barriers constructed from responses included lack of specific knowledge on PA guidelines (professional), lack of consistency and organizational support and/or guidelines for PA promotion within the profession (professional), and perceived patient safety (patient related).

Conclusion: Investigation into PA promotion behaviors of PTs led to identification of barriers and facilitators that may deter or promote PTs engaging in PA promotion with their patients with ND. PTs would benefit from increased educational opportunities regarding PA promotion, people with disabilities and the US Department of Health's PA guidelines. Future research should investigate ways to incorporate new content based on evidenced based practice in an efficient manner in both PT training curricula and post professional continuing education curricula.

CORRESPONDING AUTHOR: Winston Kennedy, PT, DPT, MPH, PhD, Merrimack College, North Andover, MA; kennedyw@merrimack.edu

Abstract citation ID: kaad011.0415

POSTER SESSION B: METASTATIC BREAST CANCER PATIENTS DON'T JUST FOLLOW STEP COUNT TRENDS: AN EXPLORATORY STUDY

Maxime Caru, PhD, PhD[1], Saeed Abdullah, PhD[2], Ling Qiu, MS[2], Bethany Kanski, MS[1], Brett Gordon, PhD[1], Cristina Truica, MD[1], Monali Vasakar, MD[1], Shawna Doerksen, PhD[1], Kathryn Schmitz, PhD, MPH[1]

[1]Penn State College of Medicine, Hershey, PA; [2]Pennsylvania State University, University Park, PA

Introduction: Metastatic breast cancer (MBC) patients are living longer at the cost of several side effects related to their treatment, affecting their physical and mental health. Physical activity can help women with MBC to improve their quality of life and wellbeing. Technology-based exercise interventions have shown promising outcomes; however, studies that document its benefits on health behaviors are lacking. Therefore, we aimed to explore the impact of virtual assistant technology on enhancing daily step counts in women with MBC.

Methods: A total of 38 MBC women participated in the 90-day Nurse AMIE for Amazon Echo Show study, an artificial intelligence-based supportive care intervention. Each day, Nurse AMIE would ask four symptom questions (sleep, pain, fatigue, and distress) and step counts from the prior day. Based on participants' answers, an algorithm provided an activity, such as soothing music, cognitive behavioral therapy lessons, mindfulness meditation, exercise videos, or audio messages to assist with symptom management.

Results: Participants were women with MBC, 53 years old on average, predominantly White or Caucasian, and not Hispanic or Latino. During the first week of the Nurse AMIE for Amazon Echo Show intervention, mean step counts were 4935.14 ± 2884.04, and during the last week of the intervention, mean step counts were 1044.54 higher for an average of 5979.68 ± 2651.79 step counts. Non-significant differences were observed between the first and last week of the intervention (p=0.211) and between the first day and last day (p=0.099), despite an improvement of 21.2% over time and significant differences between baseline and the other intervention days.

Conclusion: Women with MBC benefited from the Nurse AMIE for Amazon Echo Show intervention. Despite improvements over time, we cannot conclude that our intervention significantly enhances participants' daily step counts. The lack of reported data during the last days of the intervention limited our statistical power. Further, larger studies using virtual assistant technologies are required, and this study should be considered a first step in this direction.

CORRESPONDING AUTHOR: Maxime Caru, PhD, PhD, Penn State College of Medicine, Hershey, PA; mcaru@pennstatehealth.psu.edu

---

Abstract citation ID: kaad011.0416

POSTER SESSION B: EXAMINING THE EFFECT OF DAILY SOCIAL MEDIA USE ON PHYSICAL ACTIVITY BEHAVIOURS: A DAILY DIARY STUDY

Kayla Nuss, PhD[1], Sam Liu, PhD[2], Rebecca Coulter, BHkin[2]

[1]Klein Buendel, Denver, CO; [2]University of Victoria, Victoria, BC, Canada

Background: Previous studies have assessed the effects of health-related social media use on physical activity (PA); however, the evidence remains mixed. Currently, little is known about how daily social media use influences daily PA behaviour. Understanding the influence of social media use on PA behaviour may help design future interventions.

Objective: To examine whether the daily consumption of health-related social media content is associated with daily PA behaviours.

Methods: We recruited adults (≥ 18 years old) who were current smartphone and wearable device users for a 14-day daily dairy study. Participants' social media use behaviors, PA and demographic characteristics were collected at baseline. Afterward, participants completed a two week daily dairy protocol, which consisted of three daily mini surveys (pre-exercise, post-exercising, evening survey) delivered using a mobile app. The daily surveys evaluated PA levels and social media use. Descriptive and chi-square analyses were used to analyze whether the daily social media use influenced PA intensity and duration.

Results: 119 participants completed at least one day of daily surveys and were included in this analysis. 55% (n= 66) of participants were female, and the majority of participants were between 25 to 40 years of age (58%; n=69). Overall, 88% of participants reported viewing social media content related to PA, with celebrities or influencers (51%) and athletes or sport performers (60%) as the most commonly reported sources. There was no association between PA duration and viewing of health-related social media for both low intensity ($p = .97$), and moderate-to-vigorous PA ($p = .27$). However, a greater proportion of participants reported exercising at a higher intensity on days they viewed social media ($p < .05$). Specifically, 56% of the participants reported exercising at moderate-to- vigorous intensity when viewing social media compared to 44% on days not viewing.

Conclusions: Results from this study provide further evidence that viewing health-related social media content can influence daily PA behaviour, specifically exercise intensity. Future studies should focus on within-person variations in behaviour based on social media use.

CORRESPONDING AUTHOR: Rebecca Coulter, BHkin, University of Victoria, Victoria, BC, Canada; rebeccacoulter@uvic.ca

Abstract citation ID: kaad011.0417

POSTER SESSION B: PREDICTORS OF THE DISCREPANCY BETWEEN PERCEIVED SLEEP QUALITY AND COMPREHENSIVE SLEEP QUALITY IN COLLEGE STUDENTS.

Matthew P. Lico, BA[1], Mark Manning, PhD[2], Andrea T. Kozak, PhD, FSBM[2]

[1]Oakland University, Macomb, MI; [2]Oakland University, Rochester, MI

Much is known about the poor sleep quality of college students; however, a severe lack of literature exists on perceived sleep quality despite the potential consequences of one's inaccurate appraisal of sleep quality. Large discrepancies between comprehensive and perceived sleep quality are associated with worse health outcomes (i.e. increased stress levels, insomnia, and more daytime sleepiness), indicating a need to better understand predictors of these discrepancies. It is hypothesized that discrepancies between comprehensive and perceived sleep quality will be jointly influenced by perceived stress and stress management self-efficacy (i.e., a three-way interaction). A sample of 112 college students (92 Female, M_{age} = 21.34) was collected through convenience sampling. Perceived sleep quality was assessed with a single item regarding their subjective previous night's sleep quality that was repeated over four consecutive days; comprehensive sleep quality was assessed with the Pittsburgh Sleep Quality Index; perceived stress was assessed with the Emerging Adult Stress Inventory; and self-efficacy was assessed by the Stress Management Self Efficacy Questionnaire. A dyad-discrepancy model was fit with nlme in R to model the discrepancy between comprehensive and perceived sleep quality. A significant three-way interaction between the discrepancy, perceived stress, and stress management self-efficacy provided support for the hypotheses. At low levels of SMSE, the discrepancy between comprehensive and perceived sleep quality is larger for low levels of stress and smaller for high levels of stress. At high levels of SMSE, the discrepancy between comprehensive and perceived sleep quality is smaller at low levels of stress, and larger at high levels of stress. Future research should examine stress management self-efficacy as a tool to address the discrepancy among young adults.

CORRESPONDING AUTHOR: Matthew P. Lico, BA, Oakland University, Macomb, MI; mplico@oakland.edu

---

Abstract citation ID: kaad011.0418

POSTER SESSION B: FEASIBILITY OF A SLEEP HYGIENE INTERVENTION WITH COMPANIONS: A PILOT RANDOMIZED CONTROLLED TRIAL

Ana Chkhaidze, BA[1], Irina Mindlis, MPH, MA[2], Tracey A. Revenson, PhD, FSBM[3]

[1]Hunter College, City University of New York, Brooklyn, NY; [2]The Graduate Center, City University of New York, New york, NY; [3]Hunter College & the Graduate Center, CIty Univ of NY, New York, NY

Introduction: Most college students report sleep problems, including poor sleep quality and insufficient sleep, which affects academic performance and health. While sleep hygiene interventions have shown moderate effects on sleep outcomes, their effectiveness may be greater when delivered in the presence of a friend, partner, or family member. Thus, we explored the feasibility and acceptability of delivering an intervention to students with poor sleep individually or in the presence of a companion as part of a pilot randomized controlled trial.

Methods: After completing validated questionnaires on sleeping habits, undergraduate students were randomly assigned to receive a sleep hygiene intervention (Sleep Treatment and Education Program for Students, STEPS; Brown et al., 2006) individually or with a companion of their choice. Sleep was measured pre-intervention and four weeks later. Participants completed daily sleep dairies and wore an electronic sleep tracking device (Fitbit) continuously for four weeks. For acceptability, participants rated satisfaction, helpfulness and clarity of recommendations, and ease of understanding. For feasibility, percentages of completed sleep diary data, missing data and retention rates were calculated.

Results: Participants were 51 undergraduate students: 85% female; M age: 19.4; 36% Hispanic/Latino, 28% Asian, 22% African American. Attrition was minimal (n = 2). Missing data was minimal for questionnaires (2%) and Fitbit (14%); 92% returned all completed diaries. Overall, 46% of participants reported that their sleep had improved because of the intervention. The majority found having a companion present was only slightly to moderately helpful. Most participants reported feeling very satisfied with the amount of information provided and the (short) length of the intervention. As many as 84% of participants understood the recommendations very well. However, 26% of participants found it difficult to adhere to recommendations over the following month and 12% disliked specific components, e.g., keeping sleep diaries. A common suggestion was that the intervention incorporate discussion of mental health and work schedules.

Discussion: We found good evidence of feasibility and acceptability for a pilot RCT of a sleep hygiene intervention for young adults with or without a companion. Providing ongoing assistance with implementing recommendations and greater involvement of companions may maximize adherence and effectiveness.

CORRESPONDING AUTHOR: Ana Chkhaidze, BA, Hunter College, City University of New York, Brooklyn, NY; anachkhaidze1@outlook.com

Abstract citation ID: kaad011.0419

MERITORIOUS AWARD WINNER

POSTER SESSION B: TESTING THE EFFECTS OF MULTIDIMENSIONAL SLEEP HEALTH AND SLEEP FRAGMENTATION ON DIETARY QUALITY AFTER INVOLUNTARY JOB LOSS

Lauryn White[1], Patricia L. Haynes, PhD, CBSM, DBSM[2]

[1]Health Promotion Sciences/ University of Arizona, Chandler, AZ; [2]Health Promotion Sciences / University of Arizona, Tucson, AZ

Introduction: Research suggests that sleep contributes to obesity through many mechanisms, including dietary patterns. Little is known about sleep and diet in minority populations experiencing stressful life events, such as involuntary job loss. We hypothesized that individuals identifying as an ethnic or racial minority with worse multidimensional sleep health (MSH) and more fragmented sleep would demonstrate worse dietary patterns over an 18-month period when compared to individuals identifying as white or not Hispanic.

Methods: Data were derived from ADAPT, an 18-month cohort study with 188 participants who suffered recent involuntary job loss. After an initial baseline assessment, participants completed 5 additional visits that included multimodel sleep assessment (actigraphy, daily sleep diaries, interview) and 24-hour dietary recall interviews. The dependent variable was the Healthy Eating Index (HEI)-2015, a measure of diet quality that assesses conformity to Dietary Guidelines for Americans. Mixed linear modeling tested interactions between minority status and sleep indices over time.

Results: Significant within and between subject differences were observed in the HEI, but the HEI did not change significantly over time when controlling for body mass index, sex, education, and reemployment. Days with more wake time after sleep onset (WASO, Estimate = .14, SE = .07, p < .05) and more wake bouts (Estimate = .38, SE = .13, p < .01) were each associated with higher HEI scores (healthier diet), potentially driven by a lower consumption of saturated fat over time. In addition, individuals identifying as a racial or ethnic minority who had more wake bouts at baseline had higher levels of HEI over the next 18 months, as compared to individuals identifying as white. HEI differences were not explained by MSH or identification as minority status (Estimate = -.35, SE = .14, p < .05).

Conclusion: In a population of individuals who recently experienced involuntary job loss, sleep fragmentation was associated with diet quality but MSH was not. The association between sleep fragmentation was in an opposite direction than hypothesized. Participants experiencing fragmented sleep, a marker of stress, may be reducing intake of foods high in saturated fats, because these foods often cost more. Future research may benefit from testing the daily relationships between sleep fragmentation, the cost of foods, and dietary choices when under financial stress.

Funding: This work is supported by the US National Institute of Health, National Heart, Lung, and Blood Institute (NHLBI,1R01HL117995-01A1).

CORRESPONDING AUTHOR: Lauryn White, Health Promotion Sciences/ University of Arizona, Chandler, AZ; laurynwhite@arizona.edu

---

Abstract citation ID: kaad011.0420

POSTER SESSION B: EXPLORATION OF POSTPARTUM CO-SLEEPING PRACTICES AMONG LOW-INCOME, MEXICAN AMERICAN MOTHER-INFANT DYADS

Kenya Torres-Aguirre, BS[1], Michelle Valdez[1], Sarah G. Curci, MA[1], Linda J. Luecken, PhD[1]

[1]Arizona State University, Tempe, AZ

Although more than 70% of the world population co-sleeps (Barry, 2019), the American Academy of Pediatrics recommends against bed-sharing with infants before 12 months of age due to risk of sleep-related infant death. In the U.S., Black, Hispanic/Latina, and multiracial mothers are more likely to co-sleep (Meighan et al., 2022). Socioeconomic characteristics, cultural norms and values, interaction with the U.S. healthcare system, and parental self-efficacy are several factors hypothesized to affect co-sleeping practices (Barry, 2019; Kim et al., 2017; Weimer et al., 2002). While co-sleeping is sometimes associated with adverse mental health among mother-child dyads (Covington et al., 2017), other studies find that co-sleeping benefits maternal and child mental health (McKenna & McDade, 2005; McKenna et al., 2007). Limited empirical work has explored co-sleeping among Mexican-origin families in the U.S. Among Mexican American women, the current study aimed to evaluate (1) rates of co-sleeping across the first postpartum year, (2) prenatal sociodemographic predictors of postpartum co-sleeping, and (3) whether co-sleeping is associated with mean differences in levels of maternal depressive symptoms, maternal self-efficacy, and infant behavior problems.

Low-income, Mexican American women (N = 322) reported prenatally on level of acculturation, perceived economic hardship, number of prenatal medical visits, and maternal role expectations; whether they practiced co-sleeping (defined as bed-sharing; 1 = yes, 0 = no) in the first postpartum year; and depressive symptoms, infant behavior problems, and parenting self-efficacy at 12 months postpartum. Descriptive rates of co-sleeping (Aim 1) and t-tests (Aim 3) were evaluated in SPSS; logistic regression (Aim 2) was evaluated in Mplus v.8. The majority of women (68.3%) endorsed co-sleeping at least once in the first 12 months postpartum. Higher economic hardship emerged as a significant predictor of co-sleeping (Est = .118, *p* = .007), and was negatively correlated with acculturation (Est = -.460, *p* = .006). Co-sleeping was associated with higher levels of 12-month maternal depressive symptoms, *t*(263) = -2.5, *p* = .013; co-sleeping predicted depressive symptoms even after controlling for economic hardship. Among the current sample, rates of co-sleeping in the first postpartum year were high. Economic hardship may play an important role in co-sleeping practices among this population, with implications for maternal depressive symptoms.

CORRESPONDING AUTHOR: Kenya Torres-Aguirre, BS, Arizona State University, Tempe, AZ; khtorres@asu.edu

Abstract citation ID: kaad011.0421

POSTER SESSION B: PSYCHOLOGICAL WELL-BEING, EXECUTIVE FUNCTION, AND SLEEP HEALTH AMONG PRE-MENARCHAL GIRLS

Sofia Khatoon[1], Hannah A. Hagy, MA[2], Elizabeth Rea, MA[2], Amy M. Bohnert, PhD[3], Stephanie J. Crowley, PhD[4], Kevin Hellman, PhD[5], Frank F. Tu, MD[6]

[1]Loyola University Chicago, South Barrington, IL; [2]Loyola University Chicago, Chicago, IL; [3]Loyola University Chicago, Evansotn, IL; [4]Rush University Medical Center, Chicago, IL; [5]NorthShore / Pritzker School Of Medicine, University of Chicago, Chicago, IL; [6]NorthShore University HealthSystem, Evanston, IL

Menarche, the onset of menstruation, is marked by numerous psychological, physiological, and cognitive shifts, including affect regulation (AR), sleep (timing and quality), and executive functioning (EF). Poor sleep impacts EF, but less is known about how affect and EF might interact to impact sleep. The current study examines the relation between affect and key sleep parameters, and whether EF buffers this association in a sample of pre-menarchal girls.

A community sample of pre-menarchal girls (*n*= 119; *M* age =11.7) and their caregivers were recruited from a Midwestern metropolitan area as part of a more extensive study on menstruation. Caregivers reported on child demographics, EF (BRIEF: inhibitory control (IC), emotion control (EC), working memory (WM), and task switching (TS) subscales) and sleep disturbance (PROMIS Sleep Disturbance Short Form). Youth reported on stress, positive affect, anxiety, depressive symptoms, and anger using the PROMIS short forms. Wrist-worn actigraphs and self-report daily diaries captured dimensions of girls' sleep over 7 days including: average wake time (WT), bedtime (BT), duration, WT and BT variability (WTv & BTv), and efficiency. Hierarchical linear regressions investigated the relation between psychological factors and sleep parameters and whether domains of executive function (emotion control, inhibitory control, task switching, and working memory) moderated the associations.

The average sleep duration was 9.1 hours (*SD* = 45.5 minutes) with an average bedtime of 10:27 pm and wake time of 7:34 am. After adjusting for age, hierarchical linear regressions demonstrated that girls reporting: 1) more anxiety had greater BTv (β=.272 p = .01) and sleep disturbance (β=.22 p=.018), 2) less stress had more sleep duration (β =-.214 p=.018), 3) more depressive symptoms had greater BTv (β=.248 p=006) and WTv (β=.201 p = .029), and 4) more anger had greater BTv (β=.187 p =.037). A significant interaction between depressive symptoms and TS as it relates to sleep disturbance emerged (β= .213 p=.021) as well indicating that those with worse TS abilities tend to have more sleep disturbance when depressive symptoms are high.

Results indicate that these girls attain sufficient sleep to meet the American Sleep Medicine guidelines for young adolescents. Several mental health factors (anxiety, depressive symptoms, and anger) are associated with compromised sleep health, particularly increased sleep disturbance, less efficient sleep, and more variability in sleep timing. The findings add to the growing literature that document a link between affect/mental health and sleep quality.

CORRESPONDING AUTHOR: Sofia Khatoon, Loyola University Chicago, South Barrington, IL; sofia.k.khatoon@gmail.com

---

Abstract citation ID: kaad011.0422

POSTER SESSION B: SLEEP DURATION VARIABILITY MODERATES THE EFFECT OF CORTISOL REACTIVITY ON NEGATIVE AFFECT IN ADOLESCENTS

Brooke M. Friedman[1], Linhao Zhang, BA, MSEd[2], Assaf Oshri, PhD[2]

[1]University of Notre Dame, Valencia, CA; [2]University of Georgia, Athens, GA

How adolescents react to acute stressors significantly predicts their emotional health. Stress reactivity can be measured through cortisol, a hormone secreted when the hypothalamic-pituitary-adrenal axis (HPA) is stimulated. While excess stress reactivity is associated with socioemotional problems, evidence indicates healthy sleep may moderate this relationship. However, little is known about the effect of sleep patterns on cortisol and negative affect in adolescents from rural areas, who may face more constant stressors and have a greater need for healthy sleep. Given existing literature on the neuropsychological benefits of healthy sleep on development, understanding how sleep influences cortisol reactivity and socioemotional health is key to informing sleep guidelines during adolescence, a critical period of development. Therefore, this study seeks to (1) investigate if cortisol reactivity levels predict negative affect and (2) determine longitudinal associations regarding how sleep duration buffers this risk link. Data were collected over 18 months from 126 adolescents in rural Georgia (mean age = 12.9). Actigraphy watches were used to assess sleep duration variability (i.e., irregularity in daily hours slept per week). Cortisol reactivity levels were obtained 20 minutes after the Trier Social Stress Test from saliva samples, and the Positive and Negative Affect Schedule (PANAS) was used to assess negative affect at T1 and T2 (α = .88). A structural equation modeling framework was used to test all hypotheses. Preliminary analyses showed no direct effect of cortisol reactivity on negative affect (β = -.012, p >.05); however, a significant interaction effect between cortisol reactivity and sleep duration variability on negative affect was observed (β = -.931, p < .05). Johnson-Neyman and simple slopes showed high sleep variability intensifies negative affect in adolescents with low cortisol reactivity, but reduces negative affect for adolescents with high cortisol reactivity. Consistent with our hypothesis, sleep patterns are shown to be influential in the relationship between stress and subsequent emotional health. This preliminary research informs sleep guidelines to promote healthy sleep for adolescents and warrants future studies to be tested in other populations.

CORRESPONDING AUTHOR: Brooke M. Friedman, University of Notre Dame, Valencia, CA; bfriedm2@nd.edu

Abstract citation ID: kaad011.0423

POSTER SESSION B: ANXIETY MODERATES THE ASSOCIATION BETWEEN SEVERITY OF FOOD INSECURITY AND SLEEP DURATION AMONG YOUNG ADULTS

Jesujoba Olanrewaju, MS[1], Leah A. Irish, PhD[2], Vivienne Hazzard, PhD Nutritional Sciences[3], Dianne Neumark-Sztainer, PhD, RD[4]

[1]Department of Psychology, North Dakota State University, Fargo, ND; [2]North Dakota State University, Fargo, ND; [3]Division of Epidemiology & Community Health, University of Minnesota, Minneapolis, MN; [4]University of Minnesota, Minneapolis, MN

Food insecurity (FI) is a common and severe stressor that has been linked with negative emotional and physiological outcomes, including anxiety and suboptimal sleep, though the evidence is not entirely consistent. High anxiety is known to exacerbate sleep problems, which, in turn, may lead to poor chronic health outcomes. However, to our knowledge, no studies have examined whether the link between FI and sleep varies by anxiety levels. The purpose of this study was to examine the role of anxiety as a moderator of the relationship between FI severity and sleep duration among young adults in food-insecure households. Ninety-six racially and ethnically diverse young adults who experienced past-month household FI (a subsample of the population-based EAT 2010-2018 cohort study) completed the 18-item U.S. Household Food Security Survey Module and the Generalized Anxiety Disorder-7. Participants also reported typical sleep and wake times. We hypothesized that more severe FI and higher anxiety would independently predict shorter sleep duration. In addition, we hypothesized that the interaction of FI severity and anxiety would predict sleep duration, such that individuals with both high FI and high anxiety would experience the shortest sleep duration. Regression results indicated that after controlling for age, gender, race/ethnicity, and parental status, anxiety was significantly associated with shorter sleep duration (B=-0.12, $p < .001$), but FI severity was not significantly associated with sleep duration (B=-0.04, $p=.46$). The interaction between FI severity and anxiety did significantly predict sleep duration ($p=.008$), revealing that individuals with both high FI and high anxiety had the shortest sleep duration, providing partial support for our hypotheses. Overall, these results highlight the importance of considering anxiety when evaluating the link between FI and sleep. Future research efforts could further examine the potential complexity in the link between FI and sleep, such that sleep may serve as either a coping strategy or a consequence for those with FI depending on their levels of anxiety.

CORRESPONDING AUTHOR: Jesujoba Olanrewaju, MS, Department of Psychology, North Dakota State University, Fargo, ND; jesujoba.olanrewaju@ndus.edu

Abstract citation ID: kaad011.0424

POSTER SESSION B: ANGER EXPRESSION, PERCEIVED STRESS, AND VITAL EXHAUSTION IN MYALGIC ENCEPHALOMYELITIS/CHRONIC FATIGUE SYNDROME (ME/CFS)

Mason J. Krueger, BA[1], Mollie S. Pester, MS[2], Emma Romaker, BA[3], Alex Gonzalez, BA[4], Nancy Klimas, MD[5], Barry E. Hurwitz, PhD[6]

[1]University of Miami: Behavioral Medicine Research Center and Department of Psychology, Miami, FL; [2]University of Miami, Coral Gables, FL; [3]University of Miami, Miami, FL; [4]Behavioral Medicine Research Center and Department of Psychology, Miami, FL; [5]Institute for Neuro-Immune Medicine, Nova Southeastern University, Fort Lauderdale, FL; [6]Behavioral Medicine Research Center and Department of Psychology, University of Miami, Miami, FL

Background: Studies have shown that greater anger outward expression (anger-out) and suppression (anger-in), and less anger control, are associated with greater perceived stress. Although perceived stress has been linked with an exacerbation of fatigue and vital exhaustion (VE) in persons diagnosed with Myalgic Encephalomyelitis/Chronic Fatigue Syndrome (ME/CFS), the linkage of adaptive and maladaptive anger expression behaviors with this relationship remains unclear. Therefore, this study used quantitative modeling to examine whether differences in VE between ME/CFS patients and non-ME/CFS healthy counterparts are accounted for by the associations of anger expression indices with perceived stress.

Methods: The study enrolled 51 ME/CFS adults (18-54 years old; 24% male) and 138 healthy adults without ME/CFS (19-56 years old; 65% male). VE was measured by the Maastricht Questionnaire and perceived stress by the Perceived Stress Scale. Anger expression was assessed via the anger-in, anger-out, and anger control subscales of the State-Trait Anger Expression Inventory. Multigroup structural equation modeling was used to compare the ME/CFS and non-ME/CFS groups, controlling for age, sex, and education.

Results: The final model ($\chi^2=19.5$, $p=.73$) had excellent fit (CFI=1.00, RMSEA< .001). In the ME/CFS group, mediation analyses revealed indirect paths from more anger-out ($\beta=.29$, $p< .05$), anger-in ($\beta=.53$, $p< .001$), and anger control ($\beta=.26$, $p< .07$) to higher perceived stress, and from higher perceived stress to greater VE ($\beta=.60$, $p< .001$). By contrast, in the control group, a significant indirect path emerged from more anger-in to higher perceived stress ($\beta=.26$, $p< .01$), and from higher perceived stress to greater VE ($\beta=.27$, $p< .001$). Multigroup nested comparisons of the overall structural model indicated significant differences between the two groups ($\chi^2=30.9$, $p< .001$), indicating a moderation effect by group, such that comparisons of each structural path indicated stronger effects from anger-in to perceived stress ($\chi^2=4.96$, $p< .03$), anger-control to perceived stress ($\chi^2=5.2$, $p< .03$), and perceived stress to VE ($\chi^2=5.1$, $p< .02$) in the ME/CFS group, compared to the control group.

Conclusions: In sum, although it is clear that ME/CFS arises from multiple underlying biomechanisms, present findings indicate that anger expression may be one set of factors that influence the exacerbation of vital exhaustion via its influence on perceived stress in ME/CFS. Indeed, future clinical interventions in patients with ME/CFS should investigate the effect of improving modifiable behaviors, including anger expression, on perceived stress and fatigue. Given the likelihood of bidirectional relationships among anger expression, perceived stress, and VE, further research is also needed to clarify the interrelationships among these factors.

CORRESPONDING AUTHOR: Mason J. Krueger, BA, University of Miami: Behavioral Medicine Research Center and Department of Psychology, Miami, FL; masonkrueger@miami.edu

Abstract citation ID: kaad011.0425

POSTER SESSION B: PERCEIVED STRESS AND MINDFULNESS ARE ASSOCIATED WITH QUALITY OF LIFE IN YOUNG ADULTS WITH CONCUSSION HISTORY

Christine Callahan, MS, RYT-200[1], JD DeFreese, PhD[2], Kim Faurot, PA, MPH, PhD[3], Susan A. Gaylord, PhD[2], Adam Kiefer, PhD[2], Johna Register-Mihalik, PhD, LAT, ATC, FACSM, FNATA[2]

[1]The University of North Carolina at Chapel Hill, Raleigh, NC; [2]The University of North Carolina at Chapel Hill, Chapel Hill, NC; [3]The University of North Carolina at Chapel Hill, Durham, NC

Introduction: Relative to other age groups, perceived stress is heightened in young adults. Furthermore, in individuals with a concussion history, perceived stress commonly increases post-concussion psychological changes [i.e., quality of life (QOL)]. Research suggests increased mindfulness may decrease perceived stress and improve QOL. However, the associations among perceived stress, mindfulness, and QOL are unknown in young adults with a concussion history.

Methods: This cross-sectional, observational study in young adults with a concussion history aimed to examine associations among perceived stress, mindfulness, and concussion-related outcomes. Separate multivariable regression models determined associations among perceived stress, mindfulness, and QOL. All models adjusted for sex, number of previous concussions, and most recent concussion mechanism (sport vs. non-sport). Dependent variables were QOL t-scores (PROMIS®-29 v2.1) for participation in social roles/activities, anxiety, depression, fatigue, and sleep quality. Independent variables were perceived stress (Perceived Stress Scale 10, scale range = 0-40, higher = higher perceived stress) and mindfulness (Five Facet Mindfulness Questionnaire, scale range = 39-105, higher = higher mindfulness).

Results: Overall, $n = 80$ completed the study ($M_{age} = 21.39 \pm 2.59$ years, 77.50% female, 77.50% white). Subjects reported 2.50±1.50 previous concussions and 51.25% reported their most recent concussion as sport related. Higher perceived stress was associated with lower QOL and higher mindfulness was associated with higher QOL. Specifically, higher perceived stress was associated with lower social participation [beta coefficient (β) = -0.70, $p < 0.001$] and higher anxiety ($\beta = 0.97$, $p < 0.001$), depression ($\beta = 0.90$, $p < 0.001$), and fatigue ($\beta = 0.66$, $p < 0.001$). Higher mindfulness was associated with higher social participation ($\beta = 0.21$, $p < 0.001$) as well as lower anxiety ($\beta = -0.29$, $p < 0.001$), depression ($\beta = -0.25$, $p < 0.001$), and fatigue ($\beta = -0.16$, $p = 0.001$). There were no significant associations between perceived stress, mindfulness, and sleep quality.

Conclusions: Higher perceived stress was associated with lower QOL and higher mindfulness was associated with higher QOL in young adults with a concussion history. Continued research is needed to understand the impact of perceived stress and mindfulness across the concussion recovery continuum. Findings may inform future post-concussion mindfulness-based interventions aimed to mitigate post-concussion deficits.

CORRESPONDING AUTHOR: Christine Callahan, MS, RYT-200, The University of North Carolina at Chapel Hill, Raleigh, NC; chriscal@live.unc.edu

---

Abstract citation ID: kaad011.0426

POSTER SESSION B: SIT AND STEW AND DRINK SOME TOO: COLLEGE STUDENTS' DAY-TO-DAY MALADAPTIVE PHYSICAL ACTIVITY AND DRINKING RESPONSES TO STRESS

Jimikaye B. Courtney, PhD[1], Ashley B. West, PhD[2], Michael A. Russell, PhD[3], David Almeida, PhD[4], David E. Conroy, PhD, FSBM[3]

[1]University of North Carolina at Chapel Hill, Chapel Hill, NC; [2]Lirio, LLC, Knoxville, TN; [3]The Pennsylvania State University, University Park, PA; [4]Pennsylvania State University, University Park, PA

Physical activity (PA) and alcohol use are positively associated with one another. Research shows people engage in greater PA on days they engage in greater alcohol use. This association could reflect that both PA and alcohol use may be influenced by stress. Individuals' stress exposures and responses, PA, and alcohol use vary from day-to-day. It is possible that a person's stress experiences yesterday may predict their PA or alcohol use today which could inform interventions. Therefore, this study used intensive longitudinal data to examine whether stress yesterday predicts a person's PA or alcohol use today.

Participants were 18–25-year-old college students who engaged in binge drinking at least twice monthly and used cannabis or tobacco in the past year. They wore an activPAL4 activity monitor and a Secure Continuous Remote Alcohol Monitor (transdermal alcohol sensor) for 11 days to assess daily PA (step counts) and alcohol use (drinking days), respectively. They completed daily morning surveys about yesterday's stress via the Daily Inventory of Stress Experiences (e.g., number of stressors, total stressfulness, emotions due to stress). Multilevel models with days nested in people examined the within-person effects of yesterday's stress predicting today's PA or alcohol use, with separate models for each stress variable. All models controlled for between-person effects, sex, day of the week, and yesterday's PA and alcohol use.

Participants (N=58, M_{age}=20.5, 59% women, 69% White) averaged 10,300±5,275 steps per day, consumed alcohol on 45% of days and experienced 3.9±2.2 stressors/day with a mean total stressfulness of 1.0±1.6 (0–9).

Yesterday's stress predicted today's alcohol use and PA. Controlling for yesterday's alcohol use and PA, when participants experienced a greater than usual mean stressfulness (OR=1.47) or number of emotions due to stressors (OR=1.58) yesterday they had higher odds of drinking today. Controlling for yesterday's PA and alcohol use, when participants experienced a greater than usual number of stressors (B=-531), total stressfulness (B=-469), number of emotions (B=-407), or anger (B=-482) due to stressors yesterday, they had lower step counts today.

This study provides evidence that a person's morning reports of their stress experiences yesterday predict lesser PA or greater odds of drinking today. College students may use maladaptive behaviors to cope with stress due to the inability to self-regulate. Morning self-reports of yesterday's stress could signal just-in-time interventions targeting self-regulation and promoting healthy stress management strategies, such as PA, which may help college students better manage their stress. Messages that discourage drinking and promote PA to manage stress should be investigated as a strategy to forestall the development of maladaptive drinking behaviors while simultaneously promoting healthy PA behavior.

CORRESPONDING AUTHOR: Jimikaye B. Courtney, PhD, University of North Carolina at Chapel Hill, Chapel Hill, NC; jimikaye@unc.edu

Abstract citation ID: kaad011.0427

POSTER SESSION B: DOES DISASTER EVACUATION AFFECT CHILD HEALTH?

Annette M. La Greca, PhD, ABPP[1], Evan T. Burdette[1]

[1]University of Miami, Coral Gables, FL

Climate-related disasters (e.g., hurricanes, wildfires, floods) are on the rise and often require families to evacuate. Research shows that evacuation is stressful for families and associated with psychological distress in parents and youth. Yet, little is known about the impact of evacuation on child health. After Hurricane Irma, which led to one of the largest mass evacuations in US history, we examined the association between youths' evacuation stress, hurricane experiences, and health problems (e.g., headaches, nausea, colds, etc.). We also examined whether evacuation experiences and hurricane exposure were directly associated with health problems or mediated by loss and disruption after the storm and by child distress (i.e., depression, anxiety, and PTSD symptoms). Three months after Irma, parents of youth 7 to 17 years (*N* = 227; *M*age = 9.76 years; 52% boys; 31% Hispanic) living in one of five FL counties directly affected by Irma reported on evacuation stressors, actual life threat, storm-related loss and disruption, and their child's health problems and distress. Structural equation modeling (SEM) evaluated whether (a) evacuation and hurricane stressors were directly associated with child health, and (b) loss and disruption after the event and children's distress were mediating pathways between evacuation stress and child health. SEM revealed a good fit (χ^2 = 25.29, p = .003, CFI = .97, SRMR = .04), finding direct effects of evacuation stressors, life-threatening hurricane experiences, and loss and disruption after the storm on children's distress (p's < .001), and a direct effect of children's distress on poor child health (p < .001). There also were indirect effects of evacuation stressors and life-threatening events, and loss and disruption, on child health via child distress (*p*'s < .001). Further, there were indirect effects of evacuation stressors and actual life threat on child health problems via *both* loss and disruption after the storm and child distress (*p*'s = .02). Overall, stressors occurring *even before a disaster* are associated with youths' somatic symptoms, controlling for the disaster's impact. Because extreme weather events are on the rise, preparing youth and families for *potential* disaster-exposure seems critical. Families can be encouraged to develop Family Disaster Plans (www.ready.gov/plan) to keep safe and reduce evacuation stress. Teaching stress management skills (e.g., relaxation, mindfulness) may also prevent or reduce child distress and health problems.

CORRESPONDING AUTHOR: Annette M. La Greca, PhD, ABPP, University of Miami, Coral Gables, FL; alagreca@miami.edu

---

Abstract citation ID: kaad011.0428

POSTER SESSION B: EXAMINING HOW MORNING COPING FORECASTS RELATE TO SUBSEQUENT ECOLOGICAL MOMENTARY ASSESSMENTS OF STRESS COPING

Armin Hojjaty, MS[1], Matthew J. Zawadzki, PhD[1]

[1]University of California, Merced, Merced, CA

How a person anticipates (or forecasts) stress is positively correlated to the actual stress they report experiencing later that day. Yet forecasts of coping ability and subsequent coping and stress experiences has not been examined. There is theoretical reason that coping forecasts that tend to be positive in valence may be different than stress forecasts that are negative. Understanding the factors that predict when a person copes with stressful moments is important for designing interventions for developing effective coping strategies and cognitive resource allocation. The purpose of the present study was to examine whether coping (and stress) forecasts predict subsequent reports of coping and stress. Participants were 60 undergraduate students (80.0% female, 70.0% Hispanic, 53.3% White, with a mean age of 20.41) from the University of California, Merced who completed a 14-day ecological momentary assessment (EMA) protocol on smartphones. Each morning, participants forecasted their ability to cope with difficult moments they may face that day, and how much stress they think they will experience. Across four semi-random time points in the day, participants reported their current coping ability and subjective stress levels. Multilevel models examined how coping forecasts predicted subsequent EMA coping and stress reports. A null model found that 50.5% of variance in coping forecast was due to day-to-day differences, with morning coping forecasts having a weak correlation with stress forecasts (*r* = .18). Results show that on a day when a person forecasted higher stress coping than is typical, more coping was reported that day compared to a day when less stress coping is forecasted in the morning (*b* = .14, *SE* = .02, *p* < .001). This model had an effect size of r^2 = .35. We then examined whether there is crossover between coping and stress domains, testing coping forecasts as predicting stress reports (and vice versa). Interestingly, stress forecasts predicted coping reports (*b* = -.08, *SE* = .02, *p* < .001) with an effect size of r^2 = .10 but coping forecasts did not predict stress reports (*b* = -.05, *SE* = .03, *p* = .17) and had an effect size of r^2 = .03. Findings suggest high variability in daily levels of forecasting, but also that each morning's coping and stress forecast consistently predicted one's coping levels throughout the day. These results open avenues for ways to guide a person's momentary coping and perceived resources based on their initial anticipation of coping ability. Future work will need to address how factors like sleep quality contribute to how a person forecasts coping ability, and coping forecasting as a potential moderator to sleep and subsequent day coping and stress.

CORRESPONDING AUTHOR: Armin Hojjaty, MS, University of California, Merced, Merced, CA; ahojjaty@ucmerced.edu

Abstract citation ID: kaad011.0429

POSTER SESSION B: ANNUAL GYNECOLOGICAL EXAMS AMONG FEMALE COLLEGE STUDENTS: PREDICTING INTENT AND SERVICE UTILIZATION

Chesney R. Mardis, MS[1], Hannah K. Allen, PhD[1]

[1]University of Mississippi, Oxford, MS

Background: Experts recommend that women receive an annual routine gynecological exam beginning at age 19. Increased research is needed on the predictors of annual exams among women in this age group. This study utilized a college student sample to test the associations between Theory of Planned Behavior (TPB) constructs (behavioral, normative, and control beliefs) and 1) past 12-month gynecological exam and 2) intent to receive a gynecological exam in the next 12 months.

Methods: *N*=315 female undergraduate students (78% non-Hispanic white) at a large, public university completed an online survey. Logistic regression models were used to analyze the main associations of interest. Additional analyses tested the moderating effects of gynecological symptoms or disorder on the relationships between TPB constructs and intent.

Results: About half the sample (54%) received a gynecological exam in the past 12 months, and 73% intended to get an exam in the next year. More positive behavioral beliefs and stronger normative beliefs were significantly associated with increased odds of both past 12-month exam and intent for a future exam. Control beliefs were not associated with either outcome. The association between behavioral beliefs and intent for a future exam was stronger among women with a history of gynecological symptoms or disorder.

Conclusions: Public health interventions aimed at increasing annual gynecological exams among female college students may benefit from an emphasis on increasing favorable attitudes, either through transparency about what to expect or by working with healthcare providers to ensure routine exams are positive experiences for patients.

CORRESPONDING AUTHOR: Chesney R. Mardis, MS, University of Mississippi, Oxford, MS; crmardis@olemiss.edu

Abstract citation ID: kaad011.0430

POSTER SESSION B: A FOCUS GROUP STUDY TO EXPLORE MOTIVATIONS AND BARRIERS TO DAILY PHYSICAL ACTIVITY IN BLACK AND HISPANIC WOMEN.

Riley I. Wiland[1], Grace E. Brannon, PhD[2], Hannah Affleck, BSPH[3], Christian E. Vazquez, PhD[4], Kyrah K. Brown, PhD[5], Yue Liao, MPH, PhD[5]

[1]University of Houston, Houston, TX; [2]The University of Texas at Arlington, Arlington, TX; [3]University of Texas at Arlington, Watauga, TX; [4]The University of Texas at Arlington, Dallas, TX; [5]University of Texas at Arlington, Arlington, TX

Introduction: Physical activity is an important behavior that can lead to many physical and mental health benefits. Currently, a high proportion of Black, and Hispanic women are not meeting the recommended level of physical activity. There is a great need for intervention to motivate Black and Hispanic women to be more physically active. External motivators about physical activity such as messaging from commercially available wearable sensors can be used to personally motivate and encourage participants to become more physically active. The objectives of this qualitative study were to identify 1) obstacles Black and Hispanic women face in their daily lives, 2) how these obstacles impact their motivation and behavior of their physical activity level and daily routines, and 3) opinions related to wearable sensors regarding motivation or encouragement.

Methods: This study used Facebook ads to recruit insufficiently active Black and Hispanic women (n=53), aged 18-45 with a BMI equal to or greater than 25, to participate in virtual focus groups (n=9). Each group of 4-8 Black and/or Hispanic women discussed satisfaction of physical activity level, motivation, and overall confidence about their health and body. All focus group meetings were recorded, and transcripts were professionally transcribed (n=357 pages). Dedoose was used for data coding and analysis by multiple coders. Responses were analyzed using Braun and Clarke's reflexive thematic analytic approach. Specific responses from participants that focused on aspects such as motivators, non-motivational factors, and representation were highlighted and given significance.

Findings: Both Black and Hispanic women identifying lack of motivation, confidence, and overall knowledge of how to adapt to a more physically active lifestyle. They were highly favorable of personalized and individualized messages based on their sensor data. Participants felt unmotivated to become or stay physically active because of the lack of representation in exercise resources. Participants felt there is no exercise media that features their body types, or people with similar lifestyles such as balancing work, family, and daily exercise. Active representation for Black and Hispanic women is perceived as nonexistent and is a demotivating factor for women trying to stay physically active.

Conclusions: Participants' feedback indicated that workout guides with body and skin type representation, and other forms of support that include tailored information about race, body type, and lifestyle provide motivation and encouragement to be more physically active. Workout guides that provide different variations of the same workout based on skill level and that include models with varying body types. The need for cultural competency in media for Black and Hispanic women is prevalent and vital in helping and encouraging lifestyle changes in Black and Hispanic women.

CORRESPONDING AUTHOR: Riley I. Wiland, University of Houston, Houston, TX; rileywiland@gmail.com

Abstract citation ID: kaad011.0431

POSTER SESSION B: SOCIAL MEDIA ADS AS A METHOD OF RESEARCH RECRUITMENT: A COMPARISON OF MINORITY WOMEN WHO ENROLLED VS. WHO COMPLETED A FOCUS GROUP

Hannah Affleck, BSPH[1], Grace E. Brannon, PhD[2], Haleh Aghajani, PhD[3], VP Nguyen, PhD Computer Science[4], Kyrah K. Brown, PhD[4], Yue Liao, MPH, PhD[4]

[1]University of Texas at Arlington, Watauga, TX; [2]The University of Texas at Arlington, Arlington, TX; [3]University of Texas at Arlington, Fort Worth, TX; [4]University of Texas at Arlington, Arlington, TX

Background: Hispanic and Black women are historically under-recruited and underrepresented in mHealth intervention research. Individuals who express interest in research studies may not always participate in the research for various reasons. Because of under-recruitment and under representation in our target population, it is important to get a diverse and representative sample. The objective of this study is to compare the characteristics of Hispanic and Black women who participated in a virtual focus group study with those who are enrolled but did not participate in the study.

Methods: Social media advertisement was used for participant recruitment. Eligible study participants were Hispanic and/or Black women ages 18-45, who were considered overweight (based on BMI from self-reported height/weight), and insufficiently active (self-reported less than 90 minutes a week). The recruitment ads were posted 4 times, for 3-5 days each time, between January-August 2022. Interested individuals who saw our ads filled out an online screener, and those who were eligible were scheduled for a focus group through a link provided by an online scheduling tool. After scheduling, a virtual meeting link was shared with participants and participants joined the virtual meeting to participate in the study. The Chi-square test was used to compare differences in demographic characteristics between groups.

Results: The recruitment ad reached women (n= 5,124) from various geographic regions in the U.S. Of the women who engaged with the ad, 478 completed the online eligibility screener and 102 women signed an online consent form (i.e., enrolled in the study). Of the women (n=102) enrolled, 53 completed the focus group virtually. The main reasons for those who enrolled but did not participate in the study (n=49) included loss to follow-up and scheduling conflicts.

The average age for those who participated in the study and those who did not was 34.8 (SD= 6.95). Within those who participated in a focus group (n=53), 38% were Hispanic and 62% were Non-Hispanic Black. And of those who did not participate (n=49), 42.3% were Hispanic and 57.7% were non-Hispanic Black. Among those who completed a focus group, 39% had at least a bachelor's degree, 64% were mothers, 51.6% had private health insurance, and 26% had Medicaid. There were no statistically significant differences in these characteristics between those who participated versus those who did not participate in a focus group.

Conclusions: Social media advertisement can be an effective way to recruit a diverse sample of Hispanic and Black women. Although, all who expressed an interest in the study might not be able to participate due to loss to follow up or scheduling conflicts, our study did not show a difference in demographic characteristics between those who were not able to complete the study and those who completed the study.

CORRESPONDING AUTHOR: Hannah Affleck, BSPH, University of Texas at Arlington, Watauga, TX; hannah.affleck@mavs.uta.edu

---

Abstract citation ID: kaad011.0432

POSTER SESSION B: INVESTIGATING THE ASSOCIATION BETWEEN METABOLIC SYNDROME CONDITIONS AND PERINATAL MENTAL ILLNESS.

Karishma Chhabria, PhD, MPH[1], Sudhakar Selvaraj, MD, PhD[1], Jerrie Refuerzo, MD[1], Cecilia Ganduglia Cazaban, MD, DrPH[1]

[1]University of Texas Health Science Center at Houston, Houston, TX

Background: Those diagnosed with Metabolic syndrome (MetS) in the general population have a high prevalence of mental illness. The conditions that make up the Metabolic syndrome (MetS-C) are a strong predictor of pregnancy-related complications and postnatal cardiovascular disease.

Objective: To investigate the association between the presence of Metabolic Syndrome conditions and maternal mental illness in the perinatal period using national administrative claims data from 2014-2019.

Methods: This observational study used the OPTUM Clinformatics database including women continuously enrolled for 1-year prior to and 1-year post-delivery, with no more than 90 days enrollment gap. MetS-C (identified during 1-year prior to delivery and defined as having any one of the following: obesity, diabetes, high blood pressure, high triglycerides and low HDL), perinatal comorbidities (identified 9-months prior to and 4-month postpartum), and mental illness (identified during 1-year prior to and 1 year post-delivery) were assessed in this cohort using the International Classification of Diseases, Ninth and Tenth Revision (ICD 9/10) diagnosis codes. Additionally, age, race, ethnicity and number of days to mental health diagnosis were evaluated. The analysis included descriptive statistics and multivariate logistic regression.

Findings: 372,895 deliveries met inclusion/exclusion criteria. Mothers were mostly White (63.91%) with a mean age at the time of delivery of 31.86 years (SD=5.26 years). The prevalence of MetS-C was 13.43%. The multivariate logistic regression model revealed that prenatal prevalence (1.73, CI = 1.69 - 1.78) and postpartum incident (1.30, CI = 1.26 - 1.34) diagnosis of mental illness were significantly higher in those who were diagnosed with any MetS-C. Further, the adjusted odds of being diagnosed with a postpartum incident mental illness were 1.62 times higher (CI = 1.51-1.74) in those with 2 MetS-C and 2.72 times higher (CI = 1.62 - 4.55) in those with 3 or more MetS-C.

Conclusion: The risk of being diagnosed with mental illness (both prenatal and incident) have a significant association with MetS conditions. An incremental relationship between postnatal incident mental illness diagnosis and the number of MetS-C highlights the need for more research into this relationship which would help guide screening and treatment during pregnancy and postpartum.

Clinical Implications: Those with 2 or more MetS-C are at higher risk of developing mental illness and therefore improving screening of mental illness during the perinatal period is essential which could help guide preventative steps and early treatment.

CORRESPONDING AUTHOR: Karishma Chhabria, PhD, MPH, University of Texas Health Science Center at Houston, Houston, TX; Karishma.s.chhabria@uth.tmc.edu

Abstract citation ID: kaad011.0433

POSTER SESSION B: IDENTIFYING AND REMOVING BARRIERS FROM BLACK WOMEN IN CARDIAC REHABILITATION SETTINGS

Kadeeja S. Murrell, MS[1], Roop Jayaraman, PhD[2], Kechinyere Iheduru-Anderson, DNP, RN, CNE, CWCN[2]

[1]Arizona State University, Phoenix, AZ; [2]Central Michigan University, Mount Pleasant, MI

Background: Cardiac rehabilitation is an individualized outpatient program that includes exercise, education, and support to improve cardiovascular health following a cardiovascular event. Individuals qualify for and can benefit from cardiac rehabilitation following certain cardiovascular events regardless of age, sex, and race. Cardiac rehabilitation has been found to decrease the risk for all-cause mortality by 32% and the chance of rehospitalization after an acute myocardial infarction by 25%. Despite the benefits of cardiac rehabilitation, it remains an underutilized resource by Black women who qualify for it with only 11.9% of this sub-population participating in the intervention.

Objective: The purpose of this literature review is to identify barriers contributing to poor participation in cardiac rehabilitation programs by Black women in the United States. A secondary aim is to offer recommendations from literature that could increase Black women's participation in and improve adherence to cardiac rehabilitation.

Methods: Integrative review was chosen to conduct this literature review because this method can be applied to all research studies. Whittemore and Knafl's (2005) approach to conducting an integrated review was used to design this study and dissect chosen articles. First, the problem, purpose, and variables of interest were identified to form a research question. Second, a literature search was conducted using multiple databases and specific terminology. Third, selected articles were reviewed for inclusion and exclusion criteria. Lastly, 32 articles were entered into an Excel file and analyzed to identify common themes.

Results: Several themes emerged after analyzing the potential barriers Black women face before and during cardiac rehabilitation: lack of physician referral, financial costs, lack of knowledge, and lack of representation. Several themes were also identified after analyzing the recommendations to improve adherence: changing the approach for physician referral, policy changes, improving accessibility, and providing culturally appropriate care.

Conclusion: Research shows that cardiac rehabilitation can improve a patient's functional capacity by 17-30% following a cardiovascular disease event. However, disparities in healthcare prevent some populations, specifically Black women, from taking advantage of cardiac rehabilitation interventions. Clinicians and Black women can work together to overcome the barriers that prevent them from seeking and adhering to cardiac rehabilitation programs. Cardiac rehabilitation programs and practices must be evidence based to see favorable outcomes and increases in Black women's attendance. Future research should investigate the effectiveness of removing individual barriers to cardiac rehabilitation on Black women's participation in and adherence to the intervention.

CORRESPONDING AUTHOR: Kadeeja S. Murrell, MS, Arizona State University, Phoenix, AZ; ksmurrel@asu.edu

---

Abstract citation ID: kaad011.0434

POSTER SESSION B: "THE EDUCATION OF EXPERIENCE": MIXED METHODS EVIDENCE SUGGESTS THE BENEFIT OF MULTIPARITY

Ariana M. Albanese, PhD[1], Pamela A. Geller, PhD[2], A. Rani Elwy, PhD, MSc, FSBM[3], Hannah E. Frank, PhD[4], Jennifer L. Barkin, PhD[5]

[1]Brown University, Providence, RI; [2]Drexel University, Philadelphia, PA; [3]Psychiatry and Human Behavior, Alpert Medical School, Brown University, Providence, RI; [4]The Warren Alpert Medical School of Brown University, Providence, RI; [5]Mercer University School of Medicine, Macon, GA

Background: For gestational parents (GPs), the first postpartum year presents challenges and threats to health. Further, a GP's level of postpartum functioning impacts the entire family unit. Evidence is mixed regarding whether primiparous parents (first-time parents; PPs) experience more functional and emotional struggle during the postpartum period compared to multiparous parents (individuals who have older children; MPs). We performed a convergent mixed methods analysis on a sample of 30 GPs to understand differences in the postpartum transition for MPs and PPs, as a first step in planning for supportive interventions that effectively address the needs of both groups.

Methods: Participants were adult, female-identifying GPs within their first year postpartum (N = 30, 46.7% racial minorities, 43.3% MPs) who completed a semi-structured qualitative interview concerning barriers and facilitators to postpartum functioning as well as questionnaires assessing functioning and emotional wellbeing (Barkin Index of Maternal Functioning [BIMF], Hospital Anxiety and Depression Scale, and Perceived Stress Scale – 10). Participants were also asked to list "three things *any* parent needs" to function in each of the seven BIMF domains and to give the sources of information they referenced when responding (i.e., their own experience, others' experience, media). Data were integrated at the analysis stage, to understand how parity corresponds to scale scores, sources of information referenced, and barriers/facilitators to functioning.

Results: MPs were found to have significantly better functioning (p=.019), anxiety (p=.042), depression (p=.047), and stress (p=.037). One's own experience seemed to be a more trusted source of information for MPs as they referenced it more exclusively. Averaged across the domains of functioning, **80%** of MPs participants referenced their own experience, **34.1%** others' experience, and **14.3%** media. PPs reported more diversity in sources of information referenced: **71%** own experience, **64.7%** others' experience, and **26%** media. An analysis of the qualitative data suggests that these associations may be a function of MPs possessing more firsthand parenting experience. Both MPs and PPs cited firsthand parenting experience as a facilitator of postpartum functioning via increasing confidence and comfort in the parental role. PPs described experiencing higher distress early in the postpartum period which was alleviated with experience, MPs reported that their confidence and comfort in the parental role was brought forward into subsequent pregnancies and protected against distress.

Conclusions: Prior parenting experience may endow MPs with enduring self-assurance in their role as parents which in turn bolsters emotional wellbeing in the postpartum period. Given their lack of experience, PPs may benefit from more intensive support during the postpartum period.

CORRESPONDING AUTHOR: Ariana M. Albanese, PhD, Brown University, Providence, RI; ariana_albanese@brown.edu

Abstract citation ID: kaad011.0435

POSTER SESSION B: THE ASSOCIATION BETWEEN MAMMOGRAM SCREENING AND PERCEIVED DISCRIMINATION, RELIGIOSITY, AND COMMUNICATION WITH THE PROVIDER

Kubra Cabuk, MA[1], Ivy K. Ho, PhD[2]

[1]University of Massachusetts Lowell, Woodside, NY; [2]University of Massachusetts Lowell, lowell, MA

Background: Breast cancer is the third most common cause of cancer death in the United States, and the most common cancer diagnosed among women. The American Cancer Society recommends that women who are older than 40 should start annual breast cancer screening. Meta-analyses and systematic reviews provided substantial data on how demographic factors affects mammogram screening; however, systemic barriers like perceived discrimination and communication with the provider are understudied with respect to mammography utilization.

Objective: The aim of the study is to examine the relationship between mammogram screening and perceived discrimination, religiosity, and communication with the provider.

Method: Data collected by University of Michigan Rogel Cancer Center was obtained from the Inter-University Consortium for Political and Social Research. The main outcome of the study was self-reported mammogram screening in the last 2 years. Perceived discrimination, religiosity, and communication quality were the independent variables. Race, age, education level, income, and type of religion were used as control variables. Logistic regression was used to test the effect of religiosity, perceived discrimination, communication quality on mammogram screening. An interacted model was run to test whether the effect of communication quality on mammogram screening differs by race.

Results: The sample consisted of 586 women aged 40 years and older, across racial and socioeconomic backgrounds. There was a positive association between mammogram screening and quality of the communication between patient and provider (OR=1.43, $p < 0.01$). There was no association between mammogram screening and perceived discrimination (OR=.84, p=.21) and religiosity (OR=1.04, p=.57). There was a great degree of uncertainty about the effect of religiosity on mammogram screening with parameter values between -0.011 and 0.026. The results of the interacted model showed that the effect of communication quality on mammogram screening differs by race (F = 3.891, $p < .001$). There was a significant negative association between mammogram screening and communication quality for Middle Eastern North African women (95% CI: -.37~-.03).

Discussion: Results highlight the impact of provider on obtaining mammogram screening. Thus, improving the communication between the patient and the provider would help to decrease the disparities in breast cancer screening. Further research is needed to explore the association between mammogram screening and religiosity and perceived discrimination.

CORRESPONDING AUTHOR: Kubra Cabuk, MA, University of Massachusetts Lowell, Woodside, NY; kubra_cabuk@student.uml.edu

---

Abstract citation ID: kaad011.0436

POSTER SESSION B: COMMUNITY-BASED BIRTHING PRACTICE: SAFE AND CULTURALLY RESPONSIVE ALTERNATIVE BIRTHING MODELS FOR LOW-RISK PREGNANT PERSONS

Detrich Galloway, BS[1], Imelda F. Vianzon, BS[2], Kacie Blackman, PhD[3]

[1]University of California, Riverside, Chatsworth, CA; [2]California State Universtiy, Northridge, Ventura, CA; [3]California State University, Northridge, Northridge, CA

Rational: The Black Maternal Health Momnibus Act of 2021 makes critical investments into person-centered healthcare policies that address disproportionate rates of maternal death among low-risk Black, Indigenous, and people of color (BIPOC) pregnant persons. Community based birthing practice (CBBP), (i.e. - freestanding birth centers, private home births, and doula assisted models of care) is associated with lower rates of birth and pregnancy related complications. More than 90% of pregnancies in the U.S. are considered low-risk, yet fewer than 2% of low-risk pregnant persons utilize CBBP as an alternative to the high-risk medicalized services offered in hospitals.

Objective: The goal of this research is to illuminate CBBP as a safe and culturally responsive alternative to the high-risk medicalized birth model, for low-risk pregnant persons.

Methods: Database search of EBSCOhost (e.g. CINAHL Plus, OmniFile Full Text-Mega Edition, Academic Search Premier) was conducted between September 2021 and September 2022. Search qualifiers: "Out-of-hospital birth AND risk AND ((home birth or homebirth or home delivery or birth at home) and (safety or danger or risks or compliance))". Search yielded 44 articles, excluding exact duplicates. Additionally, internet search for non-peer reviewed articles was conducted using search phrases: "home birth vs hospital birth safety outcomes" and "out-of-hospital birth statistics".

Analysis/Results: Findings from the search suggests that high-risk medicalized birth systems have historically undermined the comparative safety and credibility of embodied cultural capital and experiential knowledge of CBBP. This may jeopardize autonomous choice and qualification of CBBP as a mainstream birthing alternative to medicalized systems among low-risk pregnant persons.

Conclusion: Consensus from the literature demonstrates a reduction in risks for pregnancy and birth related complications with CBBP among low-risk pregnant persons, however there are limited good quality cohort studies with consistent comparative findings relative to safety outcome measures among CBBP and high-risk medicalized birth models among low-risk pregnant persons. Reports from countries where midwifery models of care are well-integrated into healthcare systems suggests CBBP is an effective strategy for addressing maternal birth disparities among low-risk pregnant persons.

CORRESPONDING AUTHOR: Detrich Galloway, BS, University of California, Riverside, Chatsworth, CA; detrichgalloway@gmail.com

Abstract citation ID: kaad011.0437

POSTER SESSION B: TRIGGERING ACUTE PARASYMPATHETIC ACTIVITY WITH MINDFULNESS MEDITATION & PACED BREATHING: A PLACEBO-CONTROLLED COMPARISON.

Amy S. Welch, PhD[1], AnnaLeigh Runion, BS[2], Molly Flanagan[3]

[1]Norwich Univeristy, Northfield, VT; [2]The Citadel, Charleston, SC; [3]Norwich University, Northfield, VT

Behavioral interventions that directly activate the parasympathetic nervous system (PNS) can be effective in counteracting the stress response. Both mindfulness meditation and slow-paced breathing at six breaths per minute have been shown to increase heart rate variability (HRV; a reliable indicator of PNS activity). The purpose of this study was to compare the effect of both interventions and a placebo intervention on HRV during the activity. Participants completed three, 6-minute tasks using apps on an iPad while wearing noise-canceling headphones. The placebo task (a color-by-number activity) was completed first to establish baseline HRV. This task was followed by the meditation and paced breathing exercises, the order of which were randomized across participants, with a 3-4-minute break in between each task. Inter-Beat-Interval (IBI) data were collected throughout the session using an ECG with Lead II placement, and Kubios software was later used to calculate root mean square of successive differences between normal heartbeats (RMSSD; a time-domain measure of HRV) during the last 5 minutes of each task. Twenty-six full time undergraduate students (15 male, 11 female) completed the study. None of them had received prior exposure to any of the apps used for the interventions. Results of a repeated measures ANOVA showed significant differences in RMSSD across the three conditions ($F(2, 50) = 6.702$, $p < .01$). Post-hoc analyses demonstrated that RMSSD was significantly lower during the coloring task (51.85 ± 34.84 ms^2) compared to paced breathing (65.61 ± 28.95 ms^2, $p < 0.01$) and mindful meditation (60.89 ± 32.55 ms^2, $p < .05$). No significant differences between the breathing and meditation tasks were observed. In conclusion, 6-minutes of mindful meditation and 6-minutes of paced breathing both increased PNS activity, with a slightly larger effect observed with the paced breathing. It remains unknown whether the post-intervention effects of these two strategies differ. Discussion of the results will include practical implications for stress management.

CORRESPONDING AUTHOR: Amy S. Welch, PhD, Norwich Univeristy, Northfield, VT; awelch1@norwich.edu

Thursday
April 27th, 2023
1:00 PM – 1:50 PM
Paper Sessions
Paper Session 1: Physical Activity from Childhood to Emerging Adulthood
1:02 PM – 1:14 PM

Abstract citation ID: kaad011.0438

CITATION AND MERITORIOUS AWARD WINNER: A RANDOMIZED CONTROLLED TRIAL (RCT) OF THE IMPACT OF SCHOOL-BASED SPORT PROGRAM ON CHILDREN'S ACTIVITY BEHAVIORS AND COGNITION

Aliye B. Cepni, PhD Candidate[1], David W. W. Walsh, PhD[1], Craig A. Johnston, PhD[1], Tracey A. Ledoux, PhD, RD, FAND[1]

[1]University of Houston, Houston, TX

Background: Improving child activity behaviors is critical for children's physical and cognitive health. However, more than half of all children do not follow moderate-to-vigorous physical activity (MVPA) and sedentary behavior (SB) recommendations. Schools are an ideal setting to promote activity behaviors, but few studies have evaluated the impact of school-based programs on behavioral and cognitive outcomes in racially diverse children. The ACCELERATION is a RCT delivers a developmental sport-based physical education (PE) curriculum to improve children's MVPA, SB, and cognitive outcomes through challenging sport skills in a fun and free-will learning environment that includes school and home environments.

Method: Children in 3rd-4th grade were recruited from a public school in Houston, TX, where 86% of students are classified as economically disadvantaged. Twenty-five classrooms from 3 schools were randomly assigned to the ACCELERATION (experiment, 12 classrooms, N=129), or a standard PE (control, 13 classrooms, N=135). The ACCELERATION provides a diverse, inclusive, and transformative skill development that introduces the ball to the child at a basic level and then skills get progressively harder. Instruction of new skills was provided by teachers at school and parents at home over 10 weeks. Parents were instructed via virtual workshops, phone calls, and text messages. Activity behaviors were assessed objectively with accelerometers (GT3X+ Actigraph, Pensacola, FL). The National Institutes of Health Toolbox was used to test executive functions (Dimensional change card sort, flanker inhibitory control and attention, and list sorting working memory tests). Repeated measures ANOVAs were conducted to test group differences on MVPA, SB, and cognitive outcomes.

Results: The sample comprised 54% 3rd graders and 56% males, who identified as either Hispanic/Latino (63%) and/or Black (38%). An interaction effects indicated a greater decrease (90 minutes) in SB during the weekend from T1 to T2 among ACCELERATION participants compared to the control group [Wilk's Λ= .934, F (1, 99) = 7.00, p = .009]. Subgroup analysis revealed that this change was seen mostly in females. Specifically, the females in ACCELERATION significantly decreased weekend SB by 121 minutes while the control group increased 77 minutes over the intervention period [Wilk's Λ = .880, F (1, 50) = 6.80, p = .012]. However, a time by group interaction effects on total SB, MVPA, and cognitive outcomes were not significant.

Conclusion: Independent of physical activity, SB have negative health and academic outcomes among children. The ACCELERATION program has the potential to decrease children's SB during weekend, when the majority of recreational SB performed during this period. However, more research is needed to improve intervention for replicating these finding for MVPA and cognitive function outcomes.

CORRESPONDING AUTHOR: Aliye B. Cepni, PhD Candidate, University of Houston, Houston, TX; abcepni@cougarnet.uh.edu

1:15 PM – 1:27 PM

Abstract citation ID: kaad011.0439

FEASIBILITY AND ACCEPTABILITY OF ACCELEROMETRY AND EMA AMONG ADOLESCENT AND YOUNG ADULT SURVIVORS OF CHILDHOOD CANCER

Sara King-Dowling, PhD[1], Matthew Y.W. Kwan, PhD[2], Lauren Daniel, PhD[3], Jill P. Ginsberg, MD[1], Elizabeth Goldmuntz, MD[1], Dava Szalda, MD[1], Lisa A. Schwartz, PhD[4]

[1]The Children's Hospital of Philadelphia, Philadelphia, PA; [2]Brock University, St. Catharines, ON, Canada; [3]Rutgers University–Camden, Camden, NJ; [4]The Children's Hospital of Phiadelphia, Philadelphia, PA

Background: Adolescent and young adult survivors of childhood cancer (AYA) are at risk for developing chronic and/or life-threatening treatment-related late effects (e.g., heart or lung disease) or second cancers. While physical activity (PA) can mitigate risk and morbidities, AYA tend to engage in less PA, and more sedentary behavior, compared to their peers and siblings. Little research has investigated the salient environmental and psychosocial factors associated with PA engagement in AYA survivors; and even less consideration has been given to the within-person fluctuations in these factors and its relationship to PA behaviors. Utilizing ecological momentary assessment (EMA) combined with accelerometry, we aimed to understand the feasibility and acceptability of this data capture methodology for future assessment of the dynamic factors associated with PA engagement among AYA.

Methods and Design: For 14 days, AYA recently off treatment (n=20, Mage=18.9, 55% males) were asked to wear an accelerometer (Actigraph GT9X Link) on their non-dominant wrist 24 hours/day and complete EMA surveys four times per day via a mobile app (Lumedi EMA). EMA surveys assessed contextual information (who they are with, where they are) as well as affective and feeling states (arousal, mood, pain, fatigue). Feasibility was assessed via accelerometry wear compliance and EMA survey completion (defined as >70%). Following the two-week monitoring period participants completed an acceptability survey, with responses rated on a scale of 1 (strongly disagree) to 5 (strongly agree).

Results: The EMA and accelerometry protocol was feasible with an average of 78% surveys completed and 11.2/14 (80%) valid accelerometer wear days (>10 hours). AYA felt comfortable answering the EMA questions (4.85/5), reported that the EMA surveys were easy to answer (4.3/5) and the accelerometer was easy to wear (3.95/5). AYA reported low interference to their daily routine for both the EMA (1.6/5) and accelerometer (1.75/5).

Discussion: EMA and accelerometry is acceptable and feasible among AYA. This novel pilot study will be the first step in elucidating the dynamic correlates of PA behaviors of AYA cancer survivors. Results will inform tailoring variables for future just-in-time adaptive interventions that incorporate real time sensor data and/or EMA to deliver effective interventions (e.g., nudges/strategies) at the most opportune time.

CORRESPONDING AUTHOR: Sara King-Dowling, PhD, The Children's Hospital of Philadelphia, Philadelphia, PA; KINGDOWLIS@chop.edu

---

1:27 PM – 1:39 PM

Abstract citation ID: kaad011.0440

TEMPORAL DYNAMICS OF PHYSICAL ACTIVITY AND PSYCHOLOGICAL DISTRESS FROM ADOLESCENCE TO ADULTHOOD: A 16-YEAR PANEL STUDY

Denver M. Brown, PhD[1], WIllie J. Hale, PhD[1]

[1]The University of Texas at San Antonio, San Antonio, TX

Adolescence and early adulthood are characterized by age-related declines in physical activity engagement, and these periods are when the onset of most mental health disorders such as depression and anxiety are most likely to occur. Studies have established inverse associations between physical activity and psychological distress during these life stages; however, the temporal dynamics of this relationship remain poorly understood. The aim of this study was to examine how changes in physical activity and psychological distress mutually influence each other across adolescence and early adulthood. This study used data from Cycle 1 (1994-1995) to Cycle 9 (2010-2011) of Canada's National Population Health Survey and included a nationally representative cohort of 1,123 adolescents who were between the ages of 12 to 17 years (Mean age = 14.65 ± 1.68 years; 50.4% female) at baseline. Participants self-reported their leisure time physical activity behavior, which was translated into overall estimated metabolic energy expenditure, and completed the 6-item Kessler Psychological Distress Scale on a bi-yearly basis over a 16-year period. Bivariate latent difference score modeling was used to examine temporal sequential dependencies between the constructs. Results revealed a dynamic relationship exists between physical activity and psychological distress wherein prior changes in psychological distress were negatively associated with subsequent changes in physical activity (B = -0.90 ± 0.25 SE, $p < .001$), but prior changes in physical activity were positively associated with subsequent changes in psychological distress (B = 0.46 ± 0.13 SE, $p = .001$). Collectively, these findings provide unique insight into the dynamic interplay between physical activity and psychological distress during adolescence and early adulthood. Unfavorable changes in depressive and anxiety symptoms experienced in adolescence may help to explain age-related declines in physical activity that are accompanied during this life stage.

CORRESPONDING AUTHOR: Denver M. Brown, PhD, The University of Texas at San Antonio, San Antonio, TX; denver.brown@utsa.edu

1:39 PM – 1:50 PM

Abstract citation ID: kaad011.0441

TRAJECTORIES OF PHYSICAL ACTIVITY BEHAVIORS DURING THE TRANSITION INTO EMERGING ADULTHOOD: RESULTS FROM THE ADAPT STUDY

Matthew Y.W. Kwan, PhD[1], Sara King-Dowling, PhD[2], Denver M. Brown, PhD[3]

[1]Brock University, St. Catharines, ON, Canada; [2]The Children's Hospital of Philadelphia, Philadelphia, PA; [3]The University of Texas at San Antonio, San Antonio, TX

Despite the many health benefits associated with regular physical activity (PA) engagement, most adults are not meeting current physical activity recommendations. Previous research has pointed to the transition from late adolescence into emerging adulthood being a critical infliction point where significant declines in PA occurs. Few studies, however, have applied person-centred approaches to understanding patterns of behaviour change. The purpose of the current study was to use group-based trajectory modeling to uncover distinct patterns of PA behaviors as individuals transition out of high school. This study used data from the first three waves of the ADAPT study and included a sample of 1419 participants (*M*age= 15.9 years at baseline; 56.3% female). The results found a model with five unique PA trajectories had the best fit. Findings indicated that 14% of the sample maintained a high level of PA over time, and 37% maintained low levels of PA. Approximately 14% of the sample showed linear declines in PA over time, while another 14% had an inconsistent pattern of PA characterized by some increases in PA in from grade 11 to grade 12 and a decline following high school graduation. The final group (21%) was characterized by an increase in PA from grades 11 and 12 to post-graduation. Parental education and gender were found to be significant predictors of group membership, particularly with greater likelihood of females being characterized as consistently inactive or having changing PA patterns when compared to the consistently high PA group. Overall, findings suggest that there are different patterns of PA behaviors as adolescents transition beyond high school. While PA behaviors on a whole tend to decline during this transitory period, these findings suggest that there are some groups that can maintain or increase their PA participation over this time. Implications of this study suggest that targeted efforts are required for certain segments to help maintain PA after high school, while a significant proportion of the population may need interventions to help improve adoption of PA behaviors.

CORRESPONDING AUTHOR: Matthew Y.W. Kwan, PhD, Brock University, St. Catharines, ON, Canada; mkwan@brocku.ca

Paper Session 2: Cancer and Marginalized Populations

1:02 PM – 1:14 PM

Abstract citation ID: kaad011.0442

A QUALITATIVE INVESTIGATION OF EXPERIENCES WITH AND PERCEPTIONS OF TUMOR GENOMIC PROFILING IN LATINX CANCER PATIENTS

Sarah B. Bass, PhD, MPH, FSBM[1], Tracey A. Revenson, PhD, FSBM[2], Caseem Luck, MA[1], Evelyn Gonzalez, MA[3], Rosa Ortiz, BA[3], Yana Chertock, MA[4], Patrick J. Kelly, MPH[5], Valerie Gomez[1], Juan Pablo Chavez Salas[3], Maria Rincon, MPH[1], Ariel Hoadley, MPH[1], Michael J. Hall, MD, MS[3]

[1]Temple University College of Public Health, Philadelphia, PA; [2]Hunter College & the Graduate Center, CIty Univ of NY, New York, NY; [3]Fox Chase Cancer Center, Philadelphia, PA; [4]Fox Chase Cancer Center, Philadelphi, PA; [5]Temple University, Providence, RI

Background: Tumor genomic profiling (TGP) is used to examine targetable mutations for personalized oncology, but many patients are unaware it may also detect secondary hereditary cancer risks. People of Hispanic/Latino descent of any gender (Latinx) are at increased cancer risk, yet underutilize genetic testing services, have lower genetics knowledge, face language barriers, and have higher medical mistrust, making them an important population to target with decisional support. Yet there is limited understanding of Latinx TGP perceptions, needs or preferences. We conducted formative research prior to adapting a decision tool.

Methods: Five focus groups (three in English, two in Spanish) and an individual interview were conducted with Latinx cancer patients at a comprehensive cancer center (n=1), Hispanic-focused community center (n=1), and via Zoom (n=4) April – July 2022. Topics included: genetics, TGP testing issues, personal experiences, communication and decision-making preferences, and institutional trust. Conversations were recorded, transcribed, and analyzed using Dedoose software. Codes were derived deductively from the interview guide and inductively through emergence until thematic saturation.

Results: Participants (n=21) had a mean age of 51, 80% were female, and 45% had a high school education or less; 40% had heard of TGP. TGP was regarded as helpful for treatment decisions, but some felt cancer diagnosis and future events were "God's will" and were not inclined to actively seek secondary genetic information. TGP was viewed, however, as useful for one's family, suggestive of the Latinx cultural concept of *familismo.* Knowledge of genetic testing and hereditary risk varied, with participants in the Spanish speaking groups indicating less understanding. Mistrust towards insurance and pharmaceutical companies was high but was accompanied by trust in one's care team to decide optimal cancer treatment. Participants expressed a need for providers to listen to their concerns and preferences before treatment plans are decided. Participants also requested additional information about TGP in Spanish.

Conclusions: Understanding the information needs of Latinx patients is critical to developing interventions to assist with informed decision making. Our data point to a need for culturally- anchored appropriate communication tools that leverage provider and family relationships to assist Latinx patients in navigating secondary hereditary risk.

CORRESPONDING AUTHOR: Sarah B. Bass, PhD, MPH, FSBM, Temple University College of Public Health, Philadelphia, PA; sbass@temple.edu

1:15 PM – 1:27 PM

Abstract citation ID: kaad011.0443

CITATION AWARD WINNER

DEVELOPMENT, EVALUATION, AND DISSEMINATION OF A LUNG CANCER SCREENING DIGITAL OUTREACH INTERVENTION: A MULTIPHASE DESIGN

Jordan Neil, PhD[1], Keenae Tiersma[2], Zoe Nelson[3], Lauren Ballini[4], Kelly E. Irwin, MD[5], Ruth Carlos, MD[6], Nate Mercaldo, PhD[5], Elyse R. Park, PhD[7], Efren Flores, MD[8]

[1]University of Oklahoma Health Sciences Center, Oklahoma City, OK; [2]University of Washington, Seattle, WA; [3]University of Connecticut, Storrs, CT; [4]Tufts, N/A, MA; [5]MGH, boston, MA; [6]University of Michigan, Ann Arbor, MI; [7]Harvard Medical School & Massachusetts General Hospital, Boston, MA; [8]MGH, Boston, MA

Introduction: Individuals with low socioeconomic status (SES) experience multilevel barriers to lung cancer screening (LCS) and worse lung cancer outcomes. This study used a multiphase design to develop, evaluate, and disseminate a digital outreach intervention to increase LCS uptake among patients from low-SES backgrounds.

Method: Phase 1: Focus groups were conducted with primary care providers (PCPs; n=12), patient advocates (n=8), and patients from low-SES backgrounds who had (n=7) and hadn't undergone LCS (n=8) to explore barriers to LCS and develop outreach videos. Phase 2: A national sample (N=315) of low-SES, LCS-eligible smokers were randomized to 1 of 3 outreach videos, which differed by message source (radiologist, patient, or both). ANOVA compared videos across message evaluation (e.g., perceived information quality) and outcome measures (i.e., understood purpose of LCS, clicked linked to access online LCS decision-aid). Participants were also screened for social needs (housing and food insecurity, etc.). Phase 3: Patients on Medicaid insurance (N=662) not up-to-date with LCS were identified by electronic health record (EHR) and sent an outreach video via patient portal or text/email to schedule a LCS. Reach (i.e., receiving), engagement (i.e., watching the video), and accessing an online institutional LCS scheduler post-video were compared by outreach method. A 12-month follow-up of LCS incidence was then conducted via an EHR pull.

Results: Phase 1: Participants identified transportation and fear of lung cancer as primary barriers to LCS and reported confusion about LCS eligibility criteria, processes, and insurance coverage. Phase 2: Participants in the radiologist only condition reported greatest perceptions of information quality (p=.025), but participants in the combined condition (i.e., radiologist and patient video) accessed the LCS decision-aid most (15/107, 14.0%, p=.48). A greater composite social need score was associated with lower confidence in arranging LCS transport and greater cost concerns about LCS (ps< .01). Phase 3: 503 patients (76%) received the outreach video, 47 (7.1%) watched the video, and 17 (2.6%) accessed the online LCS scheduler promoted in the video. Patients were more likely to be reached (p< .001), engage with the intervention (p< .001), and access the LCS scheduler (p< .01) if they had a patient portal. The majorty of patients didn't complete a LCS at 12-months follow up (563/662, 85.1%). Patients reached by the intervention were significantly more likely to schedule and/or perform a LCS than those not reached (p< .001).

Conclusion: Digital outreach interventions that feature credible sources (i.e., radiologists and patients) may increase LCS uptake among patients from low-SES backgrounds. However, ensuring equitable access to patient portals to increase reach of digital interventions remains crucial to address LCS inequities.

CORRESPONDING AUTHOR: Jordan Neil, PhD, University of Oklahoma Health Sciences Center, Oklahoma City, OK; jordan-neil@ouhsc.edu

1:27 PM – 1:39 PM

Abstract citation ID: kaad011.0444

HUMAN PAPILLOMAVIRUS SELF-COLLECTED SAMPLING INTERVENTION TO PREVENT CERVICAL CANCER AMONG MEDICALLY UNDERSERVED WOMEN.

Matthew Asare, PhD[1], Anjelica Elizondo[1]

[1]Baylor University, Waco, TX

Introduction: Cervical cancer screening has contributed to the decline in cervical cancer deaths. Non-participation in cervical cancer screening is the primary risk factor for persistent cervical cancer cases. Human Papillomavirus (HPV) self-collected sampling has the potential to increase cervical cancer screening participation. However, our understanding of the acceptability of self-sampling behavior among medically underserved women (MUW) is limited. The purpose of this intervention was to evaluate the acceptability, feasibility, and appropriateness of HPV self-sampling among medically underserved women.

Methods: We conducted a community-based intervention design study. We used face-to-face and snowball methods to recruit a purposive sample of MUW from the community in a small southern city in the US. MUW completed pre-and post-intervention assessments based on a validated Theory of Planned Behavior (TPB) instrument. We implemented an hour-long group format of face-to-face intervention for the women. The primary outcome was screening uptake [i.e., completion and return of a self-collection kit (yes/no)]. The secondary outcomes were acceptability (4 items), feasibility (4 items), and appropriateness (4 items) of self-sampling. Other outcomes were changes in baseline scores and post-intervention scores for knowledge (4 items), attitude (6 items), and perceived behavioral control (6 items) measured by a 5-point Likert scale. We used the t-test to analyze the pre and post-test data.

Results: A total of 63 women (mean age 47.81±11.18 years) comprising White (14.5%), Hispanic (38.2%), and Black/African American (41.8%) participated in the study. Over 84.90% of the women completed self-testing, 12% of them tested positive for HPV genotype, and 57% of the women with positive results followed up with a care provider. The majority of the women found self-sampling acceptable (84.3%), appropriate (91.9%), and feasible (89.8%). After controlling for the baseline assessment, we found a significant increase in participants' post-intervention scores for attitudes (Mean = 9.67 ± SD = 2.17), knowledge (M=14.42 ± SD = 2.11), behavioral beliefs (M = 9.75 ± SD = 0.87), and outcome evaluation (M = 9.67 ± SD = 1.07) for CC screening behavior (p< 0.001).

Conclusion: The findings highlight that self-sampling is acceptable, feasible, and appropriate among the women in our study. The study increased CC screening participation and determined that 12% of the women are at risk for cervical cancer. Additionally, participants' attitudes, self-confidence, and knowledge about cervical cancer screening changed. These findings suggest that the intervention can increase HPV screening uptake which can potentially help early diagnosis of cervical cancer risks in medically underserved women.

CORRESPONDING AUTHOR: Matthew Asare, PhD, Baylor University, Waco, TX; matt_asare@baylor.edu

1:39 PM – 1:50 PM

Abstract citation ID: kaad011.0445

UNDERSTANDING CANCER PROGNOSIS-RELATED INQUIRIES: FINDINGS FROM THE NATIONAL CANCER INSTITUTE'S CANCER INFORMATION SERVICE

Ashley Wilson, BS[1], Grace C. Huang, PhD, MPH[2], George Kueppers, PhD[3], Kristin E. Schrader, MPH[2], Robin C. Vanderpool, DrPH[3]

[1]Westat, Rockville, MD; [2]Westat, Rockville, VA; [3]Division of Cancer Control and Population Sciences, National Cancer Institute, Rockville, MD

Background: High levels of prognostic uncertainty have been associated with adverse psychosocial outcomes such as increased anxiety, negative coping styles, and overall poorer quality of life. This has been demonstrated in multiple studies involving cancer patients as well as their family and caregivers. Provision of social, emotional, and informational support through publicly available cancer information resources may help address these adverse outcomes.

Methods: The National Cancer Institute's Cancer Information Service (CIS) is a longstanding, multi-channel resource for trusted cancer information in English and Spanish. Among the 1,068 cancer prognosis-related inquiries made to the CIS between September 2018 and June 2022, 591 (55.3%) were from caregivers and 362 (33.9%) were from cancer patients. We conducted a descriptive analysis of these 953 inquiries to better understand cancer prognosis-related needs of these two predominant CIS user groups.

Results: Caregivers and patients primarily used instant chat (46.1%) and telephone (43.6%) to access the CIS compared to other channels such as email and social media. Most prognosis-related inquiries were conducted in English (79.4%), but a greater proportion of caregivers made prognosis inquiries in Spanish than did patients (24.9% vs. 13.5%; X^2=17.8, p< .001). Digestive, genitourinary, and breast cancers were the most common cancer types associated with prognosis inquiries. Most inquiries specific to a cancer type (with the exception of breast cancer) were initiated more frequently by caregivers compared to patients. Prognosis-related inquiries often involved discussion about other topics such as general treatment concerns (25.2%) and finding healthcare services (8.7%). While two-thirds of all prognosis inquiries were related to the treatment phase of the cancer care continuum, inquiries related to the post-treatment continuum stage more frequently came from patients (19.1%) than caregivers (5.6%), and inquiries about end-of-life more frequently came from caregivers (9.4%) than patients (2.3%) (X^2=56.5, p< .001).

Conclusions: Findings from this descriptive CIS study may inform the development and tailoring of key messages to better support individuals seeking cancer prognosis information. Specific attention may be placed on addressing the unique informational needs of caregivers and patients based on language concordance, and on topics related to treatment and subsequent stages of the cancer care continuum.

CORRESPONDING AUTHOR: Ashley Wilson, BS, Westat, Rockville, MD; AshleyWilson@westat.com

Paper Session 3: Cardiovascular Health Interventions

1:02 PM – 1:14 PM

Abstract citation ID: kaad011.0446

DIVERSITY IN PARTICIPATION IN DASH: A QUALITATIVE STUDY ON THE RECRUITMENT OF BLACK ADULTS WITH HYPERTENSION INTO DIGITAL TRIALS

Loneke T. Blackman Carr, PhD, RD[1], Snehaa Ray, MS[1], Christie I. Idiong, MS[2], Dori Steinberg, PhD, RD[3], Gary G. Bennett, PhD[4]

[1]University of Connecticut, Storrs, CT; [2]University of Connecticut, East Hartford, CT; [3]Equip Health, Chapel Hill, NC; [4]Duke University, Durham, NC

Introduction: Hypertension disproportionately affects Black adults (42.1%), compared to adults of other races, and is a risk factor for cardiovascular disease. The DASH dietary pattern is an effective way to reduce hypertension through consumption of a diet rich in fruits and vegetables, low-fat dairy, controlled amounts of total fat, cholesterol and saturated fat, high fiber and protein. Knowledge of how DASH adoption and adherence can be achieved in Black adults is limited by insufficient recruitment of this population into trials to improve hypertension. Adequate representation of Black adults may be possible through digital interventions promoting DASH given the high rate of smartphone ownership (80%). Thus, this study aimed to examine barriers and facilitators to participation in digitally delivered nutrition interventions promoting DASH, which may be important for the recruitment of Black adults.

Methods: We conducted semi-structured interviews with 30 Black men and women (age = 54.1 ± 11.5 years, body mass index = 33.8 ± 7.0) with hypertension. Questions focused on general interest in a smartphone-delivered DASH intervention with personalized feedback and consultation with a registered dietitian, plus the importance of racial congruence with the registered dietitian. Questions on the general content and placement of advertisements to recruit Black adults were also posed. Interviews were transcribed verbatim and coded independently by two investigators. Common themes that emerged across the transcripts were identified.

Results: Participants were highly interested in a smartphone-delivered intervention to improve DASH adherence. Cost emerged as a primary barrier to joining an intervention. Improved knowledge on nutrition and health was a primary facilitator. Racial congruence with a registered dietitian emerged as the dominant theme as a shared understanding of dietary norms and life challenges of Black adults was important to participants. Recruitment materials should include images of eating healthy, Black people and technology. Advertisements should also reflect the age of the target audience. Text in recruitment materials should prioritize the goal of health improvement and healthy eating. Placement online (including social media) and at church emerged as the top sites for recruitment materials.

Conclusion: Black adults are interested in digitally delivered interventions for DASH dietary improvement to promote health. Future studies may examine the utility of including Black dietitians, and doing so in low or no-cost interventions. Examination of recruitment content and strategies to attract Black adults in digital trials for dietary improvement also warrants further study. Recruitment materials that emphasize health and feature Black adults, healthy food/eating and technology can be placed online and in churches.

CORRESPONDING AUTHOR: Loneke T. Blackman Carr, PhD, RD, University of Connecticut, Storrs, CT; loneke.blackman_carr@uconn.edu

1:15 PM – 1:27 PM

Abstract citation ID: kaad011.0447

EFFECTS OF A COMMUNITY-RANDOMIZED CARDIOVASCULAR DISEASE RISK REDUCTION INTERVENTION ON DIET-RELATED OUTCOMES OF RURAL WOMEN

Alexandra L. MacMillan Uribe, PhD, RDN[1], Margaret Demment, PhD[1], Meredith Graham, MS[1], Phrashiah Githinji, PhD, RDN[1], Jacob Szeszulski, PhD[1], Chad D. Rethorst, PhD[1], Rebecca A. Seguin-Fowler, PhD, RDN, LD, CSCS[2]

[1]Texas A&M AgriLife Institute for Advancing Health through Agriculture, Dallas, TX; [2]Texas A&M AgriLife Institute for Advancing Health through Agriculture, College Station, TX

Purpose: Cardiovascular disease (CVD) prevalence and mortality has disproportionately risen among midlife and older rural women, partly due to dietary intake patterns. We evaluated the impact of Strong Hearts Healthy Communities 2.0 (SHHC-2.0), a CVD risk reduction intervention, on diet behaviors and diet-related psychosocial measures.

Methods: A community randomized trial was conducted with women $\geq$ 40 years old from rural, medically underserved communities; inclusion criteria were measured BMI >30 or physically inactive plus BMI >25. Communities were randomized to SHHC-2.0 intervention (n=5 communities; n=87 participants) or the delayed intervention control condition (n=6 communities; n=95 participants). SHHC-2.0 intervention consisted of 24 weeks of twice-weekly experiential nutrition education and group-based physical activity classes led by local health educators. Difference in changes in dietary intake (24-hour recalls), dietary patterns (Healthy Eating Index-2015 [HEI] and Rapid Eating Assessment for Participants-Short Version [REAP-S] scores), and diet-related psychosocial measures (e.g., Three Factor Eating questionnaire) from 0-12 and 0-24 weeks between groups were analyzed using linear mixed-effects multilevel models. Mixed logistic regression was used to assess adherence to specific dietary recommendations.

Findings: At 24 weeks, intervention participants consumed fewer calories (*MD*= -211.24 kcal, *95% CI*: -411.56 to -10.91, *p*=0.039), improved REAP-S scores (*MD*= 3.91, *95%CI:* 2.26 to 5.57, *p*< 0.001), and improved psychosocial measures (healthy eating attitudes, uncontrolled eating, cognitive restraint, and emotional eating) compared to control participants. Intervention participants were 7.1 times more likely to have a REAP-S score above U.S. average compared to controls (95%CI: 3.31 to 15.22, p< 0.001). All statistically significant improvements for intervention participants at endpoint (24 weeks) were also significant at midpoint (12 weeks) compared to controls. Additionally, fat, saturated fat, solid fat, vegetable, and fiber consumption, HEI score and confidence in ability to stick to low saturated fat, low salt foods were significantly improved at 12 weeks for intervention compared to controls.

Conclusion: SHHC-2.0 has strong potential to improve cardiovascular health among rural women through improved diet-related behaviors. Additional strategies and supports appear to be needed, however, to sustain some improvements observed at 12 weeks.

CORRESPONDING AUTHOR: Alexandra L. MacMillan Uribe, PhD, RDN, Texas A&M AgriLife Institute for Advancing Health through Agriculture, Dallas, TX; macmillanuribe@ag.tamu.edu

---

1:27 PM – 1:39 PM

Abstract citation ID: kaad011.0448

EFFECTS OF AN EXERCISE INTERVENTION ON SEDENTARY BEHAVIOR IN ADULTS WITH HEART FAILURE FROM A RANDOMIZED CLINICAL TRIAL

Windy Alonso, PhD, RN[1], Diane Ehlers, PhD[2], Kevin A. Kupzyk, PhD[3], Erin Salahshurian, BSN, RN[1], Gisele Tlusty, MSN, RN[3], Kristin Dickinson, PhD, RN[1], Bunny Pozehl, PhD, APRN-NP[1]

[1]UNMC College of Nursing, Omaha, NE; [2]Mayo Clinic, Phoenix, AZ; [3]University of Nebraska Medical Center, Omaha, NE

Background: Despite clear links between physical inactivity and poor heart failure (HF)-related outcomes, most adults with HF are sedentary. We developed a behavioral intervention, Heart Failure Exercise and Resistance Training (HEART) Camp, to help adults with HF initiate and sustain moderate-intensity exercise. Evidence suggests that increasing moderate-intensity exercise may also reduce sedentary behavior. The purpose of this study was to examine sedentary behavior at baseline, 6, 12, and 18 months in adults with HF enrolled in the HEART Camp trial.

Methods: Adults with stable, chronic HF (n=204) were randomized to HEART Camp or enhanced usual care (EUC). All participants received paid access to a medical fitness center. HEART Camp participants also received weekly coaching. Sedentary behavior was operationalized as average daily minutes sedentary and average number of breaks in sedentary time per day measured using an Actigraph GT3X accelerometer at baseline, 6, 12, and 18 months. Sedentary outcome variables were compared between groups over time using linear mixed models with restricted maximum likelihood estimation.

Results: Of 204 participants, 189 were included in this analysis with 156 of those having ≥ 2 valid time points. Participants were on average 61.5 (SD 10.5) years old, 45.5% female, 43.4% non-white, 69.3% with an ejection fraction < 50%, and distributed 50.8% intervention to 49.2% EUC. Average daily sedentary minutes decreased in both groups from baseline to 18 months (HEART Camp 666.25 to 636.34, change -4.5%; EUC 664.21 to 617.53, change -7.0%). Although the group*time effect on sedentary minutes from baseline to 18 months was not significant (p=.686), a significant time effect was observed (p=.026). No effect of time was observed, and no group*time interactions were observed (p=0.865) for number of sedentary breaks. HEART Camp participants increased the number of daily breaks from 17.66 at baseline to 18.45 at 18 months, while EUC remained stable (17.72 at baseline, 17.52 at 18 months).

Conclusions: Participants in the HEART Camp trial were mostly sedentary, and the HEART Camp intervention had a limited impact on sedentary behavior. Despite strong evidence of the risk of poor HF-related outcomes associated with sedentary behavior, interventions, including HEART Camp, have focused on increasing moderate-intensity exercise. Interventions targeting improvements in sedentary behavior are needed with studies to evaluate the independent and combined effects of reducing sedentary behavior and increasing moderate intensity exercise on HF outcomes.

CORRESPONDING AUTHOR: Windy Alonso, PhD, RN, UNMC College of Nursing, Omaha, NE; windy.alonso@unmc.edu

1:39 PM – 1:50 PM

Abstract citation ID: kaad011.0449

MHEALTH TO REDUCE BLOOD PRESSURE IN HYPERTENSIVE AFRICAN AMERICANS: RESULTS FROM THE 12-MONTH MI-BP TRIAL

Lorraine R. Buis, PhD, FSBM[1], Katee Dawood, BS[2], Reema Kadri, MLIS[1], Rachelle Muladore, BS[2], LynnMarie Mango, MPH[2], Dongru Chen, MS[1], Ananda Sen, PhD[1], Zora Djuric, PhD[1], Candace McNaughton, MD, PhD, MPH[3], Caroline Richardson, MD[1], David Hutton, PhD[1], Phillip Levy, MD, MPH[2]

[1]University of Michigan, Ann Arbor, MI; [2]Wayne State University, Detroit, MI; [3]Sunnybrook Health Sciences Center, Toronto, ON, Canada

Introduction: Significant health disparities related to hypertension (HTN) exist in the U.S. as African Americans are more likely to have uncontrolled hypertension, experience younger age of onset, and suffer from greater disease severity. mHealth is often touted as a potential strategy to deliver interventions for chronic disease self-management, but utility to help reduce HTN-related disparities is unknown.

Objective: We sought to test the effect of a 12-month mHealth lifestyle and behavior change intervention called MI-BP on systolic blood pressure (SBP) among underserved African Americans with uncontrolled HTN in Detroit, MI.

Methods: Recruitment occurred primarily in urban emergency departments. Participants were consented/enrolled and asked to return two weeks later for baseline data collection and secondary screening. Randomization occurred two weeks after that to one of two groups. Both groups received prescriptions for antihypertensive medications if needed, as well as a Bluetooth-enabled BP cuff. The enhanced usual care control group received no additional intervention, whereas the intervention group were given access to the MI-BP app and a Fitbit Zip pedometer. The MI-BP app collected BP and physical activity Fitbit data; issued step count goals; provided tools to self-monitor sodium intake; and provided educational content and medication reminders both in-app and through push notifications. Differences between groups were compared by a Linear Mixed Regression model with SBP as outcome, and time, group, time-by-group interactions as the primary covariates, further controlling for age and gender. The correlation within subject was accounted for by a random subject intercept and a random slope on time. We sought to enroll 304 participants; however, recruitment was stopped early due to the COVID-19 pandemic.

Results: In total, 162 participants were randomized and 67 remained in the study at 52 weeks (41.4%). Mean age was 48.3 years and participants were predominantly female (59.9%), with less than a college degree (55.6%), and annual household incomes of < $25,000 (45.1%). Significant reductions in BP were seen in both the control (baseline mean SBP = 154.1 mmHg; 52-week mean SBP = 128.6 mmHg; $p < 0.001$) and intervention group (baseline mean SBP = 154.1 mmHg; 52-week mean SBP = 131.3 mmHg; $p < 0.001$), with no significant differences found between groups at either timepoint.

Discussion: Due to the COVID-19 pandemic, recruitment and retention in this trial was challenged resulting in a sample too small to draw formal conclusions. Nonetheless, similar significant reductions in BP over one year were noted in both groups, suggesting that proactive efforts to improve HTN control with or without the MI-BP app can be successful in underserved African Americans.

CORRESPONDING AUTHOR: Lorraine R. Buis, PhD, FSBM, University of Michigan, Ann Arbor, MI; buisl@umich.edu

Paper Session 4: Breast Cancer

1:02 PM – 1:14 PM

Abstract citation ID: kaad011.0450

EMOTION REGULATION SKILLS IMPACT COGNITIVE SYMPTOMS ASSOCIATED WITH BREAST CANCER SURVIVORSHIP

Megan Renna, PhD[1], Annelise K. Madison, MA[2], Rosie Shrout, PhD[3], Juan Peng, MAS[4], Maryam Lustberg, MD[5], Bhuvaneswari Ramaswamy, MD[4], Robert Wesolowski, MD[4], Nicole Williams, MD[4], Sagar Sardesai, MD[4], Anne Noonan, MD[4], Raquel Reinbolt, MD[4], Daniel Stover, MD[4], Mathew Cherian, MD[4], William Malarkey, MD[4], Rebecca Andridge, PhD[2], Janice K. Kiecolt-Glaser, PhD[4]

[1]University of Southern Mississippi, Hattiesburg, MS; [2]Ohio State University, Columbus, OH; [3]Purdue University, West Lafayette, IN; [4]Ohio State University College of Medicine, Columbus, OH; [5]Smilow Cancer Hospital and Yale Cancer Center, New Haven, CT

Background: Breast cancer survivors often experience cognitive side effects resulting from their cancer diagnosis and treatment, including higher rates of fatigue and memory/concentration problems. Emotion regulation offers opportunities to either enhance or dampen physical health. In a secondary analysis of a double-blind randomized controlled trial using a typhoid vaccine to assess factors associated with breast cancer survivors' inflammatory responses, we assessed how two specific aspects of emotion regulation, mindfulness, and worry, corresponded to trajectories of focus problems, memory problems, and fatigue along with performance on cognitive tasks across two visits among breast cancer survivors.

Methods: Breast cancer survivors (N = 149) completed two 8.5-hour visits at a clinical research center. Survivors were randomized to either the vaccine/saline placebo or a placebo/vaccine sequence. Worry and mindfulness questionnaires provided data on trait-level emotion regulation abilities. Fatigue, memory problems, and focus difficulties were assessed via Likert scales six times – once before the injections and then every 90 minutes for 7.5 hours thereafter. Women also completed the Cognitive Performance Task and Hopkins Verbal Learning Task at each visit. Covariates included age, treatment type, obesity, depressive symptoms, physical fitness, injection sequence, cancer stage, time since treatment, education level, and medical comorbidities.

Results: Higher worry and lower mindfulness were associated with higher average post-injection focus and memory problems for both injection types ($ps < .01$). Furthermore, the mindfulness effect on memory problems was exaggerated during the vaccine visit compared to placebo visit ($p = .03$); a one standard deviation increase in mindfulness corresponded to a .14 unit decrease in memory problems at the placebo visit compared to a .36 unit decrease at the vaccine visit. Higher mindfulness also corresponded to lower post-injection fatigue ($p < .001$). There were no significant associations between worry or mindfulness and performance on any of the cognitive or memory-related tasks, either averaging across injection types or separately by injection type ($ps > .10$).

Discussion: This study adds to a growing body of literature examining factors influencing symptom trajectories in breast cancer survivors. Findings highlight the benefits of adaptive emotion regulation in helping mitigate symptoms associated with breast cancer survivorship.

CORRESPONDING AUTHOR: Megan Renna, PhD, University of Southern Mississippi, Hattiesburg, MS; megan.renna@usm.edu

1:15 PM – 1:27 PM

Abstract citation ID: kaad011.0451

FEAR OF CANCER RECURRENCE AND CORTISOL LEVELS IN PARTNERS OF BREAST CANCER SURVIVORS

Alyssa L. Fenech, BA[1], Emily C. Soriano, PhD[2], Arun Asok[3], Scott D. Siegel, PhD, MHCDS[4], Jean-Philippe Laurenceau, PhD[1]

[1]University of Delaware, Newark, DE; [2]Scripps Health, San Diego, CA; [3]Alien Therapeutics Inc., Philadelphia, PA; [4]Christiana Care, Newark, DE

Background: Intimate partners of breast cancer (BC) survivors report high rates of psychological distress such as fear of cancer recurrence (FCR). Recent research suggests that partners and caregivers may have poorer physical health outcomes than the general population, but no research has examined the physiological pathway in which distress, specifically FCR, may impact health outcomes in BC partners. The current study examined the association between FCR and hair cortisol levels among BC partners within the first year following diagnosis and treatment.

Method: BC partners (N=75) provided hair samples during two home visits, one after completion of patients' adjuvant treatment (T1) and again six months later (T2). The Fear of Cancer Recurrence Inventory (FCRI) and the Concerns about Recurrence Scale (CARS) evaluated FCR at T1. The FCRI Severity, FCRI Distress, and CARS Overall subscales comprised an error-free latent FCR factor that was scaled to the metric of the FCRI scales (range= 0-4). Hair samples were cut close to the scalp and the length of samples was recorded at the time of collection. Cortisol was extracted from hair samples via centrifuge and assays were performed through immunoassay kits. The final amount of cortisol in hair samples was calculated and reported in pg/mg.

Results: Partners were mostly middle-aged (M= 59.38, SD= 10.4), male (97%), and White non-Hispanic (83%). Hair length across time points averaged 4.3cm (SD= 4.1), and hair length at T1 and T2 (both $p > .4$) were not significant predictors of latent change in cortisol. Partners' T1 reports of FCR were positively associated with latent cortisol change scores ($b = 0.69$, $SE = 0.25$, $p= .006$), indicating that a one-unit increase in FCR corresponded to a 0.69-unit increase in cortisol from T1 to T2. Analyses revealed a moderate effect size (standardized effect= 0.44) of T1 FCR on cortisol change.

Conclusion: This is the first study to examine the physiological pathway in which FCR may impact health outcomes in BC partners. Results indicated that greater FCR among BC partners was associated with greater increases in hair cortisol following BC diagnosis and treatment. Interventions to address partner FCR are needed and may aid in improving downstream physical health outcomes.

CORRESPONDING AUTHOR: Alyssa L. Fenech, BA, University of Delaware, Newark, DE; afenech@udel.edu

1:27 PM – 1:39 PM

Abstract citation ID: kaad011.0452

HEALTH INFORMATION-SEEKING THROUGH PERSONAL HEALTH RECORDS AMONG WOMEN SUSCEPTIBLE TO BREAST CANCER

Hyunmin Kim, PhD[1]

[1]School of Health Professions, The University of Southern Mississippi, Hattiesburg, MS

Objective: Health information-seeking is an essential component of health-related behavior and decision-making. Access to personal health records (PHRs), offered by healthcare providers, is an essential tool to access health information. However, little is known about predictive factors of use of PHRs as a medium of health information among women. In this study, we explored health information-seeking's decision processes through PHRs among middle-aged and older women susceptible to developing breast cancer.

Methods: We used data from the 2014 Health Information National Trends Survey in the United States and employed a 2-part Hurdle model. The study sample included 1159 women aged 40 to 75 years.

Results: The Hurdle estimation found that health information-seeking through PHRs consists of 2 distinct decision processes: (1) the use of PHRs and (2) the frequency of use; different sets of factors are associated with each decision process. Women's demographic characteristics were found to be the primary factors for PHR use. In contrast, socioeconomic factors, salience, self-efficacy, and general health status were more likely to be the main factors affecting the frequency of use.

Conclusions: Based on the findings, providing greater access to PHRs to women, particularly those with health needs or concerns, should be considered by policymakers. Additionally, the issue of the digital divide in PHR use should be addressed.

CORRESPONDING AUTHOR: Hyunmin Kim, PhD, School of Health Professions, The University of Southern Mississippi, Hattiesburg, MS; hyunmin.kim@usm.edu

1:39 PM – 1:50 PM

Abstract citation ID: kaad011.0453

PARENTING CONCERNS IN COUPLES COPING WITH ADVANCED BREAST CANCER

Morgan Jones, MA[1], Juliet Kroll, PhD[2], Mariana Chavez-MacGregor, MD, MSC[1], Sujin Ann-Yi, PhD[1], Kathrin Milbury, PhD[2]

[1]The University of Texas M.D. Anderson Cancer Center, Houston, TX; [2]The University of Texas MD Anderson Cancer Center, Houston, TX

Background: Advanced cancer patients and their spouses/partners who parent minor children report parenting concerns and significant psychological distress. Yet, evidence-based interventions addressing the needs of parents are lacking. Thus, the current study seeks to elucidate specific parenting concerns that couples may be facing to inform the development of support interventions.

Methods: As part of a larger observational study, women with advanced breast cancer and their partners completed self-reported assessments of symptoms of depression (CES-D) and anxiety (GAD-7). Participants parenting at least one minor child also completed the parenting concerns questionnaire (PCQ). Then, following a standard interaction task paradigm (conducted via videoconference), couples selected a social/relationship concern as it relates to the cancer diagnosis.

Results: Of the 82 couples who completed the baseline assessment, 35 (43%) patients and 40 (49%) spouses indicated that they are a legal guardian of a minor. Of those, 46% of patients (66% NHW; mean age=43 yrs) and 49% of spouses (97.5% male; 55% NHW; mean age=44 yrs) reported clinically significant distress. For both patients and spouses, parenting concerns were directly associated with symptoms of depression (r=.53, P=.001; r=.52, P< .01, respectively) and anxiety (r=.46, P< .01; r=.60, P< .001, respectively). During the interaction task, 29 patients and 24 spouses selected a parenting-related topic as their primary social/relationship concern. Specifically, patients were concerned about emotional and physical symptoms interfering with parenting (n=12); changes to the parenting role (n=8); family's worries about their death (n=4); communicating the prognosis with family (n=3); and negative impacts to the family's routine (n=2). Caregivers were concerned about changes to parenting roles (n=12); negative impact to the family's routine (n=5); emotional and physical wellbeing interfering with parenting (n=4); and the family after the death of the patient (n=3).

Conclusions: Parenting concerns are common among couples coping with advanced breast cancer and associated with significant distress. Support interventions that target mitigating symptom burden as it applies to parenting responsibilities, coping with parenting role changes and routine disruptions, and communicating about the illness and impending death may reduce psychological symptoms.

CORRESPONDING AUTHOR: Morgan Jones, MA, The University of Texas M.D. Anderson Cancer Center, Houston, TX; mrjones1@mdanderson.org

Paper Session 5: Implementation Science

1:02 PM – 1:14 PM

Abstract citation ID: kaad011.0454

CITATION AWARD WINNER

A DIETARY INTERVENTION PILOT TO INCREASE CRUCIFEROUS VEGETABLE INTAKE TO IMPROVE BLADDER CANCER OUTCOMES

Karen Yeary, PhD[1], Han Yu, PhD[1], Chong Wang, MA[1], Maggie Kuliszewski, ScD[2], Qiang Li, MD[1], Frances Saad-Harfouche, MS[1], Nikia Clark, MPH[1], Elizabeth DiCarlo, MPH[3], Rachel Pratt, MS[1], Zinian Wang, BS[1], Li Tang, PhD[1]

[1]Roswell Park Comprehensive Cancer Center, Buffalo, NY; [2]New York State Cancer Registry, Albany, NY; [3]Roswell Park Comprehensive Cancer Center, Tonawanda, NY

Introduction: As one of the top 10 most common cancers in the US, bladder cancer is the most expensive cancer to treat. Most bladder cancers (70-80%) are diagnosed at early stages as non-muscle invasive bladder cancer (NMIBC), which can be removed surgically. However, 50-80% of NMIBC recurs within 5 years, and 15-30% progresses with poor survival. Besides life-long surveillance, current treatment is limited. Preclinical and epidemiologic evidence suggests that dietary isothiocyanates (ITCs) in cruciferous vegetables (Cruciferae) could be a non-invasive and cost-effective strategy to improve NMIBC prognosis. Yet a Cruciferae intervention that increases ITC exposure in NMIBC survivors has not been tested.

Methods: We used a Hybrid Type 1 design to ascertain: 1) the preliminary efficacy of a 6-month Cruciferae intervention for NMIBC survivors through a blinded 2-arm randomized trial (RCT); and 2) the implementation supports needed for intervention scale-up. The intervention consisted of mailed educational materials, a phone-based education session, 11 Interactive Voice Responses calls, and an exit-interview. Survey data, 3-day dietary recalls, and 3-day urine samples were collected at baseline and 6-month follow-up. Clinician interviews were conducted after RCT completion. Two-sided Wilcoxon rank-sum tests were used for between-group comparisons.

Results: A total of 49 NMIBC patients diagnosed in 2018-2019 were randomized and 42 (22 treatment, 20 control) were retained for 6-month follow-up. The majority of participants were male (71.4%) and White (90.5%), with an average age of 67.4 years. No significant differences between the two groups were observed at baseline. Compared to the control, the treatment group reported 35.0g (95% CI: -14.9, 85.0; p=0.014) higher Cruciferae intake (treatment=58.6 ± 54.5 g vs. control=23.6 ± 96.1g) and increased urinary ITC levels by 11.1μmol/g creatinine (treatment=14.2 ± 24.5 vs. control=3.1 ± 13.9, p=0.027) at 6-month follow-up. Twenty clinician interviews were completed, indicating that regular clinic visits could allocate 5 minutes per visit for the intervention.

Conclusion: This is the first Cruciferae intervention for NMIBC survivors designed to reduce bladder cancer recurrence and improve survivorship. Our behavioral intervention showed capability to significantly increase Cruciferae intake and ITC levels in NMIBC survivors. Given the positive feedback received from patients and clinicians, the findings support a large-scale trial on the intervention's efficacy in bladder cancer recurrence and progression. Our evidence-based dietary intervention program has the potential to offer an affordable, scalable option for NMIBC survivors to reduce their risk of recurrence and improve outcomes.

CORRESPONDING AUTHOR: Karen Yeary, PhD, Roswell Park Comprehensive Cancer Center, Buffalo, NY; Karen.Yeary@RoswellPark.org

1:15 PM – 1:27 PM

Abstract citation ID: kaad011.0455

APPLYING IMPLEMENTATION SCIENCE TO SUPPORT A COMPLEX POPULATION-BASED GENOMIC SCREENING PROGRAM IN A LEARNING HEALTH SYSTEM

Caitlin Allen, PhD, MPH[1], Leslie Lenert, MD[1], Lori McMahon, PhD[1], Daniel Judge, MD[1]

[1]Medical University of South Carolina, Charleston, SC

Background: Genetic information is increasingly relevant for disease prevention and risk management at the individual and population levels. Application of implementation science theories and frameworks are critical to support continuous assessment of precision health initiatives and integration of evidence-based strategies. We will describe implementation and evaluation efforts, including pragmatic data collection tool and methods for tracking adaptations to support tracking, analyzing, and modifying programs based on real-time feedback.

Methods: We used the Implementation Research Logic Model to guide the evaluation of our population-based genomic screening program, which includes multi-level CFIR determinants, implementation strategies, mechanisms of change, and RE-AIM outcomes. Our four aims are to: 1) monitor participation to identify and address factors associated with participation, 2) assess contextual factors that influence adoption and sustainment in clinical and community sites, 3) describe facilitators and barriers to implementation, and 4) track the impact of adaptations on key program outcomes. We use a convergent parallel mixed-methods study design, including a quantitative examination of frequencies and response rates across demographic categories using chi-square tests. Qualitative data were audio-recorded and transcribed, with codes developed by the study team based on the semi-structured interview guide.

Findings: Since launch in November 2021, 66,275 potential participants have been contacted via patient portal with 10,716 (16.2%) enrolled. Approximately 30% of invited individuals are non-White and 21.2% of enrolled individuals are non-White. During the pilot phase assessment of implementation (i.e., adherence to protocols/fidelity to protocols) included DNA sample collection rate (n=982, 53.2%) among those consented and proportion of samples needing recollection (n=38, 2.3%). There were no significant differences in sample collection once consented based on demographic characteristics. We found high Effectiveness, with minimal dropout rates (n=16, 1.63%). To date, we have identified 29 individuals with positive results, with 65% completing genetic counseling. Fifty-nine adaptations have been logged, with the majority of program modifications designed to increase reach to potential participants (60%).

Conclusions: The use of implementation science can help better understand how to support the implementation and maintenance of population-level genetic screening programs and enhance ability integrate genomic information at the point-of-care. Streamlining tools for tracking and responding to implementation data can help plan and monitor the incremental impact of interventions to support continued learning and problem solving for complex interventions being delivered in health systems based on real-time data.

CORRESPONDING AUTHOR: Caitlin Allen, PhD, MPH, Medical University of South Carolina, Charleston, SC; caa224@musc.edu

1:27 PM – 1:39 PM

Abstract citation ID: kaad011.0456

RELATIONSHIP BETWEEN THE CFIR INNER SETTING AND THE IMPLEMENTATION OF THE HSRC INITIATIVE: A MIXED METHODS ANALYSIS

Allyson Schaefers, MPH, CHES[1], Paula Butler, MAg, RDN, LD[2], Alexandra L. MacMillan Uribe, PhD, RDN[1], Chad D. Rethorst, PhD[1], Laura Rolke, PhD, MPH, CHES[1], Rebecca A. Seguin-Fowler, PhD, RDN, LD, CSCS[3], Jacob Szeszulski, PhD[1]

[1]Texas A&M AgriLife Institute for Advancing Health through Agriculture, Dallas, TX; [2]Texas A&M AgriLife Extension, Dallas, TX; [3]Texas A&M AgriLife Institute for Advancing Health through Agriculture, College Station, TX

Purpose: Healthy School Recognized Campus (HSRC) is a Texas A&M AgriLife Extension (AGLE) initiative that promotes the delivery of multiple evidence-based physical activity and nutrition programs in schools. Delivery of multiple evidence-based programs can result in critical implementation challenges. We examined how Consolidated Framework for Implementation Research (CFIR) inner setting constructs relate to HSRC implementation.

Methods: We surveyed (n=26) and interviewed (n=20) HSRC implementers (i.e., school staff, AGLE staff) to identify CFIR inner setting constructs (e.g., available resources, leadership engagement) related to program acceptability, appropriateness, and feasibility. Using a convergent mixed -methods design, we coded interviews using the CFIR codebook, administered a CFIR inner setting survey, and compared quantitative and qualitive results.

Findings: Available resources and leadership engagement were related to HSRC acceptability (r=0.41; p=.038 and r=0.48; p=.012, respectively) and appropriateness (r=0.39; p=.046 and r=0.63; p=.001, respectively). Qualitative analyses clarified that physical resources (e.g., curriculum or a garden) did not limit implementation; rather, it was intangible resources: "Prep time is probably the biggest barrier." Participants also stressed the value of buy-in from leaders, "Once the principals got behind it and said, 'I want this to happen,' then it's going to happen."

Quantitative results revealed that implementation climate was related to HSRC acceptability (r=0.46; p=.018), appropriateness (r=0.50; p=.009), and feasibility (r=0.55; p=.004). Learning climate was related to HSRC appropriateness (r=0.50; p=.009). However, both types of climates were less relevant in interviews, "[learning climate] doesn't matter. [HSRC] is still one more thing that you've got to plan for."

Qualitative results revealed the importance of networks/communication and access to knowledge stating, "I just asked [AGLE] directly, and they told me. It's a wonderful style as far as communication" and "First it was really overwhelming…after [AGLE] came in and explained it…it was fairly easy."

Conclusion: Available resources and leadership engagement were important to HSRC implementation in this evaluation. Implementation strategies that get buy-in from leaders and limit time as a barrier may be beneficial for supporting HSRC delivery. Implementation and learning climates, networks/communication, and access to knowledge may also be important to HSRC implementation, however, these constructs need further exploration.

CORRESPONDING AUTHOR: Allyson Schaefers, MPH, CHES, Texas A&M AgriLife Institute for Advancing Health through Agriculture, Dallas, TX; allyson.schaefers@ag.tamu.edu

1:39 PM – 1:50 PM

Abstract citation ID: kaad011.0457

TECHNOLOGY-BASED SOLUTIONS TO SUPPORT DIVERSE RE-AIM OUTCOMES AMONG DIVERSE TRANSLATIONAL RESEARCH STUDIES

Caitlin Allen, PhD, MPH[1], Jennifer Dahne, PhD[1], John Clark, BS[1]

[1]Medical University of South Carolina, Charleston, SC

Background: Innovative technology-based approaches and systems are needed to be responsive to researcher's needs and facilitate large-scale change in translational research. The purpose of this presentation is to provide examples of technical infrastructure designed to support community and clinical research across the translational research continuum.

Methods: We will describe the suite of technical services and impact on: Reach (ability to reach populations that need the intervention), Effectiveness (assessment of how well the intervention worked), Adoption (ability to collaborate with community organizations), Implementation (appropriate delivery of intervention), and Maintenance (delivery of intervention long-term).

Findings: To facilitate Reach, we developed automatic text message reminders for those who express initial interest in a study through the electronic patient portal but fail to consent. This includes a silent best practice alert and text message that redirects the individual to the consent form (500 reminders initiated). To track Effectiveness, we built a REDCap form based on the Framework for Modification and Adaptations that systematically logs adaptations and support researcher's understanding of the impact of these adaptations on intervention outcomes (46 adaptions logged). We developed an enrollment application to enhance Adoption, which allows for enrollment without the use of a tethered electronic health record (399 enrolled at 60 community events). We developed two REDCap modules to promote Implementation. "CheatBlocker" detects participants who repeatedly complete study screening to prevent their fraudulent entrance into a trial (used at 47 institutions). "QuotaConfig" allows an investigator to establish demographic enrollment quotas to ensure sample representativeness (used at 18 institutions). To support long-term Maintenance, we developed a custom web interface that leverages REDCap as a backend data source for managing consent forms and storing the signed versions. This process verifies that the individuals have not already consented for the study and then directs them to complete the study's consent form and enrollment (7,320 consents completed).

Conclusions: The technology-driven enhancements and strategies we have developed to support RE-AIM outcomes across the translational research continuum at our institution can serve as a roadmap for other institutions seeking to build capacity to re-imagine a better system for translational research.

CORRESPONDING AUTHOR: Caitlin Allen, PhD, MPH, Medical University of South Carolina, Charleston, SC; caa224@musc.edu

Paper Session 6: HIV PrEP Uptake

1:02 PM – 1:14 PM

Abstract citation ID: kaad011.0458

MEDICAL MISTRUST AS A BARRIER TO POTENTIAL HIV VACCINE UPTAKE AMONG YOUNG SEXUAL MINORITY MEN 17-24 YEARS OLD

Steven A. John, PhD, MPH[1], Jennifer L. Walsh, PhD[1], Sara A. Abunike[1], Ryan M. Doherty[2], Andrew M. O'Neil, MPH[1], Madeline Dang, MPH[1], Katherine G. Quinn, PhD[1]

[1]Medical College of Wisconsin, Milwaukee, WI; [2]Boston University, Milwaukee, WI

Background: Young gay, bisexual, and other sexual minority men (YSMM) are disproportionately affected by HIV and a priority population for prevention. Failures in prior roll-out of HIV prevention efforts have widened disparities in incidence by race/ethnicity. Medical mistrust is associated with lower HIV testing, pre-exposure prophylaxis (PrEP) uptake, and treatment adherence. As HIV vaccine trials are currently underway, we hypothesized higher medical mistrust to be associated with lower willingness to get an HIV vaccine.

Methods: HIV-negative/unknown YSMM 17-24 years old (n=232; M_{age}=21.4; 93.1% cisgender; 56.0% Black, Latinx, or multiracial/another) who met CDC criteria for PrEP recruited via social media and men-for-men networking apps completed online surveys from September 2021 to March 2022. Participants were asked about demographics (age, race/ethnicity, gender identity, insurance status, urbanicity, healthcare provider access), medical mistrust, and willingness to get an HIV vaccine should one become available. Four validated subscales of medical mistrust were assessed: healthcare-related sexual orientation stigma (α=0.92), healthcare-related race stigma (α=0.96), global medical mistrust (α=0.76), and trust in healthcare providers (α=0.87). We examined associations between demographics, medical mistrust, and vaccine willingness using chi-squared comparisons and logistic regression. Associations between race/ethnicity and healthcare-related race stigma were analyzed using ANOVA. Race/ethnicity was excluded from fully-adjusted logistic regression to avoid overspecification and masking the effects of racism measured through healthcare-related race stigma.

Results: Overall, 86.6% of YSMM were willing to get an HIV vaccine. Vaccine willingness was highest among white YSMM (95.1%) and lower among Black (71.9%), Latinx (83.8%), and multiracial/another YSMM (80.0%; $\chi 2$=13.94, p< 0.01). Race/ethnicity was associated with healthcare-related race stigma (F(3,228)=27.7, p< 0.001), with healthcare-related racism highest among Black YSMM. In adjusted analyses, lower healthcare-related race stigma (*AOR*=0.43, *95%CI*:0.24-0.77) and higher trust in healthcare providers (*AOR*=2.34, *95%CI*:1.39-3.94) were associated with willingness to get an HIV vaccine.

Conclusions: Our findings illustrate the harmful effects of racism in health care. Gaps in willingness to get an HIV vaccine are evident among YSMM by race/ethnicity, indicating potential further widening of disparities in HIV incidence when a vaccine becomes available without intervention. Improving trust between patients and providers is a promising area for intervention to increase vaccine uptake.

CORRESPONDING AUTHOR: Steven A. John, PhD, MPH, Medical College of Wisconsin, Milwaukee, WI; sjohn@mcw.edu

1:15 PM – 1:27 PM

Abstract citation ID: kaad011.0459

MERITORIOUS AWARD WINNER

PERSPECTIVES OF YOUNG MEN WHO HAVE SEX WITH MEN ON THE PROS AND CONS OF DIFFERENT PREP FORMULATIONS AND DOSING STRATEGIES

Junye Ma, MA[1], Zach Soberano[2], Matthew Rosso, MPH[2], Lisa Hightow-Weidman, MD, MPH[3], Kimberly Powers, PhD[3], Bryce Stamp[2], Jacob Benjamin Stocks, MSc-GH[2], Sybil Hosek, PhD[4], Keith J. Horvath, PhD[5]

[1]SDSU-UC San Diego Joint Doctoral Program in Clinical Psychology, La Jolla, CA; [2]Institute for Global Health and Infectious Diseases University of North Carolina at Chapel Hill, Chapel Hill, NC; [3]University of North Carolina at Chapel Hill, Chapel Hill, NC; [4]Stroger Hospital of Cook County, Chicago, IL; [5]San Diego State University, San Diego, CA

Background: Young men who have sex with men (YMSM) aged 13-24 years are disproportionally affected by HIV. Although pre-exposure prophylaxis (PrEP) is a highly effective HIV prevention medication and is available in various formulations (pills, injectables) and dosing strategies (daily, on-demand), PrEP uptake/adherence remain subpar among YMSM. Understanding YMSM's perspectives of the pros and cons of actual or potential use of PrEP options is the focus of this study.

Methods: From Dec 2021-Apr 2022, 21 YMSM (M age 22 years; 47.5% racial/ethnic minority; 47.5% used PrEP) were recruited nationwide and participated in two of six online focus groups. Semi-structured questions elicited YMSM's perceived benefits and drawbacks of various PrEP formulations and dosing strategies. Transcripts were examined through inductive content analysis.

Results: YMSM reported psychological and structural facilitators and barriers to various PrEP formulations. Pros of daily PrEP centered on psychological benefits, such as daily consistency, perceived control over sexual health, and flexible sex planning. Cons of daily PrEP included both psychological (e.g., mental effort with daily adherence) and structural barriers (e.g., barriers to PrEP care engagement, negative provider interactions). YMSM also reported psychological benefits of on-demand PrEP, including the flexibility with PrEP dosing strategies and control over medication consumption. Cons of on-demand PrEP focused on psychological barriers (e.g., difficulties predicting sex, perceived commitment to sex, and challenges to follow on-demand PrEP's dosing requirements). Finally, excerpts referenced to both psychological (e.g., ease of adherence, peace of mind) and structural benefits (e.g., convenience with service engagement) of injectable PrEP, while cons of injectable PrEP centered on structural barriers, especially limited accessibility (e.g., lack of services in rural areas).

Conclusion: This study elucidated YMSM's perspectives of various PrEP formulations and dosing strategies simultaneously. Findings highlighted YMSM's motivations and perceived barriers of using various PrEP modalities, as well as underscoring the importance of tailoring PrEP dosing strategies to YMSM's unique individual, interpersonal, and structural needs. Our findings may inform future PrEP interventions that aim to optimize the selection of PrEP dosing strategies for different YMSM, which may ultimately increase YMSM's PrEP uptake and adherence.

CORRESPONDING AUTHOR: Junye Ma, MA, SDSU-UC San Diego Joint Doctoral Program in Clinical Psychology, La Jolla, CA; jma3497@sdsu.edu

---

1:27 PM – 1:39 PM

Abstract citation ID: kaad011.0460

TAKING OTHER MEDICATION FACILITATES PREP ADHERENCE AMONG TRANSGENDER WOMEN

Dafna Paltin, BS[1], Leah Burke[2], Sheldon Morris, MD, MPH[2], Jessica Montoya, PhD[3], David J. Moore, PhD[2]

[1]SDSU/UC San Diego Joint Doctoral Program in Clinical Psychology, La Jolla, CA; [2]University of California San Diego, San Diego, CA; [3]UC San Diego, San Diego, CA

Background: Pre-exposure prophylaxis (PrEP) is proven to prevent HIV acquisition with adequate PrEP adherence; however, studies to date lack sufficient data on the efficacy of PrEP for transgender and nonbinary (TGNB) individuals. The individualized Texting for Adherence Building (iTAB) system is an evidence-based intervention for supporting PrEP adherence and was adapted to include motivational interviewing (MI) for TGNB individuals. The present study examines engagement in the iTAB+MI intervention and characterizes participant-identified barriers and facilitators of daily PrEP adherence.

Methods: 255 participants were enrolled and randomized into a 48-week, parallel-arm iTAB intervention; with (n = 128) or without (n = 127) brief MI support for suboptimal adherence. In the iTAB+MI arm, participants who did not respond to daily text messages or self-reported non-adherence to PrEP for three consecutive days were contacted via telephone for a brief MI session. Participant responses during the MI sessions were evaluated using mixed-method thematic analysis to uncover barriers and facilitators of PrEP adherence.

Results: 114 MI sessions were completed during the 48-week trial. Across gender groups, participants reported that non-responsiveness to text messages and/or non-adherence to PrEP was related to (1) not having immediate access to PrEP medication, (2) phone problems, and (3) forgetting to respond to text messages. Reasons that participants reported not having PrEP available included being unable to refill their medication or losing their medication. Phone problems included forgetting, losing, or breaking a cell phone, which impacted their ability to receive or respond to text messages. The most frequently reported facilitators of PrEP adherence across gender groups were (1) high motivation to take PrEP, (2) having routines that incorporated taking PrEP, and (3) the helpfulness of iTAB daily text messages. Surprisingly, 32% of the participants who completed MI interviews (N = 92) also reported taking PrEP despite not responding to text messages. Transgender women were more likely to report pairing PrEP with other medications as a facilitator for PrEP adherence and finding the iTAB text messages helpful for PrEP adherence.

Conclusion: Several key barriers for PrEP adherence were identified in the sample of TGNB individuals, and these barriers did not significantly differ by gender group. Transgender women reported unique facilitators for PrEP adherence. Future research directions include investigating non-PrEP medication adherence (e.g., hormone replacement therapy) as a facilitator for PrEP adherence, and why the pairing of medication regimens may be a more salient adherence facilitator for transwomen compared to transmen and nonbinary individuals.

CORRESPONDING AUTHOR: Dafna Paltin, BS, SDSU/UC San Diego Joint Doctoral Program in Clinical Psychology, La Jolla, CA; dpaltin@ucsd.edu

1:39 PM – 1:50 PM

Abstract citation ID: kaad011.0461

CITATION AWARD WINNER

USING PERCEPTUAL MAPPING TO UNDERSTAND PREP USE IN YOUNGER AND OLDER TRANS WOMEN: IMPLICATIONS FOR MESSAGE DEVELOPMENT

Sarah B. Bass, PhD, MPH, FSBM[1], Ariel Hoadley, MPH[1], Bevin Gwiazdowski, MSW[2], Patrick J. Kelly, MPH[3], Elijah Brittingham, BS[2], Mackenzie Fierceton, BA, MA[2], Marne Castillo, PhD, MEd[2]

[1]Temple University College of Public Health, Philadelphia, PA; [2]Children's Hospital of Philadelphia, Philadelphia, PA; [3]Temple University, Providence, RI

Background: Estimates indicate trans women are 34 times more likely to be living with HIV in the US. Pre-exposure prophylaxis (PrEP) shows significant promise for reducing HIV risk, but trans women have low levels of use, especially if younger than 25 years old. Understanding unique barriers to PrEP use among younger trans women is important for reaching this at-risk population.

Methods: 50 trans women ages 16-24 were surveyed January-May 2022 to assess PrEP perceptions. Perceptual mapping (multidimensional scaling) and vector modeling methods were used to create 3-dimensional maps to show barriers and facilitators to PrEP. The maps were compared to those from another study with older trans women (n=128) collected in 2018 to assess differences by age group and identify potential message strategies for an intervention. This method is used in commercial marketing to assess highly targeted strategies for message development.

Results: Perceptual maps show key conceptual similarities and differences. Both older and younger trans women believed barriers to PrEP included worries about expense and that PrEP does not protect against other STDs. But older women also worried about potential interference with hormones while younger women were concerned about potential side effects. Both groups felt a major benefit of PrEP was helping them "feel in charge" of their lives. Younger women also felt that using PrEP when having sex was a major benefit, which was not seen with older women. Overall, younger trans women were concerned about who would know they were using PrEP (i.e., parents) and felt PrEP was most appropriate for older transwomen, indicating a need for specific message strategies to encourage younger women to use PrEP. Importantly, younger women did not identify leaders in the trans community as an important information source about PrEP but did identify social media and others who were taking PrEP as credible.

Conclusions: These methods are useful in understanding younger trans women's unique PrEP perceptions and potential message strategies that could be embedded in communication and interventions. While many similarities were seen between younger and older groups, important messaging differences were identified, suggesting that targeted PrEP interventions should address youth specific perceptions.

CORRESPONDING AUTHOR: Sarah B. Bass, PhD, MPH, FSBM, Temple University College of Public Health, Philadelphia, PA; sbass@temple.edu

---

Paper Session 7: Tobacco and Vaping Control

1:02 PM – 1:14 PM

Abstract citation ID: kaad011.0462

"BETTER THAN ANY DARE PROGRAM": A QUALITATIVE ANALYSIS OF ADOLESCENT REACTIONS TO EVALI STORYLINES ON POPULAR MEDICAL DRAMAS

Beth L. Hoffman, PhD, MPH[1], Riley L. Wolynn[1], Jennifer McCartney, BIA[1], Jaime E. Sidani, PhD, MPH, CHES[1], Elizabeth Miller, MD, PhD[2], Jennifer Manganello, PhD, MPH[3], Kar-Hai L. Chu, PhD, MS[1], Elizabeth L. Felter, PhD, MCHES[1], Jessica G. Burke, PhD, MPH[1]

[1]University of Pittsburgh School of Public Health, Pittsburgh, PA; [2]University of Pittsburgh School of Medicine, Pittsburgh, PA; [3]SUNY Albany, Albany, NY

Introduction: According to the United States National Youth Tobacco Survey (NYTS), in 2021 over 2.0 million high school and 470,000 middle school students reported current (i.e. past 30 day) e-cigarette use. Research suggests that awareness of e-cigarette, or vaping, product-use associated lung injury (EVALI) among adolescents is associated with increased harm perception of e-cigarette products and that including adolescents in research can identify strategies for delivering tobacco prevention education. Therefore, we conducted focus groups with middle school adolescents to assess the potential influence of EVALI storylines on popular medical dramas and the use of clips from these storylines as part of tobacco prevention education.

Methods: We conducted 4 focus groups with 7th and 8th grade students. Participants viewed three clips of scenes from the storylines followed by a facilitated discussion as to the influence of the clips on perceived benefits and harms of e-cigarette use and the use of clips as part of a tobacco prevention program. Due to school district policies, the focus groups were not recorded. Two notetakers with qualitative research experience typed participant responses and noted observations. Two research assistants double-coded notes from the focus groups using Nvivo software and qualitative content analysis methods.

Results: Our final sample included 78 adolescents; we obtained self-reported demographic information for 75. Most participants were 13-14 years of age (82.7%) and identified as cisgender female (52.0%) and Black (52.0%). While participants reported perceiving e-cigarettes as harmful prior to watching the clips, none had knowledge of EVALI prior to watching the video clips. Comments made both during and after watching suggest viewing the clips may have reinforced knowledge and perceptions of harm, and participants stated that the clips could be a useful intervention tool. Viewing the clips also generated unprompted discussion about flavored products and tobacco advertising, other television programs, and marijuana.

Conclusions: Clips featuring the depiction of EVALI on popular medical dramas may be an effective tool for raising awareness of e-cigarette use-related harms and lower intention to use ecigarettes among adolescents. Our findings also suggest these clips may be valuable as a springboard to adolescent marijuana vaping education and media literacy as it relates to e-cigarette advertising. These results suggest promising directions for future collaborative research between public health, adolescents, and schools to develop tobacco prevention programs utilizing these clips and address tobacco-related health disparities.

CORRESPONDING AUTHOR: Beth L. Hoffman, PhD, MPH, University of Pittsburgh School of Public Health, Pittsburgh, PA; beth.hoffman@pitt.edu

1:15 PM – 1:27 PM

Abstract citation ID: kaad011.0463

PATHWAYS TO QUITTING AMONG YOUTH AND YOUNG ADULT E-CIGARETTE USERS VIA CONSTRUCTS TARGETED BY THE TRUTH® ANTI-VAPING CAMPAIGN

Jennifer M. Kreslake, PhD, MPH[1], Kathleen Aarvig, MPH[1], Shiyang Liu, MS[1], Donna C. Vallone, PhD, MPH[1], Elizabeth C. Hair, PhD[1]

[1]Truth Initiative, Washington, DC

Background: The truth® anti-vaping campaign targets a broad audience of youth and young adults, which includes both e-cigarette users and non-users. This study examines the pathways through which youth and young adult e-cigarette users' awareness of the truth® campaign influences frequency of e-cigarette use over time.

Methods: Data used three waves of the Truth Longitudinal Cohort (TLC), a probability-based, nationally representative survey: Wave 1: September 2020–March 2021; Wave 2: July–October 2021; Wave 3: January–May 2022. The sample was a cohort of 15-24-year-olds who reported current e-cigarette use at baseline (N=1,211). Latent growth structural equation modeling techniques were used to examine the pathway from cumulative ad awareness to e-cigarette outcomes via campaign-targeted attitudes (e.g., perceived risk of harm, anti-vape industry sentiments, independence from vaping, affinity for groups that reject vaping, and perceived social norms regarding disapproval of e-cigarette use). The outcome was frequency of e-cigarette use, which was coded into four categories from former user to daily e-cigarette users.

Results: By the final wave of data collection, approximately 40% of the sample became former e-cigarette users. A decrease was observed in both moderate use (from 39% to 24%) and daily use (from 34% to 30%). Model fit estimates identified a three-step pathway by which awareness of the campaign reduced e-cigarette use. The overall indirect pathway was significant (B = -.09, P < .0001). Ad awareness was significantly associated with improvements in each campaign-targeted attitude. Of these, three attitudes – perceived risk of harm (B = .22, P = .006); anti-industry sentiment (B = .23, P = .040); and independence from vaping (B = .44, P = .044) – had positive effects on perceived social norms. Perceived norms about social disapproval of e-cigarette use then had a negative relationship with the growth in e-cigarette use frequency over time (B = -.49, p < .0001). Ad awareness did not have a significant direct effect on e-cigarette frequency (B = -.03, P = .623).

Conclusions: Findings of this study provide evidence that greater truth® ad awareness strengthens campaign-targeted attitudes among current users. Having stronger attitudes (i.e., perceived risk of harm, anti-industry sentiment, and desire for independence from vaping) can increase perceived norms against e-cigarette use and lead to reduced frequency of use or quitting.

CORRESPONDING AUTHOR: Jennifer M. Kreslake, PhD, MPH, Truth Initiative, Washington, DC; jkreslake@truthinitiative.org

---

1:27 PM – 1:39 PM

Abstract citation ID: kaad011.0464

PERCEPTIONS OF THE PROPOSED FDA GRAPHIC CIGARETTE WARNINGS AMONG DAILY AND NONDAILY SMOKERS

Bethany Shorey Fennell, PhD[1], Renee E. Magnan, PhD[2], Jennifer I. Vidrine, PhD[1], Damon J. Vidrine, DrPH[1], Linda D. Cameron, PhD, FSBM[3]

[1]Moffitt Cancer Center, Tampa, FL; [2]Washington State University Vancouver, Vancouver, WA; [3]University of California, Merced, Merced, CA

Nondaily smokers (NDS) comprise one-third of current cigarette smokers in the U.S. However, NDS are less likely than daily smokers to identify as "smokers" and, thus, may not be persuaded by messaging encouraging smoking cessation. It is critical to evaluate potential differences in response to smoking health risk messaging between NDS and daily smokers (DS). We describe a secondary analysis of a study of the proposed FDA graphic warnings for cigarette packaging among a sample of U.S. adult smokers, including NDS, and nonsmokers. We previously established differences in message evaluations between smokers and nonsmokers. The current investigation explores differences between DS and NDS.

Method: Participants (n=242) recruited online through Cloud Research evaluated the 13 proposed graphic warnings and 13 equivalent text-only warnings on understanding the consequences of smoking, perceived new knowledge, worry, discouragement from smoking, and message believability.

Results: Participants were DS (n=183) and NDS (n=59) who were on average 40.4 years old. The majority were white (78.9%), male (50.4%), and had greater than a high school degree (83.5%). Compared to DS, NDS were younger (M age = 34.10 vs 42.42; t = -4.79, p < .001), more likely to have greater than a high school degree (93.2% vs 80.3%, χ^2 = 24.34, p < .001) and identify as male (62.7% vs 47.0%, χ^2 = 4.42, p = .04), and less likely to identify as white (69.5% vs 82.0%, χ^2 = 4.18, p = .04). NDS were less likely than DS to plan to quit in the next six months (23.8% vs 33.3%) and a greater proportion were not planning to quit at all (28.8% vs 19.0%, χ^2 = 33.67, p < .001). Compared to DS, NDS were more likely to report discouragement from smoking when viewing graphic warnings (M = 5.09, SD = 1.41; DS M = 4.61, SD = 1.67; t = 2.19, p = .03, d = .30). There was no difference between NDS and DS when viewing graphic warnings on understanding consequences of smoking (p = .26), perceived new knowledge (p = .07), worry (p = .34), or message believability (p = .72). There were also no group differences for any outcome after viewing text-only messages (all p's = 0.13-0.62).

Conclusions: Evaluations of messages designed as cigarette package warnings were largely similar among NDS and DS. However, NDS rated graphic messages as more discouraging of smoking. Thus, graphic messages may be especially impactful for NDS. Future investigations should examine whether these factors increase motivation to quit among NDS.

CORRESPONDING AUTHOR: Bethany Shorey Fennell, PhD, Moffitt Cancer Center, Tampa, FL; bethany.shoreyfennell@moffitt.org

1:39 PM – 1:50 PM

Abstract citation ID: kaad011.0465

YOUTH AND YOUNG ADULT E-CIGARETTE USE SINCE THE FDA'S MISSED DEADLINE TO REGULATE E-CIGARETTES

Elizabeth K. Do, PhD, MPH[1], Carlin D. Nelson, MPH[2], Emily Donovan, MPH[1], Tatum McKay, MPH[1], Elizabeth C. Hair, PhD[1]

[1]Truth Initiative, Washington, DC; [2]Truth Initiative, Baltimore, MD

Introduction: The United States Food and Drug Administration (FDA) was ordered to evaluate electronic nicotine delivery systems (ENDS) products by September 9, 2021. However, the FDA missed the deadline and conveyed to a federal court that it would not be able to review the most common tobacco/nicotine delivery devices until 2023. Since the missed deadline, >750,000 youth have started using e-cigarettes.

Objective: To identify potential risk factors for e-cigarette use among youth and young adults since the FDA's missed deadline.

Methods: Data were obtained from the Truth Longitudinal Cohort (TLC), a probability-based, nationally representative, longitudinal sample of youth and young adults between 15 and 24 (*n*=2037). Respondents included individuals who had not previously used any e-cigarette products and were surveyed at baseline (July to October 2021) and at follow-up (January to June 2022). Data on sociodemographic characteristics (age, sex, gender identity, race/ethnicity, financial situation), e-cigarette device type (e.g., pod-base or tank style), measures of mental health status, sensation-seeking, and e-cigarette use were used for analyses. Logistic regression models, predicting e-cigarette use, were conducted using STATA.

Results: Older age (18-20 years, OR = 2.2, 95% CI: 1.7, 2.8; 21-24 years, OR: 2.8, 95% CI: 2.2, 3.6), indicators of mental health status (prior mental health disease diagnosis: OR = 1.3, 95% CI: 1.0, 1.6), e-cigarette use by peers (OR: 5.2, 95% CI: 4.4, 6.1) and family members (OR = 3.9, 95% CI: 2.8, 5.6), and higher levels of sensation seeking (searching for stimulating experiences or activities) (OR: 2.0, 95% CI: 1.7, 2.3) were associated with e-cigarette use initiation.

Discussion: Results provide information on potential risk factors for e-cigarette initiation. This information could be used to provide further insight into reducing e-cigarette use in youth and young adults.

CORRESPONDING AUTHOR: Elizabeth K. Do, PhD, MPH, Truth Initiative, Washington, DC; edo@truthinitiative.org

Paper Session 8: Food Insecurity

1:02 PM – 1:14 PM

Abstract citation ID: kaad011.0466

DELAWARE FOOD FARMACY: A HEALTH SYSTEM-COMMUNITY PARTNERSHIP TO IMPROVE FOOD INSECURITY AND DIET-RELATED CONDITIONS

Kathleen McCallops, PhD[1], Michelle Axe, MS, CHES[1], Rob Gurnee[2], Lisa Maturo[1], Christopher Moore[1], Erin Booker, LCP[1], Marianna Wetherill, PhD, MPH, RDN/LD[3], Alicia L. Salvatore, DrPH, MPH[4]

[1]ChristianaCare Office of Health Equity, Wilmington, DE; [2]Lutheran Community Services, Wilmington, DE; [3]Hudson College of Public Health, OU-Tulsa Schusterman Center, Tulsa, OK; [4]ChristianaCare Institute for Research on Equity and Community Health (iREACH), Wilmington, DE

Background: Food insecurity is one of the most common social determinants of health nationwide and is associated with worsening chronic disease outcomes and difficulties adhering to a healthy diet. Effective, scalable strategies such as health system-community partnerships that address patients' complex social needs are critical to improving health and reducing health disparities. In collaboration with Lutheran Community Services, the Delaware Food Farmacy (DFF) was launched to address food insecurity and health outcomes among low-income patients with chronic conditions. DFF, a 6-month comprehensive food pharmacy, delivers weekly medically tailored groceries. This study examined changes in food insecurity, dietary intake, and biometric data from baseline to 6 months among a cohort of patients.

Methods: Medicaid-insured patients with hypertension, diabetes, and/or congestive heart failure (CHF) receiving primary care services in a health system were invited to participate. The 2-item Food Security Screen was used to identify food insecurity. The National Cancer Institute's ASA-24 was administered to assess dietary intake. Systolic blood pressure (SBP), diastolic blood pressure (DBP), and hemoglobin A1c (HbA1c) were abstracted from medical records. Descriptive statistics and paired samples t-tests were conducted (with a Bonferroni correction, *p*=.016).

Results: Patients (*n*=24) with complete data at baseline and 6 months were included. Sixty-three percent of patients were Black, 29% white, 13% Hispanic/Latino, and 63% female. Hypertension was the most prevalent chronic condition (71%) followed by diabetes (67%) and CHF (21%). At 6 months, data demonstrated that food insecurity was reduced by 20%. Patients had dietary improvements such as an 8% increase in meeting recommended calcium intake and a 15% increase in fiber intake, important for blood pressure and diabetes control, respectively. For patients with diabetes, there was a statistically significant difference (*p*=.003) in HbA1c (10.02% to 8.55%) with a large effect (*d*=0.84). For patients with hypertension, SBP (148.00 to 131.69) and DBP (84.31 to 75.94) were not statistically significant. However, both had medium effects (*d*=0.62 and *d*=0.56, respectively).

Conclusions: The findings indicate the importance of health system-community partnerships like DFF as effective, scalable strategies for improving food insecurity and health outcomes for low-income patients with chronic conditions. Future research will evaluate the program's impact on health care utilization and costs.

CORRESPONDING AUTHOR: Kathleen McCallops, PhD, ChristianaCare Office of Health Equity, Wilmington, DE; kathleen.mccallops@christianacare.org

1:15 PM – 1:27 PM

Abstract citation ID: kaad011.0467

FOOD INSECURITY DURING PREGNANCY: CHARACTERISTICS, CORRELATES, AND PREDICTORS

Christine C. Call, PhD[1], Kelsey Magee, PhD[2], Rachel P. Kolko Conlon, PhD[2], Nia Buckner, MS[3], Riley Jouppi, BA[2], Sarah Niemi, BA[4], Michele D. Levine, PhD[2], Alison Hipwell, PhD, ClinPsyD[2]

[1]University of Pittsburgh, Sewickley, PA; [2]University of Pittsburgh, Pittsburgh, PA; [3]University of Pittsburgh School of Medicine, Pittsburgh, PA; [4]University of Pittsburgh Medical Center, Pittsburgh, PA

Background: Food insecurity (i.e., having limited or uncertain access to sufficient food for a healthy life) affects pregnant people at higher rates than the national average and is associated with negative health consequences for pregnant people and their offspring. Research is needed to characterize food insecurity during pregnancy and identify who is at greatest risk. Using data from the Pittsburgh Girls Study (PGS), a 20-year, population-based longitudinal study, we aimed to (1) characterize food insecurity across pregnancy, (2) examine its correlates, and (3) identify social determinants of health that prospectively predict food insecurity in pregnancy.

Methods: Participants were 277 pregnant individuals (age: *M*=26.55y, *SD*=1.67) who had been enrolled in the PGS since childhood. In pregnancy, participants completed a 1-item food insecurity measure at up to three timepoints and the Difficult Life Circumstances (DLC) scale to assess stressors. Highest level of caregiver education and household receipt of public assistance were obtained from annual PGS interviews when participants were age 8-17y. Participants completed the Everyday Discrimination Scale annually from age 15-17y. Descriptive statistics and t-tests were used to characterize food insecurity and its correlates. Binomial logistic regressions were conducted to examine predictors of food insecurity.

Results: Approximately 30% of participants (*n*=82) reported food insecurity in pregnancy. Among those who provided food insecurity data in each trimester of pregnancy (*n*=119), 28% experienced a change in food insecurity status over pregnancy. DLC scores in pregnancy were higher for those with food insecurity (*M*=3.02, *SD*=3.00) than without (*M*=1.87, *SD*=1.97; *t*(59.29)=.03). Receiving public assistance in childhood (*B*=.72, *SE*=.33, *p*=.03) and exposure to higher levels of discrimination in adolescence (*B*=.12, *SE*=.04, *p*=.007) predicted a higher likelihood of experiencing food insecurity in pregnancy. Caregiver education was unrelated to food insecurity in pregnancy (*B*=.49, *SE*=.29, *p*=.09).

Discussion: Food insecurity is common in pregnancy, may change across pregnancy, and is related to higher levels of stressors, suggesting frequent assessment of food insecurity in pregnancy is clinically indicated to identify those at greatest risk for adverse consequences. Pregnant people who received public assistance in childhood or experienced discrimination in adolescence may be at heightened risk for food insecurity.

CORRESPONDING AUTHOR: Christine C. Call, PhD, University of Pittsburgh, Sewickley, PA; callcc@upmc.edu

---

1:27 PM – 1:39 PM

Abstract citation ID: kaad011.0468

MEASURING FOOD SECURITY IN COLLEGE STUDENTS: DISCORDANT CLASSIFICATION BETWEEN THE USDA 10- AND 6-ITEM FOOD SECURITY MODULES

Christine C. Call, PhD[1], Cassandra L. Boness, PhD[2], Sarita Cargas, DPhil[2], Kathryn E. Coakley, PhD, RDN[3]

[1]University of Pittsburgh, Sewickley, PA; [2]University of New Mexico, Albuquerque, NM; [3]UNM School of Medicine, Albuquerque, NM

Background: Accurate identification of food insecurity in U.S. college students is imperative. Most research in this population has assessed food insecurity with the U.S. Department of Agriculture (USDA) 10-item or 6-item Food Security Survey Module (FSSM). The 6-item FSSM includes a subset of the 10-item questions but research assessing agreement between the two FSSMs in college students is limited. The present study (1) compared food security classification between the two FMMSs in college students, and (2) examined sociodemographic predictors of discordant classification.

Methods: Students (*N* = 2653) at a U.S. university completed a survey in Spring 2020 which included the 10-item USDA FSSM assessing food insecurity in the past 30 days. Food security status was also scored according to the abbreviated 6-item FSSM. Food security status for both versions was calculated as food secure vs. food insecure and as a 4-level variable (high, marginal, low, very low food security) per USDA guidelines. Sociodemographic characteristics were collected by self-report and through university records. Discordant classification between the 10-item and 6-item FSSMs were compared with chi-square tests and kappa coefficients. Logistic regressions were conducted to examine the odds of discordant classification within sociodemographic subgroups.

Results: According to the 10-item FSSM, 842 (31.7%) students were classified as food insecure in the past 30 days vs. 900 (33.9%) according to the 6-item FSSM. When examining food insecurity as a binary outcome, 70 (2.6%) students were discordantly classified, and kappa coefficients indicated near-perfect agreement between FSSMs (0.94, 95% CI=0.93-0.95). When four categories of food security status were considered, 238 (9%) participants were discordantly classified (*p*< .0001), but kappa coefficients still indicated strong agreement (0.87, 95% CI=0.85-0.88). American Indian vs. White students (OR=2.16, 95% CI=1.27-3.67), SNAP vs. non-SNAP users (OR=1.50, 95% CI=1.05-2.13), housing insecure vs. secure (OR=1.78, 95% CI=1.40-2.26), and those with dependents vs. no dependents (OR=1.52, 95% CI=1.06-2.18) had higher odds of discordant classification.

Conclusions: In a large sample of U.S. college students, there was discordant classification between the 10- and 6-item FSSMs, particularly for marginalized groups. To accurately identify students with food insecurity, rigorous testing of current and new food security measures must be a priority.

CORRESPONDING AUTHOR: Christine C. Call, PhD, University of Pittsburgh, Sewickley, PA; callcc@upmc.edu

1:39 PM – 1:50 PM

Abstract citation ID: kaad011.0469

CITATION AND MERITORIOUS AWARD WINNER

STRETCH YOUR SNAP: STAKEHOLDER PERSPECTIVES OF AN INNOVATIVE HEALTHY INCENTIVE PROGRAM (SNAP+) IN ARLINGTON, VA

Danyel I. Smith, MS[1], Kristina L. Tatum, PsyD[1], Lucie Lefbom, BS, BA[2], Bonnie Moore, BS[3], Brenda K. Foster, MPA[4], Melanie K. Bean, PhD[1]

[1]Virginia Commonwealth University, Richmond, VA; [2]University of Virginia School of Medicine, Charlottesville, VA; [3]Real Food For Kids, McLean, VA; [4]Vanguard Communications, Washington, DC

Introduction: Nutrition insecurity increases risk for diet-sensitive diseases, which disproportionately affect underserved families. The USDA Supplemental Nutrition Assistance Program (SNAP) aims to reduce nutrition disparities, yet SNAP users report higher sugar-sweetened beverages (SSBs [allowable SNAP purchases]) and lower fruit and vegetable (FV) intake compared to non-SNAP users. Modifications to SNAP might enhance its public health benefit. This mixed-methods study explored SNAP participants' purchasing behaviors and perceptions of a proposed "SNAP+," which would incentivize FV and restrict SSB SNAP purchases. Prior to testing such a policy change, stakeholder input is needed to inform its feasibility and acceptability.

Methods: Participants were recruited through a non-profit organizational network. Eligible participants were age 18+ yrs; enrolled in SNAP; the primary shopper for household; an Arlington, VA resident; and English or Spanish-speaking. An online survey (N=278) assessed FV/SSB purchasing and SNAP usage patterns, sources of health communication, and reactions to SNAP+. Semi-structured interviews were conducted with a subset of participants (N=28) to further explore perceptions of SNAP+. Thematic analysis was conducted inductively, using a codebook developed *a priori* by two trained research staff. Interrater reliability among a sample of transcripts was acceptable (Krippendorff's α=0.76). Participants received \$20 for survey completion and \$50 for interview participation.

Results: Participants were primarily female (81%) and received SNAP for >1 year (66%). Most spend >\$15 of SNAP (87%) and >\$15 of non-SNAP (61%) dollars on FVs/month; 34% spend < \$5 of SNAP dollars on SSBs/mo; 48% spend < \$5 of non-SNAP dollars on SSBs/month. Most respondents wanted to reduce SSB intake (75%) and increase FV intake (57%). Purchasing patterns were shaped by health (80%), waste reduction (73%), cost (71%), family (65%) and taste (64%) preferences. There was strong support for a FV incentive (81%); yet, 43% opposed SSB restrictions. Motivators for SNAP+ enrollment included: inflated cost of living, rewarding healthy changes, and current purchasing behaviors. Barriers to SNAP+ enrollment included: diminished autonomy of SSB purchases, need to reallocate other funds to purchase restricted items, family member preferences, and mistrust in rebate systems. Overall, 77% of participants stated that they would enroll in SNAP+.

Conclusion: SNAP+ presents a unique opportunity to optimize nutrition by capitalizing on participants' desires to make healthy changes and building on current purchasing patterns. To enhance is feasibility and efficacy, policy makers should consider 1) rebate system logistics, 2) clear marketing about SNAP+, and 3) a conditional incentive that rewards users *only* when SSBs are not purchased, to maintain SNAP participant autonomy.

CORRESPONDING AUTHOR: Danyel I. Smith, MS, Virginia Commonwealth University, Richmond, VA; danyel.smith@vcuhealth.org

Paper Session 9: Men's Health

1:02 PM – 1:14 PM

Abstract citation ID: kaad011.0470

CITATION AND MERITORIOUS AWARD WINNER

FAMILY COHESION MODERATES THE LINK BETWEEN FAMILISM AND DISEASE-SPECIFIC QUALITY OF LIFE IN HISPANIC PROSTATE CANCER SURVIVORS

Patricia B. Pedreira, MS[1], Patricia I. Moreno, PhD[2], Dolores Perdomo, PhD[3], Aaron Heller, PhD[4], Michael H. Antoni, PhD, FSBM[5], Frank J. Penedo, PhD, FSBM[1]

[1]University of Miami, Miami, FL; [2]University of Miami Miller School of Medicine, Miami, FL; [3]Miller School of Medicine, Miami, FL; [4]University of Miami, Coral Gables, FL; [5]Sylvester Comprehensive Cancer Center, Coral Gables, FL

Background: Familism, the cultural value that emphasizes feelings of loyalty and dedication to one's family, has been related to both positive and negative outcomes in Hispanic cancer survivors. One potential source of observed inconsistencies may be limited attention to the family environment, as familism may be protective in a cohesive family whereas it can exacerbate distress in a conflictive family. The extent to which family cohesion may moderate the link between familism and prostate cancer (PC)-specific quality of life (i.e., urinary incontinence, urinary irritative/obstructive, sexual functioning) has not been explored.

Methods: Hispanic men (N=67; M_{age} = 65 ± 7.8 years) treated for localized PC (e.g., radiation, surgery) were enrolled in a randomized controlled stress management trial. Familism was assessed using Sabogal's Familism Scale and family cohesion was measured using the Family Environment Scale. The sexual, urinary incontinence, and urinary obstructive/irritative domains of the Expanded Prostate Cancer Index Composite – Short Form (EPIC-26) measured prostate cancer-specific quality of life. Data for these analyses were collected at baseline prior to participation in the stress management trial. Linear regression and the SPSS PROCESS macro were used to conduct moderation analyses. Covariates included were age, education, income, time since treatment, treatment type, comorbidities, and adversities related to COVID-19.

Results: Pearson's correlations did not reveal a significant association between familism and each disease-specific quality of life outcomes. However, regression analyses adjusting for relevant covariates showed that family cohesion moderated the relations between familism and urinary incontinence (b=.60, R^2=.19, p=.03), urinary irritative/obstructive (b=.38, R^2=.26, p=.002), and sexual function (b=.50, R^2=.46, p=.04) domains. Simple slope analyses indicated that familism was related to better disease-specific quality of life when family cohesion was high (urinary incontinence: b= .91, SE=.71; urinary irritative/obstructive: b= .91, SE=.30; sexual functioning: b= .91, SE=.65). The associations described were not significant when family cohesion was low.

Conclusions: These results support the hypothesis that familism relates to better PC-specific quality of life when the family environment is highly cohesive. Future longitudinal studies should examine whether interactions between familism and family dynamics and other contextual factors impact intervention-related changes in health-related quality of life, as this information may help inform targeting and tailoring of psychosocial interventions for PC patients.

CORRESPONDING AUTHOR: Patricia B. Pedreira, MS, University of Miami, Miami, FL; p.pedreira@med.miami.edu

1:15 PM – 1:27 PM

Abstract citation ID: kaad011.0471

RANDOMIZED CONTROLLED TRIAL COMPARING THE EFFECTS OF THREE TYPES OF INHIBITORY CONTROL TRAINING ON FOOD CHOICES

Evan M. Forman, PhD[1], Stephanie Manasse, PhD[2], Harm Veling, PhD[3], Michael P. Berry, MS[1], Michael Onu, BS[1], Charlotte J. Hagerman, PhD[1]

[1]Drexel University, Philadelphia, PA; [2]Drexel University, Wynnewood, PA; [3]Wageningen University and Research, n/a, Gelderland, Netherlands

Humans have evolved powerful appetitive drives towards certain foods (e.g., high-sugar), which results in excess calorie intake and overweight unless high levels of inhibitory control, the cognitive capacity to resist temptation, are brought to bear. Repeated inhibitory control training (ICT) bouts can improve food preferences and intake, and even facilitate weight loss. Yet, study outcomes are mixed, likely due to the heterogeneity in the ICT task. ICTs repeatedly present stimuli to be trained (images of food) with a Go (click/tap) or No Go cue. Participants are told to respond as quickly as possible, making inhibition difficult, and difficulty typically increases as participants improve. Notably, some ICTs present the stimulus and the cue simultaneously, whereas others have a delay between the stimulus and the cue. Additionally, ICTs with delays sometimes increase difficulty by making the delay longer, whereas others reduce the overall time to respond (TIR). In short, the most potent ICT is not known because no study has directly compared ICT methods.

This study randomized 181 men with overweight to one of 3 smartphone-based ICT versions: (1) cues appear after stimuli, and this delay is adjusted; (2) delay is fixed at 150ms, but TIR adjusts; (3) cues appear simultaneously with stimuli and TIR is adjusted; or (4) a sham in which participants tap left or right to categorize stimuli as food versus non-food and TIR is adjusted. Adjustments are +/- 50ms depending on performance after each block of 28 trials. The training lasted 7 minutes or 224 trials. Immediate effects were measured by asking participants to quickly choose from 28 pairs of healthy and unhealthy foods that appeared in the ICT (trained) and that did not (untrained).

The ICT version had a specific effect on trained food choices ($F(159)=8.33$, $p=.004$), as well as a generalized effect on untrained food choices ($F(379)=19.34$, $p< .001$). In post-hoc tests, the 3 active versions had similar specific effects, all greater than the sham. Within generalized effects, healthy was chosen most in v2 (M=10.02), followed by v1 (M=9.7), v3 (M=8.39), then sham (M=6.13; $ps \leq .01$). In sum, this study supported the efficacy of all three ICT variations trialed, with comparable effect sizes, but v2 (fixed delay between stimulus and cue) had superior generalized effects. Although outcomes were limited to an immediate comparison task, this first-of-its-kind study has important implications for designing ICTs.

CORRESPONDING AUTHOR: Evan M. Forman, PhD, Drexel University, Philadelphia, PA; emf27@drexel.edu

---

1:27 PM – 1:39 PM

Abstract citation ID: kaad011.0472

CITATION AWARD WINNER

TAILORING BEHAVIORAL WEIGHT LOSS PROGRAMS FOR TRADESMEN: A MIXED METHODS ANALYSIS

Melissa M. Crane, PhD[1], Bradley M. Appelhans, PhD, FSBM[1]

[1]Rush University Medical Center, Chicago, IL

One step in tailoring behavioral interventions to underrepresented groups is gathering information on program preferences from the target group. This study focuses on men who work in skilled and unskilled trades and labor occupations (i.e., blue collar occupations), a group with high rates of obesity and related comorbidities that is underrepresented in behavioral weight control programs. Using an exploratory sequential mixed methods approach, we used interviews to gather initial information on behavioral weight loss program preferences, and then used this information to develop a discrete choice experiment to consolidate viewpoints and reach consensus on the most important tailoring targets. Samples for both studies were men who work in trade and labor occupations and have overweight or obesity.

Participants (Interviews (I): n = 20; Survey (S): n = 221) were predominately middle-aged (M±SD: I 42±16; S 45±13) and had obesity (BMI I: 33±6 S: 33±6). Participants worked in construction (I 50%; S 31%), manufacturing (I 20%; S 30%), transportation (I 25%; S 25%), and maintenance (I 5%; S 14%). Semi-structured interviews were conducted that focused on participants prior experiences with weight loss and their descriptions of their ideal weight loss program. Interviews revealed that participants wanted programs that fit into their lifestyle but were conflicted on how this would be structured.

Findings from the qualitative study were used to develop a discrete choice experiment that asked participants to indicate their preferences between hypothetical programs that varied five program components of a behavioral weight loss program (approach to dietary changes, delivery mode, focus of the program, and inclusion of competition and support partners). An online survey that included the discrete choice experiment was completed by a national sample of participants and results were analyzed using mixed logit analyses. Respondents demonstrated a strong preference for programs 1) conducted online, 2) structured around personalized goals (vs. competitions), and 3) focused on a smaller change approach to diet change. No significant differences were found for inclusion/exclusion of a partner or focus on diet and physical activity alone vs. inclusion additional health topics.

This study used mixed methods approach to identify the tailoring priorities to maximize program appeal among tradesmen. The results from this pair of studies reveal that men working in trade and labor occupations interested in weight control need flexible programs (e.g. conducted online) that feature easier to implement lifestyle changes (smaller changes) and follow an individualized approach (goal setting). This information will be used to create a tailored weight loss program for men in these industries.

CORRESPONDING AUTHOR: Melissa M. Crane, PhD, Rush University Medical Center, Chicago, IL; melissa_m_crane@rush.edu

1:39 PM – 1:50 PM

Abstract citation ID: kaad011.0473

THE INFLUENCE OF DOMAINS-SPECIFIC PHYSICAL ACTIVITY ON WEIGHT AMONG BLACK AMERICAN MEN IN THE UNITED STATES.

Ailton Coleman, PhD, MPH[1], Jerraco Johnson, PhD[2], Ahondju Holmes, PhD, RDN/LD[3], Roland Thorpe, PhD, MS[4], Elizabeth Heitman, PhD[5]

[1]James Madison University, Harrisonburg, VA; [2]University of North Texas, Aubrey, TX; [3]Langston University, Langston, OK; [4]Johns Hopkins Bloomberg School of Public Health, Baltimore, MD; [5]UT Southwestern Medical Center, Dallas, TX

Background: Black Americans have the highest rates of obesity in the US. Among Black American men, 41% meet the criteria for classification as overweight or obese. Physical activity is a key component to achieving and maintaining a healthy weight status. Although Black and White Americans report similar amounts of time spent on moderate to vigorous physical activity, types of physical activity differs by race. For example, Black Americans spend a greater percentage of their overall physical activity engaged in work/occupational physical activity compared to White Americans. In 2018, 42% of Black American men reported not meeting Department of Health and Human Services' physical activity guidelines through either aerobic or muscle strengthening activities compared to 36% of White American men. The impact of domain-specific physical activity on weight is understudied among Black American men.

Methods: This study examined the role of domain-specific physical activity on weight among Black American men aged 18+ years using data from the National Health and Nutritional Examination Survey from 2007 to 2018 (n=2328). We hypothesized that Moderate to Vigorous Occupational Physical Activity (PA-work) and Moderate to Vigorous Recreational Physical Activity (PA-recreational) are inversely related to BMI. We included participants' responses to questionnaire items on both domains as independent variables and BMI as a dependent variable. First, we conducted bivariate regressions between the independent variables and the dependent variable. Then we conducted a multilinear regression with the socio-demographic factors of age, poverty level index, and current smoking status as covariates.

Results: On average, Black men completed almost three times as much occupational physical activity (M=14.2 hours) than recreational physical activity (M=5.59 hours) per week. In the bivariate regressions, PA-recreational had a statistically significant inverse relationship with BMI (β=-0.06; *p*=.0002; 95% CI: -0.09,-0.03). PA-work had a direct relationship with BMI (β=0.003; *p*=.54; 95% CI: -0.01, 0.01). However, this relationship was not statistically significant. In the final regression model that included covariates, PA-recreational retained significance as a predictor of BMI (β=-0.06; *p*=.001; 95% CI: -0.09,-0.02). However, PA-work was not a statistically significant predictor of BMI (β=0.008; *p*=.128; 95% CI: -0.002, 0.01).

Conclusion: Domain-specific physical activity has an impact on BMI among Black men. Increases in recreational physical activity predicts lower BMI. Thus, addressing systemic barriers to recreational physical activity for Black men is important to tackle high rates of BMI. Conversely, the findings suggests that although occupational physical activity makes up the largest portion of weekly activity is not a significant contributor to having a healthy BMI for Black men.

CORRESPONDING AUTHOR: Ailton Coleman, PhD, MPH, James Madison University, Harrisonburg, VA; colemaas@jmu.edu

Paper Session 10: Disordered Eating

1:02 PM – 1:14 PM

Abstract citation ID: kaad011.0474

EATING PATHOLOGY AND MENTAL HEALTH AMONG WOMEN DIAGNOSED WITH INFERTILITY

Leah Hecht, PhD[1], Geneviève Joseph-Mofford, BS, Master of Anatomical Science[2], Rory Iacobelli, BS Psychology[3], Marwa Ahmed, PsyD[4], Erin Haley, PhD[5], Amy M. Loree, PhD[5], Lisa R. Miller-Matero, PhD, ABPP[6]

[1]WW/Weight Watchers, Detroit, MI; [2]Wayne State University School of Medicine, Detroit, MI; [3]Henry Ford Health Center for Health Policy and Health Services Research, Auburn Hills, MI; [4]Henry Ford Health, Commerce Twshp, MI; [5]Henry Ford Health, Detroit, MI; [6]Henry Ford Health, Troy, MI

Background: Approximately 19% of individuals in the United States have a diagnosis of infertility, of which 37% is associated with female infertility. Rates of mood and eating pathology are significantly higher among women with infertility. However, the degree to which depression, anxiety, and eating pathology is associated with diagnosis type, desire to conceive, and fertility treatment-seeking is unknown. Knowing this information can contribute to prevention, screening, and treatment efforts among a vulnerable population.

Methods: Women who received a female infertility diagnosis in the previous 2 years at a metropolitan health system were invited to complete an online survey. Participants (N=188) completed a demographic questionnaire and measures of depression (Patient Health Questionnaire-9), anxiety (Generalized Anxiety Disorder-7), and eating pathology (Eating Disorders Examination-Questionnaire). Separate t-test analyses were conducted by type of infertility diagnosis (anovulatory vs. not), trying to conceive (yes/no), and undergoing fertility treatment (yes/no).

Results: The sample had a mean age of 33.55 years (SD = 6.28) with an average BMI of 32.94 (SD = 8.94, Range 13.67-64.15). Approximately 29.3% of the sample had anovulatory infertility, 78.7% were actively trying to conceive, and 33.5% were receiving fertility treatment. Across the sample, 38.3% endorsed loss of control eating, 8.3% self-induced vomiting, 9.6% laxative use, and 20.7% pathologic exercise to control body shape or weight. Depression and anxiety (scores ≥10) were reported by 39.9% and 38.3%, respectively. Those with anovulatory infertility had significantly higher levels of dietary restraint (M=1.93, SD=1.70) than those without anovulatory infertility (M=1.36, SD=1.50), t=2.32, *p* =.011, but levels of depression, anxiety, and other eating pathology did not differ. Levels of depression, anxiety, and eating pathology were not significantly different by fertility treatment-seeking or desire to conceive.

Conclusions: High levels of eating pathology, depression, and anxiety are observed among women with infertility. With the exception of dietary restraint, symptoms did not differ by type of infertility, nor by treatment-seeking or desire to conceive. Findings suggest that all individuals diagnosed with infertility, regardless of type, desire to conceive, or whether they are seeking treatment, should be screened and actively monitored for mood and eating pathology.

CORRESPONDING AUTHOR: Leah Hecht, PhD, WW/Weight Watchers, Detroit, MI; lhecht1@hfhs.org

1:15 PM – 1:27 PM

Abstract citation ID: kaad011.0475

PILOT OF APPETITE AWARENESS INTERVENTION TO IMPROVE WEIGHT LOSS MAINTENANCE FOR RACIALLY DIVERSE ADULTS WITH EMOTIONAL EATING

Rachel W. Goode, PhD, MPH, LCSW[1], Loneke Blackman-Carr, PhD, RD[2], Sarah Sterling, LCSW, LCAS[3], Yiwen Xu, BS[4], Tyisha Harper, MBA[5], Leslie McClellan, BA[6]

[1]UNC Nutrition Research Institute, Chapel Hill, NC; [2]University of Connecticut, STORS, CT; [3]Department of Family Medicine, UNC-CHAPEL HILL, CHAPEL HILL, NC; [4]UNC Chapel Hill, Chapel Hill, NC; [5]UNC Nutrition Research Institute, Kannapolis, NC; [6]UNC NUTRITION RESEARCH INSTITUTE, Kannapolis, NC

Weight regain is common following intentional weight loss. One factor influencing weight regain is emotional eating; nearly 60% of adults with obesity report emotional eating (EE). To prevent weight gain, adults with EE may need additional support to effectively manage their urges to eat outside of physical hunger. SATISFY is a 12-session remotely delivered behavioral intervention that instructs adults to adhere to their biological signals of hunger and fullness and improve nutrition with instruction from Diabetes Prevention Program (DPP). Participants self-monitor their signals of hunger and satiety, weigh weekly, and are encouraged to engage in 30 minutes of physical activity per day, 5 days per week. We examined the feasibility and acceptability of SATISFY in an ethnically diverse sample of adults with BMI > 25kg/m^2.

We adapted Appetite Awareness Training and DPP protocols for use among adults who emotionally eat and with a BMI > 25 kg/m^2. No in-person contact was required for intervention participation. To assess feasibility and acceptability, we collected quantitative data on recruitment, enrollment, intervention attendance, and qualitative feedback via exit interviews. We also examined changes at 4 months post-baseline in weight and blood pressure.

For a period of 4 months, we screened 211 adults and enrolled 50% of those screening eligible. Participants' (n= 31) average age was 47.5 (± 12.4), 90% were female, and 55% identified as Black. At 4-months, participants attended 50% of the 12-sessions live and watched and/or attended nearly 67% of sessions. Seventy-six % of participants attended the end-of-study assessment. Participants exhibited no significant pre-post changes in weight or blood pressure at 4-months. Black participants exhibited less weight regain, compared to White participants. Qualitative data indicate that the SATISFY study was experienced as acceptable to participants.

The feasibility and acceptability of the SATISFY program was high. Pre-post changes and qualitative data indicate that SATISFY addresses appetite awareness and weight maintenance, with potential to improve health equity for Black participants on weight outcomes. These improvements may lead to reduced emotional eating, and less weight regain. SATISFY is ready for a fully powered randomized trial to test and examine the efficacy of this approach.

CORRESPONDING AUTHOR: Rachel W. Goode, PhD, MPH, LCSW, UNC Nutrition Research Institute, Chapel Hill, NC; rwgoode@email.unc.edu

---

1:27 PM – 1:39 PM

Abstract citation ID: kaad011.0476

RELATIONSHIP FUNCTIONING AND DISORDERED EATING BEHAVIORS IN THE DAILY LIVES OF SEXUAL MINORITY WOMEN IN SAME-SEX RELATIONSHIPS

Kelly A. Romano, MS, EdS[1], Cassidy M. Sandoval, MA[2], Kristin E. Heron, PhD[3]

[1]Virginia Consortium Program in Clinical Psychology, Ladson, SC; [2]Virginia Consortium Program in Clinical Psychology, Virginia Beach, VA; [3]Old Dominion University, Norfolk, VA

Individuals with sexual minority identities have consistently been identified as at-risk for eating disorders and disordered eating behavior (DEB) use. Although multiple eating disorder theories suggest that difficulties with interpersonal functioning promote the onset and maintenance of DEBs, few studies have considered how associations between different aspects of romantic relationship functioning and DEBs manifest within couples. Further, this limited literature has almost exclusively been based on the experiences of individuals in heterosexual relationships and consists of cross-sectional studies. The present study aimed to address these research gaps by examining associations between relationship functioning and DEBs in the daily lives of sexual minority women in same-sex relationships. Participants were 321 young sexual minority women (M_{age}=27.56, *SD* =3.67) in same-sex relationships (163 couples) who completed surveys assessing their daily relationship functioning and DEB use each day for a 14-day daily diary period. Multilevel structural equation models examined daily-, person-, and couple-level associations among women's daily relationship functioning (general relationship functioning, positive and negative relationship behaviors they and, separately, their partners engaged in during partner interactions) and DEBs (overeating, loss of control eating, emotional eating, dietary restriction). Results generally indicated that more positive and less negative daily relationship functioning across all assessed constructs were associated with less same-day emotional eating, but not loss of control eating. More circumscribed patterns were identified for associations between the relationship functioning constructs and overeating and dietary restriction. For example, on days when women reported that their partners engaged in more positive behaviors when interacting with them than they normally did, they also reported less dietary restriction but more overeating on those days. In contrast, on days when women reported that their partners engaged in more negative behaviors when interacting with them than they normally did, they also reported more overeating on those days, but not dietary restriction. These findings provide the first evidence that daily relationship functioning is associated with sexual minority women's engagement in DEBs that are linked to poor health long-term. These results also provide insight into directions for future research and clinical practice that may warrant consideration to help advance the evidence-base and care for sexual minority women, who are at risk for DEB use, but also historically overlooked and underserved.

CORRESPONDING AUTHOR: Kelly A. Romano, MS, EdS, Virginia Consortium Program in Clinical Psychology, Ladson, SC; kroma001@odu.edu

1:39 PM – 1:50 PM

Abstract citation ID: kaad011.0477

THE EFFECT OF BASELINE DISORDERED EATING CHARACTERISTICS ON WEIGHT OUTCOMES FOR ADOLESCENTS IN FAMILY-BASED OBESITY TREATMENT

Madison Weinstock, MS[1], Laura M. Thornton, PhD[2], Suzanne E. Mazzeo, PhD[1], Hollie Raynor, PhD, RD, LDN[3], Jessica G. LaRose, PhD, FSBM[4], Laura J. Caccavale, PhD[5], Melanie K. Bean, PhD[1]

[1]Virginia Commonwealth University, Richmond, VA; [2]University of North Carolina at Chapel Hill, RICHMOND, VA; [3]University of Tennessee Knoxville, Knoxville, TN; [4]Virginia Commonwealth University School of Medicine, Richmond, VA; [5]Children's Hospital of Richmond at Virginia Commonwealth University, Richmond, VA

Background: Adolescents with obesity are at a high risk for disordered eating, defined as maladaptive cognitions, attitudes, and behaviors regarding weight and its management. However, it is unknown how disordered eating at treatment onset impacts post-treatment weight outcomes. Furthermore, little is known about how parental involvement during treatment might influence the association between adolescent disordered eating and treatment response. This secondary analyses from the TEENS+ randomized clinical pilot trial evaluated the influence of adolescent baseline disordered eating on 4- and 7-month weight outcomes after participation in one of two distinct approaches to involving parents in adolescent obesity treatment.

Method: Participants were N=62 parent-adolescent dyads (61% female; 59.5% racial/ethnically minoritized; age 13.7±1.3 years) who participated in TEENS+, a multicomponent behavioral weight loss intervention, and provided complete data. Parents were randomized to either a parent weight loss treatment (TEENS+PWL) or parent skills training based on authoritative parenting (TEENS+PAC). Adolescent had their body mass index (BMI) measured and completed the Eating Disorder Examination-Questionnaire (EDEQ) at baseline, 4-months (post), and 7-months (after a 3-month no contact maintenance phase). Dietary restraint; shape, weight, and eating concern; and total EDEQ scores were calculated. Linear regression models, stratified by parent group, were applied to evaluate how baseline EDEQ scores predicted weight loss ($\Delta BMI_{0\text{-}4m}$) and maintenance ($\Delta BMI_{4\text{-}7m}$).

Results: Significant reductions in adolescent BMI were observed in both TEENS+PAC (1.2kg/m^2) and TEENS+PWL (1.2kg/m^2) at post, with no associations between baseline EDEQ scores and $\Delta BMI_{0\text{-}4m}$ in either group. During the 4-7m maintenance phase, TEENS+PAC adolescents observed better weight loss maintenance ($\Delta BMI_{4\text{-}7m}$=+0.09) compared with TEENS+PWL ($\Delta BMI_{4\text{-}7m}$=+0.47kg/m^2). Within the TEENS+PAC arm, higher baseline shape concern (p=.028) and total EDEQ scores (p=.030) were significantly associated with BMI increases ($\Delta BMI_{4\text{-}7m}$) during the maintenance phase; no associations were observed between baseline EDEQ and $\Delta BMI_{4\text{-}7m}$ in TEENS+PWL.

Conclusion: Baseline disordered eating was not associated with adolescent weight loss following participation in either TEENS+PAC or TEENS+PWL, with comparable weight losses observed in both groups. The parent skills training approach (TEENS+PAC) appears superior for adolescent weight loss maintenance overall; however, higher baseline shape concerns and overall disordered eating scores within TEENS+PAC were associated with greater weight regain during maintenance. Thus, additional or alternative parent interventions might be needed to support adolescent weight loss maintenance after treatment is removed.

CORRESPONDING AUTHOR: Madison Weinstock, MS, Virginia Commonwealth University, Richmond, VA; weinstockm2@vcu.edu

Paper Session 11: Sexual Trauma and Intimate Partner Violence

1:02 PM – 1:14 PM

Abstract citation ID: kaad011.0478

EPIGENETIC AGE ACCELERATION AT MIDLIFE IS SENSITIVE TO CHANGES IN RECEPTIVE LANGUAGE ABILITIES FOLLOWING CHILD SEXUAL ABUSE.

John M. Felt, PhD[1], Karra D. Harrington, PhD[1], Nilam Ram, PhD[2], Kieran J. O'Donnell, PhD[3], Martin J. Sliwinski, PhD[4], Lizbeth Benson, PhD[5], Zhenyu Zhang, MA, MS[4], Michael J. Meaney, PhD[6], Frank W. Putnam, MD, PhD[7], Jennie G. Noll, PhD[4], Chad E. Shenk, PhD[4]

[1]The Pennsylvania State University, University Park, PA; [2]Stanford University, Stanford, CA; [3]Yale University, New Haven, CT; [4]Pennsylvania State University, University Park, PA; [5]University of Oklahoma Health Sciences Center, Oklahoma City, OK; [6]McGill University, Montreal, PQ, Canada; [7]University of North Carolina-School of Medicine, Chapel Hill, NC

Objective: Deviations from normative trajectories of receptive language abilities following early life adversity (ELA) may indicate an elevated risk for advanced cognitive aging and related morbidities. Accelerated epigenetic aging at midlife may further identify those at greatest risk following ELA. We examined whether accelerations in epigenetic age at midlife can identify those individuals who demonstrated the greatest change in receptive language abilities following ELA.

Methods: The current study reports results from the Female Growth and Development Study (FGDS), a 30-year prospective cohort study of child sexual abuse (CSA), a severe form of ELA, using an accelerated cross-sequential design to detect changes in health outcomes at key developmental periods from childhood into midlife. The Peabody Picture Vocabulary Test Revised (PPVT-R) measured receptive language abilities at six occasions across childhood, adolescence, adulthood, and midlife from females exposed to substantiated CSA and a demographically similar comparison condition. Epigenetic age acceleration was collected via blood draws at T7 (n = 86). Differences in females PPVT-R trajectories were examined in relation to CSA exposure and across five independent measures of epigenetic age acceleration at midlife using a quadratic growth model.

Results: Quadratic growth models revealed a developmental trajectory where PPVT-R values increased rapidly until ages 25 to 30 when the rate of acquisition slowed. However, PPVT-R levels were significantly lower at age 25 for females exposed to CSA who also had epigenetic age acceleration measured via the GrimAge clock ($\gamma_{03} = -1.31$, $CI_{95\%}$[-2.50, -0.11]). Additionally, epigenetic age acceleration measured via the PhenoAge clock was associated with less growth in the rate of increase of PPVT-R scores for females exposed to CSA ($\gamma_{23} = 0.001$, $CI_{95\%}$[0.00, 0.01]). There was no evidence that acceleration in the other epigenetic age clock estimates moderated the associations between CSA status and any part of the PPVT-R trajectories.

Discussion: These findings suggest that aging biomarkers of adulthood health may identify specific patterns of accelerated cognitive aging following exposure to CSA when examined over 30 years of female development. Early adulthood may be an important developmental period to target interventions aimed at preventing or delaying later life cognitive deficits, including mild cognitive impairment and Alzheimer's disease.

CORRESPONDING AUTHOR: John M. Felt, PhD, The Pennsylvania State University, University Park, PA; jzf434@psu.edu

1:15 PM – 1:27 PM

Abstract citation ID: kaad011.0479

SEXUAL ASSAULT AMONG COLLEGE WOMEN: THE ROLE OF SURVIVOR ACKNOWLEDGMENT, RAPE MYTH ACCEPTANCE, AND WEIGHT-RELATED CONSTRUCTS

Kayla E. Sall, MA[1], J. Caroline P. Miller, MA[1], Emily Jansen, BS[1], Abigail T. Shonrock, BA[1], Rhonda Byrd, MSW[1], Lydia Mansour, MS[1], Robert A. Carels, Ph.D., MBA[1]

[1]East Carolina University, Greenville, NC

Background: Approximately one in five college women will experience a sexual assault (SA), though a meaningful percentage of survivors do not acknowledge or label their experience as such (e.g., choosing to label it as a more benign experience such as miscommunication, bad sex, etc.). Research indicates that acknowledgment status is often influenced by how closely SA incidents align with the "real rape" script and the strength of survivor rape myth acceptance (RMA). However, research on associations between acknowledgement and other attitudes and health outcomes is sparse.

Purpose: Therefore, the current study examined differences in SA- and body-related constructs among three groups of college women (non-survivors, unacknowledged survivors, and acknowledged survivors).

Methods: Participants were 584 college women (non-survivors n = 290, unacknowledged survivors n = 125, acknowledged survivors n = 179) enrolled in an introductory psychology course. Participants answered questions about their sexual assault history and associated assault characteristics, RMA, externalized and internalized weight bias, body appreciation, psychological distress, and self-esteem.

Results: Factorial MANCOVA/ANCOVAs and post hoc analyses were performed to examine mean score differences on several outcomes among the three groups. Findings indicate that unacknowledged survivors have significantly greater RMA ($p < .03$, $\eta^2 = .01$) than non-survivors and acknowledged survivors. Acknowledged survivors have lower internalized weight bias ($p < .001$, $\eta^2 = .06$) and lower body appreciation ($p < .001$, $\eta^2 = .07$) than non-survivors and unacknowledged survivors. Acknowledged survivors had the lowest self-esteem of the three groups with non-survivors having the greatest self-esteem ($p < .001$, $\eta^2 = .06$). Lastly, survivors (both unacknowledged and acknowledged) had comparable, lower self-esteem than non-survivors ($p < .001$, $\eta^2 = .06$). No effects for externalized weight bias were found. These findings may be influenced by survivors' assault characteristics, in which acknowledged survivors reported more forceful tactics by perpetrators and stronger resistance tactics compared to unacknowledged survivors.

Conclusions: Taken together, this study offers preliminary evidence of differential associations between weight- and body-related factors influenced by acknowledgement status among SA survivors. Given these associations, it is possible that acknowledgment status may serve as a predictor for weight-related health outcomes and biases among SA survivors. Further research should explore these complexities with an underlying goal of creating trauma-informed weight bias and behavioral weight loss interventions for survivors of SA.

CORRESPONDING AUTHOR: Kayla E. Sall, MA, East Carolina University, Greenville, NC; sallk18@students.ecu.edu

---

1:27 PM – 1:39 PM

Abstract citation ID: kaad011.0480

SUPPORTING CHINESE IMMIGRANT WOMEN WITH INTIMATE PARTNER VIOLENCE: LESSONS LEARNED FROM A PILOT RANDOMIZED CONTROLLED TRIAL

Yang Li, PhD[1]

[1]The University of Texas at Austin, Austin, TX

Background: Intimate partner violence (IPV) is a serious social and public health issue. Chinese immigrants have been overlooked and underserved and represent an especially vulnerable group of IPV victims. Grounded in the empowerment theory, we adapted a brochure-based IPV intervention that focuses on increasing women's safety and enhancing their choice-making and problem-solving in decisions about the relationship by providing IPV information, resources, and safety planning. We also provided relaxation and self-compassion techniques to help women deal with the mental health effects of IPV.

Objective: The purpose of the abstract was to describe the knowledge gained from our pilot study that examined the feasibility and acceptability of our Self-Compassion, Health, and Empowerment (SHE) intervention for reducing IPV and its mental health effects in Chinese immigrant women experiencing IPV.

Methods: This pilot study used a randomized two-arm pre-posttest control group design with repeated measures and mixed methods. Chinese immigrant women who experienced IPV in the past year were recruited via social media. They were randomized to either the SHE (n=25) or control groups (n=25). The SHE intervention included two weekly phone calls to discuss a brochure and six-week relaxation and self-compassion practices delivered via a WeChat Mini-Program. The control group was provided with the same brochure and mental health care resources via email weekly for eight weeks. Phone interviews were conducted with 15 women in the SHE group to ask about their acceptability and satisfaction with the intervention and feedback about the study procedure, the intensity and duration of sessions, the intervention delivery approaches, and how the intervention impacts their well-being.

Results: Most of the participants described that the intervention was helpful and they would recommend it to other Chinese immigrant women who experienced IPV. Participants shared that sending reminder messages, adding incentives, using creative methods (i.e., video) to make the intervention more engaging, and adding more features (i.e., live chat feature) on the intervention delivery platform might increase adherence to the intervention and avoid dropout.

Conclusion: Our SHE intervention proved to be useful for abused Chinese immigrant women, but the intervention delivery approach and platform need to be revised to enhance feasibility and acceptability. Findings from this pilot study will be integrated in a subsequent effectiveness trial.

CORRESPONDING AUTHOR: Yang Li, PhD, The University of Texas at Austin, Austin, TX; yang.li@nursing.utexas.edu

1:39 PM – 1:50 PM

Abstract citation ID: kaad011.0481

MERITORIOUS AWARD WINNER

THE RELATION BETWEEN WEIGHT BIAS ATTITUDES ON JUDGMENTS OF SEXUAL ASSAULT SCENARIOS

Emily Jansen, BS[1], Kayla E. Sall, MA[1], J. Caroline P. Miller, MA[1], Abigail T. Shonrock, BA[1], Rhonda Byrd, MSW[1], Lydia Mansour, MS[1], Robert A. Carels, Ph.D., MBA[1]

[1]East Carolina University, Greenville, NC

Background: The interpretation of sexual assault scenarios is often influenced by personal characteristics of the survivor and the person interpreting the assault. Therefore, recent studies have examined the role of survivor size and participant weight bias on attributions of survivor and perpetrator blame, though results have been mixed.

Purpose: The current study sought to examine the roles of survivor weight, assault ambiguity, participant weight bias, and participant gender in participants' perceptions of sexual assault survivors and perpetrators.

Methods: Participants were 396 introductory psychology students who were randomized to one of four vignette conditions, each depicting a rape scenario. The scenario was portrayed as either ambiguous or unambiguous and the survivor was described as either fat or thin. Participants completed measures of weight bias and answered questions about their perceptions of survivor and perpetrator responsibility along with their levels of sympathy and negative affect towards the survivor and perpetrator.

Results: Two three-way MANOVAs were conducted with assault ambiguity and survivor size included as independent variables in both analyses, and participant weight bias or participant gender included as the third variable. Dependent variables in both MANOVAs included participants' attribution of responsibility, sympathy, and negative affect toward the survivor and the perpetrator. Significant main effects of weight bias, gender, and assault ambiguity were evident, along with significant interaction effects of assault ambiguity with gender and assault ambiguity with weight bias. When the scenario was ambiguous, participants with high weight bias attributed significantly more responsibility to the survivor, (η_p^2 = .05), less responsibility to the perpetrator, (η_p^2 = .002), and held lower negative affect toward the perpetrator, (η_p^2 = .07), than participants with low weight bias. Similarly, in the ambiguous condition men reported significantly less sympathy toward the survivor (η_p^2 = .01), attributed greater responsibility to the survivor (η_p^2 = .08), and reported all perpetrator-related outcomes significantly more favorably than women (*p*s < .05). In the unambiguous scenario, the only significant difference found was between men and women on survivor responsibility, with men reporting significantly higher survivor responsibility than women (η_p^2 = .01).

Conclusion: The negative impacts of weight bias extend beyond the stigmatization of people who are overweight, as evidenced by its influential role in participants' perspectives on sexual assault scenarios. When sexual assault scenarios are ambiguous, men and individuals with high weight bias perceive survivors of sexual assault more negatively and perpetrators of sexual assault more favorably than women and individuals with low weight bias.

CORRESPONDING AUTHOR: Emily Jansen, BS, East Carolina University, Greenville, NC; jansene21@students.ecu.edu

Paper Session 12: Pain

1:02 PM – 1:14 PM

Abstract citation ID: kaad011.0482

A QUALITATIVE EXPLORATION OF A PSYCHOSOCIAL PAIN MANAGEMENT INTERVENTION FOR PATIENTS WITH METASTATIC CANCER

Shannon N. Miller, BPH[1], Allison K. Diachina, BA[1], Grace H. Amaden, BS[1], Sarah A. Kelleher, PhD[1], Tamara J. Somers, PhD[2], Joseph G. Winger, PhD[2]

[1]Duke University Medical Center, Durham, NC; [2]Department of Psychiatry and Behavioral Sciences, Duke University School of Medicine, Durham, NC

Introduction: For patients with metastatic cancer, high levels of pain can greatly reduce their physical, emotional, and spiritual well-being. Psychosocial interventions have demonstrated clinically meaningful effects on pain and related outcomes in patients with early-stage cancer, but few interventions have been adapted specifically for those with metastatic disease. To address this need, our team created a novel integration of Meaning-Centered Psychotherapy and Pain Coping Skills Training. Meaning-Centered Pain Coping Skills Training (MCPC) teaches patients cognitive-behavioral pain management skills (e.g., guided imagery), with an emphasis on identifying and connecting with aspects of life that provide them with a sense of meaning (i.e., significance, worth, coherence) and peace.

Methods: We analyzed qualitative data from semi-structured individual interviews with participants who completed intervention sessions as part of a randomized controlled pilot trial. Clinical psychologists delivered MCPC's manualized protocol (i.e., four, 60-minute sessions) via videoconference. Eighty-three percent (24/29) of those assigned to MCPC completed an exit interview. We identified themes from these interviews using methods from applied thematic analysis.

Results: Participants (N=24) were adults with metastatic solid tumor cancers. The most common primary tumor sites included: prostate (38%), colorectal (21%), lung (17%), and breast (13%). Participants were predominantly male (63%), Caucasian (79%), and, on average, 62 years old (SD=12). At baseline, participants reported moderate pain severity (*M*=4.05, SD=1.99) and clinically elevated pain interference (*t-score mean* =61.53, SD=5.40). We identified three primary themes from the interviews. First, for many participants, MCPC reduced pain interference more so than pain severity. As one participant shared, "the skills helped me manage life around or through the pain." Second, MCPC greatly increased participants' confidence in their ability to manage pain, which helped them engage more regularly in meaningful activities (e.g., time with family). Third, participants shared ideas for ways to improve the intervention, such as specifically targeting newly diagnosed patients, offering a larger variety of relaxation skills, and increasing the number of sessions.

Discussion: MCPC is a highly acceptable and promising psychosocial pain management approach that warrants further evaluation in a fully powered efficacy trial.

CORRESPONDING AUTHOR: Shannon N. Miller, BPH, Duke University Medical Center, Durham, NC; shannon.n.miller@duke.edu

1:15 PM – 1:27 PM

Abstract citation ID: kaad011.0483

EFFECTIVE INTERVENTIONS FOR IDIOPATHIC CHRONIC PELVIC PAIN: A SYSTEMATIC REVIEW

Megan R. Wirtz, BA[1], Alexandra N. Karas, MA[1], Jennifer S. Ford, PhD, FSBM[2], Tracey A. Revenson, PhD, FSBM[3]

[1]The Graduate Center, City University of New York, New York, NY; [2]Hunter College, City University of New York and The Graduate Center, City University of New York, New York, NY; [3]Hunter College & the Graduate Center, CIty Univ of NY, New York, NY

Background: Chronic pelvic pain (CPP) in women is a debilitating condition with symptoms that affect both medical and psychological systems. For those with idiopathic (i.e., non-pathological) forms of CPP, no consensus for intervention exists. We conducted a systematic review to identify the behavioral medicine interventions used with idiopathic CPP, and the efficacy of current biomedical and behavioral medicine interventions.

Methods: The PubMed and CINAHL databases were systematically searched for the keywords "chronic pelvic pain," "women," and "intervention" for full text articles published during 2011-2021. Inclusion criteria: 1) sample comprised of women at least 18 years old, with idiopathic CPP; 2) study described or tested a biomedical and/or behavioral medicine intervention; 3) study provided outcomes indicators of intervention efficacy, such as pain reduction or improved quality of life (QOL). Titles and abstracts were searched, followed by a full-text search. Articles that met inclusion criteria were coded for sample characteristics, research design, type of intervention, intervention outcomes, issues with implementation, and study quality.

Results: The 791 articles found in the initial search were reduced to 64 after the title/abstract search, and to 18 after the full-text search because of duplication or failure to meet inclusion criteria. All studies had a longitudinal design with pre- and post-intervention assessments. The majority of the interventions (77.8% or 14 studies) were exclusively biomedical (e.g., medication, surgery, physical therapy). The remainder (22.2% or four studies) described integrated interventions that combined biomedical and behavioral components (e.g., medication and psychoeducation). Only one of the 14 biomedical interventions showed a significant difference in pain reduction (without significant side effects). All four integrated interventions successfully reduced pain and/or increased QOL.

Conclusion: Although the majority of interventions for idiopathic CPP have been exclusively biomedical, integrated interventions show greater efficacy for pain reduction and improved quality of life. Future interventions developed for idiopathic CPP should seek to integrate both behavioral and biomedical elements into intervention plans.

CORRESPONDING AUTHOR: Megan R. Wirtz, BA, The Graduate Center, City University of New York, New York, NY; mwirtz@gradcenter.cuny.edu

1:27 PM – 1:39 PM

Abstract citation ID: kaad011.0484

CITATION AWARD WINNER

GENETIC AND ENVIRONMENTAL INFLUENCES ON CHRONIC PEDIATRIC PAIN: FINDINGS FROM A LONGITUDINAL STUDY OF TWIN CHILDREN

Mary C. Davis, PhD[1], Leah Doane, PhD[1], Sierra Clifford, PhD[1], Kathryn Lemery-Chalfant, PhD[2]

[1]Arizona State University, Tempe, AZ; [2]Arizona State University, Tempe, AZ, AZ

Pediatric chronic pain affects 20-35% of youth worldwide, with increasing prevalence from childhood to adolescence. Internalizing symptoms are among the most consistently observed risk factors for pain across the lifespan, but the etiology underlying such associations in children is largely unexplored. This study evaluated: 1) the course of pain across the transition to adolescence; 2) shared and unique genetic and environmental influences on pain and internalizing.

Participants were 979 twin children (52% female; 30% Hispanic/Latino, 59% White) enrolled in an ongoing longitudinal study of child development. Parent reports of twin pain at ages 8, 9, 10, and 11 were assessed via ratings of body pain frequency over the prior three months (0 = rarely to 4 = daily) for 5 sites (head, back, stomach, limbs, other; Stanford et al., 2008). Pain scores were computed to reflect the total number of body sites rated as painful at least monthly (*Ms* = 0.73-1.08, *SDs* = 1.06-1.22). Parents also reported on twin age 8 internalizing symptoms (MacArthur Health and Behavior Questionnaire; Armstrong et al., 2003); responses for all non-pain items (0=never to 2=often) were averaged to yield internalizing scores (*M*= 1.26, *SD* = 0.21; α=.85).

Pain scores were significantly correlated across assessments (*r*s = .26-.44) and with age 8 internalizing scores (*r*s = .18-.26). Unconditional latent growth models revealed a linear increase in pain over time (*Est* = .12, *SE* = .04, *p* = .003). Conditional growth models including demographic covariates as predictors of pain showed that internalizing predicted the pain intercept (*Est* = 2.39, *SE* = .44, *p* < .001), but not the pain slope (*p* > .60). Univariate ACE twin structural equation models indicated that genetic influences were robust for both the pain intercept (A = .58, C = .21, E = .21) and age 8 internalizing (A = .57, C = .18, E =.21). However, bivariate model fitting showed that the pain intercept and internalizing were associated primarily for shared environmental reasons (*r*A = .16, *r*C = .57, *r*E = .12).

Chronic pain increased modestly over the course of middle childhood in a diverse community-based sample. Children with elevated internalizing at age 8 experienced higher concurrent pain, for shared environmental rather than genetic reasons, but not steeper growth. Because internalizing and pain in children are mainly unique conditions, targeting each separately may be the most promising approach to early intervention efforts.

CORRESPONDING AUTHOR: Mary C. Davis, PhD, Arizona State University, Tempe, AZ; mary.davis@asu.edu

1:39 PM – 1:50 PM

Abstract citation ID: kaad011.0485

MECHANISMS OF TREATMENT RESPONSE IN AN INTENSIVE PEDIATRIC PAIN REHABILITATION PROGRAM

Karen Weiss, PhD[1], Rui li, PhD[2], Xing Wang, PhD[2], Daron Vandeleur, MD[2], Sabina Havkins, PT[3], Tonya M. Palermo, Ph.D.[2]

[1]Mayo Clinic, Rochester, MN; [2]Seattle Children's Research Institute, Seattle, WA; [3]Seattle Children's Hospital, Seattle, WA

Background: Growing evidence indicates intensive pain rehabilitation programs (IPRP) are beneficial for youth with debilitating pain, with significant improvements in functioning, pain, and emotional well-being. However, gaps in knowledge exist as to why or how these programs work, which limits progress in tailoring programs to increase impact. Although most IPRP include physical therapy (PT), no studies have examined how improvements in PT influence overall functioning. This study sought to investigate mechanisms that influence treatment response for youth who participate in an IPRP. We hypothesized that improvements in physical functioning, pain anxiety, and self-efficacy would be related to improvements in pain-related functional disability, pain and mood.

Methods: Seventy-seven youth (10-19 years old, 79.5% Caucasian, 80% female) participated in an intensive outpatient IPRP that includes PT, occupational therapy, pain psychology, social work, and medical care. Treatment duration ranged 1 to 3 weeks. Participants completed measures of pain anxiety, self-efficacy, and PT standardized measures of speed and strength at baseline, end of week one, and discharge. Measures of pain-related functional disability, pain severity, and mood were collected at the same timepoints in addition to 3-months follow-up. Linear mixed models examined the association between hypothesized mechanisms of change and the outcomes, adjusting for time, age, and sex.

Results: Most prevalent pain diagnoses/location included CRPS (45%), joint (10%), back (10%), and generalized pain (10%). Pain duration ranged from 3-192 months (M=34.55, SD = 38.33). Participants reported statistically significant improvement in functional disability, pain, and depression across the four time points (ps < .05). They also reported statistically significant improvements in anxiety about pain, self-efficacy, and strength (ps < .05), but not speed. Improvements in pain anxiety and self-efficacy were related to improvements in functional disability and pain, (ps < .05) but not depression. Improvements in physical functioning were related to improvements in all outcome variables including depression.

Discussion: This study contributes to the growing literature on the effectiveness of pediatric intensive interdisciplinary pain rehabilitation programs and mechanisms that influence improvements in primary outcomes, an area that is currently underexplored. To our knowledge, this is the first study to show improvements in physical therapy are related to improvements in functioning, pain, and mood. Interestingly, improvements in pain anxiety and self-efficacy were not related to improvements in mood. Future research should include a larger sample from multiple sites and include more sophisticated models to further elucidate processes of change.

CORRESPONDING AUTHOR: Karen Weiss, PhD, Mayo Clinic, Rochester, MN; karenweiss77@gmail.com

Paper Session 13: Community Engagement

1:02 PM – 1:14 PM

Abstract citation ID: kaad011.0486

CITATION AWARD WINNER

ENGAGING YOUTH AND DEVELOPING MULTISECTOR PARTNERSHIPS TO IMPLEMENT AND DISSEMINATE AN LGBTQ TEEN-CENTERED PREP CAMPAIGN

Kathryn Macapagal, PhD[1], William Liem, MSW[1], Jennifer Leininger, MEd[2], Hadeis Safi[2], Silvia Valadez-Tapia, MA[3], Elijah McKinnon, BS[4], John J. Brooks, MS[1], Junye Ma, MA[5], Christopher Owens, PhD, MPH[6], Val Wongsomboon, PhD[1], Nathan Walter, PhD[1], Holden Green[7], Helena Martinez[8], Ryder Kennedy[9], Jim Pickett[10]

[1]Northwestern University, Chicago, IL; [2]Ann & Robert H. Lurie Children's Hospital of Chicago, Chicago, IL; [3]AIDS Foundation Chicago, Chicago, IL; [4]People Who Care, Inc, Chicago, IL; [5]SDSU-UC San Diego Joint Doctoral Program in Clinical Psychology, La Jolla, CA; [6]Texas A&M University School of Public Health, College Station, TX; [7]Loyola University Chicago, River Forest, IL; [8]Evanston Township High School, Chicago, IL; [9]Columbia College Chicago, Chicago, IL; [10]Jim Pickett Consulting, Chicago, IL

Background: Pre-exposure prophylaxis (PrEP) is a highly effective but underutilized HIV prevention approach among sexual and gender minority (SGM) adolescents in the U.S. Social marketing campaigns are a dissemination and implementation strategy that can increase awareness and demand for PrEP and other HIV prevention services, but virtually all PrEP campaigns are focused on adults. Engaging adolescents in campaign research, development, and implementation can ensure future youth-focused campaigns resonate with and reach the intended audience. Here we describe our academic-community-youth partnership activities, and the acceptability and feasibility of draft materials for a planned Chicago-area campaign called #PrEP4Teens.

Methods: In 2021, we conducted a needs assessment with 80 SGM adolescents and adult stakeholders via online focus groups and interviews. Five youth were hired as "youth creatives" to develop a draft campaign package (digital poster, social media, murals) and a hybrid in-person/digital dissemination plan (website, Discord, community/school engagement) based on needs assessment data. We presented the proposed campaign package in an online survey to N=188 SGM youth aged 13-24. Youth rated the acceptability of each element of the proposed campaign relative to existing adult PrEP campaigns and offered potential improvements. In 2022, the project team presented this body of work to local/national stakeholders to secure additional partnerships and pitch to potential funders, and re-engaged youth creatives to advance the campaign.

Results: There has been overwhelming interest in #PrEP4Teens from potential funders, healthcare providers and organizations, educators, and youth. Youth rated the #PrEP4Teens materials as more appropriate, interesting, understandable, applicable to their lives, and informational than adult PrEP campaigns (p values = .001-.04) supporting the need for a teen-specific campaign. Survey respondents desired concrete information about what PrEP was and how to obtain it, and multiple ways to engage with the campaign to meet their needs/preferences. After receiving this feedback, youth creatives and project team members iterated on the campaign elements further.

Conclusions: Research-informed PrEP campaign materials developed with and for SGM teens have significant potential to impact youth HIV prevention knowledge. Engagement with the intended audience and stakeholders from the beginning, and sharing responsibility for campaign development and implementation with other stakeholders (e.g., clinics, community organizations) can set the stage for successful campaign dissemination and implementation. In 2022-2023 our team will launch the first campaign elements (website, social media) in Chicago, and in the long run will evaluate engagement and its impact on teen PrEP awareness, HIV testing, and prevention.

CORRESPONDING AUTHOR: Kathryn Macapagal, PhD, Northwestern University, Chicago, IL; kathryn.macapagal@northwestern.edu

1:15 PM – 1:27 PM

Abstract citation ID: kaad011.0487

MERITORIOUS AWARD WINNER

LEVERAGING THE POWER OF A COMMUNITY-ENGAGED FRAMEWORK TO EXAMINE YOUTH PERSPECTIVES ON STRESS

Zoie Carter, BA[1], Jolaade Kalinowski, EdD[2], Jeffrey Proulx, PhD[3], Caitlin Elsaesser, PhD[4]

[1]Brown University School of Public Health, Providence, RI; [2]UCONN, Storrs, CT; [3]Brown University, ASHLAND, OR; [4]University of Connecticut, Hartford, CT

Introduction: COVID-19 has amplified what was already an unfolding mental health crisis among youth. Youth living in marginalized neighborhoods in particular experience a burden of high stress. Missing from the literature is work that center marginalized youth's own experiences and perspectives on stress. This points to an urgent need for more qualitative work on black youth experiences with stress to better understand youth perspectives regarding their conceptualization of stress, sources of stress as well as their beliefs about coping with stress and how stress can be managed.

Methods: Using a community-based participatory research approach, the conception and execution of this study was conducted with Compass Youth Collaborative, a community-based organization in Hartford, CT. Compass supports youth impacted by gun violence using a street outreach model. Between October 2021 and November 2021, four focus groups with adolescents were held (N=26), the majority of whom identified as Black (73%). COMPASS staff recruited youth for the focus groups. Focus groups were facilitated by study staff alongside Compass staff and members of a youth co-researcher board from Compass. Focus groups were transcribed, analyzed and coded by the study team.

Results: The focus groups elicited four major themes regarding stress among youth. Emergent themes included: 1). Experiences of intergenerational stress and trauma 2). Exacerbation of stress stemming from social media 3). Experiences of community violence and lack of safety, and 4). Stress related to school and learning. A cross cutting finding was how COVID-19 further exacerbated these stressors.

Conclusions: Conducting focus groups collaboratively with Compass staff and youth co-researchers was central to effectively understanding the perspectives of this population. We facilitated a respectful and collaborative environment to center youths' own perspectives, which are under-represented in the stress literature. These data suggest that youth experience stress and trauma stemming from systemic community violence, intergenerational stress and the consequences of COVID–19. Interventions designed collaboratively with youth are urgently needed. Intervening in stress at younger ages may be an important preventative measure for health. Prioritizing honor, autonomy and respect for youth is a critical component in intervention development and research.

CORRESPONDING AUTHOR: Jolaade Kalinowski, EdD, UCONN, Storrs, CT; jolaade.kalinowski@uconn.edu

---

1:27 PM – 1:39 PM

Abstract citation ID: kaad011.0488

TESTING DELIBERATIVE DEMOCRACY METHOD WITH CITIZENS OF AFRICAN ANCESTRY REGARDING TARGETED SCREENING FOR HEREDITARY CANCERS

Yue Guan, PhD[1], Sarita Pathak, MPH[2], Denise Ballard, MEd[3], JK Veluswamy[4], Lauren McCullough, PhD[2], Colleen McBride, PhD[2], Michele Gornick, PhD[2]

[1]Emory University, Decatur, GA; [2]Emory University, Atlanta, GA; [3]Winship Cancer Institute of Emory University, Atlanta, GA; [4]Horizons Community Solutions, Atlanta, GA

Background: Deliberative democracy (DD), a strategy to foster co-learning among researchers and communities, could be applied to gain informed public input on health policies relating to genomic translation. For example, issues with complex tradeoffs such as targeting citizens of African Ancestry (AAn) for accelerated population-based screening for Hereditary Breast and Ovarian Cancer (HBOC) could benefit from a citizen deliberation strategy.

Objective: We evaluated the quality of DD for gaining informed community perspectives regarding targeting communities of AAn for HBOC screening in Georgia.

Methods: We audiotaped a 2.5 day conference conducted via zoom in March 2021 to examine indicators of deliberation quality based on three principles: 1) inclusivity (diverse viewpoints based on participants' demographics, cancer history, and civic engagement), 2) consideration of factual information (balanced and unbiased expert testimonies, participant perceived helpfulness), and 3) deliberation (speaking opportunities, adoption of a societal perspective on the issue, reasoned justification of ideas, and participant satisfaction).

Results: We recruited 24 participants who reflected the diversity of views and life experiences of citizens of AAn living in Georgia. The expert testimony development process we undertook for creating balanced factual information was endorsed by experts' feedback. Deliberation process evaluation showed that while participation varied (average number of statements = 24, range: 3-62), all participants contributed. Participants were able to apply expert information and take a societal perspective to deliberate on the pros and cons of targeting individuals of AAn for HBOC screening in Georgia.

Conclusions: The rigorous process of public engagement using deliberative democracy approach can successfully engage a citizenry with diverse and well-informed views, do so in a relatively short time frame and yield perspectives based on high quality discussion.

CORRESPONDING AUTHOR: Yue Guan, PhD, Emory University, Decatur, GA; yue.guan@emory.edu

1:39 PM – 1:50 PM

Abstract citation ID: kaad011.0489

CITATION AND MERITORIOUS AWARD WINNER

TRANSLATING SCIENCE THROUGH MEANINGFUL RESEARCH PARTNERSHIPS: APPLYING BEHAVIOUR CHANGE THEORY TO DEVELOP RECOMMENDATIONS

Alanna Shwed, MSc[1], Emily E. Giroux, MSc, BSc[2], Femke Hoekstra[2], Rhyann McKay, PhD[3], Lee Schaefer, PhD[4], Christopher West, PhD[5], Lowell T. McPhail, PhD[6], Kathryn Sibley, PhD[7], Christopher B. McBride, PhD[8], Barry Munro[9], Anita Kaiser, MSc[10], Heather Gainforth, PhD[11]

[1]The University of British Columbia Okanagan, Kelowna, BC, Canada; [2]University of British Columbia, Kelowna, BC, Canada; [3]University of Alberta, Edmonton, AB, Canada; [4]University of Saskatechwan, Saskatoon, SK, Canada; [5]UBC, Kelowna, BC, Canada; [6]UBC, Vancouver, BC, Canada; [7]University of Manitoba, Winnipeg, MB, Canada; [8]Spinal Cord Injury BC, Vancouver, BC, Canada; [9]Canadian Spinal Research Organization, Richmond Hill, ON, Canada; [10]University of Toronto, Thornhill, ON, Canada; [11]The Univeristy of British Columbia Okanagan, Kelowna, BC, Canada

Background: Research partnerships are a promising approach for ensuring science is translated and impactful. Existing reviews on barriers and facilitators to research partnerships are limited as they do not clearly define the partnership approach. As a result, findings are too broad to inform interventions to support research partnerships. The Integrated Knowledge Translation (IKT) Guiding Principles for conducting and disseminating spinal cord injury (SCI) research in partnership outline 8 principles of meaningful SCI research partnerships (www.iktprinciples.com). This study aimed to use a systematic and theory-based method to understand barriers and facilitators to using a research partnership approach and using the IKT Guiding Principles to inform the development of tools, resources, and interventions that ultimately support research use and impact.

Methods: This work was guided by pragmatism and used an IKT approach. SCI researchers across Canada and the US were recruited to complete a survey (N = 22) and interview (n = 13) to discuss barriers and facilitators to deciding to use *a research partnership approach* and the *IKT Guiding Principles*. The Behaviour Change Wheel (BCW), Theoretical Domains Framework, and Mode of Delivery Ontology were used to develop the survey, interview questions, and guide deductive analyses.

Results: Two coders identified 142 factors (79 barriers, 63 facilitators) related to deciding to use a co-production approach to research, and 292 factors (187 barriers, 105 facilitators) related to deciding to use the IKT Guiding Principles. Researchers were motivated to partner or use the principles; but identified capability and opportunity barriers. All nine BCW intervention functions (Kappa = 0.88; PABAK = 0.91), all seven policy categories, and many different modes of delivery (Kappa = 0.86; PABAK = 0.93) were identified as relevant intervention options.

Conclusion: This work addressed a limitation of previous research by defining the partnership approach using the IKT Guiding Principles before querying participants about barriers and facilitators. Social (e.g., supportive colleagues) and physical (e.g., funding) supports are needed to help researchers engage in research partnerships. Tools and resources should address barriers at the interpersonal, institutional, and policy levels to help transform the research system to prioritize and support meaningful research partnerships between researchers and research users.

CORRESPONDING AUTHOR: Alanna Shwed, MSc, The University of British Columbia Okanagan, Kelowna, BC, Canada; alanna.shwed@ubc.ca

Thursday
April 27th, 2023
2:00 PM – 2:50 PM
Panel Discussions

Abstract citation ID: kaad011.0490

PANEL 1: ARTS AS RX: TRANSLATING SCIENCE INTO IMPACT VIA ARTS-BASED INTERVENTIONS

Tamara Underiner, PhD[1], Marc Moss, MD[2], Girija Kaimal, EdD[3]

[1]Arizona State University, Tempe, AZ; [2]University of Colorado, Aurora, CO; [3]Drexel University, Fort Washington, PA

Background: Across the street from the SBM Conference hotel, atop the Arizona Center parking garage, a huge new mural dominates the sky. In "Expressing Ourselves! Identity, Diversity & Thriving in Adversity," local muralists use the visual language of public art to highlight mental health awareness, resilience and wellness. But public art is not alone in linking arts and health promotion: increasingly, social scientists and healthcare providers are collaborating with artists and designers to improve health outcomes for individuals and communities. Recent scoping reviews underscore the effectiveness of such approaches, especially in behavioral health, as well as in child development, caregiving, and illness prevention; awareness of the social determinants of health; and management and treatment of mental illness, chronic pain, and end-of-life care. More recently, the CDC has enlisted the arts to improve COVID vaccine acceptance nationwide. As powerful and promising as such interdisciplinary approaches can be, they can also be challenging to get underway, especially since funding is limited and often tied to disciplinary subfields. Further, they must balance the need for scientific rigor with approaches that are not just feasible or acceptable but also highly engaging, culturally appropriate, and community-embedded.

Panel Composition: As experienced researchers in this intersectional space, we propose a panel sharing lessons learned, challenges faced, and effective strategies for the design, execution, and dissemination of arts-based research, interventions, and programming. We will use examples from three federally funded labs that are focused variously on art psychotherapy as well as arts-based practices aimed at mitigating chronic stress, cultivating resilience among healthcare professionals, and enhancing the patient-caregiver relationship in medical and informal care settings. In addition to working with different types of populations across the lifespan, these labs also employ different methods for assessment, ranging from narrative and artistic self-reports to biomarkers for stress. The panelists will also share insights from our insights and experiences in building cross-disciplinary collaborations, guaranteeing rigor, and working with students, trainees, and community partners.

CORRESPONDING AUTHOR: Tamara Underiner, PhD, Arizona State University, Tempe, AZ; tamara.underiner@asu.edu

Abstract citation ID: kaad011.0491

PANEL 2: CHALLENGES AND OPPORTUNITIES IN MULTI-COMPONENT INTERVENTIONS IN THE UNDERSERVED DURING THE COVID-19 ERA

Amy Wachholtz, PhD, MDiv, MS, FSBM[1], Nora L. Nock, PhD, MS, FSBM[2], Samiran Ghosh, PhD[3]

[1]University of Colorado Denver, Denver, CO; [2]Case Western Reserve University, Cleveland, OH; [3]University of Texas School of Public Health, Houston, TX

Over 20 million Americans have a substance use disorder (SUD), 10 million misuse opioids and 2 million have been diagnosed with an opioid use disorder (OUD). A record number of Americans – 107,622 – died of a drug overdose in 2021, a 40% increase over 2019. More than 75% of these deaths involved an opioid. This requires renewed attention to our nation's other epidemic amidst the COVID-19 pandemic. Moreover, over 40% of Americans with a SUD have a co-occurring mental illness, 40-60% with an OUD report chronic pain and, drop-out rates for drug treatment of 50-60% are common. The COVID-19 pandemic has exacerbated existing and increased new-onset mental health and addiction disorders. Although the COVID-19 pandemic has brought forth opportunities to deliver behavioral interventions remotely, there are numerous challenges with this, particularly in underserved persons with a SUD (pwSUD). We will discuss the challenges and pivots made in a multi-component intervention involving exercise and psychotherapy adjunctive to treatment as usual using a mixed-methods, multi-phase optimization strategy (MOST) in adults with an OUD and pain in residential drug treatment. Although exercise has been shown to increase abstinence and decrease depression and anxiety in pwSUD, our formative work revealed multiple barriers including lack of time, poor fitness, fear of comorbidities and exacerbation of pain. In addition, we will discuss COVID-related challenges faced including increased isolation during quarantining and fear of contagion spread, particularly aerosols during exercise. We will discuss the challenges faced with remote delivery and remote training for local implementers of some components of the bio-behavioral intervention in this underserved population. Equity issues such as limited access to technology, limited internet service, limited access to residential SUD treatment during COVID, and lower financial resources, adds complexity to multi-component intervention delivery. We will also discuss the development of our solutions to ensure quality, fidelity, and compliance to multiple component, bio-behavioral intervention protocols across multiple sites. In addition, we will present how incorporating adaptive designs such as Sequential Multiple Assignment Randomized Trial (SMART) and just-in-time adaptive interventions (JITAI) in conjunction with MOST can help overcome some of the challenges but the "costs" of these more elegant designs must be considered.

CORRESPONDING AUTHOR: Amy Wachholtz, PhD, MDiv, MS, FSBM, University of Colorado Denver, Denver, CO; AMY.WACHHOLTZ@UCDENVER.EDU

Abstract citation ID: kaad011.0492

PANEL 3: COMMUNITY-ENGAGED RESEARCH FOR HEALTH PROMOTION IN DIVERSE AGING POPULATIONS: STRATEGIES, BENEFITS, AND LESSONS LEARNED

Siobhan K. McMahon, PhD, MPH, GNP-BC[1], Stacey L. Schepens Niemiec, PhD, OTR/L, DipACLM[2], Maja Pedersen, PhD[3], Barbara M. Resnick, PhD, CRNP[4], Sandra J. Winter, PhD, MHA[5]

[1]University of Minnesota, Saint Paul, MN; [2]University of Southern California, Los Angeles, CA; [3]Stanford University, Fairbanks, AK; [4]University of Maryland, Baltimore, MD; [5]Senior Coastsiders, Inc., Half Moon Bay, CA

Aging and most health-related behaviors occur in the places people live and their surrounding communities. When promoting health and researching health-related behavior change, engaging with community members affected by aging processes or health issues of interest, and other stakeholders, can improve targeted outcomes and confer additional benefits. Although community engagement purposes and practices vary, success depends on the thoughtful use of fundamental principles and skills during all phases: planning, initiating, and sustaining. For example, professionals and researchers must develop clear goals about whom they want to engage and why. Additionally, considerable time and effort are necessary to understand a community's culture, health concerns, conditions, experiences with outside groups, and perceptions of those interested in engaging and the institutions in which they work. Throughout the community engagement process—developing relationships, building trust, and identifying shared commitment are cornerstones for long-term partnerships. Partnerships sustained over time have enduring qualities such as recognition and respect for the community's diversity, some responsibility for the effort's outcome, and collaborative learning. This panel session will begin by briefly reviewing some principles of community engagement, key definitions, classifications, and evaluations. Panelists will then present case studies representing distinct projects that used varied community engagement practices:

1. Promoting age-friendly environments among diverse older adults
2. Evaluating and adapting an evidence-based walking program among rural Native American older adults
3. Developing a pilot lifestyle intervention for late-midlife, rural-dwelling Latinos in primary care
4. Developing and testing a community-based physical activity intervention for diverse urban older adults

Each case study will include information about the goals and classification of engagement, strategies used to initiate and sustain engagement, benefits for older participants, stakeholders, and communities, as well as lessons learned. After presenting case studies, the panel will facilitate discussions with attendees about community engagement experiences, their impacts on the health of older adults and communities, and challenges. Panelists will also share local and national resources that support community engagement for health promotion, research, and dissemination.

CORRESPONDING AUTHOR: Siobhan K. McMahon, PhD, MPH, GNP-BC, University of Minnesota, Saint Paul, MN; skmcmaho@umn.edu

Abstract citation ID: kaad011.0493

PANEL 4: DISABILITY INCLUSION IN HEALTH PROMOTION INTERVENTION RESEARCH: STRATEGIES TO MOVE TOWARD EQUITY

Emily Kringle, PhD, OTR/L[1], Angela R. Caldwell, PhD, OTR/L[2], Susan Magasi, PhD[3], Kerri Morgan, PhD, OTR/L ATP[4], Jaclyn Schwartz, PhD, OTR/L[5]

[1]University of Minnesota, Minneapolis, MN; [2]University of Pittsburgh, Washington, PA; [3]University of Illinois at Chicago, Chicago, IL; [4]Washington University, St. Louis, MO; [5]Washington University in St. Louis School of Medicine, St. Louis, MO

Background: Despite rights to healthcare and community participation afforded by the Americans with Disabilities Act, people with disabilities remain disproportionately less likely to achieve physical activity, sleep, and adherence to medical recommendations. This substantially elevates the risk for poor individual health outcomes in this already high-risk population and results in high societal cost as the number of people aging with disability grows.

Advancing health equity demands that we explore how structural ableism influences health promotion. Including the disability community as creators, collaborators, and participants in health promotion research is essential. However, behavioral clinical trials of physical activity, sleep, or health management interventions frequently exclude people with physical or cognitive impairments. These exclusions risk widening inequities. Community-engaged research conducted in partnership with the disability community is important to advance health promotion and reduce inequities in this population.

This panel is comprised of occupational therapy researchers who have extensive experience conducting health promotion research in partnership with the disability community. The objectives of this panel discussion are:

Provide exemplars of health promotion intervention development that involve populations with disabilities.

Discuss lessons learned from engaging the disability community in health promotion intervention development.

Identify strategies for initiating and nurturing partnerships with community and academic partners within the disability community.

CORRESPONDING AUTHOR: Emily Kringle, PhD, OTR/L, University of Minnesota, Minneapolis, MN; ekringle@umn.edu

---

Abstract citation ID: kaad011.0494

PANEL 5: GRADUATE STUDENT PANEL: INTEGRATING HEALTH EQUITY INTO STUDENT/TRAINEE RESEARCH

Adati Tarfa, PharmD, MS[1], Dylan G. Serpas, MS[2], Jennifer Mandelbaum, MPH[3], Imani Canton, MS[4], Viktor Clark, BA, MS[5], Jan T. Mooney, MA[6], Farida N. YADA, MPH[7]

[1]University of Wisconsin-Madison, Brooklyn, NY; [2]University of South Florida, Tampa, FL; [3]University of South Carolina, Londonderry, NH; [4]University of Illinois Urbana-Chamapign, Champaign, IL; [5]Virginia Commonwealth University, Powder Springs, GA; [6]UNC Charlotte Health Psychology PhD Program, Detroit, MI; [7]University of North Carolina at Charlotte, Charlotte, NC

Introduction: Healthcare professional associations such as the Society of Behavioral Medicine call for more training and prioritization of researchers to engage in research through a health equity lens. Training in health equity encompasses three main goals: 1) recognizing the need for diversified research approaches across behavioral science disciplines 2) building on community assets and partnerships and 3) utilizing acceptable, feasible, and sustainable research methodologies among marginalized populations. These goals can be implemented into graduate student training and students can benefit from peer perspectives of integrating health equity into their mentored research. This panel aims to provide unique insights into the feasibility and importance of developing scholars capable of incorporating health equity within their own program of research. Graduate student researchers will provide perspectives on the design, dissemination, and implementation of health equity research in their respective disciplines.

Method: This student-led panel discussion centers on integrating health equity into student research across disciplines including psychology, pharmacy, health behavior and policy, public health, kinesiology, and health services research. Graduate student panelists have experiences in mixed methods, health innovation, asset-based research, bio-behavioral factors, Black maternal/child health, and health measurement applicability in health equity research. Panelists will discuss the research methodologies used to interact with and develop partnerships with marginalized communities including racial minorities, older adults, sexual and gender minorities, pregnant women, people with HIV/substance use disorder, and people with disabilities.

Panelists will share examples of ways they conduct quantitative, qualitative, mixed-methodology, and community-engaged research to address long-standing systemic social and health inequities. Panelists will discuss recommendations on conducting graduate student and trainee research through a health equity lens.

Statement of Impact

Graduate trainees in behavioral medicine represent the future of the discipline. Enhancing students' ability to engage in diverse health issues critically is fundamental in enacting future change.

CORRESPONDING AUTHOR: Adati Tarfa, PharmD, MS, University of Wisconsin-Madison, Brooklyn, NY; tarfa@wisc.edu

Abstract citation ID: kaad011.0495

PANEL 6: HOW TO INTEGRATE CLIMATE CHANGE INTO YOUR EXISTING PROGRAM OF RESEARCH

Brooke M. Bell, PhD[1], Kevin Lanza, PhD, MCRP[2], Leticia Nogueira, PhD, MPH[3], Callie S. Kalny, MA[4], Sydney O'Connor, PhD[5], Kara Hall, PHD[6], Michael A. Diefenbach, PhD, FSBM[7]

[1]Yale University, New Haven, CT; [2]University of Texas Health Science Center at Houston, Austin, TX; [3]American Cancer Society, Kennesaw, GA; [4]School of Communication, Northwestern University, Chicago, IL; [5]NCI, Rockville, MD; [6]National Cancer Institute, Rockville, MD; [7]Northwell Health, New York, NY

Climate change is among the greatest threats to public health in human history, as an increasingly warming planet creates dire health consequences across the globe. As this relationship between climate change and health becomes increasingly recognized in the behavioral medicine community, many researchers are interested in applying their skills and expertise to help both people and the planet. The behavioral medicine community has a vital role to play in combating the climate crisis; however, there are many barriers to actively pursuing this line of research, with one of the greatest being how to get started.

This panel will feature four scholars from various career stages and institutions (i.e., graduate student, postdoctoral fellow, faculty, senior scientist) who have successfully incorporated a 'climate change lens' into their research work in recent years. Panelists will share (i) why they focus on climate change in their research, (ii) how they integrate climate change into their research, and (iii) the tools and resources they recommend to integrate climate change into research. Approximately half of the presentation time will be dedicated to Q&A so that interested attendees can receive advice and feedback on specific topics of interest such as how to obtain training on the topic of climate change and health, how to identify and apply for climate change-related research funding, and how to generate research ideas and utilize data sources related to climate change.

This panel will be hosted by the recently-formed SBM Climate Change and Health (CCH) Special Interest Group (SIG). It is targeted toward a wide audience, ranging from SBM members who have not considered integrating climate change into their research, to those who are interested but don't know where to start, to those who have already made some progress toward this integration. All levels of expertise are welcome.

CORRESPONDING AUTHOR: Brooke M. Bell, PhD, Yale University, New Haven, CT; brooke.bell@yale.edu

---

Abstract citation ID: kaad011.0496

PRESIDENTIAL PANEL: PANEL 7: INTRODUCING THE SCIENCE COMMUNICATION TOOLKIT: LOOKING BACK AND NEXT STEPS

Carly M. Goldstein, PhD[1], Rebecca Krukowski, PhD, FSBM[2], Megan J. Shen, PhD[3], Jaclyn P. Maher, PhD[4], David E. Conroy, PhD, FSBM[5]

[1]Brown University & The Miriam Hospital, PROVIDENCE, RI; [2]University of Virginia, School of Medicine, Charlottesville, VA; [3]Fred Hutchinson Cancer Center, Seattle, WA; [4]University of North Carolina Greensboro, Greensboro, NC; [5]The Pennsylvania State University, University Park, PA

The Society of Behavioral Medicine's (SBM) Public Education Committee recently created a science communication toolkit for the public (and exclusive members-only content) in alignment with SBM's organizational priorities to disseminate science broadly to the public. The toolkit is intended to equip individuals with the skills and resources needed to communicate their science to a wide variety of audiences. The end goal is to improve their work's reach, empower the communities with which they work, and contribute behavioral medicine expertise to public health conversations. This panel features some of the creators of the toolkit's structure and content who will discuss key components of this openly accessible resource. Specific topics will include using Twitter, op-eds and infographics for science communication. The toolkit also includes broader articles focused on the rationale for science communication and ways to overcome barriers (e.g., lack of time or institutional support). Attendees will hear from an SBM Past President on why now is the time for SBM members to prioritize science communication, and how SBM is leading by example. The panel will aim to demystify science communication and give members ideas about how they can communicate their science beyond peer-reviewed publications. Collaboratively with the audience, the panelists will brainstorm future directions for new content to be added to the toolkit.

CORRESPONDING AUTHOR: Carly M. Goldstein, PhD, Brown University & The Miriam Hospital, PROVIDENCE, RI; carly_goldstein@brown.edu

Abstract citation ID: kaad011.0497

PANEL 8: OBESITY AND EATING DISORDERS IN ADOLESCENCE: OPPORTUNITIES FOR AN INTEGRATED APPROACH

Melanie K. Bean, PhD[1], Adrienne S. Juarascio, PhD[2], Natalie Lister, PhD, MNutrDiet, BHSc (Hons)[3], Hollie Raynor, PhD, RD, LDN[4], Stephanie Manasse, PhD[5]

[1]Virginia Commonwealth University, Richmond, VA; [2]Drexel University, Philadelphia, PA; [3]University of Sydney, Sydney, New South Wales, Australia; [4]University of Tennessee Knoxville, Knoxville, TN; [5]Drexel University, Wynnewood, PA

Adolescents with obesity face lifelong increased risk of morbidity and early mortality, coupled with heightened risk for eating disorders (EDs), which have some of the highest mortality rates among psychiatric disorders. Although not mutually exclusive, the intersection of EDs with obesity treatment remains a controversial topic and current treatment models approach these conditions separately. Multicomponent behavioral weight loss (BWL) treatment, which includes dietary restriction to promote negative energy balance and weight loss, is the recommended first line of obesity treatment with a robust body of research indicating that adolescents lose clinically-significant amounts of weight. However, dietary restriction is an established etiological factor for EDs, thus there is concern that treatments that include dietary restriction might trigger or exacerbate eating pathology. Further, although the current evidence base does not suggest increased ED risk with BWL treatment, a subset of individuals might have poorer ED outcomes. This conflict leads to confusion about appropriate treatment, creates a false dichotomy between obesity treatment and ED prevention, and presents barriers to referral and receipt of evidenced-based treatments. The Child and Family Health and Obesity and Eating Disorder Special Interest Groups co-host this symposium presenting opportunities for integration to advance this scientific area. Speaker 1 [blinded] will present on evidence-based BWL treatment in adolescents with obesity, including conceptualization of dietary restraint as a healthy self-regulation strategy. She presents analyses from an NIH-funded randomized clinical trial that examined if dietary changes were related to eating pathology changes in adolescents. Speaker 2 [blinded] will present findings from three NIH-funded trials investigating the integration of weight management and ED treatment, including recommendations for when focus should be solely on ED treatment. Finally, Speaker 3 [blinded] will present aims and methods of the Eating Disorders In weight-related Therapy (EDIT) Collaboration, which brings together clinicians, researchers and individuals with lived experience to improve treatment for obesity and EDs. She will discuss ED screening and monitoring in adolescents with obesity in BWL treatment and areas for future research to inform a precision medicine treatment approach. [Blinded for review] and [blinded for review] will serve as discussants. A networking session will immediately follow.

CORRESPONDING AUTHOR: Melanie K. Bean, PhD, Virginia Commonwealth University, Richmond, VA; melanie.bean@vcuhealth.org

---

Abstract citation ID: kaad011.0498

PANEL 9: PARENT, PROVIDER AND ADVOCATE PERSPECTIVES ON THE FIRST 1000 DAYS OF LIFE NUTRITION AND SUPPORTIVE RESOURCES

Trina Robertson, MS, RDN[1], Suzanne Rauzon, MPH, RD[2], Gabriela Buccini, PhD, MSc, IBCLC[3], Karen Lindsay, PhD, RDN[4]

[1]Dairy Council of California, Sacramento, CA; [2]University of California,Nutrition Policy Institute, Division of Agriculture and Natural Resources, Oakland, CA; [3]University of Nevada Las Vegas, LAS VEGAS, NV; [4]University of California, Irvine, Irvine, CA

The first 1000 days of life, from conception to age 2 years, is a critical window of development when conditions, exposures, and behaviors may set the stage for later risk of chronic diseases, including obesity. The prevalence of childhood obesity is substantially higher among low-income and marginalized populations who often are reported to have a greater risk of food insecurity, poorer access to healthy food, low social support, and employment demands restricting breastfeeding practices, as well as time limitations on home food preparation.

The first panelist will describe the barriers and gaps in nutrition resources and services provided by health care providers and early care educators to low-income pregnant and postpartum women and their young children in California. Several needs were identified through the findings to better support optimal health, growth and development including improved access to nutritious food and educational resources for low-income families, improved cultural appropriateness of nutrition education, messaging around key micronutrients for fetal and early child development, enhanced social support and guidance regarding breastfeeding, and further professional development opportunities on early life nutrition.

The second panelist will share the findings of a pilot study to evaluate whole and lower-fat milk types in relation to indicators of growth, development, health, and functional impacts for children ages 1 to 3 years. This study aims to demonstrate the feasibility of conducting a larger clinical trial, which could inform recommendations for milk type provided to children in federal nutrition programs. Additionally, as part of learnings from the feasibility study, parent perceptions about milk and milk type were examined and will be shared. Findings support the need to further develop clear and consistent nutrition guidance and resources.

The third panelist will discuss how a community-based participatory approach was used to map community-based nurturing care assets, assess community needs and co-create an intervention to promote maternal-child food security within the first 1,000 days within historically racial/ethnic communities in US Southwest. In partnership with local collaborators, researchers co-created an intervention to integrate maternal-child health and nutrition consisting of a bundle of effective food security implementation strategies to improve health and nutrition outcomes within the first 1000 days of life.

This moderated panel will summarize lessons learned and recommendations to improve nutrition guidance, resources and services through access, collaboration and continuing education of diverse providers to deliver consistent clear communications to families that are science-based and culturally relevant. Attendees will be encouraged to ask questions during the interactive discussion.

CORRESPONDING AUTHOR: Trina Robertson, MS, RDN, Dairy Council of California, Sacramento, CA; robertsont@dairycouncilofca.org

Abstract citation ID: kaad011.0499

PANEL 10: PROMOTING YOUTH PHYSICAL ACTIVITY THROUGH ACADEMIC-COMMUNITY PARTNERSHIPS

Deirdre Dlugonski, PhD[1], Peter T. Stoepker, PhD[2], Matthew Y.W. Kwan, PhD[3], Sujane Kandasamy, PhD[4], Duke Biber, PhD, NBC-HWC[5]

[1]University of Kentucky, Lexington, KY; [2]Kansas State University, Manhattan, KS; [3]Brock University, St. Catharines, ON, Canada; [4]Brock University, Markham, ON, Canada; [5]Kennesaw State University, Smyrna, GA

The overall purpose of the panel is to create dialogue around the opportunities and challenges associated with developing, implementing, and maintaining community partnerships to promote physical activity among youth. In the first part of the panel, each presenter will share a brief overview of their experiences with the implementation of research studies in partnership with community groups and organizations. The first panelist will present experiences from partnering with a diverse public middle school to implement the "Girls Can… Move!" intervention. The next panelist will describe the "Girls Empowering Movement" initiative supported by the Atlanta Falcons Youth Foundation targeting middle school girls in rural Georgia. The final panelist will share his experiences from his "IPLAY Project" from working with two community partner organizations to implement a physical literacy intervention among new immigrant/refugee youth. Next, the moderator will facilitate some broader discussions around topics of: initiating partnerships, barriers and challenges experienced, benefits of partnerships, balancing scientific rigor and pragmatic considerations, and funding opportunities to build partnerships. Finally, time will be reserved for a Q&A, enabling discussions between the audience and panelists. Together, the goal of this panel is to provide concrete examples of established academic-community partnerships and facilitate an open dialogue around the potential opportunities, benefits, and challenges in an effort towards making a real-world impact on youths' physical activity within communities.

CORRESPONDING AUTHOR: Deirdre Dlugonski, PhD, University of Kentucky, Lexington, KY; dee.dlugonski@uky.edu

---

Abstract citation ID: kaad011.0500

PANEL 11: THRIVING IN CANCER RESEARCH: PERSPECTIVES OF WOMEN BEHAVIORAL SCIENTISTS ON RESILIENCE AND PERSISTENCE ACROSS CAREER STAGES

Shirley M. Bluethmann, PhD, MPH[1], Erin E. Kent, PhD, MS[2], Catherine M. Alfano, PhD[3], Maija Reblin, FSBM[4]

[1]Wake Forest University School of Medicine, Winston-Salem, NC; [2]University of North Carolina at Chapel Hill, Chapel Hill, NC; [3]Northwell Health, Washington, DC; [4]University of Vermont, Burlington, VT

The pandemic was not only a devastating public health event in the US and around the world, but it took a particular toll on women and their career ambitions in cancer and behavioral research. Work-life balance became extraordinarily complicated, and the rules and opportunities for advancement changed -- sometimes temporarily and sometimes for good. Through it all, there has been a shortage of guidance on how to navigate the changes in the research world, particularly for women who are trying to advance along the academic trajectory. This panel will present the perspectives of three different women at the early, middle and senior investigator levels. They will candidly describe their challenges, their choices, and instructive experiences along the way. They will also share helpful resources and strategies to become more resilient as researchers in the face of change. Early and mid-career investigators are the primary audience for this session, but it may also be valuable to senior investigators and leaders planning resources to support early-career faculty in the academic environment. The discussant, a co-chair of the Training and Mentorship Committee of the Cancer SIG, will summarize opportunities, insights and lessons learned from the presentations and lead a question-and-answer session with the audience.

After this session, participants will be able to:

1) Describe how to reframe setbacks and embrace the power of "yet" on the road to success;

2) Reevaluate their mentorship team, assessing the right combination of expertise and advocacy to help move ahead.

3) Discern whether it is you or your environment that has to change in order for you to succeed and owning that decision.

4) Outline strategies you can use to promote resilience and prevent or address burnout throughout your career.

CORRESPONDING AUTHOR: Shirley M. Bluethmann, PhD, MPH, Wake Forest University School of Medicine, Winston-Salem, NC; sbluethm@wakehealth.edu

Thursday
April 27th, 2023
3:00 PM – 3:50 PM
Live Research Spotlights
LIVE RESEARCH SPOTLIGHT 1: PHYSICAL ACTIVITY
3:02 PM – 3:08 PM

Abstract citation ID: kaad011.0501

ACTIVITY ENGAGEMENT AMONG ADULTS WITH STROKE WHO HAVE HIGH AND LOW SEDENTARY TIME: A MIXED METHODS STUDY

Emily Kringle, PhD, OTR/L[1], Jessica Kersey, PhD, OTR/L[2], Elizabeth Skidmore, PhD, OTR/L[3], Bethany Barone Gibbs, PhD[4], Megan A. Lewis, PhD, FSBM[5]

[1]University of Minnesota, Minneapolis, MN; [2]University of Illinois at Chicago, Chicago, IL; [3]University of Pittsburgh, Pittsburgh, PA; [4]West Virginia University, Morgantown, WV; [5]RTI International, Seattle, WA

Background: There are conflicting findings regarding factors that influence sedentary behavior after stroke. These conflicting findings may be in part explained by differences in the types of activities that people with varied levels of sedentary time engage in after stroke. This mixed methods analysis characterized similarities and differences in the lived experience of daily activity engagement described by adults with stroke who have high and low sedentary time.

Methods: This study was a *post hoc* convergent mixed methods analysis of cross-sectional data collected during 2 parent studies (N = 37). Community-dwelling adults with stroke provided 7 days of activPAL data (sedentary time) and completed a semi-structured interview focused on their daily activities during the activPAL wear period. Participants who provided ≥ 5 valid days of activPAL data and an audio recorded interview were divided into high and low sedentary groups (median split). Interviews were transcribed and thematic analysis was completed by EK and JK using framework analysis. Themes were identified by comparing coded excerpts within and across the high and low sedentary groups.

Results: Participants were male (65%), aged 65.9 (SD = 13.4) years, and 40.3 (SD = 37.8) months post-stroke. The high and low sedentary group had 785.5 (SD = 64.7) and 583.6 (87.4) minutes/day of sedentary time. Both groups considered shopping to be part of their most active days, combined healthcare appointments with shopping or eating out, and described seated leisure activities (including screen time), religious activities, and rest. The high sedentary group described engagement in basic activities of daily living, household chores, walking for the purpose of exercise, and a desire to engage in societal activities restricted by lack of transportation, while the low sedentary group described engagement in yardwork and a wide range of leisure and community-based activities which were social in nature.

Conclusions: Adults with stroke-related disability who have high and low levels of sedentary behavior engage in different types of activities. Further research focused on facilitating access to community-based activities and social support networks will advance the development of interventions that promote activity engagement to reduce post-stroke sedentary behavior.

CORRESPONDING AUTHOR: Emily Kringle, PhD, OTR/L, University of Minnesota, Minneapolis, MN; ekringle@umn.edu

3:08 PM – 3:14 PM

Abstract citation ID: kaad011.0502

COLORADO DOG OWNERS ARE MORE LIKELY TO JOIN A WALKING PROGRAM TO BENEFIT THEIR DOGS THAN THEMSELVES

Dan J. Graham, PhD[1], Caroline Sullivan, BS[2], Lydia Mae Cooper, BS, BA[3], Colleen Duncan, DVM, MPH, PhD[1], Felix Duerr, DVM[1], Katrina Oselinsky, MS[4], Yiqing (Skylar) Yu, BA[1], Amanda N. Spitzer, BA[1], Katie McMahon, BS[1], Matea R. Ramey, BS[1]

[1]Colorado State University, Fort Collins, CO; [2]Colorado School of Public Health, Fort Collins, CO; [3]Colorado State Univeristy, Fort Collins, CO; [4]Colorado State University, Denver, CO

Background: Walking is beneficial for human health and for dog health, and most humans and dogs tend to walk less than is recommended. Veterinary-prescribed dog walking programs could benefit both humans and dogs.

Purpose: The purpose of this study was to identify whether dog owners at 3 participating Colorado veterinary clinics would be eligible to participate in a veterinary-prescribed dog walking program (i.e., currently engaging in less than 30 minutes per day of walking with their dog), whether they would be interested in doing so, and what might motivate them to participate.

Methods: 83 adult (mean age 45 years) dog owners were recruited at 3 veterinary clinics in Northern Colorado and completed a brief (~5 minute) survey while at a veterinary appointment. Participants self-reported their own physical activity behavior, including how much activity they undertake with their dog; they also noted whether they would be interested in participating in a dog-walking program, and if so, what would motivate them to participate.

Results: Regarding eligibility for dog-walking programming: Most respondents (77%) reported < 30 minutes of daily walking with their dog. Mean minutes of dog walking among these eligible dog owners was 12.5 minutes per day. Regarding interest in participating in a dog-walking program: 56% of survey completers indicated a willingness to participate in an 8-12 week dog walking program, and dog owners were nearly twice as likely to indicate that their interest stemmed from a desire to promote the health of their dog (32%) compared with their own health (19%).

Conclusions: Despite being a highly physically active state, many Colorado dog owners are eligible and interested in participating in a veterinary-prescribed dog-walking program. Given the greater reported motivation to engage in a walking program to benefit their dogs than themselves, veterinary dog-walking prescriptions offer a promising avenue for promoting physical activity among dog owners as well as their canine companions.

CORRESPONDING AUTHOR: Dan J. Graham, PhD, Colorado State University, Fort Collins, CO; dan.graham@colostate.edu

3:14 PM – 3:20 PM

Abstract citation ID: kaad011.0503

COMPOSITIONAL DATA ANALYSIS OF WORKDAY MOVEMENT BEHAVIORS AND MENTAL HEALTH

Krista S. Leonard, PhD[1], Sarah A. Rydell, MPH[2], Nathan A. Mitchell, MPH[2], Miranda L. Larouche, MS[1], Junia A. de Brito, PhD, MPH, MBA[2], Meynard J. Toledo, PhD[3], Mark A. Pereira, PhD[4], Matthew P. Buman, PhD[1]

[1]Arizona State University, Phoenix, AZ; [2]University of Minnesota, Minneapolis, MN; [3]University of Southern California, Los Angeles, CA; [4]University of Minnesota, Twin Cities, Minneapolis, MN

Workday sitting, standing, and physical activity are modifiable targets for multiple health outcomes, including mental health. They are typically examined in isolation, ignoring the fact that they are mutually exclusive (i.e., time spent in one behavior displaces time spent in another). Compositional Data Analysis (CoDA) is a novel statistical approach that can simultaneously compare changes in all workday movement behaviors and examine their influence on mental health, improving precision and validity of results. This study examined changes in workday movement behavior composition and its association with depressive symptoms and overall mental health following a multicomponent intervention with or without a sit-stand workstation over 12-months. We obtained data from office-based workers (N = 498) participating in *Stand & Move at Work (SMW),* a 12-month multicomponent workday sedentary reduction intervention. Worksites were randomized to receive a sit-stand workstation (*STAND+*) or not (*MOVE+*). Workers wore activPALs to assess workday sitting, standing, and physical activity, and completed online surveys (PHQ-9, SF-12) of depressive symptoms and overall mental health at baseline and 12-months. We applied CoDA using pivot coordinates and repeated measures MANOVAs to examine change in workday movement behaviors. We used linear mixed models to examine the longitudinal associations between the workday movement behaviors and mental health outcomes. Within the *STAND+* arm, the workday movement behavior composition significantly changed from baseline to 12-months. Sitting time decreased by an average of 57 min/workday; this decrease was compensated by an increase in standing (54 min/workday) and physical activity (3 min/workday). Within the *MOVE+* arm, change in the workday movement behavior composition was not statistically significant. Change in workday movement behavior composition were not associated with mental health outcomes in either arm. The *STAND+* arm resulted in significant decreases in workday sitting, replacing it with standing and moving. Changes in workday movement behaviors were not associated with mental health outcomes, possibly due to the general good health standing of the current study sample. The findings suggest that a multicomponent intervention with a sit-stand workstation may optimize workday movement behavior compositions, however, more research is needed to better understand workday movement behavior composition and mental health.

CORRESPONDING AUTHOR: Krista S. Leonard, PhD, Arizona State University, Phoenix, AZ; krista.leonard@asu.edu

---

3:20 PM – 3:26 PM

Abstract citation ID: kaad011.0504

CONSTRUCTS RELATED TO THE LIKELIHOOD OF CONTINUING PHYSICAL ACTIVITY AND HEALTHY EATING ACTIVITIES IN A CHURCH INTERVENTION

Sara Wilcox, PhD, FSBM[1], Ruth P Saunders, PhD[1], Andrew T T. Kaczynski, PhD[1], Kelsey R. Day, MPH[1], Jasmin Parker-Brown, MS[1]

[1]University of South Carolina, Columbia, SC

Background: Churches have the potential to improve population health; however, the lack of dissemination and implementation (D&I) research of evidence-based programs in this setting limits their impact.

Methods: This study reports data from the first three cohorts of churches (N=43; 79% predominantly African American congregations) enrolled in the Faith, Activity, and Nutrition (FAN) National Implementation Study. FAN is an evidence-based, organizational change intervention that targets opportunities, messages, pastor support, and policies for physical activity (PA) and healthy eating (HE). Church coordinators (n=36, 84% response rate) completed an online survey 12 months after their committee completed the FAN online training. They rated how likely their church was to continue activities to promote PA and HE in the coming year (very likely, somewhat likely, somewhat unlikely, very unlikely). They also rated their agreement with statements based on constructs from four domains of the Consolidated Framework for Implementation Research (CFIR): characteristics of the intervention, inner setting, characteristics of the implementer, and implementation process. We examined point-biserial correlations between CFIR ratings and being "very likely" (vs. all other responses) to continue PA and HE activities. Correlations representing medium effect sizes ($r > .30$, $p < .10$) are reported.

Results: Around half (53%) of churches reported being "very likely," 33% "somewhat likely," 11% "somewhat unlikely," and 3% "very unlikely" to continue PA activities. For HE, the corresponding percentages were 50%, 39%, 8%, and 3%. Constructs from all four domains of the CFIR were related (*p< .10; **p< .05) to being "very likely" to continue PA activities: characteristics of the intervention (adaptability*, complexity**), inner setting (congregant needs*, readiness for implementation*, organizational rewards*, compatibility**), characteristics of the implementer (self-efficacy**), and the implementation process (engaging champions**, engaging leaders**). In contrast, only two constructs from the inner setting domain were related to being "very likely" to continue HE activities: compatibility** and relative priority**.

Conclusion: At 12 months post-training, most churches were likely to continue to offer PA and HE opportunities in the coming year, consistent with our focus on creating sustainable organizational change. Multiple CFIR constructs were related to churches being "very likely" to continue PA activities, but few for HE activities, perhaps because providing PA is more of an innovation than providing food in this setting. Analyses will be repeated when all cohorts (~100 churches) finish their 12-month surveys.

Funding: This study was funded by CDC through a cooperative agreement (U48DP005000 &U48DP006401). The content is solely the responsibility of the authors.

CORRESPONDING AUTHOR: Sara Wilcox, PhD, FSBM, University of South Carolina, Columbia, SC; wilcoxs@mailbox.sc.edu

3:26 PM – 3:32 PM

Abstract citation ID: kaad011.0505

EVALUATING THE IMPACT OF A NOVEL IMMERSIVE SIMULATION ON AFFECT, RATE OF PERCEIVED EXERTION, AND ATTENTION DURING A CYCLING CLASS

Katrina Oselinsky, MS[1], Jinger Gottschall, PhD[2], Dan J. Graham, PhD[3]

[1]Colorado State University, Denver, CO; [2]Wahoo Fitness, Fort Collins, CO; [3]Colorado State University, Fort Collins, CO

Background: Emerging evidence within the exercise psychology literature has highlighted the importance of positive affective responses to physical activity (PA) for both PA adoption and maintenance. A potential avenue to increase positive affective responses to PA is through attentional focus.

Purpose: The goal of this study was to examine the impact of a novel immersive technology on participants' attentional focus, ratings of perceived exertion (RPE), affect, and enjoyment during a group cycling class.

Methods: Participants (N=31) were asked to take one traditional group cycling class with audio cues only (AUD) and one video-enhanced immersive cycling class (IMM). Heart rate (HR) data was gathered throughout each class. At the conclusion of each session, participants completed a brief survey asking them to report their RPE, attentional focus, and affect during the cycling class.

Results: Participants on average reported lower RPEs ($p< 0.001$) and higher enjoyment ($p< 0.01$) in the IMM class compared to the AUD even though time spent at 70% or greater of one's maximum heart rate (indicating vigorous PA) did not differ significantly between classes (p=0.14). Attention was significantly different between classes when instructor was held constant (p=0.048), which may explain why objective effort was equivalent between classes, but subjectively, the immersive class felt easier and more enjoyable.

Conclusions: This study supports the use of a novel immersive technology to lower RPE and combat the negative affective shift that occurs when exercising at uncomfortable but optimal intensities without compromising actual exertion.

CORRESPONDING AUTHOR: Katrina Oselinsky, MS, Colorado State University, Denver, CO; katrina.oselinsky@colostate.edu

3:32 PM – 3:38 PM

Abstract citation ID: kaad011.0506

FEASIBILITY OF A 30-DAY REMOTE MONITORING STUDY USING ACCELEROMETER AND ECOLOGICAL MOMENTARY ASSESSMENT IN CANCER SURVIVORS

Yue Liao, MPH, PhD[1], Mahima Pandya, PT, MS[1], Jaclyn P. Maher, PhD[2], Katherine Sanchez, PhD, LCSW[1], Karen M. Basen-Engquist, PhD, MPH, FSBM[3]

[1]University of Texas at Arlington, Arlington, TX; [2]University of North Carolina Greensboro, Greensboro, NC; [3]The University of Texas MD Anderson Cancer Center, Houston, TX

Background: The advancement and availability of sensor and mobile technology have enabled researchers to easily monitor individuals' daily behaviors and related psychosocial processes in free-living settings for an extended period of time to better capture the various experiences and behavioral patterns an individual might have. This study tested the feasibility of using a wrist-worn accelerometer to monitor daily movement-related behaviors (i.e., physical activity, sedentary behavior, and sleep) and smartphone-based ecological momentary assessment (EMA) to capture exercise-related motivational factors and daily experiences over a 30-day period in cancer survivors.

Methods: Adult cancer patients who completed their primary treatment were eligible for this study. A wrist-worn accelerometer, ActiGraph wGT3X-BT, was mailed to those who enrolled in the study. After receiving the device, participant attended a virtual meeting to review the use of the device and to download an EMA app to their smartphone. Participants were instructed to wear the ActiGraph device at all times, including when showering and sleeping. The EMA app prompted one morning survey and one evening survey each day for 30 days. In the first 7 days and the last 7 days of the study, participants received four additional random prompts during the day to capture their momentary motivations. At the end of the study, participants shipped back the study device and attended another virtual meeting to share their experience with the study. Participants were paid up to $50 depending on their compliance with study procedures.

Results: Of the 50 cancer survivors that completed the eligibility screener, 42 were eligible. Twenty-five cancer survivors consented and enrolled in the study. Of those 25, 18 attended the first virtual visit and started the study. Those participants were majority female (94%), average age was 52 years (range: 40-74), 28% Hispanic, 83% had a college degree or higher, and 50% were employed full-time. Sixteen participants attended the second virtual visit and shipped back the study device. Over the 30-day monitoring period, the average valid accelerometer wear was 27 days (SD = 5.0). The average EMA completion rate was 76.5% (SD = 0.27) for the morning survey and 80.4% (SD = 0.24) for the evening survey. There was no significant difference between the random survey completion rate between the first 7 days (76.6%) and the last 7 days (71.9%). Only one participant reported it was difficult to use the EMA app, and two reported that the surveys was time-consuming. Sixty-three percent reported that answering the daily survey was an enjoyable experience and 69% indicated willingness to answer daily survey for one month or longer.

Conclusion: Smartphone-based EMA and ambulatory monitoring can be a viable method to collect information about cancer survivor's daily experience for a 30-day period.

CORRESPONDING AUTHOR: Yue Liao, MPH, PhD, University of Texas at Arlington, Arlington, TX; yue.liao@uta.edu

3:38 PM – 3:44 PM

Abstract citation ID: kaad011.0507

PARTICIPATION, BARRIERS AND ENABLERS OF VIGOROUS INTERMITTENT LIFESTYLE PHYSICAL ACTIVITY IN PHYSICALLY INACTIVE ADULTS

Cecilie Thøgersen-Ntoumani, BSc (Hons), PhD[1], Marlene Kritz, PhD[2], Andreas Holtermann, PhD[3], Josephine Chau, PhD[4], Joanne Pereira Gale, PhD[5], Catrine Tudor-Locke, PhD[6], Carol Maher, PhD[7], Annemarie Koster, PhD[8], Nathan Johnson, PhD[5], Anne Grunseit, PhD[9], Emmanuel Stamatakis, PhD[5]

[1]University of Southern Denmark, Odense M, Syddanmark, Denmark; [2]Curtin University, Perth, Western Australia, Australia; [3]National Research Centre for the Working Environment, København, Hovedstaden, Denmark; [4]Macquarie University, Sydney, New South Wales, Australia; [5]University of Sydney, Sydney, New South Wales, Australia; [6]University of North Carolina at Charlotte, Charlotte, NC; [7]University of South Australia, Adelaide, South Australia, Australia; [8]Maastricht University, Maastricht, Limburg, Netherlands; [9]University of Technology Sydney, Sydney, New South Wales, Australia

Physical activity (PA) is a critical determinant of health and well-being, but the majority of the population does not meet current PA guidelines. We have recently proposed a novel concept, Vigorous Intermittent Lifestyle Physical Activity (VILPA) which refers to brief vigorous bouts of incidental physical activities that are done as part of daily living. The aims of the study were to examine 1) engagement in seven different VILPA activities, 2) socio-demographic and health characteristics (age, gender, education, ethnicity, subjective socioeconomic status, Body Mass Index, number of health conditions and perceived health) associated with VILPA bout frequency, perceived difficulty/ease, and likelihood of increasing VILPA, and 3) barriers and enablers of VILPA, which were mapped to the COM-B (capability, opportunity and motivation for behavior) model. In phase 1, 35–75-year-old physically inactive adults (*N*=399; 76.2% female) responded to questionnaires pertaining to aims 1 and 2. Seventy-eight Australian participants from phase 1 were selected for online focus group interviews (*N*=19) to address aim 3. Descriptive statistics and multiple regression analyses were conducted to address aims 1 and 2. Framework analysis was used to address aim 3. Results revealed that socio-demographic and health characteristics were associated with frequency of engagement, perceived difficulty/ease of, and likelihood of future engagement in, most VILPA activities. Younger age, fewer health conditions and perceived good health were the most consistent correlates of VILPA bouts. Results from the focus group interviews revealed fifteen themes pertaining to barriers and nineteen themes to enablers of VILPA. The barriers were mapped to Capability (physical constraints, e.g., fear of injury, lack of knowledge), Opportunity (physical only; e.g., physical environmental constraints, changing circumstances) and Motivation (e.g., exhaustion, enjoying sedentary pursuits). The enablers were mapped to Capability (physical only; VILPA as reminder of unfit status) Opportunity (e.g., convenience, being mindful of opportunities) and Motivation (e.g., avoiding the gym, (re)creating routines and habits, removing guilt of exercise). The results suggest that VILPA may be a viable option for physically inactive middle-aged and older adults. Age and health characteristics, and the identified barriers and enablers should be addressed when designing VILPA interventions for these populations.

CORRESPONDING AUTHOR: Cecilie Thøgersen-Ntoumani, BSc (Hons), PhD, University of Southern Denmark, Odense M, Syddanmark, Denmark; cthogersen@health.sdu.dk

---

3:44 PM – 3:50 PM

Abstract citation ID: kaad011.0508

SUPPORT FOR WORKPLACE POLICIES: DOES PHYSICAL ACTIVITY PROSPECTIVELY PREDICT EMPLOYEE RETENTION?

Colleen Saringer, PhD, MEd[1], Daesung Choi, MPH, PhD[2], Michael Staufacker, MA, CHES[3], Rebecca Ellis, PhD[4]

[1]Alliant Employee Benefits, Atlanta, GA; [2]Emory University, Atlanta, GA; [3]Emory University, Saint Louis Park, MN; [4]Georgia State University, Atlanta, GA

Objectives: Although regular physical activity (PA) can reduce the risk of chronic conditions, companies remain hesitant to adopt policies that reward employees' time in their workday to engage in PA. The challenge is demonstrating that reducing an employee's worktime to engage in PA will financially benefit the organization. The purpose of this study was to determine if aerobic exercise (AE) and non-exercise physical activity (NEPA) were associated with employee retention between 2018-2020.

Methods: This was a retrospective cohort research design in which we performed a secondary quantitative analysis of three waves of health assessment data collected from one organization between 2018-2020. The analytic sample included 15,597 employees who voluntarily completed a health assessment in 2018 (n = 6,534, 27% response rate), 2019 (n = 5,719, 24% response rate), and 2020 (n = 3,272, 14% response rate). Self-reported health assessment data included AE, NEPA, a health rating, life and work satisfaction, number of sick days, smoking status, and diagnosed chronic conditions. Demographic data, as well as hire and employment end dates that were used to determine employee retention, were obtained from a human resources application. Multivariate logistic regression examined associations between AE, NEPA, and employee retention with adjustments for several health assessment variables and demographics.

Results: Employees were about 41.0 years old (80% = female), and 78.1%, 84.3% and 96.2% of employees surveyed in 2018, 2019, 2020, respectively, were retained by the organization in the same or consecutive year. Employees with more than 150 minutes/week of AE were more likely to be retained by the organization than those with less than 75 minutes/week (odds ratio: 0.90, 95% CI: 0.82-1.02), even after controlling for covariates. No associations were found between employees with more than 150 minutes/week and those with less than 75 minutes/week of NEPA (odds ratio: 1.07, 95% CI: 0.91-1.17) even after controlling for covariates.

Conclusions: Employee retention was associated with AE, but no association was found with NEPA. These findings suggest that PA policies that encourage time for exercise may enhance employee retention, which has important implications for productivity, onboarding, and medical costs.

CORRESPONDING AUTHOR: Rebecca Ellis, PhD, Georgia State University, Atlanta, GA; rellis@gsu.edu

LIVE RESEARCH SPOTLIGHT 2: METHOD AND MEASUREMENT

3:02 PM – 3:08 PM

Abstract citation ID: kaad011.0509

COMPLEX AND CONTRADICTORY: A SURVEY OF COMMON PRACTICES AMONG NIH-FUNDED INVESTIGATORS CONDUCTING PRELIMINARY STUDIES

Lauren E. von Klinggraeff, MPH[1], Christopher D. Pfledderer, PhD[2], Sarah Burkart, PhD[2], Alexsandra da Silva Bandeira, PhD[2], Michael Beets, PhD, MEd, MPH[1]

[1]University of South Carolina, Columbis, SC; [2]University of South Carolina, Columbia, SC

Background: Preliminary studies (e.g., pilot/feasibility) play a prominent role in the development of large-scale behavioral interventions. Though many recommendations exist to guide the execution and interpretation of preliminary studies, little is known about common practices among researchers conducting preliminary studies. The present study surveyed principal investigators (PIs) to explore their experiences conducting preliminary studies.

Methods: Using the RePORTER database, we identified all PIs funded by the National Insitutes of Health (NIH) between 1974 and 2020 to conduct preliminary behavioral interventions. A survey was designed to explore PI's experiences designing, conducting, interpreting, and utilizing preliminary studies, as well as their importance for grant applications. PIs who self-identified as having experience reviewing grant applications were asked additional questions about how they evaluate preliminary studies. The survey was distributed directly to identified PIs in November 2021 via Qualtrics.

Results: A total of 431 PIs (72% female, mean age = 52 [range 31-80yrs], 19% response rate) completed the survey. On average, PIs conducted 4.7 preliminary studies (range = 1-50). In an open response question completed by 385 respondents, high quality preliminary studies were described as those that provide evidence of replication, but respondents varied in what they consider evidence of replicability, with some emphasizing internal validity (i.e., RCT design) and others emphasizing generalizability. Nearly all PIs (94%) perceived preliminary studies as necessary to receive larger-sized grants. Among those who had reviewed external, federal-level grants (e.g., NIH; n=312) nearly all (97%) expected applications to provide evidence of the ability to recruit participants, and 86% expected evidence that sufficient data could be collected on primary outcomes. Among the whole of respondents, 27% indicated that researchers in their field could, at least sometimes, receive larger-sized funding without evidence of the ability to recruit the target population. Similarly, 30% indicated that researchers could receive funding without demonstrating the ability to measure outcomes.

Conclusion: What PIs perceive as common practice for conducting preliminary studies in their field is complex and often contradictory. The field of behavioral medicine has an opportunity to build consensus around the interpretation of preliminary studies.

CORRESPONDING AUTHOR: Lauren E. von Klinggraeff, MPH, University of South Carolina, Columbis, SC; vonklinl@email.sc.edu

3:08 PM – 3:14 PM

Abstract citation ID: kaad011.0510

FACTOR ANALYSIS OF THE BDI-II AND LONG-TERM HEMATOPOIETIC STEM CELL TRANSPLANT SURVIVAL UTILIZING THE RDOC FRAMEWORK

Janae L. Kirsch, PhD[1], Shawna L. Ehlers, PhD[1]

[1]Mayo Clinic, Rochester, MN

Presence of depressive symptoms prior to hematopoietic stem cell transplant (HSCT) is a common experience and may have long-term impacts on survival. Using the National Institute of Mental Health Research Domain Criteria (RDoC) framework, this study sought to characterize depressive symptoms in patients prior to HSCT through factor analysis and determine whether depressive factors were significant predictors of long-term survival. Participants (N = 695) were mostly male, middle age (M age = 55.08, SD = 11.75), and White who were preparing to undergo HSCT and endorsed at least one item on the Beck Depression Inventory-II. Exploratory factor analysis revealed a four-factor structure consisting of "Negative Valence Systems: Internalizing" (e.g., worthlessness, guilt), "Arousal and Threat" (e.g., agitation, irritability), "Arousal and Regulatory Systems" (e.g., loss of energy, fatigue), and "Negative Valence Systems: Externalizing" (e.g., loss of pleasure, loss of interest). Univariate survival analyses found that age, gender, disease type, acute graft versus host disease, and Negative Valence Systems: Externalizing were significant predictors of survival. Transplant type (allogeneic versus autologous), chronic graft versus host disease, performance status, and the other three depression factor structures were not significant in univariate models. In the multivariate model, older age, disease type, and presence of Negative Valence Systems: Externalizing symptoms were significant predictors of shorter survival in patients preparing to undergo HSCT. Gender, presence of acute graft versus host disease, and performance status were not significant predictors of survival in multivariate analyses. Results suggest that factor analysis of depressive symptoms mapped on well to RDoC constructs and that loss of pleasure and loss of interest, two key components of depression, were predictive of survival in this sample independent of known medical prognostic factors. Exploration of key components of depression aligned with RDoC versus the total depression score may provide important prognostic information for long-term survivorship following HSCT and may help inform future and more individualized care.

CORRESPONDING AUTHOR: Janae L. Kirsch, PhD, Mayo Clinic, Rochester, MN; kirsch.janae@mayo.edu

3:14 PM – 3:20 PM

Abstract citation ID: kaad011.0511

IS EMOTIONAL EATING A HOMOGENOUS CONSTRUCT? ECOLOGICAL MOMENTARY ASSESSMENT WITH PERSON-SPECIFIC MODELING

Erica Ahlich, PhD[1], Stephanie P. Goldstein, PhD[2], Graham Thomas, PhD[3]

[1]University of South Alabama, Mobile, AL; [2]The Miriam Hospital/Alpert Medical School of Brown University, Cranston, RI; [3]Brown University & The Miriam Hospital, PROVIDENCE, RI

Emotional eating continues to be a frequently discussed treatment target within obesity and eating disorder treatment programs. Yet, scores on emotional eating questionnaires are only weakly associated with actual eating behavior in laboratory and naturalistic studies. Moreover, interventions targeting emotional eating have had limited success. Such challenges may be the result of ambiguity in the conceptualization and measurement of “emotional eating.” The current study combined ecological momentary assessment and a within-person statistical analysis to critically examine the construct of “emotional eating,” by looking at the latent factor structure of emotions and eating behaviors often assumed to underlie emotional eating. Ten adults (M_{age} = 38.2; 80% female; 70% non-Hispanic White) with overweight or obesity (M_{BMI} = 32.86) were asked to complete 5 daily, semi-random prompts for 21 days. At each prompt, they rated 20 different emotions, hunger and craving, and 7 types of dysregulated eating. A P-technique factor analysis was used to examine the data. For each participant, exploratory factoring with parallel analysis was used to identify the number of factors to retain. Item loadings > .40 with no cross-loadings > .30 were considered adequate. Factor structures were then compared across individuals. Results suggested significant variability, in terms of the number of factors that emerged (8 participants with a 3-factor structure vs. 2 participants with a 4-factor structure), the items that loaded on each factor, and the strength of loadings. Seven participants shared a common pattern of a 3-factor structure (dysregulated eating, negative emotions, and positive emotions), but no two participants had the same pattern of item loadings. Of the remaining 3 participants, two had a 4-factor solution, with negative emotions splitting into 2 factors. One participant had a 3-factor solution with negative emotions, dysregulated eating, and a third factor consisting of “Lonely,” “Guilty,” “Jittery,” and “Hungry.” Overall, findings suggest that emotional eating may be a locally heterogenous construct, with variations in structure between people. Future work seeking to better understand the role of emotions in dysregulated eating could benefit from investigating processes at the level of the individual. In particular, important next steps include exploring temporal dynamics within and between factors, as well as identification of subgroups within a larger sample.

CORRESPONDING AUTHOR: Erica Ahlich, PhD, University of South Alabama, Mobile, AL; eahlich@southalabama.edu

3:20 PM – 3:26 PM

Abstract citation ID: kaad011.0512

LACK OF OPTIONS FOR RESPONDENTS TO INDICATE UNCERTAINTY ABOUT PERCEIVED RISK ATTENUATES ESTIMATES OF RISK-BEHAVIOR RELATIONS

Marc T. Kiviniemi, PhD, CPH, FSBM[1], Heather A. Orom, PhD[2], Jennifer L. Hay, PhD, FSBM[3], Erika A. Waters, PhD, MPH[4]

[1]University of Kentucky, Lexington, KY; [2]University at Buffalo, Buffalo, NY; [3]Memorial Sloan Kettering Cancer Center, Brooklyn, NY; [4]Washington University in St. Louis, St Louis, MO

Background: Given an explicit opportunity to do so, 30-50% of US adults say they don’t know (DK) their risk for even common, well-publicized health problems. However, most surveys do not give respondents the option to indicate DK. When no DK option is provided, a substantial portion of people who WOULD express uncertainty or lack of knowledge if given the option instead generate a response to the risk perception question. We examined how this phenomenon might affect estimates of the relation between perceived risk and health behavior.

Methods: We conducted several data simulation trials using two nationally-representative datasets: the 2003 and 2005 Health Information National Trends Surveys (HINTS). We examined perceived risk for colon cancer and screening behavior (2003) and perceived risk for skin cancer and sunscreen use (2005). Neither survey provided an explicit DK response option, but participants who verbally responded “DK” were coded as DK responders.

We examined 4 plausible patterns of question answering behavior. Specifically, we hypothesized that those respondents who would prefer to answer DK but are not provided an explicit DK response option will: 1) guess at random; 2) disproportionately choose the lowest response option (Kiviniemi et al., 2020); 3) disproportionately choose the middle response option (Bruine De Bruin et al., 2002); and/or 4) answer with the same distribution across response options as those who provided an answer to the risk question. For each of the four hypothesized patterns, we simulated 1000 trials of risk perception variables and estimated the perceived risk-behavior relation based on each of the 1000 simulation trials. Then we compared estimates from the simulations to estimates observed when DK was assessed and treated as missing data.

Results: All four hypothesized question answering patterns resulted in smaller estimates of the relationship between perceived risk and behavior compared to the observed relation when DK was assessed and treated as missing data. This was the case for colorectal cancer and screening behavior (Simulated ORs = 1.20-1.23; Observed OR = 1.24) and for skin cancer and sunscreen use (Simulated bs = 0.11-0.14; Observed b = 0.15). The hypothesized patterns also resulted in smaller estimates of the perceived risk-behavior relation in 88%-99% of the colorectal cancer trials and 47%-96% of the skin cancer trials.

Discussion: Not providing a means for study participants to indicate DK about their personal perceived risk likely results in attenuated estimates of the relation of perceived risk to behavior. Given the high prevalence of perceived risk uncertainty in the population, results from this study suggest that conclusions about the nature of the relation between perceived risk and behavior may be premature and due in part to this faulty methodological decision.

CORRESPONDING AUTHOR: Marc T. Kiviniemi, PhD, CPH, FSBM, University of Kentucky, Lexington, KY; Marc.Kiviniemi@uky.edu

3:26 PM – 3:32 PM

Abstract citation ID: kaad011.0513

MEANINGFUL CLINICAL CHANGE AND TREATMENT RESPONSIVITY IN PEDIATRIC PSYCHOLOGY INTERVENTION RESEARCH

Michael J. Dolgin, PhD[1]

[1]Ariel University, Kochav Yair, HaMerkaz, Israel

Randomized-controlled trials (RCTs) in pediatric psychology form the foundation for evidence-based treatment and best practices in the field. Relying heavily on continuous outcome measures and group comparisons, questions concerning meaningful clinical change and treatment response rates remain open. Bright IDEAS (BI) is a problem-solving skills training (PSST) program that has been demonstrated in earlier RCTs to be an effective and specific intervention for improving problem-solving skills and reducing negative affect in caregivers of children with cancer. The objectives of this study were to (a) offer an approach to defining meaningful treatment response and to determine the rates of responsivity to PSST; and (b) identify characteristics of PSST responders and nonresponders.

Data from 154 mothers receiving the BI intervention were analyzed. Drawing on the literature on Minimal Clinically Important Differences, two criteria for determining responsivity were calculated for the primary outcome of problem-solving skills: (a) The reliable change index (RCI) based on group data, and; (b) The effect size (ES) of each participant's pre/post-intervention change score as a function of the group's baseline SD.

Thirty-three percent of the sample met both responsivity criteria immediately posttreatment (39% at follow-up) and 38% (39% at follow-up) met neither. An additional 29% demonstrated a small or greater ES (> 0.2) but did not meet the RCI criteria, suggesting possible benefit. The single consistent predictor of responsivity was participants' pretreatment problem-solving skills, with lower skills at baseline predicting greater improvement ($p < .001$).

These findings highlight the need to go beyond group data in interpreting RCTs and to incorporate measures of meaningful treatment response. Our ability to predict and screen for meaningful treatment response is critical to more precise targeting, enhanced outcomes, and better resource allocation.

CORRESPONDING AUTHOR: Michael J. Dolgin, PhD, Ariel University, Kochav Yair, HaMerkaz, Israel; mdolgin@netvision.net.il

3:32 PM – 3:38 PM

Abstract citation ID: kaad011.0514

MENSTRUAL PHASE IDENTIFICATION QUESTIONNAIRE (MPIQ): DEVELOPMENT AND VALIDATION OF A CROSS-SECTIONAL SURVEY

Alicia Allen, PhD, MPH[1], Michelle Valenti[1], Linnea Linde-Krieger, PhD[1], Kristina Medvescek, MPH[1], Leslie Farland, PhD[1]

[1]University of Arizona, Tucson, AZ

Introduction: Evidence continues to accumulate documenting the impact of menstrual phase on a wide-variety of behavior-related outcomes (e.g., physical activity, substance misuse, mental health). Currently, accurate identification of menstrual phase relies on prospective follow-up, biological samples, and/or sonography. Thus, the assessment of menstrual phase is severely limited in most cross-sectional study designs, as well as in studies with financial limitations and/or participant burden constraints. Thus, we sought to create and validate a standalone questionnaire that can be used in cross-sectional studies to accurately identify both the follicular and luteal phases, as well as the ovulation window.

Methods: Participants in two recently completed clinical trials provided multiple responses comprised of our newly developed four-item Menstrual Phase Identification Questionnaire (MPIQ) and dried blood spots for biochemical verification of menstrual phase. We assessed the accuracy of two MPIQ scoring criteria (less restrictive and more restrictive), as compared to self-report of onset of menses alone, with biochemical progesterone confirmation.

Results: Participants (n=59) were, on average, 33.7 (standard deviation [SD]: ± 4.3) years of age and provided a total of 83 responses. Assessing menstrual phase using self-reported cycle day alone classified 65.1% of the responses with an overall phase identification accuracy of 60.2%. While the more restrictive MPIQ scoring classified 100% of the responses, it yielded a similar accuracy (68.4%). In contrast, the less restrictive MPIQ scoring classified 100% of the responses and significantly improved phase identification accuracy to 92.1% ($p < 0.001$).

Discussion: The MPIQ identified follicular phase, ovulation window, and luteal phase with an overall accuracy of 92%. This low burden survey can be used to capture menstrual phase in studies that may be otherwise limited by study design, finances, and/or participant burden to identify phase. Use of the MPIQ may advance knowledge on the role of the menstrual cycle in a variety of biological and behavioral outcomes, especially within cross-sectional settings.

CORRESPONDING AUTHOR: Alicia Allen, PhD, MPH, University of Arizona, Tucson, AZ; aliciaallen@arizona.edu

3:38 PM – 3:44 PM

Abstract citation ID: kaad011.0515

RECRUITMENT AND RETENTION STRATEGIES FOR UNDERREPRESENTED POPULATIONS AND ADULTS WITH ARTHRITIS IN BEHAVIORAL INTERVENTIONS

Christine Pellegrini, PhD, FSBM[1], Sara Wilcox, PhD, FSBM[1], Katherine DeVivo, MPH[1], Scott Jamieson[1]

[1]University of South Carolina, Columbia, SC

Although reviews of recruitment and retention strategies for underrepresented populations exist, they focus on a wide range of interventions, populations, clinical disorders, and medical and behavioral outcomes. Unique barriers and enablers to participation and retention in exercise/physical activity and chronic disease self-management programs may exist, necessitating unique strategies. Thus, the purpose of this scoping review was to identify strategies used to recruit and retain underrepresented populations and populations with arthritis into behavioral programs targeting exercise, physical activity, or chronic disease self-management. Five bibliographic databases were searched for articles published between January 2000 and May 2022. The search focused on strategies and best practices for recruiting and retaining underrepresented populations or populations with arthritis into disease self-management or physical activity/exercise programs. Abstracts and full-text articles were screened for inclusion by 2 independent reviewers, and 2 reviewers extracted data from included articles. Of the 2,800 articles, a total of 43 publications (31 interventions, 8 reviews, 4 qualitative/descriptive) met criteria and were included. The majority of studies focused on physical activity/exercise (n=36) and targeted African American (n=17), Hispanic (n=9), or arthritis populations (n=7). Recruitment strategies frequently used included having race- or community-matched team members, flyers and information sessions in areas frequented by population, targeted emails/mailings, and word of mouth referrals. Retention strategies used included having race- or community-matched team members, incentives, being flexible, and facilitating attendance. Most studies used multiple recruitment and retention strategies. In conclusion, this review highlighted the importance of a multifaceted recruitment and retention plan for underrepresented populations and populations with arthritis in behavior intervention programs targeting exercise, physical activity, or chronic disease self-management. Additional research is needed to better understand the individual effects of different strategies and the costs associated with the various recruitment/retention methods in underrepresented populations and populations with arthritis.

CORRESPONDING AUTHOR: Christine Pellegrini, PhD, FSBM, University of South Carolina, Columbia, SC; PELLEGCA@mailbox.sc.edu

3:44 PM – 3:50 PM

Abstract citation ID: kaad011.0516

WEIGHT-LOSS PREDICTION: BUILDING AND INTERPRETING A MACHINE-LEARNED MODEL THAT PREDICTS WEIGHT-LOSS SUCCESS

Farzad Shahabi, MS[1], Sam L. Battalio, MS[1], Angela Pfammatter, PhD, FSBM[2], Nabil Alshurafa, PhD[1], Bonnie Spring, PhD, FSBM[3]

[1]Northwestern University, Chicago, IL; [2]University of Tennessee, Knoxville, Knoxville, TN; [3]Northwestern University Feinberg School of Medicine, CHICAGO, IL

The clinical challenge of stepped care weight loss intervention is to identify non-responders to initial treatment as early as possible so that treatment can be adapted swiftly to address their unmet needs. Usual clinical practice has been to predict long-term (6-12 month) weight loss response by observing whether patients meet a minimum criterion for average weight loss (e.g., 0.5 - 1 lb./week) over a 3-month observation period (Jakicic et al., 2012). However, we found that meeting a criterion of 0.5 lb./week of weight loss over just a 2-week period predicted successful treatment response at 6 months. Here we evaluated whether machine learning methods could derive an algorithm that further improves early identification of treatment non-responders compared to the clinical decision rule. We also examined explainability of the machine-learned algorithm by determining which features most improved prediction.

Using data from the sample of 400 overweight/obese participants treated with stepped care obesity mHealth treatment in the SMART Weight Loss Management Trial, we developed machine-learned models using discriminative (e.g., Random Forest, Logistic Regression, etc.) and generative (e.g., Naïve Bayes) supervised classifiers to predict non-responders (weight loss < 5% by the end of 6-months). We extracted meaningful statistical (e.g., weight variability, mean, kurtosis, etc.), psychological (e.g., self-efficacy, controlled regulation score, etc.), and demographic (height, age, gender, etc.) features with high predictive power to apply well-established machine learned models which accurately predict participants' weight loss in the future.

We achieved an F1-score of 77% for non-responders by the Random Forest classifier, which implies a 20% improvement in prediction of treatment nonresponse over and above the clinical decision rule. We used sample stratification, validation, Bayesian optimization, and counter-overfitting methods to ensure the best-performing model with the highest robustness and generalizability. To facilitate the interpretability and trustworthiness of the Random Forest model, we deployed SHAP, which uncovers the model's most predictive features.

Within-person day-to-day weight variability measured by Bluetooth-enabled weight scale within the first two weeks of treatment in combination with demographic features (height, age) are highly predictive of weight loss by the end of 6-months. Lower weight variability in response to early treatment predicts greater long-term weight loss response to behavioral obesity intervention. Integrating mHealth tools and machine-learned models may improve the ability to accurately identify treatment non-responders early in behavioral obesity treatment so that their treatment can be augmented in a timely manner to improve the likelihood of a successful weight loss response.

CORRESPONDING AUTHOR: Farzad Shahabi, MS, Northwestern University, Chicago, IL; farzad.shahabi@northwestern.edu

LIVE RESEARCH SPOTLIGHT 3: WOMEN'S HEALTH

3:02 PM – 3:08 PM

Abstract citation ID: kaad011.0517

RISE: A PILOT STUDY TO REDUCE SITTING TIME AND IMPROVE PHYSICAL FUNCTIONING AMONG BREAST CANCER SURVIVORS

Rowena M. Tam, DPT[1], Rong Zablocki, PhD, MPH[2], Loki Natarajan, PhD[3], Andrea Z. LaCroix, PhD[4], Sheri J. Hartman, PhD, FSBM[4]

[1]UC San Diego, San Diego, CA; [2]University of California at San Diego, San Diego, CA; [3]University of California San Diego, La Jolla, CA; [4]University of California, San Diego, La Jolla, CA

Background: Sedentary behavior among breast cancer survivors is associated with increased risk of cancer recurrence, mortality, as well as poor physical function. While moderate to vigorous physical activity can improve outcomes for cancer survivors, many are unable to engage in that level of physical activity. Decreasing sitting time is a more feasible behavioral target to potentially mitigate the impact of cancer and its treatments. The purpose of the study was to investigate the impact of an intervention aimed at reducing sitting time on changes to physical function in breast cancer survivors, from baseline to 4-week follow-up.

Methods: Female breast cancer survivors with self-reported difficulties with physical function received one on one in-person personalized health coaching sessions. At baseline and follow-up, participants wore the activPAL (thigh worn accelerometer) for 7 days and completed physical function tests (4-Meter Gait Speed, Timed Up and Go, and 30-Second Chair Stand). Linear mixed effects models tested changes in sedentary behavior and physical function outcomes.

Results: Participants (n=20) were on average, 65.7 years old (SD=9.3), BMI 30.6 (SD=4.3), and identified as Non-Hispanic and White (55%), Hispanic/Latina (20%), and Black/African American (15%). Average time since diagnosis was 6.1 years (SD=2.2) with participants receiving chemotherapy (45%), radiotherapy (90%), and/or endocrine therapy (80%). ActivPAL average sitting time significantly reduced from 645.6min/day (SD=72.5) to 574.3 min/day (SD=117.4, p=0.01), and long sitting bouts (≥20min) decreased from 470.5 min/day (SD=93.5) to 392.9 min/day (SD=140.0, p=0.007). All physical function tests had significant improvements, with 4-Meter Gait Speed decreasing from 4.3 seconds (SD=0.9) to 3.6 seconds (SD=0.4; p=.003), Timed Up and Go decreasing from 10.4 seconds (SD=2.3) to 9.0 seconds (SD=1.1; p=.03), and 30-Second Chair Stand test increasing from 9.9 completions (SD=2.7) to 12.3 completions (SD=2.9; p=.003).

Conclusions: This pilot study suggests that decreasing time spent sitting may be helpful for breast cancer survivors experiencing difficulties with physical function. This novel focus on sitting time is an important addition to the field of cancer survivorship by identifying a behavioral target that is more feasible for many cancer survivors and has the potential to improve health and quality of life.

CORRESPONDING AUTHOR: Rowena M. Tam, DPT, UC San Diego, San Diego, CA; rmtam@ucsd.edu

3:08 PM – 3:14 PM

Abstract citation ID: kaad011.0518

A PSYCHONEUROIMMUNOLOGY APPROACH TO EXPLORE THE ROLE OF INTERSECTIONAL STIGMA IN THE CVD DISPARITY AMONG WOMEN LIVING WITH HIV

Tiffany R. Glynn, PhD[1], Lunthita M. Duthely, EdD[2], Sapna Kedia, BS[3], Michaela Larson, MPH[4], Sanjana Satish, BA[5], Vanessa Hurtado-Tandazo, MD[6], Carolina Cruzval O'Reilly, BA[2], Karla Inestroza Andino, MD[7], Maria C. Bernal, BA[3], Nicholas Fonseca Nogueira, MPH[3], Priscilla Valls, MD[3], Claudia A. Martinez, MD[3]

[1]Harvard Medical School/Massachusetts General Hospital/Brigham and Women's Hospital, Boston, MA; [2]University Of Miami School Of Medicine, Miami, FL; [3]University of Miami Miller School of Medicine, Miami, FL; [4]University of Miami Miller School of Medicine, Homestead, FL; [5]University of Miami Miller Medical School, Miami, FL; [6]University of Miami/ Jackson Memorial Hospital, Miami, FL; [7]University of Miami/Jackson Memorial Hospital, Miami, FL

Background: Women make up a high proportion of HIV prevalence in the U.S. and have improved life expectancies due to new generation highly active antiretroviral therapy. With this growing population of aging women living with HIV (WLHIV), an increase in comorbid cardiovascular disease (CVD) is reported. Yet, the relationship between HIV and CVD among WLHIV is understudied with only few potential biological mechanisms posited. A psychoneuroimmunology (PNI) framework posits that psychosocial and physiological factors interact to influence the etiology and progression of disease. Experiencing *chronic threats to social status* affects the HPA axis, with increased activation of immune-mediated inflammation leading to glucocorticoid resistance, increased activation of the sympathetic nervous system, increased oxidative stress, and endothelial dysfunction. Such changes lead to high blood pressure, coronary artery disease, and myocardial infarction. Indeed, WLHIV experience high indices of intersectional stigma (synergistic effects of multiple marginalized identities), yet there is little study of this potential psychosocial risk factor for CVD. This pilot study aimed to examine intersectional stigma as a predictor of CVD.

Methods: A sample of 48 cisgender WLHIV over the age of 36 completed biopsychosocial self-report assessment, anthropometric measures, and blood draw. ASCVD (atherosclerotic cardiovascular disease) risk level was calculated based off this data. Those medically eligible (n=31) also completed a Computed Tomography Angiography scan. Supervised machine learning CART models were utilized to explore traditional CVD risk factors (age, depression, tobacco use, hypertension, BMI, cholesterol ratio, triglyceride, insulin resistance, inflammatory markers) and the newly proposed risk factor (intersectional stigma) in building predictive models for objective CVD outcomes (detectable coronary calcification and stenosis). Models also examined intersectional stigma in relation to inflammatory markers associated with CVD risk and ASCVD risk level.

Results: Cholesterol ratio and intersectional stigma were identified as important factors in predicting coronary calcification (Kappa=0.59, Accuracy=0.86; 95% CI 0.42, 0.99). Predictive models for stenosis, ASCVD, and inflammatory markers had low accuracy and reliability.

Conclusion: This is among the first studies to examine the CVD disparity among WLHIV and do so using objective outcomes. Findings preliminarily support a PNI framework to contextualize the disparity such that intersectional stigma, while considering biological risk factors, was identified as a primary predictor of coronary artery calcification. If supported in a larger trial, findings indicate a need to supplement medical prevention/treatment of CVD with a multilevel psychosocial approach, and possibly integrated within HIV care.

CORRESPONDING AUTHOR: Tiffany R. Glynn, PhD, Harvard Medical School/Massachusetts General Hospital/Brigham and Women's Hospital, Boston, MA; trglynn@mgh.harvard.edu

3:14 PM – 3:20 PM

Abstract citation ID: kaad011.0519

IDENTIFYING ONCO-FERTILITY TREATMENT GAPS AND PREFERENCES AMONG HISPANIC/LATINA & BLACK/AFRICAN AMERICAN CANCER SURVIVORS

Zeba Ahmad, PhD, EdM, MA[1], Jennifer S. Ford, PhD, FSBM[2]

[1]Massachusetts General Hospital/Harvard Medical School, Boston, MA; [2]Hunter College, City University of New York and The Graduate Center, City University of New York, New York, NY

Introduction and Aims: Young adult (YA, aged 18-39) female cancer survivors who are Hispanic/Latina (HL) and/or Black/African-American (BAA) may face an intersection of health disparity related to their gender, age and ethnic/racial identity. In onco-fertility care, financial disparity and access to treatment are known challenges to seeking reproductive healthcare and family-building after cancer. However, this population remains understudied, and targeted intervention to address these disparities is unavailable. For the present qualitative study, we aimed to identify the specific gaps in treatment and preferences for care experienced by these young survivors, in order to inform future intervention development.

Methods: Twenty-six female YA survivors (aged 18-40; 54% HL; 46% BAA) completed semi-structured qualitative interviews exploring the impact of cancer and treatment on their choices regarding family-building and their cultural/spiritual and personal identity. Team coding of transcribed interviews was conducted through Dedoose software, and inductive thematic analysis was used to identify key outcomes.

Results: Six key themes were identified: (1) dearth of information about onco-fertility care appropriate to age and culture, despite active searching and self-advocacy; (2) stigma, misinformation, and silencing within cultural communities regarding onco-fertility care and family-building; (3) absence of accessible and tailored instrumental/emotional support, such as in negotiating with health insurance or obtaining psychotherapy; (4) experiences of discrimination in healthcare settings, such as minimizing pain or dominating treatment decisions; (5) a need for culturally humble psychotherapists and/or access to racial/ethnic minoritized psychotherapists; and (6) following extensive efforts at self-advocacy and peer connection, participants reported positive experiences with YA peer support groups and onco-fertility grant programs.

Discussion: These findings depict a sample of YA HL/BAA survivors who are actively engaged in seeking improved onco-fertility care, despite longstanding structural challenges in access and availability of resources, based on their intersecting identities. While some of their onco-fertility needs reflect those of the larger YA survivor population, others are unique to their minoritized ethnic/racial identities, such as the wish for tailored care and experiences with inaccessibility. These galvanizing findings lay a foundation for developing targeted interventions to address the many unmet needs described here, and ongoing research to improve awareness of challenges to reproductive justice for those who are minoritized. Future intervention research may include adapting current onco-fertility programs and interventions to better accommodate identity-specific needs and treatment preferences.

CORRESPONDING AUTHOR: Zeba Ahmad, PhD, EdM, MA, Massachusetts General Hospital/Harvard Medical School, Boston, MA; zahmad2@mgh.harvard.edu

3:20 PM – 3:26 PM

Abstract citation ID: kaad011.0520

MOTHERS BEHIND BARS: A QUALITATIVE STUDY ON THE HEALTHCARE EXPERIENCES OF WOMEN IN JAIL IN THE PHILIPPINES

Patricia Anne Joson[1], Raymund Narag, PhD[2], Carol Strong, PhD[3]

[1]National Cheng Kung University, Tainan City, Tainan, Taiwan (Republic of China); [2]School of Justice and Public Safety, Southern Illinois University Carbondale, Carbondale, IL; [3]Department of Public Health, College of Medicine, National Cheng Kung University, Tainan, Taiwan, Tainan, Tainan, Taiwan (Republic of China)

Introduction: The Philippines has once been considered as having one of the highest number of women and girls incarcerated worldwide. Most of those women in conflict with the law are mothers who have left behind a child when they got incarcerated, or who were pregnant while they were in jail. Thus, they have pregnancy and parenting related needs that must be attended to. However, since women only make up 10% of the whole jail population in the Philippines, their situation has not received as much attention as those of men. Thus, this study aims to employ a grounded theory methodology in order to comprehensively understand the experiences of female detainees with children, when accessing health care services inside jails.

Method: One to two-hour online semi-structured in-depth interviews were conducted and are currently ongoing in year 2022 with women formerly in jail in Metro Manila, who were pregnant or who have left behind a child while they were incarcerated. To gain a more holistic understanding, interviews were also conducted with the personnel involved in the provision of healthcare inside female jails, and with people serving them as they transition back into the community. Data was analyzed using grounded theory's constant comparative method.

Results: The experience of incarceration has a negative impact on the mental health of pregnant female detainees. According to the participants, aside from experiencing self-pity that comes occasionally with pregnancy, their negative emotions worsens as they think about how their child is incarcerated with them.

When it comes to accessing the healthcare services for their prenatal and postnatal care needs, although it is accessible, resources are highly limited. Pregnant detainees instead mostly rely on their family for the provision of medicine. They also rely on their fellow detainees who are also mothers for support as they navigate through their pregnancy. They also rely on the support of jail officers though this help is expressed on an individual, not institutional level.

After giving birth, mother detainees then become more distressed as they will be separated from their children. Knowledge of this separation influence them to restrain oneself from becoming too attached to their newborn, and this consequently affects their capability to breastfeed. However, having a child is conducive to the overall health of detainees as they become the motivation for the mother to develop oneself. In some cases where children are allowed to stay, the cell becomes a family, providing a cooling effect to the dense cell environment.

Conclusion: Context-specific and gender-responsive healthcare programs are needed to adequately attend to the mental health needs of women detainees. Resources should also be allotted to support the contact of female detainees with their children after birth.

CORRESPONDING AUTHOR: Patricia Anne Joson, National Cheng Kung University, Tainan City, Tainan, Taiwan (Republic of China); patriciajoson@gmail.com

3:26 PM – 3:32 PM

Abstract citation ID: kaad011.0521

OPTIMISATION OF AN INFORMATION LEAFLET TO SUPPORT MEDICATION BELIEFS IN WOMEN WITH BREAST CANCER: A FACTORIAL EXPERIMENT

Sophie Green, BSc, MSc[1], Louise H. Hall, PhD[1], David French, PhD[2], Nikki Rousseau, PhD[3], Catherine Parbutt[4], Rebecca Walwyn, PhD[3], Samuel G. Smith, PhD[1]

[1]Leeds Institute of Health Sciences, University of Leeds, UK, Leeds, England, UK; [2]Manchester Centre for Health Psychology, University of Manchester, UK, Manchester, England, UK; [3]Leeds Institute of Clinical Trials Research, University of Leeds, UK, Leeds, England, UK; [4]St. James's University Hospital, Leeds Teaching Hospitals NHS Trust, Leeds, UK, Leeds, England, UK

Background: Adjuvant endocrine therapy (AET) reduces mortality in women with breast cancer, but adherence is poor. Negative beliefs about AET necessity and high concerns are barriers to adherence. As part of the preparation phase of the multiphase optimisation strategy (MOST) we developed an information leaflet targeting AET beliefs. This experiment aimed to optimise the leaflet to include only components contributing to a positive effect on AET beliefs.

Methods: The leaflet has five components, each with two levels; 1) mechanistic diagrams about how AET works (on/off); 2) visual figures of AET benefits (enhanced/basic); 3) AET side effects and their prevalence (enhanced/basic); 4) answers to common AET concerns (on/off); 5) patient input: quotes and pictures from breast cancer survivors (on/off). To optimise the leaflet we conducted a 2^5 online factorial screening experiment. Healthy adult women were recruited via a market research company. Participants were randomised to one of 32 experimental conditions, which determined the components they received. Participants were asked to imagine they had been diagnosed with breast cancer, then complete the specific beliefs about medicines questionnaire before and after viewing the leaflet. To reflect the need to balance type I and type II errors in a screening experiment, statistical significance was set at 10%.

Results: 1604 women participated. The patient input component had a statistically significant main effect on beliefs about medication (β=0.063, p< 0.001). There was one significant synergistic two-way interaction between the diagrams and benefits components (β=0.047, p=0.006), and one antagonistic two-way interaction between the diagrams and side effects components (β=-0.029, p=0.093). There was a synergistic three-way interaction between diagrams, concerns and patient input components (β=0.029, p=0.085), and an antagonistic four-way interaction between the diagrams, benefits, side effects and concerns components (β=-0.038, p=0.024). In a stepped approach prioritising main effects and lower order interactions we screened in four components; patient input, diagrams, benefits, and concerns, and screened out the redundant side effects component.

Conclusion: We optimised an information leaflet to support necessity beliefs and reduce concerns about AET in women with breast cancer. Factorial experiments are efficient and effective for refining the content of information leaflets prior to further evaluation.

CORRESPONDING AUTHOR: Sophie Green, BSc, MSc, Leeds Institute of Health Sciences, University of Leeds, UK, Leeds, England, UK; s.m.c.green@leeds.ac.uk

3:32 PM – 3:38 PM

Abstract citation ID: kaad011.0522

SELF-EFFICACY AND SOCIAL SUPPORT CAN ENABLE WOMEN TO ADOPT HEALTH BEHAVIOR: A NON-RCTS OF CARRYING HEAVY LOADS IN NEPAL

Vica Tomberge[1], Akina Shrestha, PhD[2], Helena Luginbuehl, PhD[3], Aastha Kasaju[4], Regula Meierhofer[5], Jennifer Inauen, PhD[6]

[1]University of Bern, Bern, Bern, Switzerland; [2]Kathamandu University School of Medical Science, Kathmandu, Bagmati, Nepal; [3]Bern University of Applied Sciences, Bern, Bern, Switzerland; [4]University of Bern, Kathmandu, Bagmati, Nepal; [5]Eawag - Swiss Federal Institute of Aquatic Science and Technology, Duebendorf, Zurich, Switzerland; [6]Institute of Psychology - University of Bern, Bern, Bern, Switzerland

Most health behavior models presuppose that behavior is subject to one's own decision-making control. However, due to socio-structural barriers such as gender-based expectations and power relations, women may face barriers that can diminish self-efficacy to engage in healthy behaviors. These barriers are exacerbated in low resource settings. In Nepal for example, women carry heavy loads to ensure food and water supply for their households. Carrying implies a risk for reproductive health, e.g. pelvic organ disorders. The enabling hypothesis suggests that social support may strengthen women's self-efficacy and thus support them to reduce carrying heavy loads. For the first time, we experimentally examined the enabling hypothesis at the example of carrying loads in a low-resource setting.

A 3-arm parallel non-randomized controlled trial with 300 women and their social partners was conducted in rural Nepal. Three villages received: (1) promotion of self-efficacy only, (2) promotion of self-efficacy + social support or (3) information only. Based on their assignment, the groups received behavior change techniques to increase self-efficacy or social support for safe carrying additionally. For the evaluation of the intervention effects, repeated measures covariance analyses with pre-post measurements as well as planned contrasts were calculated using the intervention groups as independent variables and (1) reducing carried weight and (2) using safe lifting techniques as co-primary outcomes.

All groups on average decreased 5-12 kg of carried weight [$p < 0.001$, $\eta^2 = 0.20$] and increased use of safe lifting techniques by 23-33 % [$p < 0.001$, $\eta^2 = 0.50$]. All groups decreased in symptoms of pelvic organ disorders [$p < 0.001$, $\eta^2 = 0.10$]. Self-efficacy promotion increased the use of safe lifting techniques compared to controls [p = 0.013, d = 0.28]. Reducing weight was only increased when additionally promoting social support [$p = 0.005$, $d = 0.39$].

In line with the enabling hypothesis, our results suggest that promoting self-efficacy and social support might be promising to overcome gender-based barriers to health behavior and to increase health in a context of socio-structural barriers and low behavioral control.

CORRESPONDING AUTHOR: Vica Tomberge, University of Bern, Bern, Bern, Switzerland; vica.tomberge@unibe.ch

3:38 PM – 3:44 PM

Abstract citation ID: kaad011.0523

USING FOCUS GROUPS AND BEHAVIOUR CHANGE THEORY TO IDENTIFY FACTORS INFLUENCING HEALTH-PROMOTING BEHAVIOURS IN MIDLIFE WOMEN

Hana Sediva, PhD candidate[1], Danielle Arigo, PhD[2]

[1]University of Westminster, London, England, UK; [2]Rowan University, Glassboro, NJ

Background: Behaviour change interventions (BCIs) are shown to improve health-promoting behaviours (e.g., healthy eating and regular physical activity) in midlife women. However, BCIs are typically complex and involve many interacting components, and therefore, a theoretical understanding of how these interventions influence behaviour change is needed to strengthen their effects on clinical outcomes.

Objectives: The aim of the study is to explore factors (i.e., barriers and enablers) influencing healthy eating and regular physical activity in midlife women (aged 40 – 65 years) using focus groups. The behavioural influences are to be used as an input in the design of a digital BCI tailored to this population. This study aimed to use the Behaviour Change Wheel (BCW) comprised of two synergistic theoretical models of behaviour: the COM-B model (Capability, Opportunity, Motivation – Behaviour) and Theoretical Domains Framework (TDF) to identify a broad spectrum of theoretically derived influences on lifestyle behaviours.

Methods: Seven semi-structured focus group discussions and a survey with midlife women in the UK (n = 33) explored healthy eating and regular physical activity barriers and enablers, the influence of menopause symptoms on lifestyle behaviours, and the use of digital health technologies. Both, inductive thematic analysis and deductive qualitative analysis were performed across the dataset where the TDF/COM-B were used as coding frameworks and behaviour change techniques (BCTs) were coded using the Behaviour Change Techniques Taxonomy (BCTTv1).

Results: TDF domains of 'behavioural regulation', 'beliefs about capabilities', 'reinforcement', and 'emotion' appear to provide the greatest impact on healthy eating and physical activity behaviours. Identified were healthy eating and regular physical activity barriers (e.g., feeling tired, family responsibilities, lack of time, lack of planning, gym intimidation, low mood, low motivation) and enablers (e.g., self-monitoring steps walked, setting small achievable goals, attending group exercise classes, tracking meals consumed, social support from friends and family, personal trainer support, enjoying exercise, engaging in exercise challenges, kudos and rewards). New persisting behaviours were identified as a result of the COVID-19 pandemic (e.g., increased consumption of alcohol, meal planning, allowing oneself a treat, eating out and socialising, family walks and workouts, online exercise classes, awareness of own eating habits).

Conclusions: This qualitative study underpinned by COM-B/TDF framework applied to healthy eating and physical activity in midlife women provides a new set of targets for BCI development. It provides an opportunity to integrate midlife women's lived experiences to tailor the intervention to this population.

CORRESPONDING AUTHOR: Hana Sediva, PhD candidate, University of Westminster, London, England, UK; hana.sediva@my.westminster.ac.uk

---

3:44 PM – 3:50 PM

Abstract citation ID: kaad011.0524

UTILIZATION AND COMMUNICATION ABOUT WOMEN WELLNESS EXAMS AMONG LATINA WOMEN.

Patricia Cabral, PhD[1], Amanda Medina Segura[1]

[1]Occidental College, Los Angeles, CA

Latina women in the U.S. often lag in preventative screenings (Zhou et al., 2010), experience the highest cervical cancer incidence rates of any racial/ethnic group (U.S. Cancer Statistics Working Group, 2015), tend to present with more severe cases (Flores & Bencomo, 2009), and experience higher mortality compared to most other populations (American Cancer Society, 2014). Research has demonstrated that family can influence an individual's engagement in health behaviors (Marks, 1999; Umberson, 1987). Discussions with family members about preventative health screenings may be one mechanism through which individuals are influenced to engage in recommended health screenings. However, it remains unclear what type of information is disseminated between Latino parents and their children when discussing women wellness screenings, nor whether these discussions are related to utilization of women wellness screenings among Latina women. The purpose of this mixed-method study was to examine the prevalence of parent-child discussions of women wellness exams among Latina women and the association with utilization of women wellness exams. Three hypotheses were proposed: (H1) Latina women will report a lower prevalence of women wellness exams utilization in comparison to their White counterparts. (H2) Prevalence of parent-child discussions of women wellness exams will be lower among Latinas than White women. Last, (H3) parent-child discussions of women wellness exams will be associated with the prevalence of recent women wellness exams among both groups. Additionally, qualitative coding was used to identify themes in retrospective parent-child discussions of women wellness exams reported by Latina women. The sample (*M age* = 27.91, SD = 12.86) consisted of 62 Latina women and 30 White women. Over 66% of the whole sample reported having had a discussion about women wellness exams with their parent. Approximately 67% of both Latina and White women reported having had a women wellness exam in the last year. Latina and White women significantly differed in the frequency of cervical pap screening ($t = 3.66$, $df = 87$, $p < .001$). Qualitative analyses of interviews among Latina women regarding discussions about women wellness exams with their parent revealed multiple themes that may negatively influence perceptions of women wellness exams, including (1) fear, (2) discouragement, (3) avoidance, (4) lack of education, and (5) sexuality as a taboo. Many of the themes identified within parent-child discussion of safe sex may contribute to barriers for utilization of wellness exams among Latinas. Interventions that provide parents guidance in addressing women wellness exams early in childhood may reduce misinformation and discouragement of timely women wellness exams.

CORRESPONDING AUTHOR: Patricia Cabral, PhD, Occidental College, Los Angeles, CA; pcabral@oxy.edu

LIVE RESEARCH SPOTLIGHT 4: MENTAL HEALTH

3:02 PM – 3:08 PM

Abstract citation ID: kaad011.0525

SUPPORTING SCHOOLS CULTIVATE CULTURALLY RESPONSIVE LEARNING ENVIRONMENTS

Hailee K. Dunn, PhD, MPH[1], Deborah Pearlman, PhD[2], Kristin Grimone, BA[1]

[1]HDC, Inc., Cumberland, RI; [2]Brown University School of Public Health, Providence, RI

Background: The COVID-19 pandemic and national attention on racial and social divisions across the United States cast a glaring light on educational inequities and unequal access to mental health services between students of color and white students. Project AWARE (Advancing Wellness and Resiliency in Education) is a federally funded grant that aims to increase youth access to mental health services by training school personnel how to effectively respond to students experiencing mental health problems. Offering trainings that help promote culturally inclusive school climates is important for addressing racial/ethnic inequities in school based mental health service utilization. Students of color who perceive their school climate as safe, supportive, and inclusive are more likely to reach out for help from an adult when in need of mental health services. The present study explored the extent to which professional development offered to teachers may support more culturally inclusive school climates.

Methods: Data were from SurveyWorks, an annual state-funded, cross-sectional survey of teachers (n=8,159) representing 36 public school districts in the northeast. Teachers were surveyed during the 2020-2021 academic year. Descriptive statistics and Poisson regression analysis using robust standard errors for parameter estimates examined the effect of professional development to promote equity and address youth mental health on an 8-item cultural awareness and action scale, adjusted for other covariates. The goodness-of-fit chi-squared test indicated that the Poisson model fit our data.

Results: Teachers who report a greater sense of efficacy addressing students' mental health needs and incorporating equity in their practice are significantly more likely to report cultural inclusiveness in their schools—the extent to which their schools support students in learning about, discussing and confronting issues of race. Findings also revealed that teachers from districts receiving Project AWARE funds are significantly more likely to report cultural inclusiveness in their schools.

Discussion: Findings provide preliminary evidence that investing in professional development opportunities addressing youth mental health and equity may create conditions in schools that allow students, particularly students of color, to feel safe reaching out for needed mental health services. Investing in youth mental health supports and educational equity has never been greater.

CORRESPONDING AUTHOR: Hailee K. Dunn, PhD, MPH, HDC, Inc., Cumberland, RI; hailee_dunn@hdconsulting-ri.org

3:08 PM – 3:14 PM

Abstract citation ID: kaad011.0526

A LATENT PROFILE ANALYSIS OF MENTAL HEALTH STRESSOR & BUFFERING FACTORS AMONG LATINX IMMIGRANT YOUTH FROM THE NORTHERN TRIANGLE

John P. Salerno, PhD, MPH[1], Christina M. Getrich, PhD, MA[2], Elizabeth M. Aparicio, PhD, MSW[3], Jessica N. Fish, PhD, MS[3], Craig S. Fryer, DrPH, MPH[3], Bradley O. Boekeloo, PhD, ScM[3]

[1]Columbia University, New York, NY; [2]University of Maryland, College Park,, MD; [3]University of Maryland, College Park, MD

In alignment with the intersectionality framework, first-generation Latinx immigrant youth from the Northern Triangle face unique risks for experiencing cumulative external stressors across the life-course in the context of the phases of migration (e.g., forced family separation), and immigrant identity-related stress (e.g., immigrant-related discrimination), which could exacerbate their mental health. Yet, the post-migration time period may be an important turning point, during which psychosocial buffering resources (e.g., family support) could have a strong impact that significantly mitigates the cumulative mental health effects of these stressors. Therefore, it is of utmost importance to identify the psychosocial stressor and buffering factors that can mitigate or exacerbate their mental health during post-migration in the U.S.

Primary surveys assessing external life-course stressors across the phases of migration (i.e., pre- to post-migration victimization and family separation), immigrant minority stress (i.e., immigrant-related discrimination and negative immigrant stress-related feelings), and psychosocial buffering factors (i.e., family, peer, and school support, and ethnic identity importance) among Northern Triangle immigrant youth were administered (N=172). Latent profile analysis was then conducted to identify latent profiles that varied at the intersections of post-migration immigrant minority stress and psychosocial buffering factors. Following, ANOVA models were conducted to examine the associations of latent profile membership with mental health outcomes.

Results revealed a three latent-profile model characterized by post-migration 1) moderate immigrant minority stress and low psychosocial buffering factors (moderate stress/low buffer), 2) moderate immigrant minority stress and moderate psychosocial buffering factors (moderate stress/moderate buffer), and 3) low immigrant minority stress and high psychosocial buffering factors (low stress/high buffer). ANOVA and Bonferroni-corrected multiple comparison analyses revealed that youth in the low stress/high buffer profile group were significantly less likely to experience PTSD ($p < .001$, $p = .003$), depression ($p < .001$, $p < .001$), and anxiety ($p < .001$, $p < .001$) compared to youth in both the moderate stress/moderate buffer and moderate stress/low buffer profile groups (respectively). The moderate stress/low buffer profile group did not differ from the moderate stress/moderate buffer profile group in-terms of any mental health outcome.

In totality, findings strongly suggest that further exploration of post-migration immigrant minority stress and psychosocial buffering resources is urgently warranted to identify ways of overcoming the effects of externalized immigrant-related stressors and reducing mental health burden among this highly vulnerable population.

CORRESPONDING AUTHOR: John P. Salerno, PhD, MPH, Columbia University, New York, NY; jps2254@columbia.edu

3:14 PM – 3:20 PM

Abstract citation ID: kaad011.0527

DIFFERENTIAL ASSOCIATIONS OF TOBACCO AND CANNABIS USE PATTERNS WITH MENTAL HEALTH DISORDERS

Nhung Nguyen, PhD[1], Noah Peyser, PhD[2], Jeffrey Olgin, MD[2], Mark Pletcher, MD, MPH[2], Alexis Beatty, MD, MAS[2], Pamela M. Ling, MD, MPH[2], Gregory Marcus, MD, MAS[2]

[1]University of California, San Francisco, San Francisco, CA; [2]UCSF, San Francisco, CA

Introduction: Use of tobacco or cannabis are associated with mental health. Recently, co-use of both substances (concurrently using both tobacco and cannabis) is increasing in the US, but little is known about whether people who use both substances are more or less likely to have mental health disorders than users of single substances or non-users. This study examines associations between different patterns of tobacco and cannabis use with anxiety and depression.

Methods: We analyzed data from 53, 813 US adults enrolled in the COVID-19 Citizen Science Study, an ongoing, worldwide, online cohort study. Past 30-day use of tobacco (cigarettes, e-cigarettes, other combustible tobacco products) and cannabis (combustible and vaporized products) were self-reported at baseline and categorized into four patterns: non-use, tobacco-only use, cannabis-only use, and co-use. Mental health was self-reported monthly. Anxiety was defined as having GAD-7 score ≥ 10, and depression as having PHQ-8 score ≥ 10. Generalized Estimating Equations were used to examine the associations between the four patterns of tobacco and cannabis use with each mental health outcome, adjusting for demographics, subjective social status, alcohol use, physical activity, and number of monthly surveys completed by each participant.

Results: In the total sample (mean age 51.0 years old, 67.8% female), 4.9% of participants reported tobacco-only use, 6.9% cannabis-only use, 1.6% co-use, and 86.6% non-use. Overall, 11.9% and 12.6% of participants reported experiencing anxiety and depression in at least one monthly survey, respectively. Compared to non-use, the adjusted odds of mental health disorders were highest for co-use (*Anxiety: OR 1.80, 95% CI 1.56-2.08; Depression: OR 1.71, 95% CI 1.48-1.98*), followed by cannabis-only use (*Anxiety: OR 1.59, 95% CI 1.47-1.72; Depression: OR 1.64, 95% CI 1.51-1.78*), and tobacco-only use (*Anxiety: OR 1.40, 95% CI 1.27-1.54; Depression: OR 1.45, 95% CI 1.32-1.59*). Compared to tobacco-only use, co-use had higher adjusted odds for anxiety (*OR 1.29, 95% CI 1.09-1.52*), but not for depression (*OR 1.18, 95%CI 1.00-1.40, p = 0.051*). There were no significant differences in the adjusted odds of mental health disorders between co-use and cannabis-only use.

Conclusions: People who used tobacco and/or cannabis were more likely to report mental health disorders, particularly among those reporting co-use. Mental health support for people who use tobacco and cannabis is needed.

CORRESPONDING AUTHOR: Nhung Nguyen, PhD, University of California, San Francisco, San Francisco, CA; nhung.nguyen@ucsf.edu

---

3:20 PM – 3:26 PM

Abstract citation ID: kaad011.0528

LEISURE COPING AMONG LOW-INCOME COLLEGE STUDENTS: THE IMPACT OF ADVERSE EXPERIENCES AND POSITIVE LEISURE ENGAGEMENT

Em V. Adams, PhD, CTRS, C-IAYT[1]

[1]Clemson University, Clemson, SC

Background: A high percentage of college students, especially students of color, experience adverse experiences (i.e. food insecurity, housing insecurity, assault, and community violence) and trauma symptoms which may negatively impact academic performance. Leisure activities are sometimes considered a protective factor to promote higher levels of psychosocial functioning. However, there is little information about the relationship between adverse experiences, trauma symptoms, and overall psychosocial functioning among college students. The purpose of this multi-methods study was to identify the relationship between trauma, leisure coping, and psychosocial functioning among low-income college students at a minority-serving institution. The aims of the study were: 1) Determine if lower levels of trauma predict higher psychosocial functioning; 2) Determine if higher levels of leisure engagement predict higher levels of psychosocial functioning; 3) Explore participants' use of leisure as a coping mechanism.

Methods: Quantitative survey data about stress (Post-traumatic Stress Scale), leisure participation (Vitality through Leisure Scale), and psychosocial functioning (Sense of Coherence brief scale) were collected online from 200 youth, ages 18-24. Participants were recruited through a public Minority Serving Institution of higher education in New York City. The majority of the sample (98%) identified as people of color, (51% Hispanic, 29% Black, 15% Asian), 40% reported English was not their first language, and 35% reported that they were not born in the United States. Follow-up interviews were conducted with 15 participants to further explore their stresses, daily psychosocial functioning, and use of coping mechanisms.

Results: Regression analysis indicated that after controlling for demographic factors, trauma symptoms ($b = -.37$, $p = .000$), trauma experiences ($b= -.14$, $p = .05$), and engagement in positive leisure (i.e., regenerative and self-determined activities) ($b = .35$, $p = .000$) were most strongly associated with psychosocial functioning in our sample ($F = 24.01$, $df = 4$, $p = .000$) accounting for 36% of the variance. A thematic analysis of the qualitative interviews revealed themes of leisure coping to connect with others, to connect with a higher power, to relax, or to stay distracted from stress

Discussion: Results indicate that while adverse experiences and trauma negatively impact social functioning, positive experiences through leisure may mitigate the impact. However, both leisure and work can also be used as an escape to avoid negative emotions. Implications will be discussed including the importance of understanding adverse experiences and trauma reactions, including PTSD in college students and the concept of leisure activities as a protective factor to be included in intervention development for vulnerable college students.

CORRESPONDING AUTHOR: Em V. Adams, PhD, CTRS, C-IAYT, Clemson University, Clemson, SC; emiliea@clemson.edu

3:26 PM – 3:32 PM

Abstract citation ID: kaad011.0529

LIVE MESSAGING BLENDED CARE COACHING: OUTCOMES AMONG ADULTS WITH MODERATE LEVELS OF DEPRESSION

Jocelynn T. Owusu, PhD, MPH[1], Pam Wang, PhD[1], Robert E. Wickham, PhD[2], Shane O'Neil-Hart, LCSW[1], Jennifer L. Lee, PhD[1], Connie Chen, MD[1], Anita Lungu, PhD[1]

[1]Lyra Health, Burlingame, CA; [2]Northern Arizona University, Flagstaff, AZ

Background: Coaching blended with digital modules (i.e., blended care coaching) has been associated with improvements in mental health outcomes, including depressive symptoms. Providing participants with the option to receive coaching sessions via synchronous (i.e., live) text-based messaging could increase the accessibility of blended care coaching. However, research of blended messaging coaching (BMC) is limited. The objective of this study was to assess depression outcomes of a BMC program that delivered coaching sessions via live text-based messaging, among adults presenting with moderate depressive symptom severity.

Methods: Twenty-five adults who selected to begin an employer-offered BMC program between February 2021 and May 2022 were included. Participants had moderate depressive symptoms (Patient Health Questionnaire-9 [PHQ-9] score = 10-11) at baseline and chose to receive all coaching sessions via live messaging. End-of-care depression outcomes were assessed by calculating the proportion that recovered (i.e., end-of-care PHQ-9 < 10) and/or had reliable improvement (i.e., PHQ-9 score decreased ≥ 6 points). Change in PHQ-9 scores during BMC was evaluated using a growth curve model that accounted for age and gender; in addition, the pre-post effect size was calculated (i.e., Hedges' *g*).

Results: At baseline, participants' average age was 33.16 years (SD = 8.55, Median = 30.00), 22 (88%) self-reported as female, and the average PHQ-9 score was 10.52 (SD = 0.51, Median = 11.00). Participants self-reported as Asian or Pacific Islander (24%), African American or Black (12%), Hispanic or Latino (4%), multiple (12%) or other (4%) ethnicities, or White (44%) adults. On average, participants completed 3.40 (SD = 2.04, Median = 3.00) live messaging coaching sessions, and received BMC for 4.15 weeks (SD = 4.31, Median = 3.00). Each week in BMC was associated with a 1.18 reduction in PHQ-9 scores (95% CI: -1.58, -0.78; $p < 0.01$), but this rate significantly slowed as treatment progressed (Week^2 b = 0.05, 95% CI: 0.01, 0.09; $p < 0.05$). The pre-post effect size was large ($g = 2.22$). By the end of care, 56% had a reliable improvement in PHQ-9 scores, and 92% had PHQ-9 scores indicating recovery.

Conclusions: Preliminary results suggest a live BMC program can alleviate depressive symptom severity among adults who are appropriate candidates for coaching. Because live BMC provides an additional accessible mental health care option for suitable populations with moderate depressive symptom severity, a larger study in a diverse sample, particularly in males, is warranted.

CORRESPONDING AUTHOR: Jocelynn T. Owusu, PhD, MPH, Lyra Health, Burlingame, CA; jowusu@lyrahealth.com

3:32 PM – 3:38 PM

Abstract citation ID: kaad011.0530

MENTAL HEALTH OUTCOMES FOR YOUNG PEOPLE WITH INHERITED CANCER SYNDROMES: A MIXED-METHOD STUDY OF LI-FRAUMENI SYNDROME

Rowan Forbes Shepherd, PhD[1], Camella J. Rising, PhD, MS, RDN[2], Patrick Boyd, PhD[3], Catherine Wilsnack, MSW, LCSW[4], Alix G. Sleight, PhD, OTD, MPH, OTR/L[5], Ashley S. Thompson, BS[1], Payal P. Khincha, MBBS, MSHS[1], Allison Werner-lin, PhD, LCSW[6]

[1]National Cancer Institute, Rockville, MD; [2]National Cancer Institute, Rokville, MD; [3]Press Ganey, South Bend, IN; [4]University of Texas at Austin, Austin, TX; [5]Samuel Oschin Comprehensive Cancer Institute, Los Angeles, CA; [6]University of Pennsylvania, Philadelphia, PA

Background: Inherited cancer syndromes bring unique psychosocial stressors to diagnosed individuals and families. Li-Fraumeni syndrome (LFS), for example, is characterized by whole-body cancer risks from birth, limited preventive options, and risk of early mortality. Adolescents and young adults (AYAs) with LFS may be vulnerable to distress or poor mental health outcomes due to experiencing LFS's significant physical and psychosocial burdens, that often start early in life. To inform the design of targeted psychosocial support, this mixed-method study examined AYAs' reported mental health and their intersection with LFS- and lifespan-related factors.

Methods: AYAs (aged 15-39 years) recruited from the National Cancer Institute's LFS study (NCT01443468) completed qualitative interviews, and/or an online survey with validated measures, including the Genetic Psychosocial Risk Instrument (GPRI). Descriptive and correlation statistics were calculated using SPSS. An inter-professional team thematically analyzed interview data using Dedoose.

Results: Thirty-seven AYAs completed surveys (78% female, 51% cancer history) and 38 AYAs completed interviews (71% female, 66% cancer history), 11 completed both. Mean GPRI scores were high (62.6/100) with 84% of survey respondents scoring above the 50-point threshold indicating risk of psychological distress. Survey respondents self-reported past emotional problems (n=26, 70%), depression or anxiety diagnoses (n=25, 68%), and suicidal ideation (n=16, 43%). Past suicidal ideation was significantly correlated with younger age at awareness of LFS (r=-.391, p< .05) but not with personal cancer history. Interviewees described personal and familial cancer diagnoses, cancer worry, grief, and loss (e.g., family deaths, identity) that challenged their mental health. Integrating high cancer risk into everyday life induced a range of adaptive responses and most AYAs engaged in extensive meaning making as a form of coping. The chronicity and uncertainty of living with LFS was a commonly reported source of distress. Although most survey respondents (n=29, 78%) had previously received mental health counseling, fewer (n=11, 30%) reported receiving counseling currently.

Conclusion: AYAs with LFS are at risk of poor mental health outcomes due to uncertainty and loss in multiple domains of personal and familial life. Acute periods of co-occurring developmental and LFS-related change are unique stressors that require specialist mental health support. This study provides critical mental health outcome data for the design of psychosocial interventions for LFS. Our novel use of the GPRI for a rare, early onset condition like LFS, supports its potential use in broader clinical genetics settings, although further testing is needed before use in younger populations with inherited conditions.

CORRESPONDING AUTHOR: Rowan Forbes Shepherd, PhD, National Cancer Institute, Rockville, MD; rowan.forbesshepherd@nih.gov

3:38 PM – 3:44 PM

Abstract citation ID: kaad011.0531

THE ROLE OF FAMILIAL SUPPORT PERCEPTIONS IN RARE DISEASE CAREGIVING

Melissa Zajdel, PhD[1], Jasmine Manalel, PhD[2], Laura Koehly, PhD[1]

[1]National Human Genome Research Institute, Bethesda, MD; [2]Brookdale Center for Healthy Aging, New York, NY

Caregiving for a child with a rare disease is a uniquely stressful situation that can impact entire familial networks. While parental caregivers shoulder the majority of the responsibilities, familial support may be critical for maintaining health, lowering caregiving burden, and enhancing positive aspects of caregiving. However, parents may have differing perceptions of available familial support. In a study of parental caregivers of children with rare diseases who are romantic partners (n = 63 couples; 126 caregivers), we examine how one's own reports of familial support and one's partner's perceptions of familial support assessed via the Caregiver Reaction Assessment lack of family support subscale is associated with health (both physical and mental), caregiving burden, and positive aspects of caregiving. First, tests for distinguishability were conducted to determine if gender was a relevant distinguishing characteristic for outcomes; only physical health was distinguishable by gender and thus we use APIM for indistinguishable dyads for mental health, caregiving burden, and positive aspects of caregiving in order to increase parsimony and power. For mental health, actor report of a lack of family support was related to worse mental health (Sf12 MCS; β = -5.31, p < .01) but partner reports were not. For physical health (Sf12 PCS), there were no links of actor, partner, actor by gender, or partner by gender reports of lack of family support. For caregiving burden (Zarit Burden Inventory), actor report of a lack of family support was related to more caregiving burden (β = 3.83, p < .001) but partner reports were not. Finally, for positive aspects of caregiving (PAC), actor report of a lack of family support was not related to positive aspects of caregiving, but partner reports were related (B = -2.30, p < .01) to lower positive aspects of caregiving. These results indicate that under conditions of non-normative stress such as rare disease caregiving, familial support may play a role in protecting caregiver mental health and modulating appraisals of the caregiving process. However, results also indicate that one's own perceptions of support and spousal perceptions of support may have differential implications for caregiver well-being. Future research and clinicians alike should consider the role of perceived familial support in the caregiving process and target strategies to enhance social support in familial networks to enhance caregiver health and well-being.

CORRESPONDING AUTHOR: Melissa Zajdel, PhD, National Human Genome Research Institute, Bethesda, MD; melissa.zajdel@nih.gov

3:44 PM – 3:50 PM

Abstract citation ID: kaad011.0532

THE ROLES OF LIFE-TIME ENACTED STIGMA IN MENTAL HEALTH AND TIC SYMPTOMS AMONG YOUNG ADULTS WITH TOURETTE SYNDROME

Chengshi Shiu, LSW, MS, PhD, GStat[1], Wei-Ti Chen, RN, CNM, PhD, FAAN[2]

[1]National Taiwan University, Pasadena, CA; [2]UCLA, Los Angeles, CA

Background: Although rarely framed as enacted stigma, adults with Tourette syndrome (ATS) have long suffered from discrimination associated with their tic symptoms. Given the high levels of stressful enacted stigma that ATS experience, it is expected that their mental health and tic symptoms are profoundly impacted. However, the evidence linking enacted stigma to ATS's mental health and tic symptoms remains limited.

Methods: This study employed a secondary data-analysis approach to reanalyze the data from the follow-up phase of a multi-centered, randomized controlled trial, in which a behavioral intervention was tested for its efficacy in managing tic symptoms. In the original trial as well as the follow-up study, the Yale Global Tic Severity Scale (YGTSS) was used to assess the severity and tic-related impairments of the participants over the past week, and the Clinical Global Impression scale - Severity subscale (CGI-S) was used to evaluate the overall mental illness of the participants. Both scales were administered by trained clinical evaluators. Using the data from the follow-up study, the current study first conducted psychometric testing on a list of 16 enacted stigma events across five life stages (middle school, 9th - 10th grade, 11th - 12th grade, beginning of college/work, and past month) and identified the underlying factor structure. A series of multivariate linear models were then fitted to test the relationships between different types of lifetime enacted stigma, as well as current tic symptoms and mental health.

Results: The analytic sample consisted of 73 young ATS (average age of 23.2 [SD = 2.5] years) with overall mild tic symptoms and mental illness. The exploratory factor analysis identified three types of enacted stigmas: "traumatic events," "confrontations," and "subtle mistreatments." The three factors collectively explained 90% of the total variations of the enacted stigma experiences, with subtle mistreatments alone explaining 50% of the variations. In multivariate linear models, when controlled for selected covariates (demographic attributes, study design factors, and comorbidity), traumatic events significantly predicted severity of tic symptoms (beta coefficient = 9.5, p < 0.05) and mental illness (beta coefficient = 0.9, p < 0.05), whereas subtle mistreatments provide significant explanations for mental illness (beta coefficient = 0.4, p < 0.05) in addition to traumatic events.

Conclusions: Enacted stigma may play important roles in shaping ATS's tics symptoms and mental health and, therefore, should be carefully considered in future development of interventions. Trauma-informed stigma reduction may be promising in further assisting ATS in managing their tic symptoms and mental health, when properly incorporated into the behavioral interventions as a core therapeutic component.

CORRESPONDING AUTHOR: Chengshi Shiu, LSW, MS, PhD, GStat, National Taiwan University, Pasadena, CA; cshiu@ntu.edu.tw

LIVE RESEARCH SPOTLIGHT 5: TOBACCO CONTROL AND NICOTINE-RELATED BEHAVIOR

3:02 PM – 3:08 PM

Abstract citation ID: kaad011.0533

"GIVE ME ORGIES IN THE OR NOT LESSONS ON VAPING": AN ANALYSIS OF TWITTER MESSAGES ABOUT EVALI STORYLINES ON POPULAR MEDICAL DRAMAS

Beth L. Hoffman, PhD, MPH[1], Riley L. Wolynn[1], Erica L. Barrett, BA[1], Jaime E. Sidani, PhD, MPH, CHES[1], Jennifer Manganello, PhD, MPH[2], Elizabeth L. Felter, PhD, MCHES[1], Brian Primack, PhD, MD[3], Elizabeth Miller, MD, PhD[4], Jessica G. Burke, PhD, MPH[1], Kar-Hai L. Chu, PhD, MS[1]

[1]University of Pittsburgh School of Public Health, Pittsburgh, PA; [2]SUNY Albany, Albany, NY; [3]Oregon State University, Corvallis, OR; [4]University of Pittsburgh School of Medicine, Pittsburgh, PA

Introduction: Prior research suggests health content on fictional medical television programs can influence viewers' health-related knowledge, perceptions, and/or behavior, and that awareness of e-cigarette, or vaping, product-use associated lung injury (EVALI) may be associated with lower intentions to use e-cigarettes among young people. Therefore, this study utilized Twitter data to evaluate if the January 2020 depiction of EVALI on *New Amsterdam*, *Chicago Med*, and *Grey's Anatomy*— three popular primetime medical dramas—could be a potential innovative avenue to raise awareness of the disease and lower intentions to use e-cigarettes among viewers.

Methods: We obtained tweets containing e-cigarette-related search strings for 4 weeks around the airing of the episodes (1/21/2020-02/18/2020) and filtered these with storyline specific keywords, resulting in 1,493 tweets for qualitative coding by two trained human coders. We used Cohen's κ to assess inter-rater reliability for all coding categories (range: 0.71–1.00). Codebook development involved a hybrid approach based on (1) previous research, the theoretical framework, and consultation with fictional medical television industry experts, and (2) direct analysis of the tweets themselves. We calculated descriptive statistics using Stata version 16 and used a thematic content analysis approach to characterize tweet content

Results: Of 641 (42.9%) relevant tweets, the frequent content codes were those pertaining to cultivation theory: perceived realism (n=292, 45.6%), negative response (n=264, 41.2%), and enjoyment (n=148, 23.1%). A common theme among these tweets was that storylines were unrealistic because none of the characters with EVALI used THC-containing products. Other themes were more positive, including expressing gratitude to the programs for including an EVALI storyline and mentioning that the storylines were highlighting harms associated with e-cigarette use Approximately 12% of tweets (n=78) mentioned e-cigarette knowledge and 28 (4.4%) mentioned behavior, including quitting e-cigarettes because of viewing the storylines.

Conclusions: Examination of tweets suggests that EVALI storylines on popular medical programs have the potential to translate science on the harms of e-cigarette use into impact on viewer knowledge and behavior. Our results also suggest that negatives responses to these storylines could be mitigated by the sharing of up-to-date epidemiologic information via official program social media accounts. Future research could explore whether clips from these storylines can be leveraged as part of e-cigarette prevention programming for young people.

CORRESPONDING AUTHOR: Beth L. Hoffman, PhD, MPH, University of Pittsburgh School of Public Health, Pittsburgh, PA; beth.hoffman@pitt.edu

3:08 PM – 3:14 PM

Abstract citation ID: kaad011.0534

BIDIRECTIONAL ASSOCIATIONS BETWEEN SMOKING AND BREASTFEEDING AMONG LOW-INCOME SMOKE-EXPOSED WOMEN: A CROSS-LAGGED MODEL

Ruth G. St Fleur, PhD[1], Tayla von Ash, ScD[1], Anna Alikhani, MSW, MPH[1], Patricia M. Risica, DrPH[1]

[1]Brown University, Providence, RI

Background: The interdependent relationship between smoking and breastfeeding intentions and behaviors has been well established. Although attitudes towards breastfeeding have been shown to influence both smoking and breastfeeding behaviors, few studies have examined how the relationship between smoking and breastfeeding is moderated by those cognitive factors.

Objective: This study aimed to explore bidirectional associations between smoking and breastfeeding intentions and behaviors and assess the relationships across groups with different patterns of change in attitudes towards breastfeeding.

Methods: Using data from 399 pregnant women recruited from prenatal clinics in Rhode Island, USA, we implemented auto-regressive cross-lagged models to examine bidirectional relationships across five waves: 16 weeks' gestation, 32 weeks' gestation, post-delivery, 12 weeks and 6 months postpartum. Multi-group analyses were conducted using previously identified subgroups with different trajectories in attitudes towards breastfeeding, assessed using the Mitra Index. Higher overall Mitra score indicated more favorable breastfeeding-related attitudes.

Results: In the overall sample, there were significant within-wave correlations between smoking and breastfeeding intention/behavior at baseline (r tet = -0.24, $p < 0.01$), at 32-weeks' gestation (r tet = -0.28, $p < 0.01$), and following delivery (r tet = -0.56, $p < 0.05$). Additionally, those who smoked at baseline were less likely to intend to breastfeed at 32 weeks' gestation (OR=0.92, 95% CI:0.84-0.99) and vice versa (OR=0.84, 95% CI:0.76-0.92). In the group with high increasing Mitra score patterns, those who intended to breastfeed at baseline were less likely to smoke at 32 weeks' gestation (OR= 0.81, 95% CI: 0.67-0.99). Among those with the moderate increasing pattern, there was only a negative correlation between breastfeeding intention and smoking at baseline (r tet = -0.26, $p < 0.01$). In the group with low stable pattern, smoking significantly predicted breastfeeding intentions and behaviors such that those who smoked at baseline were less likely to intend to breastfeed at 32 weeks' gestation (OR= 0.73, 95% CI: 0.64-0.84) and those who reported smoking after delivery were less likely to breastfeed at 12 weeks postpartum (OR= 0.71, 95% CI: 0.52-0.97).

Discussion: Smoking cessation interventions may effectively promote breastfeeding among women with unfavorable attitudes toward breastfeeding while breastfeeding promotion may lead to smoking cessation among women with favorable attitudes towards breastfeeding.

CORRESPONDING AUTHOR: Ruth G. St Fleur, PhD, Brown University, Providence, RI; ruth_st_fleur@brown.edu

3:14 PM – 3:20 PM

Abstract citation ID: kaad011.0535

E-CIGARETTE USE IN UNITED STATES ASIAN AMERICAN NATIVE HAWAIIAN AND PACIFIC ISLANDER YOUTH

Elizabeth K. Do, PhD, MPH[1], Kathleen Aarvig, MPH[1], Hope Muller, MSc[1], Sarah Mills, BA[2], Jake R. Sumibcay, DrPH, MPH, CHES[3], Howard K. Koh, MD[4], Donna C. Vallone, PhD, MPH[1], Elizabeth C. Hair, PhD[1]

[1]Truth Initiative, Washington, DC; [2]Truth Initiative, Washington DC, DC; [3]Harvard T.H. Chan School of Public Health, Claremont, CA; [4]Harvard T.H. Chan School of Public Health, Boston, MA

Background: Although increases in e-cigarette use among youth and young adults have prompted greater research efforts to identify and characterize e-cigarette use patterns, Asian American, Native Hawaiian, and Pacific Islanders (AANHPI) remain an understudied population.

Methods: Data were obtained from the Monitoring the Future (MTF) study, which includes a random, probability-based sample of 8th, 10th, and 12th grade students surveyed annually across the contiguous United States. The final analytic sample (N=43,964) included respondents who provided information on race/ethnicity and e-cigarette use behaviors. E-cigarette use measures included current use (on 1+ of past 30 days) and more regular use (on 10+ of past 30 days). Differences in sociodemographic and e-cigarette use measures by race/ethnicity group were compared using chi-square tests.

Results: Of the analytic sample, approximately 5% identified as AANHPI. Among those, 11.7% (n=254) reported current e-cigarette use and 4.9% (n=111) of indicating more regular use. A greater proportion of AANHPI respondents indicated current and more regular e-cigarette use, relative to Black respondents (8.7%, 2.5%). In addition, the proportion of Latino respondents who reported more regular use (4.3%) was lower, relative to AANHPI respondents. The proportions of White respondents who reported current (24.6%) and more regular (11.3%) e-cigarette use exceeded all other race/ethnicity subgroups.

Conclusions: A considerable number of AANHPI youth and young adults report current use of e-cigarettes. Future studies should continue to examine vaping behaviors among AANHPI especially given the recent rise in racism-related stress experienced by this underrepresented population.

CORRESPONDING AUTHOR: Elizabeth K. Do, PhD, MPH, Truth Initiative, Washington, DC; edo@truthinitiative.org

3:20 PM – 3:26 PM

Abstract citation ID: kaad011.0536

EXAMINING AN ONLINE CURRICULUM FOR VAPING PREVENTION AMONG YOUTH: VAPING-KNOW THE TRUTH

Elizabeth C. Hair, PhD[1], Shreya Tulsiani, MPH[1], Madeleine Aseltine[1], Rebecca Lien, MPH[2], Daniel Zapp, PhD[3], Molly Green, MPH[1], Donna C. Vallone, PhD, MPH[1]

[1]Truth Initiative, Washington, DC; [2]Professional Data Analysts, Minneapolis, MN; [3]EVERFI, Washington, DC

Background: High usage rates of e-cigarettes among youth are concerning given the health risks associated with e-cigarette use and nicotine addiction. Increasing knowledge of empirical-based evidence regarding the harms of e-cigarette use is an important step toward preventing use. The objective of this study was to assess the impact of an anti-vaping curriculum implemented in schools by examining shifts in targeted e-cigarette knowledge items.

Methods: *Vaping: Know the Truth* (VKT) is a free, online curriculum that uses a peer-to-peer approach to provide educational content to middle and high school students around the nation. The curriculum consists of four modules: “KNOW” has a brief history of tobacco use and nicotine, “UNCOVER” discusses the industry’s marketing tactics and risks associated with product use, “OVERCOME” challenges learners to consider the consequences of nicotine addiction and outlines how to quit, “CHANGE” examines how e-cigarette use contradicts positive social norms. The curriculum was assigned by teachers as either an in-class or take-home assignment.

The evaluation of the VKT curriculum had a sample of 103,522 students in grades 7-12, who completed at least 75% of all four modules. Each module had pre- and post-assessments. The predictor variable was the quartile of pre-module assessment scores. The outcome measure (“change score”) was calculated as the change in the number of correct responses from the pre- to post-module assessments. Linear regression was performed to test the association between pre-module assessment quartile and the mean change score.

Results: Students answered more than three additional questions correctly after the intervention (mean=3.24 points; SD:3.54). Students in all four quartiles showed an increase in knowledge, and the students with the lowest baseline knowledge (lowest quartile of pre-module assessment) showed the largest increase in the change score as compared to students with the highest baseline knowledge (β=5.84, SE=0.03).

Conclusion: Findings support that the VKT curriculum is an effective resource for increasing knowledge among youth about the harms associated with e-cigarette use. Further research is needed to evaluate the effects of the intervention on behavioral outcomes.

CORRESPONDING AUTHOR: Elizabeth C. Hair, PhD, Truth Initiative, Washington, DC; ehair@truthinitiative.org

3:26 PM – 3:32 PM

Abstract citation ID: kaad011.0537

EXAMINING PATHWAYS TO PREVENTION AFTER EXPOSURE OF THE TRUTH® ANTI-VAPING CAMPAIGN AMONG YOUTH AND YOUNG ADULTS

Elizabeth C. Hair, PhD[1], Jennifer M. Kreslake, PhD, MPH[1], Shreya Tulsiani, MPH[1], Shiyang Liu, MS[1], Donna C. Vallone, PhD, MPH[1]

[1]Truth Initiative, Washington, DC

Background: There have been mass media campaigns that focused on e-cigarette use prevention among youth and young adults since 2018, often to counter the perception of its normalization. Although there have been studies demonstrating a causal association between anti-smoking campaign exposure and reduced cigarette use, there have yet to be evaluation studies showing causality for anti-vaping campaigns. Thus, the objective of this study was to examine the pathway by which awareness of the truth® campaign influences e-cigarette use among youth and young adults.

Methods: The sample (N=4,769) consisted of 15-24-year-olds from the Truth Longitudinal Cohort (TLC), a probability-based, nationally representative survey. We used three waves of the TLC in our analysis: Wave 1: September 2020 – March 2021; Wave 2: July – October 2021; Wave 3: January – May 2022. All participants were nicotine naïve at baseline. We used latent growth structural equation modeling to examine the pathway starting from cumulative ad awareness to campaign-targeted attitudes, including perceived risk of harm, anti-e-cigarette industry sentiment, desire for independence from addiction, affinity for groups that reject vaping, and perceived social norms. The hypothesized pathway continued from attitudes to frequency of e-cigarette use.

Results: There was no significant effect seen in the direct pathway from ad awareness to e-cigarette use frequency. However, the overall indirect pathway showed that greater ad awareness leads to lower frequency of e-cigarette use ($B = -.02$, $P < 0.001$). Ad awareness was significantly associated with stronger campaign-aligned attitudes, and each attitude was significantly associated with increased perceptions of social disapproval of e-cigarette use. Finally, increased perceptions of social norm disapproval resulted in a slower progression toward e-cigarette use ($B = -.32$, $P < 0.001$).

Conclusion: Findings support that the causal pathway follows awareness of the truth® anti-vaping campaign to campaign-targeted attitudes, where perceived social norms were found to be a standalone step. The result is slowed progression of e-cigarette use. This novel study has implications for informing effective anti-e-cigarette campaigns.

CORRESPONDING AUTHOR: Elizabeth C. Hair, PhD, Truth Initiative, Washington, DC; ehair@truthinitiative.org

3:32 PM – 3:38 PM

Abstract citation ID: kaad011.0538

MEASURING EVER TOBACCO USE AMONG GENDER DIVERSE INDIVIDUALS USING A NATIONAL SAMPLE, 2021

Elexis C. Kierstead, MPH[1], Shiyang Liu, MS[1], Jennifer M. Kreslake, PhD, MPH[1], Elizabeth C. Hair, PhD[1]

[1]Truth Initiative, Washington, DC

Background: Gender diverse individuals (i.e. not cisgender) have disproportionately high rates of tobacco use compared to their cisgender peers. This analysis characterizes the gender diverse population using national survey data and examines tobacco use among this heterogeneous population.

Methods: This cross-sectional analysis uses data from one wave of a national probability-based cohort survey fielded July-October 2021 (n=6122). Participants provided their sex assigned at birth using dichotomous response options (male, female) and then were asked to provide their gender identity with the response options: male, female, transgender, non-binary, or a different identity they specified. Response options for gender identity were multi-select. For this analysis, any individual with different responses for sex and gender were considered gender diverse. Participants were asked if they had ever used cigarettes, e-cigarettes, cigars or cigarillos, smokeless tobacco, or hookah in their lifetime. Descriptive analyses were conducted examining gender diverse categorization and tobacco use.

Results: A total of n=216 gender diverse individuals (3.53% of total sample) were identified including n=56 (25.9% of gender diverse sample) who self-identified as transgender and n=124 (57.4%) who self-identified as non-binary. Nineteen individuals (8.8%) specified another identity. Two identities were written-in more than once, including gender-fluid (n=7) and agender (n=3). There were n=52 individuals (24.1%) who reported different responses for sex and gender on the male/female binary, but did not select another identity (i.e. transgender, non-binary etc.). These participants were also considered transgender. Among all gender diverse individuals, 54.2% (n=117) had ever used a tobacco product where 49.6% (n=1263) of cisgender male and 50.3% of cisgender female participants (n=1687) had ever used tobacco. Among non-binary individuals, 58.9% (n=73) ever used tobacco and among transgender participants, ever tobacco use is measured at 46.3% (n=50).

Significance: Providing a variety of ways in which individuals can self-identify allows us to capture a more holistic view of the community, and therefore better measure health behaviors amongst this population. This work emphasizes the continued importance of tobacco use prevention among gender diverse youth, particularly among non-binary identifying individuals.

CORRESPONDING AUTHOR: Elexis C. Kierstead, MPH, Truth Initiative, Washington, DC; lkierstead@truthinitiative.org

3:38 PM – 3:44 PM

Abstract citation ID: kaad011.0539

SUBSTANCE CO-USE AMONG ADOLESCENTS AND YOUNG ADULT TOBACCO USERS WITH AND WITHOUT A CANCER HISTORY

Elizabeth Siembida, PhD, MPH[1], Brittney Greene, BA[2], Eun Jeong Oh, PhD[3], Melissa Basile, PhD[1], Kara P. Wiseman, MPH, PhD[4], Michael A. Diefenbach, PhD, FSBM[3], Catherine M. Alfano, PhD[5]

[1]Northwell Health, Manhasset, NY; [2]University at Buffalo, SUNY, Brooklyn, NY; [3]Northwell Health, New York, NY; [4]University of Virginia, Charlottesville, VA; [5]Northwell Health, Washington, DC

Background: About 38% of adolescent and young adult (AYA; diagnosed ages 15-39) cancer survivors use tobacco. No research has explored the co-use of tobacco and other substances among AYA survivors, despite evidence suggesting that co-use reduces tobacco cessation rates. We describe the prevalence of tobacco + one other substance co-use among AYA survivors and their peers. We tested associations between co-use, depression, and nicotine dependence among survivors.

Methods: We analyzed data from the 2015-2019 National Survey on Drug Use and Health surveys (N=733 survivors; N=26,530 peers; ages 16-34). We determined the prevalence of tobacco (cigarettes, cigars, or smokeless tobacco), alcohol, cannabis, illicit drug use, and co-use in the past 30 days overall and among tobacco users. We compared the prevalence rates between survivors and their peers using second-order Rao-Scott chi-square tests to account for survey weights ($p< .05$). We tested the association between co-use and major depression and nicotine dependence (measured via Nicotine Dependence Syndrome Scale) among survivors who use tobacco (second-order Rao-Scott chi-square test; $p< .05$).

Results: Prevalence of past month substance use were similar between survivors and their peers for tobacco (30% vs. 29%), cannabis (18% vs. 19%), and illicit drugs (7% vs. 7%). Survivors were significantly more likely to report past month alcohol use than their peers (65% vs. 57%, $p< .001$). Among tobacco users, survivors and their peers had similar past-month prevalence of tobacco + alcohol (66% vs.71%) and tobacco + illicit drugs (14% vs. 16%). AYA survivors were significantly less likely than their peers to report tobacco + cannabis use (29% vs. 39%; $p=.02$). Among survivors who use tobacco, 33% were nicotine dependent and 25% had a major depressive episode in the past year. Tobacco + alcohol co-users had a lower prevalence of nicotine dependence than tobacco-only users (24% vs. 50%; $p< .001$). Tobacco + illicit drug co-users had a higher prevalence of a major depressive episode than tobacco-only users (44% vs. 22%; $p=.04$).

Conclusions: Our study is the first to report the high prevalence of co-use among AYA survivors who use tobacco, and found that nicotine dependence and major depression varied by co-use patterns. Tobacco use represents a significant problem among survivors already at high risk for poor outcomes, and these results highlight the importance of considering co-use of other substances when developing interventions.

CORRESPONDING AUTHOR: Elizabeth Siembida, PhD, MPH, Northwell Health, Manhasset, NY; esiembida@northwell.edu

3:44 PM – 3:50 PM

Abstract citation ID: kaad011.0540

UNDERSTANDING REASONS FOR REFUSAL OF TOBACCO TREATMENT REFERRALS AMONG CANCER PATIENTS WHO SMOKE

Gleneara E. Bates-Pappas, LMSW, PhD(c)[1], Jamie S. Ostroff, PhD[2], Michelle L. Lui, MPH[3], Lou-Anne Chichester, MPH[2], Chris Kotsen, PsyD[3], lisa Carter-Bawa, PhD, APRN, ANP-C, FAAN[3], Charles Whitlock, RN, NP, APP[3], Maureen O'Brien, RN[3]

[1]Memorial Sloan Kettering Cancer Center, New York,, NY; [2]Memorial Sloan Kettering Cancer Center, New York, NY; [3]MSKCC, New York, NY

Background: For patients diagnosed with cancer, quitting smoking increases long-term survival, reduces treatment complications, optimizes cancer outcomes, and improves quality of life. Despite the risks of continued smoking following a cancer diagnosis, patients with cancer who smoke might not be ready to quit. This study describes the rates of refusal and reasons for refusal self-reported by patients who currently smoke and receive a tobacco treatment referral.

Methods: Memorial Sloan Kettering Cancer Center has adopted universal screening and standardized opt-out treatment referral practices for patients reporting current tobacco use. To evaluate the reach of an embedded tobacco treatment clinical pathway, a univariate descriptive analysis of patient refusal rates and self-reported reasons for referral refusal was conducted. The sample included all patients who were diagnosed with cancer and are undergoing treatment between January 2021–December 2021 (N=95,356).

Results: Among the total number of patients screened for tobacco use, 2,449 were referred to the TTP of those 977 (39.8%) accepted a tobacco treatment referral. Twenty-eight percent (n=693) of current tobacco users actively declined a tobacco treatment referral, and (31.8%; n=779) were non-responders or passive refusers. Among active and passive refusers 55.8% (n=387) had a tobacco-related cancer (TRC), and 44.1% (n=306) had a non-tobacco-related cancer (NTRC). Of those who actively declined (refusers) the tobacco treatment referral, 35.9% (n=249) reported not being interested, 25.3% (n=176) not ready to quit, and 16.7% (n=116) wanting to quit on their own. Fifty-eight percent (n=145) of patients with a TRC reported not being interested, and 57.3% (n=101) not ready to quit. Forty-seven percent (n=104) of patients with a NTRC reported not being interested, and 40.9% (n=72) not ready to quit. Neither race and ethnicity, relationship status, sex, or age were associated with reasons for declining.

Conclusion: These findings demonstrate the potential benefit of implementing a systems-level strategy (universal tobacco use screening and opt-out treatment referral) for achieving equity and inclusion in patient engagement in tobacco treatment. The next step is to develop a better understanding of patient reasons for tobacco treatment refusal and identify multi-level targeted strategies for improving patient engagement and providing personalized interventions.

CORRESPONDING AUTHOR: Gleneara E. Bates-Pappas, LMSW, PhD(c), Memorial Sloan Kettering Cancer Center, New York,, NY; batespag@mskcc.org

Thursday
April 27th, 2023
5:00 PM – 5:50 PM
Poster Session C

Abstract citation ID: kaad011.0541

POSTER SESSION C: NEEDS ASSESSMENT TO INFORM THE DESIGN OF A TECHNOLOGY INTERVENTION TO SUPPORT ADRD CAREGIVER-ASSISTED MEDICATION MANAGEMENT

Kristen Allen-Watts, MPH, PhD[1], Priya Loganathar, MS[2], Anna Linden, MS[3], Richard Holden, PhD, MS[4], Nicole Werner, PhD, MS[4]

[1]Indiana University Bloomington, Bloomington, AL; [2]University of Wisconsin-Madison, Madison, WI; [3]University of Madison-Wisconsin, Madison, WI; [4]Indiana University Bloomington, Bloomington, IN

Background: A majority of the 15.9 million informal (family and friend) caregivers for people living with Alzheimer's disease and related dementias (ADRD) help manage medications. However, caregiver-assisted medication management (CAMM) is often associated with suboptimal outcomes such as caregiver burden and non adherence. Interventions are needed, but available interventions do not address ADRD caregivers' roles in managing medications for people with ADRD and do not leverage information technology (IT). IT interventions have promise to support CAMM but must be built upon a solid empirical record. However, the literature lacks formal, systematic analyses of the needs and current practices of CAMM.

This precludes evidence-based interventions and risks interventions that are not user-centered, resulting in caregiver non-adoption, non-acceptance, and non-use of even the most technically advanced IT. Therefore, a deep understanding of CAMM activities and the associated challenges and strategies is warranted to inform IT Intervention design.

Methods: We conducted a qualitative research design using a user-centered design method, virtual contextual inquiry (VCI), which combines virtual observation and interview. VCI includes 3 stages: 1) enrollment interview, 2) virtual observation, and 3) post-observation interview. The virtual observation asked participants to send at least two multimedia messages (e.g., images, videos) of CAMM activities performed that day for 7 days. We conducted team-based content analysis of interview transcripts supplemented by multimedia to identify CAMM activities, challenges, and strategies.

Results: Twenty-five ADRD caregivers participated. The mean age was 76.68 years (SD = 11.13), 48% were female, and 92% identified as White. We identified 6 overarching categories of CAMM activities: medication acquisition, medication storage and organization, medication administration, symptom monitoring, communication, and coordination (i.e., with clinicians and other informal caregivers), and medication information management. We also identified the challenges and strategies associated within each of the CAMM activities. Challenges included lack of systems to communicate and coordinate among many clinicians and caregivers

Discussion: Understanding unique CAMM needs can inform the design of IT interventions that respond to the needs of a range of users without directly or indirectly incurring the costs associated with clinician-intensive treatments.

CORRESPONDING AUTHOR: Kristen Allen-Watts, MPH, PhD, Indiana University Bloomington, Bloomington, AL; krallenw@iu.edu

Abstract citation ID: kaad011.0542

POSTER SESSION C: IMPROVING EARLY DETECTION THROUGH MEASUREMENT OF PRECLINICAL MARKERS OF DEMENTIA

Ashley M. Berns, MA, MS[1], Eliezer Schwartz, PhD[2], Paul MIchael, PhD[2]

[1]Pacific University, School Graduate Psychology, Newark, DE; [2]Pacific University, School of Graduate Psychology, Hillsboro, OR

Background Information: Neuropsychological testing is recognized as an important component of the diagnostic work-up for both Mild Cognitive Impairment (MCI) and Alzheimer's Disease (AD). Longitudinal research into the preclinical stages of AD and associated changes in test performance is needed to inform best practices for routine screening in medical settings. This study examined longitudinal differences in test performance on tasks involving object recognition, and semantic and phonemic verbal fluency.

Methods: Study participants were selected from data collected by the Layton Ageing and Alzheimer's Disease Center. The sample included healthy controls, individuals with a diagnosis of MCI, and those with a diagnosis of AD. Study participants were selected based on diagnosis, age at first visit, and the amount of neuropsychological test administrations (N = 1,050; 63.2% male; 87.3% Caucasian).

Results: Regression analyses identified multiple significant effects. Age at first visit ($p < .001$), MMSE score ($p < .001$), performance on block design ($p < .001$), category ($p = .001$) and letter ($p = .006$) fluency were all statistically significant in differentiating between a healthy control vs. an individual with a diagnosis of MCI. Whereas, when differentiating between individuals with a diagnosis of MCI vs. AD, age at first visit ($p < .001$), MMSE score ($p < .001$), performance on picture completion ($p < .001$) and category fluency ($p < .001$) were all statistically significant. Performance on block design was approaching significance ($p = .056$).

Discussions: The present findings support including visuospatial processing and recognition tasks in addition to semantic and phonemic fluency tasks to aid in early identification of AD and in discriminating AD from MCI as well as healthy individuals. Visuospatial processing and object recognition was a stronger predictor of having a diagnosis of AD over MCI than phonemic verbal fluency.

Clinical Implications: Screening tools that focus on assessing language-based and object recognition/discrimination abilities during the prodromal stages of AD can be used in a variety of medical settings and have the potential to improve early detection and afford the opportunity for early intervention for the patients most in need.

CORRESPONDING AUTHOR: Ashley M. Berns, MA, MS, Pacific University, School Graduate Psychology, Newark, DE; bern6394@pacificu.edu

Abstract citation ID: kaad011.0543

POSTER SESSION C: PROSPECTIVE MEMORY AND EXECUTIVE FUNCTIONING IN OLDER ADULTS WITH AND WITHOUT DIABETES

Jenny A. Lagervall, BA[1], Leilani Feliciano, PhD[2]

[1]University of Colorado Colorado Springs, Oceanside, CA; [2]University of Colorado Colorado Springs, Colorado Springs, CO

Diabetes affects approximately 29% of Americans 65 years and older and is the 7th leading cause of death in the United States. Older adults are at both a higher risk for developing T2DM and are more likely to suffer complications related to the disease. However, proper glucose management in those with a diabetes diagnosis may delay or even prevent the development of complications such as diabetes related cognitive decline. Yet, proper glucose management is poor in the diabetic community. Thus, it is vital to explore barriers to proper diabetes management. Research suggests that one barrier to proper adherence to glucose regulating behavior may be cognitive changes related to aging and diabetes-related vascular changes. The current study examines several aspects of cognition, specifically prospective memory (PM) and executive functioning (EF) which are thought to be critical in diabetes management/adherence. In addition, the possibility that the length of diagnosis or the quality of glycemic control relate to PM and EF were also evaluated. The sample included 34 community dwelling older adults with (*N*= 22) and without impaired glucose tolerance (*N*= 12) who engaged in several assessments evaluating overall cognition, depression, EF, and several aspects of PM. Independent samples t-tests indicated that the impaired glucose group performed as well as the control group on PM and across all EF measures. Regression analyses showed that the WCST was the only measure to be predictive of performance, and only of PM with a long delay. A set of one-way ANOVAS revealed no significant difference in EF and PM performance when examining length of diagnosis. However, those with poor glycemic control performed worse on the SLUMS and the Raven compared to those with good glycemic control. Results were not in line with our predictions, which may be related to a small sample size and specific sample characteristics such high education, low levels of disease severity, and type of glucose management methods. More research is needed to elucidate the extent that aspects of glucose intolerance (e.g., disease severity) relate to deficits in PM and EF.

CORRESPONDING AUTHOR: Jenny A. Lagervall, BA, University of Colorado Colorado Springs, Oceanside, CA; jlagerva@uccs.edu

---

Abstract citation ID: kaad011.0544

POSTER SESSION C: PROSTATE CANCER PATIENT EXPERIENCES WITH GERMLINE GENETIC TESTING: A QUALITATIVE STUDY

Christine Gunn, MA, PhD[1], Stephanie Loo, MS[2], Kimberly Zayhowski, MS[3], Gretchen A. Gignac, MD[3], Catharine Wang, PhD[2]

[1]Dartmouth College Geisel School of Medicine, Lebanon, NH; [2]Boston University School of Public Health, Boston, MA; [3]Boston University Chobanian & Avedisian School of Medicine, Graduate Medical Sciences, Boston, MA

Purpose: Prostate cancer guidelines recommending genetic testing expanded eligibility criteria in 2018, increasing the availability of this technology that can guide patient treatment decision-making. Understanding patients' experiences with and decision-making about undergoing genetic testing is important, particularly when seeking to address individual, inter-personal, systemic or structural barriers towards genetic testing. We conducted a qualitative study to understand prostate cancer patient experiences in making decisions about genetic testing in a safety-net hospital setting.

Methods: Qualitative interviews were conducted with adult English, Spanish, and Haitian-speaking prostate cancer patients who were referred to genetic counseling in the past 12 months. Participants were invited via mailed letters and telephone. Semi-structured telephone interviews focused on participants' experience with and decision-making about genetic counseling and testing following referral. Audio recordings of interviews were professionally transcribed. An inductive thematic analysis generated themes arising from interview transcripts. Themes were reviewed and finalized by the full study team to ensure credibility of the findings.

Results: Twenty-seven individuals were interviewed (6 Spanish, 2 Haitian Creole, 19 English). Fifteen participants reported receiving genetic testing, 9 did not, 3 were unsure. Three themes emerged regarding prostate cancer patient decision-making around genetic testing. (1) Genetic counseling was often offered in the midst of treatment, which led participants to feel overwhelmed: "I got other issues on my mind, like how am I going to survive? No sense of tracing it back if you're trying to deal with staying alive". Some patients de-prioritized testing, expressing uncertainty about its purpose and role in treating their cancer. (2) Those who saw genetic counselors were satisfied with their discussions and found the testing easy to complete: "That was fast and very simple. Just take out the blood and and that's it." (3) There was little follow up communication to assist patients in understanding their genetic results. Participants were confused about how to interpret negative testing results and sought more support in the post-test period. Those with a family history of cancer were especially confused in interpreting negative testing results : "No, I don't have the genes that's what gets me. Three of my other relatives, have [cancer]... I don't have the gene, but they got it. They got cancer."

Conclusions: Understanding how to support informed decisions about prostate cancer genetic testing is important in providing high quality cancer care. Patients in our study revealed pre- and post-testing communication gaps that appeared to create misperceptions about genetic risk and limited engagement in genetics services.

CORRESPONDING AUTHOR: Christine Gunn, MA, PhD, Dartmouth College Geisel School of Medicine, Lebanon, NH; Christine.M.Gunn@dartmouth.edu

Abstract citation ID: kaad011.0545

POSTER SESSION C: USING SYSTEMATIC AND PARTICIPATORY APPROACHES TO TRANSCREATE EVIDENCE-BASED INTERVENTIONS FOR LATINA CANCER SURVIVORS

Dinorah Martinez Tyson, PhD[1], Gabriella Sanabria, MEd[1], Marangelie Velez, MA[2], Erik L. Ruiz, MPH[1], Viviam Sifontes, ITDS, MEd, MPA[3], Rafael Fuentes, PhD[4], Melody N. Chavez, MPH[1], Sejal Barden, PhD[2], Brian D. Doss, PhD[5]

[1]University of South Florida, Tampa, FL; [2]University of Central Florida, Orlando, FL; [3]LUNA Inc, Tampa, FL; [4]HCC, Tampa, FL; [5]University of Miami, Coral Gables, FL

Background: There is a need to adapt evidence-based interventions for diverse and marginalized populations. Cancer has a profound impact on Latino couples and their relationship. It is a topic not typically addressed by providers. Latino couples are less likely to enroll in couple-based psychosocial interventions for breast cancer survivors and their partners despite their demonstrated impacts on quality of life, emotional and functional adjustment, and treatment outcomes. Currently, there are no dyadic interventions tailored for Latino cancer survivors and their intimate partners. This presentation highlights the processes used to culturally adapt and transcreate a widely available and effective online couple intervention, OurRelationship (ORI), for Latina breast cancer survivors (LBCS) and their intimate partners (IP).

Methods: To adapt the ORI for Latina breast cancer patients and their partners, we used community-engaged, participatory, and qualitative methodologies. Drawing on rapid analysis techniques we analyzed data from three focus groups and seven in-depth interviews with LBCS and IP, literature review, as well as five group discussions with the study's community advisory board and key stakeholders. Our process to make the modifications to ORI were systematic, iterative, and collaborative.

Results: Data collected revealed the adaptations that needed to be made to produce a patient-centered bilingual Spanish and English-language intervention. In the cultural adaptation process we balanced the tension between fidelity and fit to transcreate the intervention now called *Juntos Despues del Cancer* (Together After Cancer). We were able to capture and integrate the cancer survivorship context, Hispanic cultural nuances, and language considerations that focused on conceptual translation of intervention materials.

Conclusion: Our adaption process illustrates the value having an interdisciplinary team, and participatory patient-centered approaches. We ensured that Juntos Despues del Cancer is culturally salient yet maintains theoretical integrity to the original program. Integral to the process was community and patient engagement, flexibility, and the use of systematic processes.

Future Research Implication: Cultural adaptation of existing evidence-based interventions that were not developed with multicultural populations is essential to address health disparities and bridge the science to delivery gap. Our findings have broad implications that can improve practice and translate interventions to make them accessible to a wider and more diverse audience.

CORRESPONDING AUTHOR: Dinorah Martinez Tyson, PhD, University of South Florida, Tampa, FL; dmtyson@usf.edu

---

Abstract citation ID: kaad011.0546

POSTER SESSION C: PRELIMINARY EXAMINATION OF THE INJUSTICE EXPERIENCE QUESTIONNAIRE IN PATIENTS WITH ADVANCED CANCER

Stella Snyder, MS[1], Ekin Secinti, PhD[2], Wei Wu, PhD[1], Catherine E. Mosher, PhD[1]

[1]Indiana University-Purdue University Indianapolis, Indianapolis, IN; [2]Eli Lilly and Company, Indianapolis, IN

Patients with advanced cancer may assess their diagnosis as unjust due to their high symptom burden, loss of work and social roles, and poor prognosis. Perceived injustice refers to negative appraisals of blame, unfairness, and severity/irreparability of the loss. The Injustice Experience Questionnaire (IEQ) has been used to examine perceived injustice in patients with chronic pain, but a measure of cancer-related perceived injustice has not yet been validated. Greater pain-related injustice has been associated with higher levels of physical and psychological symptoms, and cancer-related injustice may have similar associations with symptoms. For this study, we examined the psychometric properties of the IEQ among patients with advanced lung and prostate cancers.

Patients with advanced lung (N=102) and prostate cancer (N=99) were recruited from academic and public clinics in Indianapolis, IN. Patients completed the 12-item IEQ with modified instructions to focus on cancer-related injustice and other psychological and symptom measures. Dimensionality of the IEQ was examined using confirmatory factor analysis (CFA). Internal consistency reliability and construct validity also were examined.

The majority of patients were non-Hispanic White (85%) and male (72%), with an average age of 67 years (SD=10). On average, patients had been diagnosed with advanced cancer 3 years ago (SD=2.71), and most were undergoing treatment at the time of the study (62%). Over half reported a former or current smoking history (62%), and, irrespective of cancer type, smoking status was unrelated to IEQ scores. The IEQ consisted of two correlated factors, Severity/irreparability and Blame/unfairness, for which the CFA demonstrated an adequate fit (RMSEA=0.07, CFI=0.96, SRMR=0.05). Internal consistency for the IEQ total score was excellent (α=0.92, ω=0.94). As expected, the IEQ showed significant positive associations with physical and psychological symptoms (rs=0.20-0.65, ps< 0.05) as well as significant negative associations with quality of life and acceptance of cancer (rs=-0.51–0.46, ps< 0.05).

Findings provide initial reliability and validity evidence for using the IEQ with patients with advanced cancer. Further research is needed to evaluate the IEQ in medically and culturally diverse samples and its sensitivity to change within an interventional context.

CORRESPONDING AUTHOR: Stella Snyder, MS, Indiana University-Purdue University Indianapolis, Indianapolis, IN; stelsnyd@iu.edu

Abstract citation ID: kaad011.0547

POSTER SESSION C: A PILOT RANDOMIZED CONTROLLED TRIAL OF SMOKING CESSATION INDUCTION TREATMENT FOR RURAL, UNDERSERVED CANCER SURVIVORS

Jessica Burris, PhD[1], William Bowling, MS[1]

[1]University of Kentucky, Lexington, KY

The United States' smoking prevalence has decreased substantially, but this public health improvement is unevenly distributed across the population. A promising individual-level approach to cancer control equity is to develop more acceptable and efficacious interventions that are widely disseminated to rural and other disadvantaged cancer survivors. Smoking cessation induction focuses not on long-term abstinence, but on engaging people in the process of making quit attempts and may be ideal for hard-to-reach populations. The aim of this pilot randomized controlled trial was to evaluate the feasibility and acceptability of a smoking cessation induction intervention designed for rural cancer survivors. The treatment group received a free, 2-week supply of nicotine replacement therapy and brief advice pertinent to smoking cessation and resources for unmet needs; the control group received no medication. Participants (n=49; 51.0% male) were proactively recruited and procedures were accomplished via mail or phone. Data collection occurred pre-intervention (Day 0) with Days 30 and 60 follow-up. The accrual rate for the primary recruitment source (specifically, cancer registry) was 66.7%. Retention was 75.0% and 72.0% for the treatment and control groups. Across follow-up, the treatment group reported intention and confidence to quit (ps=.24-.55) and instances of 50% smoking reduction (p=.15) that were similar to the control group, though they reported more 24-hour quit attempts (p=.02). Treatment acceptability ratings were favorable; no serious adverse events reported. Future studies should consider alternative community-based recruitment strategies and interventions with greater intensity and more interaction to bolster and sustain early gains in motivation and behavior change.

CORRESPONDING AUTHOR: William Bowling, MS, University of Kentucky, Lexington, KY; wrbo224@uky.edu

---

Abstract citation ID: kaad011.0548

POSTER SESSION C: MODERATORS OF TREATMENT EFFICACY IN AN RCT FOR YOUNGER BREAST CANCER SURVIVORS WITH ELEVATED LEVELS OF DEPRESSIVE SYMPTOMS

J Richard T. Korecki, BS[1], Patricia A. Ganz, MD[2], Ann H. Partridge, MD, MPH[3], Antonio C. Wolff, MD[4], Julienne E. Bower, PhD[1]

[1]University of California, Los Angeles, Los Angeles, CA; [2]David Geffen School of Medicine/Fielding School of Public Health, Los Angeles, CA; [3]Dana-Farber Cancer Institute, Boston, MA; [4]Johns Hopkins Kimmel Comprehensive Cancer Center, Los Angeles, CA

Background: Younger breast cancer survivors (BCS) are at elevated risk for depression, compromising their long-term health and well-being. The Pathways to Wellness (PTW) trial tested two interventions for younger BCS, survivorship education (SE) and Mindful Awareness Practices (MAPs). Both led to significant reductions in depressive symptoms relative to waitlist control (WLC). Here, we examined potential moderators of intervention effects, including pre-intervention distress, early life adversity (ELA), and preparedness for survivorship. We hypothesized that women moderately distressed at baseline would have better outcomes in both intervention groups, women with higher levels of ELA would benefit more in MAPs vs. WLC, and women who were less prepared would benefit more in SE vs. WLC.

Methods: 247 women diagnosed with Stage 0-III breast cancer at or before age 50 who completed cancer treatment and had elevated depressive symptoms were randomly assigned to one of three conditions: MAPs, SE, or WLC. Moderators were assessed at baseline and included measures of psychological distress (CES-D, GAD-7), ELA (Risky Family Questionnaire), and preparedness for survivorship. Linear regression models tested the modifying effects of each variable on post-intervention CES-D in SE vs. WLC and MAPs vs. WLC.

Results: There was a significant CES-D^2 X Group interaction for SE, β = -0.03, p < 0.01, but not for MAPs, p = 0.82. Relative to WLC, women in SE with the highest baseline CES-D had the largest reductions in depressive symptoms at post-intervention. The GAD-7 X Group interaction was significant for SE, β = -0.64, p = 0.02, and marginal for MAPs, β = -0.49, p = 0.06. For both groups, those with the highest baseline anxiety had the largest reductions in depressive symptoms at post-intervention. The preparedness X Group interaction was significant for SE, β = 3.17, p = 0.02, but not MAPs, p = 0.45. In SE, women with the lowest preparedness had the largest reductions in depressive symptoms at post-intervention. The ELA X Group interaction was non-significant for both SE, p = 0.67, and MAPs, p = 0.41.

Conclusions: Findings suggest baseline levels of psychological distress and perceived preparedness moderate treatment outcomes in a cancer-focused psychoeducation intervention. The non-significant moderating effects in MAPs may suggest that MBIs benefit younger BCS regardless of their pre-treatment characteristics.

CORRESPONDING AUTHOR: J Richard T. Korecki, BS, University of California, Los Angeles, Los Angeles, CA; tkorecki@g.ucla.edu

Abstract citation ID: kaad011.0549

POSTER SESSION C: HEALTHCARE SELF-EFFICACY AND FAMILISM AMONG DIVERSE YOUNG ADULT CANCER SURVIVORS

Victoria E. Rodriguez, MSW, MPH[1], Karen Llave, MPH[1], Carol Y. Ochoa, PhD, MPH[2], Kimberly Miller, PhD, MPH[3], Joel Milam, PhD[1]

[1]University of California, Irvine, Irvine, CA; [2]University of California San Diego, Alhambra, CA; [3]University of Southern California, Los Angeles, CA

Purpose: Healthcare self-efficacy, the confidence to manage one's healthcare, is instrumental among young adults as they begin to independently navigate their healthcare. Familism, or the cultural significance of family, can act as both a facilitator and barrier for health behaviors and health outcomes. To date, research on familism among cancer survivors has largely focused on Hispanic/Latino populations leaving gaps in our understanding for other racial/ethnic groups. Thus, this study examined associations between familism and healthcare self-efficacy among young adult cancer survivors of childhood cancer and whether this relationship differs by race/ethnicity.

Methods: Data were from the Project Forward Cohort, a cancer registry-derived population-based study of young adult childhood cancer survivors diagnosed between 1996 and 2010 in Los Angeles County, California. This study included an analytic sample of 1,056 young adult cancer survivors aged 18-39. Descriptive statistics and linear regression models were conducted to examine the association between familism and healthcare self-efficacy after controlling for important sociodemographic factors. We then tested whether familism and healthcare self-efficacy differed by race/ethnicity.

Results: Overall, our sample included 1,056 young adult survivors of pediatric cancers who were 50.4% female, had a mean age of 26.2 (SD = 4.87), and a mean time of 14.5 years since diagnosis. 51.9% of our sample reported being Hispanic/Latino, followed by 29.2% non-Hispanic white, 9.6% Asian, and 9.4% other. In multivariable models, familism was statistically significantly associated with higher healthcare self-efficacy ($b = 0.07$, $p < 0.01$) after controlling for sex, age, race/ethnicity, socioeconomic status, living situation, and years since diagnosis. There were no significant differences by race/ethnicity in the association between familism and healthcare self-efficacy.

Conclusions: Our results demonstrate that in working towards building healthcare self-efficacy in young adult cancer survivors for successful self-management of care, clinicians should be aware of the role that the family can play in this process, regardless of the patient's race/ethnicity. Creating healthcare management strategies that consider and respect the family network may help facilitate the independent navigation of healthcare for this at-risk population.

CORRESPONDING AUTHOR: Victoria E. Rodriguez, MSW, MPH, University of California, Irvine, Irvine, CA; victorer@uci.edu

---

Abstract citation ID: kaad011.0550

POSTER SESSION C: PATTERNS OF DIET AND PHYSICAL ACTIVITY IN ADOLESCENT CANCER SURVIVORS

Madison Fertig, MA[1]

[1]Boston University, BAYSIDE, NY

Background: Around 85% of children aged 0-15 who are diagnosed with cancer will live at least five years post-cancer. Compared to the general population, survivors of childhood cancer are at greater risk for developing obesity-related chronic conditions and recurring or secondary cancers, which are influenced by diet and physical activity (PA). Given that adolescence is a unique developmental stage marked by health behavior experimentation, a more thorough understanding of diet and PA patterns among adolescent cancer survivors and their associations with relevant psychosocial variables is warranted.

Methods: Patterns of diet and physical activity in adolescent cancer survivors (n=128) were evaluated using the Youth Risk Behavior Surveillance System (YRBSS) questionnaire. Chi-square of independence tests were conducted to analyze the associations between sociodemographic variables and both diet/PA. Specific diet and PA questions were used to predict the level of risk for cancer and obesity-related chronic conditions via Latent Class Analysis (LCA). Relevant psychosocial variables (fear of cancer recurrence (FCR), cancer worry, perceived risk, and coping strategies) and the health risk groups were then analyzed.

Results: Receiving radiation was associated with having a medium-fat diet, not trying to lose weight through diet, and less strength-training exercise and receiving surgery was associated with less strength-training exercise. Two risk groups for each diet and PA, a low and high-risk group, were identified. Compared to the diet high-risk group, the low-risk diet group had greater perceived risk for a second malignancy, less perceived risk for cardiac issues, and higher FCR. Compared to the physical activity high-risk group, the physical activity low-risk group perceived less risk for cardiac problems, greater risk for pulmonary issues and fertility problems, and had lower FCR.

Conclusion: The results suggest that dietary/PA guidelines specific for young cancer survivors, cancer type, and treatment type are necessary for this population. Differences in perceived risk for relevant health concerns and FCR among the high and low risk groups indicate factors that may be influencing risk disparities such as, bodily complications and health knowledge. These results reveal the need for a health behavior intervention in this population to reduce the risk of the onset of secondary/recurring cancer and obesity-related chronic conditions.

CORRESPONDING AUTHOR: Madison Fertig, MA, Boston University, BAYSIDE, NY; madison.fertig@gmail.com

Abstract citation ID: kaad011.0551

POSTER SESSION C: COMMUNITY ENGAGED DEVELOPMENT & EVALUATION OF A CULTURALLY RELEVANT HPV VACCINATION INTERVENTION FOR AFRICAN AMERICAN PARENTS

Ariel Washington, PhD[1], Brittany Dowe, MPH[1], Jametta Lilly[2], Hayley Thompson, PhD[3]

[1]Wayne State University, Detroit, MI; [2]n/a, Detroit, MI; [3]Wayne State University - Karmanos Cancer Institute, Detroit, MI

Introduction: In the city of Detroit, MI, which is 78% African American (AfAm), 43.2% of adolescents ages 13-17 years have completed the HPV vaccine series, far below the goals Healthy People 2030 goal of 80%. Previous research focusing broadly on AfAm adolescents have identified lack of knowledge, mistrust, and concerns about vaccine safety as barriers, warranting culturally relevant intervention. The goal of this pilot study was to develop such an intervention to facilitate vaccine uptake.

Methods: Materials from an educational session developed by the National Cancer Institute's National Outreach Network (NON) (a PowerPoint presentation) were adapted by investigators in partnership with a community collaborator, Detroit Parent Network (DPN), resulting in Project ACE (Advocates for Cancer Education). Parents who participated in the intervention were invited to complete a pre-/post- test assessing vaccine-related knowledge, attitudes, and intention.

Results: Adaptations were based on recommendations of parents representing DPN over two semi-structured meetings. These included presentation of information through an in-person session co-led by parents; testimonials from parents about their decision to vaccinate; statistics on HPV and HPV-related cancers in Michigan and among AfAms; additional information on vaccine safety and vaccination guidelines; discussion of HPV vaccine rates in Michigan and Detroit; and HPV vaccine myths. However, due to the pandemic, this intervention was converted to a video presentation. To date, 51 parents (mean age= 44 years) have participated in the Project ACE video intervention (AfAm: 84.9%). At pre-test, 35% reported that all their age-eligible children were vaccinated and 37% reporting that none of their age-eligible children were vaccinated. Among a subset that completed all pre- and post-test knowledge items, an increase in knowledge was observed (pre: 74.3% correct; post: 80.9% correct). Among those who reported that not all their eligible children were vaccinated (n=33), 84.8% agreed or strongly agreed they were likely speak with their children's doctor about the vaccine and 63.6% agreed or strongly agreed that they were likely to have their children vaccinated.

Conclusion: Evaluation of Project ACE is ongoing. The current findings of this pilot project demonstrate the value of working with community partners in intervention development and evaluation to ensure that both culturally and locally relevant issues are addressed.

CORRESPONDING AUTHOR: Ariel Washington, PhD, Wayne State University, Detroit, MI; awashington@wayne.edu

---

Abstract citation ID: kaad011.0552

POSTER SESSION C: PERCEIVED BENEFIT AND PATIENT-REPORTED SYMPTOMS: A BEHAVIORAL SLEEP/CIRCADIAN INTERVENTION IN GYNECOLOGIC CANCER SURVIVORS

Julia S. Gaumond, BA[1], Abigail Crawford, BS, MA[1], Christine M. Rini, PhD[2], Jason C. Ong, PhD[3], Karen Kaiser, PhD[1], Phyllis Zee, MD, PhD[4], Sonia Ancoli-Israel, PhD[5], Sairam Parthasarathy, MD[6], Lisa Wu, PhD[7], Katherine Reid, PhD[4], Frank J. Penedo, PhD, FSBM[8], Edward Tanner, MD, MBA[1], Juned Siddique, DrPH[1], Terry Badger, PhD, RN, PMHCNS-BC, FAAN, FAPOS[9], Rina S. Fox, PhD, MPH[9]

[1]Northwestern University Feinberg School of Medicine, Chicago, IL; [2]Northwestern University, Chicago, IL; [3]Nox Health, Alpharetta, GA; [4]Northwestern Medicine Feinberg School of Medicine, Chicago, IL; [5]UCSD, La Jolla, CA; [6]University of Arizona College of Medicine, Tucson, AZ; [7]Aarhus University, Chicago, IL; [8]University of Miami, Miami, FL; [9]University of Arizona College of Nursing, Tucson, AZ

Background: Sleep disturbance is highly prevalent among gynecologic cancer survivors and associated with poorer quality of life. Although efficacious treatments for sleep disturbance are available, adherence is often poor, potentially due to low perceived treatment benefit. While previous studies have investigated patient satisfaction with behavioral sleep treatments, few have focused on perceived benefit. This study examined perceived treatment benefit and changes in patient-reported sleep symptoms among gynecologic cancer survivors completing a behavioral sleep/circadian intervention.

Methods: As part of an ongoing study, gynecologic cancer survivors (N=9) completed a 6-week behavioral sleep/circadian intervention comprised of stimulus control, sleep restriction, and systematic bright light exposure. At baseline and post-intervention, participants completed the PROMIS Sleep Disturbance (SD) 8-item short form, PROMIS Sleep-Related Impairment (SRI) 8-item short form, and Insomnia Severity Index. At post-intervention, participants rated the degree to which each treatment component improved their sleep from 1 (Not at all) to 5 (Very much). Respondents were classified as perceiving benefit if they rated at least one component ≥3 (Somewhat).

Results: Six participants (67%) perceived intervention benefit and three (33%) perceived little to no benefit. Of those who perceived benefit, 5 (83%) had improved ISI scores, 4 (67%) had improved PROMIS SD scores, and 3 (50%) had improved PROMIS SRI scores at post-intervention. Of those who did not perceive benefit, 2 (67%) had improved ISI and PROMIS SD scores and 0 (0%) had improved PROMIS SRI scores. Across participants, mean ISI scores improved 1.67 raw points, mean PROMIS SD scores improved 4.43 T-score points, and mean PROMIS SRI scores worsened 1.87 T-score points. Relative to those who perceived benefit, participants who reported little to no benefit demonstrated a slightly greater improvement in PROMIS SD scores (ΔM=5.07 vs. 4.12) and a notably greater worsening of PROMIS SRI scores (ΔM=4.20 vs. 0.48).

Discussion: Participants reported improved sleep symptoms regardless of perceived benefit, particularly regarding insomnia symptoms and nighttime sleep disturbance. Conversely, increased sleep-related impairment was more common among those who did not perceive treatment benefit. These preliminary results highlight the importance of considering daytime impairment when administering behavioral sleep/circadian treatments.

CORRESPONDING AUTHOR: Rina S. Fox, PhD, MPH, University of Arizona College of Nursing, Tucson, AZ; rsfox@arizona.edu

Abstract citation ID: kaad011.0553

POSTER SESSION C: WALKING THE TIGHTROPE OF LIFE AND DEATH: 'DOUBLE AWARENESS' IN PATIENTS RECEIVING OUTPATIENT PALLIATIVE CARE SERVICES

Kelcie D. Willis, MS[1], Mairead McConnell, PhD[2], David Finitsis, PhD[3], John De Figueiredo, MD[4], Dwain Fehon, PsyD[4]

[1]Virginia Commonwealth University, New Haven, CT; [2]Banner University Medical Center South, Tucson, AZ; [3]Yale University School of Medicine, Middletown, CT; [4]Yale University School of Medicine, New Haven, CT

Introduction: The role of palliative care in advanced cancer is to attend to both the quality of life and the quality of dying in patients at the end-of-life. One treatment target for existential psychotherapeutic intervention includes increasing patients' *double awareness*, or their "capacity to be engaged in the world while preparing for impending death." Though this construct is theorized to be important for psychological health, little is known about its prevalence and associated factors. The current study examines a novel, quantitative measure of double awareness, not yet available to the public, in a sample of palliative care outpatients.

Methods: Patients (N = 27, M_{age} = 65.23, 63% female) receiving outpatient palliative care services were recruited via phone/email at an NCI-designated Comprehensive Cancer Center. Cognitively intact patients (screened with the SOM-C) completed a battery of online psychosocial questionnaires, including the Double Awareness Scale (DAS). The DAS comprises of two subscales: Life Engagement (LE) and Death Contemplation (DC) and uses a 4-point Likert scale (1 = *rarely true to* 4 = *nearly always true*). After 8 items are reverse scored, the 10 items for each subscale are summed. High scores on both subscales reflect double awareness. The current study used reliability analyses, descriptive statistics, bivariate correlations, and ANOVAs to understand the prevalence and associated factors of double awareness.

Results: Internal consistency ratings for both LE (α = .91) and DC (α = .81) were excellent. The subscales were not significantly correlated (r = .36, p = .07). Most patients were slightly high in LE (M = 32.81, SD = 5.90) and DC (M = 29.16, SD = 6.42). Scores did not differ across any sociodemographic or medical characteristics, with the exception of the use of psychotropic medication. Patients not taking psychotropic medications demonstrated significantly greater LE (F(1,25) = 11.26, p = .003) and DC (F(1,24) = 10.42, p = .004).

Conclusions: This study provides preliminary data of an important latent variable ahead of the measure's publication. The correlation between psychotropic medication and both subscales of double awareness suggest that this measure may be related to other scales of psychological well-being. Improving our understanding of the process and profile of double awareness will invariably improve our ability to support patients living with advanced cancer. Data collection for this project is ongoing.

CORRESPONDING AUTHOR: Kelcie D. Willis, MS, Virginia Commonwealth University, New Haven, CT; williskd@vcu.edu

---

Abstract citation ID: kaad011.0554

POSTER SESSION C: PREVIVORS' PERSPECTIVES ON POPULATION-BASED GENETIC SCREENING IN THE PRIMARY CARE SETTING

Faith Beers[1], Tesla Theoryn, MEd[2], DaLaina M. Cameron[3], Emerson J. Dusic, MPH[1], Catharine Wang, PhD[4], Deborah J. Bowen, PhD[1], Elizabeth Swisher, MD[5]

[1]University of Washington, Seattle, WA; [2]University of Washington, Shoreline, WA; [3]University of Washintgon, Seattle, WA; [4]Boston University School of Public Health, Boston, MA; [5]University of Washington Medical Center, Seattle, WA

Genetic testing is a critical part of cancer prevention and preparedness. For those who have a pathogenic variant associated with an increased risk of cancer (previvors), there are significant implications for both the patient and the provider. Previous studies around the experiences of previvors have been limited primarily to those with BRCA1/2-associated variants. The Early Detection of GEnetic Risk (EDGE) Study is a clinical implementation study that facilitated genetic testing (n = 1,010) after identifying eligible patients through a population-based screening tool. Semi-structured interviews were conducted with previvors six to nine months after receiving their results. Participants were asked about their feelings receiving results, communicating results, and their plans moving forward. To date, 13 interviews have been completed. We have identified previvors of eight different cancers, using a panel of 29 genes. The average age of participants was 61 years old, with four identifying as male and nine as female. Five participants reported a personal cancer history. Genetic variants identified consisted of *MUTYH, CHEK2, BRCA1, BRCA2, PMS2, MSH6*, and *ATM*. Previvors were not entirely surprised by their test results, but more than two-thirds were generally interested in exploring them. Interestingly, more than one-third expressed associating no specific feelings with receiving results of a pathogenic variant. Of those that did experience an emotional reaction, roughly a quarter felt anxious, and just under half were concerned for family members who may also carry the pathogenic variant. Nine patients had met with a provider, one had plans to meet with a provider, and three did not plan on meeting with a provider. Those who met with providers noted that meeting with providers eased their initial anxiety and uncertainty as they received more information about the implications of their results. Those who did not considered it irrelevant due to age or prior cancer diagnosis. Study findings expand upon the previvor literature to date focused on women following BRCA testing. Notably, responses to results appeared more moderate compared to what has been previously reported in the BRCA realm, which may reflect the varying penetrance and clinical implications of genes included in testing. This issue warrants further examination in future research. Our ongoing work will continue to explore the experiences of previvors with unique gene variants.

CORRESPONDING AUTHOR: Faith Beers, University of Washington, Seattle, WA; fabeers@uw.edu

Abstract citation ID: kaad011.0555

POSTER SESSION C: TECHNOLOGY/EHEALTH: A CONTEMPORARY GENETIC TESTING GATEKEEPER

Tesla Theoryn, MEd[1], Faith Beers Da[2]Laina M. Cameron[3], Emerson J. Dusic, MPH[2], Catharine Wang, PhD[4], Elizabeth Swisher, MD[5], Deborah J. Bowen, PhD[2]

[1]University of Washington, Shoreline, WA; [2]University of Washington, Seattle, WA; [3]University of Washintgon, Seattle, WA; [4]Boston University School of Public Health, Boston, MA; [5]University of Washington Medical Center, Seattle, WA

Genetic testing for hereditary cancer is a critical healthcare service for cancer prevention. The growing demand for genetic services, limited supply of genetic specialists, and lack of efficient testing infrastructure have pushed the field towards technology-rooted solutions. The growing reliance on these modalities (telegenetics, eHealth, etc.) to increase access to genetic services raises concerns over excluding individuals without access to technology or who have limited technological literacy. We examined this issue in the Early Detection of Genetic Risk (EDGE) study, which aims to implement population-based risk assessment for hereditary cancer risk in the primary care setting. Patients (n = 1,165) were surveyed at baseline to assess interest in, barriers to, and motivations for testing. Additionally, in-depth qualitative interviews (n = 9) were conducted with patients who dropped out of the study either before taking the risk assessment (n = 2) or after they were offered genetic testing (n = 7). Preliminary data from the survey indicated that 5% of respondents reported never accessing the internet, 19% felt uncomfortable creating online accounts, 13% felt uncomfortable accessing health information online, and 14% would not get genetic testing if it required an online account. From the interviews, one-third (n = 3) of participants indicated that they were interested in genetic testing, but had no way to access the online screener or create an account on the testing company's portal, suggesting that technology is preventing eligible, interested patients from accessing genetic testing for hereditary cancer risk. Study findings suggest that achieving equity in the genetic testing arena may require additional efforts to ensure that groups with limited resources are not systematically excluded from testing.

CORRESPONDING AUTHOR: Tesla Theoryn, MEd, University of Washington, Shoreline, WA; theoryn@uw.edu

---

Abstract citation ID: kaad011.0556

POSTER SESSION C: NAVIGATING COMPLEX FAMILY DYNAMICS WHILE CARING FOR SOUTH ASIAN BREAST CANCER SURVIVORS: PROVIDER AND SURVIVOR PERSPECTIVES

Akanksha Jain, BS[1], Nainwant Singh, MD[2], Veena Manja, MBBS, MSc, PhD[3], Shreya Desai, MS[4], Ambri Pukhraj, MS[5], Rashmi D. Risbud, MA[1], Lidia Schapira, MD[6], Dolores Gallagher Thompson, PhD[7], Karl Lorenz[8], Ranak B. Trivedi, PhD, FSBM[9]

[1]Center for Innovation to Implementation (Ci^{2}i), VA Palo Alto Health Care System, Menlo Park, CA; [2]VA, Santa Clara, CA; [3]VA Palo Alto Health Care System and Stanford University, Gold River, CA; [4]Tilman J. Fertitta Family College of Medicine at the University of Houston, Sugar Land, TX; [5]Department of Psychiatry and Behavioral Sciences, Stanford University, Menlo Park, CA; [6]Stanford University, Redwood City, CA; [7]Stanford Univ. School of Medicine, Los Altos, CA; [8]Stanford School of Medicine, Palo Alto, CA; [9]Stanford University/VA Palo Alto, Menlo Park, CA

Introduction: Breast cancer prevalence is increasing within the South Asian population (India, Pakistan, Nepal, Sri Lanka, Bangladesh, Bhutan, Maldives). Delivering effective cancer care to this population needs to account for cultural factors, including stigma around cancer, taboos around discussing mental health and reproductive organs, and caregiving gender roles. Survivors and their families may benefit from receiving culturally attuned healthcare, but research on how to accomplish this is lacking. We sought to compare the perspectives of South Asian breast cancer survivors and clinical providers to examine the barriers and facilitators to culturally attuned care.

Methods: A total of 13 South Asian breast cancer survivors (mean age: 45.6±7 y) and 14 multidisciplinary healthcare providers (8 physicians, 2 nurse practitioners, 2 clinical social workers, 1 physician assistant, 1 psycho-oncologist; 4 of whom were South Asian) participated in semi-structured interviews, which were professionally transcribed. Each transcript was coded by two people using Atlas.ti. Data were analyzed using thematic analyses with deductive and inductive coding.

Results: Survivors and providers noted that engaging family was a core component of providing culturally attuned care. Both observed that 1) Survivors received varying levels of instrumental and emotional support from an extensive network of family members locally and abroad; 2) Many survivors chose to withhold diagnoses from family members who were older and/or lived abroad; and 3) Virtual care could enhance family involvement in care. Cultural differences in caregiving expectations, survivor autonomy in decision-making, and approach to cancer were identified as potential causes of conflict between survivors, caregivers, and clinicians. Both noted that there were significant system-level barriers to engaging family in healthcare, such as lack of time and resources and language differences.

Conclusions: This qualitative work reinforces both the value and complexity of family support among South Asian breast cancer survivors, and points to several issues for providers working with these patients to keep in mind to ensure culturally competent care. It is noteworthy that both clinicians and survivors agreed on the importance of having a supportive network that includes members who live locally or abroad. Given the complexity of these family dynamics, more research is needed to better understand this understudied population.

CORRESPONDING AUTHOR: Akanksha Jain, BS, Center for Innovation to Implementation (Ci2i), VA Palo Alto Health Care System, Menlo Park, CA; aajain9@stanford.edu

Abstract citation ID: kaad011.0557

POSTER SESSION C: PHYSICAL ACTIVITY AND QUALITY OF LIFE IN BREAST CANCER SURVIVORS FROM THE STUDY OF WOMEN'S HEALTH ACROSS THE NATION: PINK SWAN

Brianna N. Leitzelar, PhD, MS, MA[1], Sybil Crawford, PhD[2], Beverly J. Levine, PhD[1], Kelly R. Ylitalo, PhD[3], Alicia B. Colvin, PhD[4], Gail A. Greendale, MD[5], Kelley Pettee Gabriel, PhD, MS, FACSM, FAHA[6], Nancy E. Avis, PhD[1]

[1]Wake Forest University School of Medicine, Winston-Salem, NC; [2]Tan Chingfen Graduate School of Nursing, Worcester, MA; [3]Baylor University, Waco, TX; [4]University of Pittsburgh, Pittsburgh, PA; [5]University of California Los Angeles, Los Angeles, CA; [6]The University of Alabama at Birmingham, Birmingham, AL

Breast cancer diagnosis (dx) and treatment has a negative impact on quality of life (QOL) for many survivors and leisure-time physical activity (LTPA) may be important to improve QOL among breast cancer survivors (BCS). The objective of these analysis was to examine the cross-sectional association between post-dx LTPA and QOL among women who developed incident breast cancer during the 20-year longitudinal Study of Women's Health Across the Nation (SWAN). Analyses included 72 BCS who completed the Quality of Life in Adult Cancer Survivors (QLACS) scale on average 11.4y (sd=5) following dx (mean age=65y, sd=3 at follow-up). The QLACS has 12 domains (negative feelings, positive feelings, cognitive problems, sexual problems, pain, fatigue, social avoidance, appearance concerns, financial problems, recurrence- and family-related distress, benefits) and 2 summary scores (general and cancer-specific problems). The independent variable was post-dx LTPA measured by the Kaiser Physical Activity Survey. MET-mins/week were estimated using standard metabolic equivalents for the 2 most frequently reported exercise activities multiplied by the average reported duration and frequency. Participants had a median of 3 measures of post-dx LTPA; summarized using area under the curve divided by the number of years since dx. Potential covariates were variables associated with post-dx LTPA: body mass index, number of comorbidities, and self-rated health (*p*< .10). In unadjusted linear models, greater post-dx LTPA was significantly associated with less pain (β=-0.005, *p*=.02), fatigue (β=-0.006, *p*=.03), recurrence-related distress (β=-0.005, *p*=.04); and fewer cancer-specific problems (β=-0.013, *p*=.04). Due to collinearity among covariates, adjusted models included only self-rated health and study site (a study design variable). In adjusted models, better self-rated health was associated with less fatigue ($\beta_{\text{fair v. excellent}}$=6.5, *p*=.04), but the effect of LTPA was attenuated for pain (β=-0.003, *p*=.32), fatigue (β=-0.003, *p*=.29), recurrence-related distress (β=-0.0005, *p*=.85), and cancer-specific problems (β=-0.004, *p*=.56). These cross-sectional results suggest that greater post-dx LTPA is related to better QOL in several domains, but these associations may be explained by better self-rated health, which was highly correlated with LTPA (ρ=-0.38, *p*=.001); and the direction of the association cannot be inferred. Future analyses will examine the relations between PA change patterns over time and QOL.

CORRESPONDING AUTHOR: Brianna N. Leitzelar, PhD, MS, MA, Wake Forest University School of Medicine, Winston-Salem, NC; bleitzel@wakehealth.edu

---

Abstract citation ID: kaad011.0558

POSTER SESSION C: SKIN CANCER PREVALENCE AND RISK FACTORS AMONG US ADULTS WITH DISABILITIES

Jennifer Bowers, PhD, MPH[1], Andrew Seidenberg, PhD, MPH[2]

[1]National Cancer Institute, Rockville, MD; [2]National Cancer Institute, Bethesda, MD

Background: People with disabilities (PWD) face unique challenges that affect skin cancer prevention, diagnosis, and access to treatment. For example, people with mobility-related disabilities may require extra time and transportation needs when visiting a clinician, which could delay preventive or diagnostic dermatologic care. To date, little is known about skin cancer burden or sun protection behaviors among PWD.

Methods: We analyzed data from the 2020 National Health Interview Survey (NHIS; n = 31,568), a nationally representative survey of US adults. We estimated the prevalence of self-reported skin cancer diagnosis (any skin cancer type; skin melanoma) and related health behaviors among PWD and people without disabilities (PWoD). We used multivariable logistic regression to examine the relationship between disability status with skin cancer diagnoses and skin cancer risk factors. PWD in NHIS included people with vision, hearing, mobility, communication, self-care, and cognitive disabilities.

Results: While 8.8% (95% CI = 8.4, 9.2) of US adults reported having a disability, PWD accounted for 14.7% (95% CI = 12.9, 16.8) of all self-reported skin cancer diagnoses, including 17.5% (95% CI = 13.3, 22.7) of self-reported skin melanoma diagnoses. However, controlling for sociodemographic characteristics we found no association between disability status and any skin cancer (OR = 1.12, 95% CI = 0.94, 1.34) or skin melanoma diagnosis (OR = 1.34, 95% CI = 0.96, 1.89). Notably, mean age was higher for PWD (59.8, 95% CI = 58.8, 60.8) compared to individuals without a disability (46.8, 95% CI = 46.4, 47.1; p < 0.001). Older age is a known risk factor for skin cancer and was found to confound the relationship between disability status and skin cancer diagnosis. PWD were less likely than PWoD to report both past-year sunburn (OR = 0.814 [95% CI = 0.697, 0.951], p = .0097) and intentional tanning (OR = 0.691 [95% CI = 0.589, 0.811], p < .001). PWD were also less likely to use both sunscreen (OR = 1.202 [95% CI = 1.065, 1.356], p = .003) and a long-sleeved shirt (OR = 1.331 [95% CI = 1.174, 1.508], p < .001), and were more likely to use shade (OR = 0.596 [95% CI = 0.532, 0.668], p < .001) for sun protection. We also found that a greater percentage of PWD (33.4%, 95% CI=30.5, 36.4) reported delaying getting medical care because of the COVID-19 pandemic compared to people without a disability (PWoD; 22.7%, 95% CI = 21.8, 23.7; p < 0.001).

Conclusions: Our findings indicate that PWD are disproportionately impacted by skin cancer in the US despite reporting fewer risk behaviors. Because of disability-related challenges, older age, and delaying medical care during the COVID-19 pandemic, PWD are at increased risk for inequitable skin cancer outcomes.

CORRESPONDING AUTHOR: Jennifer Bowers, PhD, MPH, National Cancer Institute, Rockville, MD; jennifer.bowers@nih.gov

Abstract citation ID: kaad011.0559

POSTER SESSION C: EHRSUPPORT: NATURAL LANGUAGE PROCESSING OF TEXT NOTES ON SOCIAL SUPPORT IN THE ELECTRONIC HEALTH RECORD AND DATA AVAILABILITY

Candyce Kroenke, ScD, MPH, FSBM[1], Rhonda-lee Aoki, MS[2], Stacey Alexeeff, PhD[3], David J. Cronkite, MS[4], Lauren Mammini, BA[2], Salene M. Jones, PhD, MA[5], Lawrence H. Kushi, ScD[6], Shaila Strayhorn-Carter, PhD, MPH[7], David Mosen, PhD, MPH[8], David Carrell, PhD[4]

[1]Kaiser Permanente Northern California, Oakland, CA; [2]Kaiser Permanente Northern California, Division of Research, Oakland, CA; [3]Kaiser Permanente Division of Research, Oakland, CA; [4]Kaiser Permanente Washington Health Research Institute, Seattle, WA; [5]Fred Hutchinson Cancer Center, Seattle, WA; [6]Division of Research, Kaiser Permanente Northern California, Oakland, CA; [7]University of North Carolina Wilmington, Wilmington, NC; [8]Kaiser Permanente Center for Health Research, Portland, OR

Background: Social support is important to the management of breast cancer treatment. Our team is developing an electronic health record (EHR)-based tool, EHRsupport, within Kaiser Permanente Northern California, an integrated health care system, to help clinicians better identify breast cancer patients at risk of low social support and ensure appropriate referral to resources. We developed information from unstructured EHR notes and further evaluated extent of data availability and predictors of data missingness.

Methods: We conducted natural language processing (NLP) of EHR notes in women diagnosed from January 2006 to September 2021 with invasive breast cancer to assess availability of social support data. We manually reviewed 18 EHRs to determine language used to describe social support based on constructs used in the literature and on items clinicians mentioned were indicative of social support. We selected a stratified random sample of 7,989 women by diagnosis year from all available cases into a training data set excluding 11 male patients. We manually crafted NLP rules to capture information on social support and ran NLP rules on EHR notes to determine the availability of data on 8 items: partner/marital status, children, explicit mentions of social support, friends, living situation, visit support, and terms signifying social isolation or relationship conflict or stress. If the NLP rules captured information on the given item, the data was considered available and was otherwise considered missing. For the analysis, we defined overall missingness as the lack of all social support items. We used logistic regression to evaluate whether age, diagnosis year, cancer stage, reporting hospital, race, and ethnicity were related to overall missingness.

Results: The availability of data varied widely. Partner/marital status (92% availability) and children (89.1%) were most commonly available. Living situation (59.3%), visit support (59.3%), someone to accompany the patient to a clinic visit (53.7%), and explicit mentions of social support (37.0%) were less often but frequently available. Indicators of social isolation were least available (1.2% availability). Only 2% of women were missing all social support items examined (173/7,989). Later diagnosis year was associated with lower odds (odds ratio (OR)=0.78 per year, 95% confidence interval (CI): 0.74-0.83, p< 0.001), and later stage cancer (Stage 4 vs. 0/1) was associated with higher odds (OR=2.39, 95% CI:1.13-5.07, p=0.023), of overall missingness. Reporting hospital was also significantly related to overall missingness.

Conclusion: KP clinicians have included information on patient social support since the advent of Epic though information has become increasingly available in recent years. The general availability of social support information bodes well for the development of the EHRsupport tool.

CORRESPONDING AUTHOR: Candyce Kroenke, ScD, MPH, FSBM, Kaiser Permanente Northern California, Oakland, CA; candyce.h.kroenke@kp.org

---

Abstract citation ID: kaad011.0560

POSTER SESSION C: COGNITIVE PRE-TEST AND FRAMING ASSESSMENT OF THE PRELIMINARY VERSION OF THE LATIN AMERICAN AND THE CARIBBEAN CODE AGAINST CANCER

Carolyn Finck, PhD[1], Mariantonia Lemos, PhD[2], Julia Restrepo, Bsc[3], Carolina Espina, PhD[4], Ariadna Feliu, PhD, MPH, BSc, BA[5]

[1]Universidad de los Andes, Bogotá, Distrito Capital de Bogota, Colombia; [2]Universidad EAFIT, Medellín, Antioquia, Colombia; [3]Universidad EAFIT, medellin, Antioquia, Colombia; [4]International Agency for Research on Cancer (IARC/WHO), Lyon, Rhone-Alpes, France; [5]International Agency for Research on Cancer, Lyon, Rhone-Alpes, France

Purpose: As cancer grows into a leading cause of disease and death, prevention becomes more relevant. The European Code against Cancer (ECAC) (Schütz et al., 2015) has stood out as a tool for cancer prevention and considering that cancer is one of the leading causes of premature death in Latin America and the Caribbean (LAC) with an increasing burden to be expected in the future, a Code specifically developed for LAC is mandatory. To develop such a tool, the International Agency for Research on Cancer (IARC/WHO) summoned regional experts in epidemiology, public health, and communication to assess the most suitable messages and their framing to enhance clarity and persuasiveness for the adoption of the future messages of the LAC Code. This pilot study aimed to assess understanding and persuasiveness of the preliminary messages of this Code in the general population.

Method: This mixed method multicentric study assessed two sets of messages of the Code. First, a questionnaire was filled out by 170 participants from five LAC countries, which assessed comprehension and persuasiveness of each message on a Likert scale (1 to 5). Secondly, 24 semi-structured cognitive pretest interviews were performed: 12 with the initial messages and 12 to assess changes proposed by the experts in the second version.

Results: Of 170 respondents, 33.7% were male, 47.9% were between 40 and 60 years old, 57.4% had a university degree, and 80.5% lived in urban areas. Messages were highly comprehensible (means above 4). However, framing and structure of some of them were perceived as confusing, injunctive, with a strong normative focus, and participants suggested framing relating behaviors to cancer with a weaker normative focus. All messages were rated more comprehensible than persuasive with differences among countries, while Brazil performed lower than other LAC countries, Chile had the highest levels for comprehension and persuasiveness, followed by Colombia, Peru and Puerto Rico. Participants understood better the second version of the Code and had fewer suggestions about it.

Conclusions: This pilot study suggests that messages on cancer prevention are well understood by the public. However, we also found that a clearer and more succinct Code, using a more familiar language and incentivizing change, is needed to increase the persuasiveness of the messages as individuals prefer less coercive messages, even if evidence shows that prescriptive norms associated with behavior change.

CORRESPONDING AUTHOR: Julia Restrepo, Bsc, Universidad EAFIT, medellin, Antioquia, Colombia; jurest25@eafit.edu.co

Abstract citation ID: kaad011.0561

POSTER SESSION C: EXPERIENCES OF EMERGING AND YOUNG ADULT CANCER CAREGIVERS DURING THE COVID-19 PANDEMIC

Kelsey Bacharz, MA[1], Amanda Kastrinos, PhD[2], Emily Mroz, PhD[3], Carla L. Fisher, PhD[1]

[1]University of Florida, Gainesville, FL; [2]Memorial Sloan Kettering Cancer Center, New York, NY; [3]Yale School of Medicine, New Haven, CT

Background: Emerging and young adults (age 18 – 35) account for 43% of all U.S. family caregivers but are underrepresented in caregiving literature. Little is known about the unique challenges facing emerging and young adult caregivers (EYACs), particularly those caring for a parent with advanced cancer. During the COVID-19 pandemic, family caregivers (often represented in the literature through populations of middle-aged and older adults) faced significant disruption and unique stressors, including loss of in-person support, employment changes, and fears over the care recipient's virus risk. The purpose of the present study was to examine the impact of the COVID-19 pandemic on EYACs' psychosocial care experiences of a parent with advanced cancer. We sought to compare EYACs' care experiences when caring for a parent with advanced cancer prior to the COVID-19 pandemic versus during the pandemic.

Methods: As part of a larger study on EYAC caregiving experiences, 40 EYACs were recruited via purposive sampling to complete a survey from Nov. 2020 to Jan. 2021. Inclusion criteria were: (1) the caregiver was aged 18-35; (2) the caregiver lost a parent due to cancer no longer than five years ago; and (3) parent's disease trajectory from diagnosis to death was less than 12 months. The survey included demographic questions and validated measures including the Communal Coping Scale (which measures dyadic coping) and the Parental Cancer Questionnaire (which measures benefit-finding, emotional impact, and caregiver strain). A grouping variable was created based on timing of caregiving (i.e., pre-pandemic or during the pandemic). Groups were compared in terms of their mean scores on the above measures.

Results: A series of independent t-tests revealed that those who were caregivers during the COVID-19 pandemic reported significantly higher levels of communal coping. Non-significant but small effects of group were found in that caregivers during COVID-19 reported higher benefit finding but also increased emotional experiences and caregiver strain compared to pre-COVID-19 caregivers.

Conclusion: The COVID-19 pandemic provided unique opportunities for increased communal coping (e.g., lockdown, sheltering together, working remotely) and also created unique stressors that may have exacerbated caregiver burden. These findings echo that of similar research during the pandemic, which highlighted both positive and negative effects on families facing advanced cancer.

CORRESPONDING AUTHOR: Kelsey Bacharz, MA, University of Florida, Gainesville, FL; kbacharz@ufl.edu

---

Abstract citation ID: kaad011.0562

POSTER SESSION C: ENCOURAGING HPV VACCINATION AT AGE 9: A MESSAGING EXPERIMENT

Benjamin Z. Kahn, MPH[1], Paul Reiter, PhD, MPH[2], Katherine Kritikos, MPH[3], Melissa B. Gilkey, PhD[4], Tara Queen, PhD[5], Noel T. Brewer, PhD[4]

[1]UNC Gillings School of Global Public Health, Chapel Hill, NC; [2]Division of Health Behavior and Health Promotion, College of Public Health, The Ohio State University, Columbus, OH; [3]Lineberger Comprehensive Cancer Center, University of North Carolina, Chapel Hill, NC; [4]Department of Health Behavior, Gillings School of Global Public Health, University of North Carolina, Chapel Hill, NC; [5]Lineberger Comprehensive Cancer Center, University of North Carolina, Carrboro, NC

Introduction: Starting HPV vaccination at a younger age leads to higher effectiveness against infection and disease, and greater likelihood of vaccine series completion. Because national organizations offer discrepant recommendations for starting age, we sought to understand the impact of recommended age in a national experiment.

Methods: In 2022, we recruited 2,527 clinical staff (45% physicians) in the US who had a role in offering HPV vaccine to children. We randomized them to one of four conditions based on the HPV vaccine recommendation of these organizations:

1) Centers for Disease Control and Prevention (CDC), "ages 11-12";

2) American Academy of Pediatrics (AAP), "ages 9-12";

3) National HPV Vaccination Roundtable, "start at age 9"; or

4) a no message control.

Next, we assessed willingness to recommend HPV vaccine at ages 9-10. Participants also reported on perceived benefits of HPV vaccination at ages 9 or 12.

Results: Current CDC wording (ages 11-12) led to lower willingness to vaccinate at ages 9-10 than no message at all (37% vs. 54%, *p*< .05). In contrast, language favored by AAP (ages 9-12) or the Roundtable (start at age 9) led to higher willingness compared to control (58% and 63% vs. 54%, both *p*< .05). Moderation was not present for any of the five variables we checked: training (physician vs. not), specialty (pediatrics vs. family/general medicine), rurality, years in practice, and healthcare system membership. When asked about perceived advantages of HPV vaccination, participants more often said that "sex does not come up in discussions with parents" of children ages 9 than 12 (70% vs. 30%, OR=2.78, 95%CI: 2.23, 3.48). In contrast, for age 9, participants less often said that parents were ready to talk about HPV vaccine, parents agree to vaccination, and children complete the vaccine series before age 13 (all *p*< .05).

Discussion: Saying that HPV vaccination starts at age 9 is the most effective way to encourage clinical staff, including physicians, to recommend HPV vaccine at ages 9-10. Better aligning national organizations' recommendations can promote HPV vaccination at a younger age and help to increase timely uptake of the vaccine.

Funding: NCI grant P01CA250989.

COI: Dr. Brewer, paid consulting for Merck, CDC, and WHO.

CORRESPONDING AUTHOR: Benjamin Z. Kahn, MPH, UNC Gillings School of Global Public Health, Chapel Hill, NC; bkahn@unc.edu

Abstract citation ID: kaad011.0563

POSTER SESSION C: PREDICTORS OF PHYSICAL ACTIVITY AMONG CANCER SURVIVORS, THREE-MONTHS AFTER A VIDEOCONFERENCE EXERCISE PROGRAM

Mary E. Crisafio, MS[1], Linda Trinh, PhD[2], Heather J. Leach, MS, PhD[1]

[1]Colorado State University, Fort Collins, CO; [2]University of Toronto, Toronto, ON, Canada

Purpose: During and following the COVID-19 pandemic, the use of videoconferencing technology to deliver exercise programs increased substantially. However, little is known about which factors are associated with higher levels of physical activity (PA) following this type of program. This study examined predictors of moderate-to-vigorous PA (MVPA) three-months (3mo) after a videoconference exercise program for cancer survivors.

Methods: The 8-week program included supervised exercise sessions 1x/ week, and three Social Cognitive Theory-informed behavior change discussion sessions (e.g., goal setting, self-monitoring, problem solving). All components were delivered in groups of 4-6 via Zoom. Participants were provided with home-based exercise equipment and encouraged to exercise independently in order to achieve the PA guidelines for cancer survivors. MVPA was measured using the Godin Leisure-Time Exercise questionnaire (minutes per week). Independent variables were age, time since cancer diagnosis, exercise self-efficacy, quality of life (QoL), fatigue, and sit-to-stand repetitions; all measured at the baseline program assessment. Univariate associations between predictor variables and 3mo MVPA were explored using Pearson correlations. Significant ($p< .05$) variables were included in a hierarchical regression model along with baseline MVPA.

Results: Cancer survivors (N=43) were M=59.8±10.35 years old, and diagnosed with ovarian (65.8%), breast (26.8%), or other (7.4%) cancer. At 3mo, cancer survivors reported M=243.1±186.25 mins/week of MVPA. QoL (r=.393, p=.01), and time since diagnosis (r=.602, p=.000) were associated with 3mo MVPA. Together, baseline MVPA [B=.480, SE=.128, $t(38)$=3.76, p=.001], QOL [B=-1.061, SE=1.98, $t(38)$=-0.53, p=.596] and time since diagnosis [B=1.451, SE=.325, $t(38)$=4.469, p=.000] predicted 3mo MVPA [F(3,38) = 14.81, p= .000, R^2=.559]. Baseline MVPA alone accounted for 28% of the variance, QoL and time since diagnosis added an additional 27%.

Conclusions: Time since diagnosis had the largest effect on 3mo MVPA followed by baseline MVPA. Findings suggests that to help sustain PA behaviors, videoconference exercise programs may need to consider additional support for cancer survivors who begin with low levels of MVPA and who are more proximal to their diagnosis. Future studies should examine longer duration of PA follow-up and additional sociodemographic and environmental predictors of MVPA.

CORRESPONDING AUTHOR: Mary E. Crisafio, MS, Colorado State University, Fort Collins, CO; mecrisafio@gmail.com

---

Abstract citation ID: kaad011.0564

POSTER SESSION C: THE IMPACT OF AGE ON PROVIDER COMMUNICATION WITH YOUNG ADULT CANCER SURVIVORS

Karen Llave, MPH[1]

[1]University of California, Irvine, Irvine, CA

Background: Positive patient-provider communication has been associated with increased healthcare engagement and appropriate healthcare utilization. Both are imperative among young adult (YA) cancer survivors (ages 18-39 years old) at high risk for the late effects of cancer treatment. However, correlates of patient-provider communication are understudied in this population.

Aims: This analysis seeks to explore predictors of patient-provider communication among YA cancer survivors and their care providers.

Method: Data collected by the National Institutes of Health "All of Us" Research program were analyzed. Participants aged 18-39 at time of survey who had ever received a cancer diagnosis (excluding skin cancer) were included in the sample. Patients in active treatment were excluded. To measure patient-provider communication, participants were asked how often health care providers asked for their opinion or beliefs related to their care or treatment. Response options were dichotomized: Always, Most of the time, Some of the time versus None of the time. Logistic regression was used to examine the relationship between age at diagnosis, gender, insurance status, education, current age, and patient-provider communication.

Results: The analytic sample included 220 YA cancer survivors enrolled in the "All of Us" program as of January 1, 2022. The sample had a mean age of 34.78 (SD = 4.09) and 81.4% (n =179) identified as female. 29.0% (n=64) were diagnosed as a child or adolescent. 35.9% indicated providers asked for their opinion some of the time (n=79) and 15.9% were asked none of the time (n=35). Current age was found to be a significant predictor of patient-provider communication such that, for every one year increase in a patient's age, the odds of a provider asking for one's opinion or beliefs related to one's care increased by 18% (95% CI, 1.05 to 1.36; $p < .05$).

Discussion: Over half of the YA cancer survivors reported being asked by their providers for their opinion or beliefs related to their care only *some* or *none of the time*. Further, age was found to significantly predict whether a provider asked for a patient's opinion or beliefs related to their care. This is concerning among the YA survivor population as open communication with providers is needed for long-term healthcare engagement and appropriate health care utilization, regardless of age. Further investigation of additional predictors and outcomes of patient-provider communication is needed.

CORRESPONDING AUTHOR: Karen Llave, MPH, University of California, Irvine, Irvine, CA; kllave@hs.uci.edu

Abstract citation ID: kaad011.0565

POSTER SESSION C: ASSOCIATIONS OF IMPLICIT BELIEFS WITH EXERCISE IDENTITY AND MOTIVATION AMONG BREAST CANCER SURVIVORS

Jason R. Bentley, PhD[1], Beth Hawkins, BS[2], John Prochaska, DrPH, MPH[2], Xiaoying Yu, MD, PhD[2], Brian Downer, PhD[2], Amol Karmarkar, PhD[3], Elizabeth J. Lyons, PhD, MPH[4]

[1]University of Houston - Clear Lake, Houston, TX; [2]University of Texas Medical Branch, Galveston, TX; [3]Virginia Commonwealth University, Richmond, VA; [4]University of Texas Medical Branch at Galveston, Galveston, TX

Background: Breast cancer (BC) survivors may improve their health outcomes by engaging in moderate levels of physical activity (PA), but they often lack motivation to be active. Currently, little is known regarding the role personality differences may have on PA behavior, particularly people's implicit beliefs about PA. Implicit beliefs differ in two ways: some believe that their ability to perform PA is fixed (stability mindset) while others believe that it can change and improve (improvement mindset). While a stability mindset may reduce the efficacy of PA interventions, preliminary evidence suggests that motivational interventions may be able to change these beliefs. Building upon this work and applying it to the cancer setting, this study seeks to characterize inactive BC survivors' implicit beliefs regarding their PA and examine associations with exercise identity and motivation.

Methods: As part of a prospective intervention study, inactive breast cancer survivors aged 55 - 79 were asked to complete a series of questionnaires related to PA and motivation. Associations between baseline levels of implicit beliefs and objective PA, basic psychological needs in exercise, exercise identity, motivation, and behavioral regulation in exercise were examined using cross-sectional bivariate correlation analyses.

Results: Forty female BC survivors (age 62 ± 5.4 years; BMI 31.2 ± 6.3, 72.5% Non-Hispanic White) completed the assessments. Bivariate correlations revealed that the stability mindset was directly correlated with exercise role identity (r = 0.39, P = 0.02), integrated regulation (r = 0.39, P = 0.01), and external regulation (r = 0.40, P = 0.01). The improvement mindset was directly correlated with exercise beliefs (r = 0.34, P = 0.03) and introjected regulation (r = 0.39, P = 0.01).

Conclusions: While the direction of these associations do not map on to previous literature, our findings highlight that implicit beliefs about PA play a role in PA behavior among female BC survivors. In fact, the improvement mindset may have less to do with improvement in PA behavior and more to do with prevention of negative health outcomes, i.e., avoiding recurrence, leading to improved health. Understanding these relationships may guide future interventions to elicit long-term PA adherence.

Trial Registration: This study was funded by an award from the National Cancer Institute (NCT03612596) beginning July 1, 2018.

CORRESPONDING AUTHOR: Jason R. Bentley, PhD, University of Houston - Clear Lake, Houston, TX; bentley@uhcl.edu

---

Abstract citation ID: kaad011.0566

POSTER SESSION C: EFFECTS OF A COMMUNITY BASED HEALTH COACHING PROGRAM FOR CANCER SURVIVORS DURING THE COVID-19 PANDEMIC

Nicole J. Berzins, BS, NBC-HWC[1], Michael J. Mackenzie, PhD[1], Mary Lou Galantino, PhD, PT, MSCE, FAPTA[2], Nicole T. Pickles, BS[3], Erika Narducci, LSW[3], Tara Leonard, MS, NBC-HWC[1], Elizabeth M. Orsega-Smith, PhD[1]

[1]University of Delaware, Newark, DE; [2]Stockton University, Galloway, NJ; [3]Cancer Support Community Delaware, Wilmington, DE

Originally intended as a second iteration of a program providing in-person and telephonic health coaching services to cancer survivors, due to the COVID-19 pandemic, there became a need to shift the mode of delivery to a completely virtual nature to comply with changing state mandates. The purpose of this study was to determine the preliminary effectiveness of health coaching provided in a completely virtual format for the improvement of health, fitness, and overall well-being of cancer survivors in a community setting during the COVID-19 pandemic. Participants were recruited from Cancer Support Community Delaware locations. Health coaching was provided to people diagnosed with cancer anywhere along the survivorship continuum. Coaches provided at least six individual sessions conducted through the videoconferencing platform Zoom and/or telephonically. Surveys were sent pre- and post-intervention on topics including physical activity, eating habits, sleep, perceived stress, anxiety, depression, and quality of life. Results were analyzed using multilevel modeling. 70 participants completed an average of 85% of health coaching sessions. Coaching participants noted improvements in total weekly and moderate-vigorous physical activity frequency (p=0.004, d=0.53; p< 0.001, d=0.74), total weekly and moderate-vigorous activity minutes (p< 0.001, d=0.94; p< 0.001, d=0.89), and total weekly and moderate-vigorous physical activity scores (p=0.003, d=0.56; p=0.003, d=0.55). Increases were found in healthy eating behavior (p< 0.001, d=0.47). Participants reported improvements in the quality of their sleep and daytime dysfunction (p=0.016, d=0.29; p=0.021, d=0.38). Significant reductions were found in perceived stress, anxiety, and depression (p=0.001, d=0.39; p=0.001, d=0.28; p=0.002, d=0.44). Additionally, participants reported improved physical and functional quality of life (p=0.03, d=0.28; p=0.005, d=0.30). Despite COVID-19, many of our findings are comparable to the first iteration of this program. Our preliminary findings indicate significant behavior change in measured health outcomes and suggest virtual health coaching may be an important tool for cancer survivorship.

CORRESPONDING AUTHOR: Nicole J. Berzins, BS, NBC-HWC, University of Delaware, Newark, DE; nicolejb@udel.edu

Abstract citation ID: kaad011.0567

POSTER SESSION C: SOCIAL INEQUITIES UNDER THE SKIN: THE IMPACT OF SOCIAL-ENVIRONMENTAL ADVERSE EVENTS IN BIO-BEHAVIORAL CANCER HEALTH OUTCOMES

Eida M. Castro-Figueroa, PsyD, MSc[1], Cristina Peña-Vargas, PhD[2], Zindie Rodriguez, MD[2], Nelmit Tollinchi, PhD[2], Normarie Torres-Blasco, PhD[1], Guillermo N. Armaiz-Pena, PhD[1]

[1]Ponce Health Sciences University, Ponce, Puerto Rico; [2]Ponce Research Institute, Ponce, Puerto Rico

Background: In Puerto Rico the following 4 unprecedented social-environmental events (SEA) have perpetrated long-standing health inequities: a 15-year long economic crisis, a fragmented healthcare system, two major natural disasters and the COVID-19 pandemic. Thus, cancer patients in Puerto Rico are more vulnerable to suffering the enduring consequences of the before mentioned structural and social inequities.

Methods: Data from 2 NIH-funded longitudinal-cohort studies (R21MD013671/n=128, U54MD007579/n=92 of 175 final N) are being extracted to conduct a secondary data analysis of the impact of SEA events (e.g., natural disasters, adverse childhood events) on biobehavioral and health outcomes. Recruitment of one of the studies is still ongoing and is expected to conclude early 2023. For preliminary analyses, Pearson correlations were conducted.

Results: The sample mean age was 57 years (SE=12.07). Most participants reported an annual income of < $19, 000 (64%) and it did not cover their basic needs (60%). Anxiety symptoms correlated with interleukins ENF (p< o.o5) and VEGF (p< 0.05). Depression symptoms correlated with ENF (p< 0.05). Higher number of reported adverse childhood events correlated with higher cancer symptom burden (p< .01). Preliminary estimates of hurricane-Mari impact (e.g., power outrage, communication loss, flood) on behavioral outcomes resulted in significant relationships among PTSD symptoms (p< 0,01), depression symptoms (p< 0.01), and cancer symptoms intensity (p< 0.01).

Conclusion: These findings demonstrate the enduring impact physical and psychological impact posed by SEA events among Puerto Rican cancer patients. The clinical and mental health implications are unprecedented. There is an urgent call to address this multilevel structural/social inequities and bring social justice to cancer patients in Puerto Rico.

CORRESPONDING AUTHOR: Eida M. Castro-Figueroa, PsyD, MSc, Ponce Health Sciences University, Ponce, Puerto Rico; ecastro@psm.edu

---

Abstract citation ID: kaad011.0568

POSTER SESSION C: SUPPLEMENTING A COMMERCIALLY AVAILABLE PEDIATRIC WEIGHT MANAGEMENT PROGRAM WITH INHIBITORY CONTROL TRAINING: A PILOT TRIAL

Qihan Yu, BS[1], Jessica M. Capaldi, MA[2], Julissa Ruiz, BS[1], Nenette Cáceres, PhD[1], Marie Lauzon, MS[3], Alaina Vidmar, MD[4], Bahareh Schweiger, DO, MPH[3], Thea Runyan, MPH[5], Aaron R. Seitz, PhD[6], Sarah-Jeanne Salvy, PhD[7]

[1]Cedars-Sinai Medical Center, West Hollywood, CA; [2]Cedars-Sinai Medical Center, Montrose, CA; [3]Cedars-Sinai Medical Center, Los Angeles, CA; [4]Children's Hospital Los Angeles, Los Angeles, CA; [5]Kurbo, West Hollywood, CA; [6]University of California - Riverside, Department of Psychology, Riverside, CA; [7]Cedars-Sinai Medical Center, playa vista, CA

Background: Pediatric evidence-based weight management programs are effective when participants adhere to treatment recommendations. However, a sizable number of youth are unable to sustain lifestyle changes conducive to meaningful weight loss; consistently inhibiting drives to consume tempting foods is challenging. Research in adults with overweight and obesity suggests that inhibitory control training may help individuals manage temptation and improve weight outcomes, but there is limited research on the potential benefits of impulse control training in youth. This two-arm pilot study evaluates the preliminary efficacy of supplementing an evidence-based pediatric weight management program (Kurbo) with gamified inhibitory control training (PolyRules!) among youth with overweight or obesity.

Methods: Twenty-one youth (*M*age=10.19 years, BMI ≥ 85th percentile) were randomized to receive Kurbo with or without PolyRules! for 12 weeks. All participants were asked to track meals and attend weekly, virtual coaching sessions with Kurbo coaches. Participants randomized to Kurbo + PolyRules! were asked to also engage in PolyRules! for 30 minutes a day, five days a week. Anthropometrics for all participants were self-reported by their parents at baseline and each week through Kurbo. Independent sample t-tests compared measurement completion across arms and Cohen's d effects sizes were calculated when appropriate. Spearman correlations examined associations between measurement completion and difference in %BMIp95 from post-intervention to baseline.

Results: Average %BMIp95 difference was -4.8 in Kurbo only and -3.0 in Kurbo + PolyRules! (Cohen's d=0.21). Participants randomized to Kurbo + PolyRules! tracked meals significantly more than participants in the Kurbo only arm (p=0.02). There was no difference between arms in number of coaching sessions completed or change in %BMIp95. More frequent meal tracking (ρ=-0.51, p=0.03) and more coaching sessions completed (ρ=-0.51, p=0.03) were associated with a more negative difference in BMI. In the Kurbo + PolyRules! arm, the number of inhibitory control trainings completed was associated with more negative differences in BMI (ρ=-0.88, p=0.02).

Conclusions: Supplementing a commercially available pediatric weight management program with daily inhibitory control training may be beneficial. Future studies with larger sample sizes are needed to further understand the association between inhibitory control training and weight management in youth.

CORRESPONDING AUTHOR: Qihan Yu, BS, Cedars-Sinai Medical Center, West Hollywood, CA; qihan.yu@cshs.org

Abstract citation ID: kaad011.0569

POSTER SESSION C: MEANING-CENTERED PAIN COPING SKILLS TRAINING FOR PATIENTS WITH ADVANCED CANCER: RESULTS OF A RANDOMIZED CONTROLLED PILOT TRIAL

Joseph G. Winger, PhD[1], Sarah A. Kelleher, PhD[2], Katherine Ramos, PhD[3], Devon K. Check, PhD[4], Reginald C. Lerebours, MA[5], Maren K. Olsen, PhD[5], Francis J. Keefe, PhD[1], Karen E. Steinhauser, PhD[4], Laura S. Porter, PhD[1], Tamara J. Somers, PhD[1]

[1]Department of Psychiatry and Behavioral Sciences, Duke University School of Medicine, Durham, NC; [2]Duke University Medical Center, Durham, NC; [3]Duke University, Durham, NC; [4]Department of Population Health Sciences, Duke University School of Medicine, Durham, NC; [5]Department of Biostatistics and Bioinformatics, Duke University, Durham, NC

Background: For patients with advanced solid tumor cancers, pain is a common and debilitating symptom that can negatively impact their physical, emotional, and spiritual well-being. This trial examined the feasibility and exploratory effects of Meaning-Centered Pain Coping Skills Training (MCPC), a cognitive-behavioral pain management intervention with a novel focus on enhancing patients' sense of meaning (i.e., worth and significance) and peace.

Methods: We enrolled 60 adult patients with stage IV solid tumor cancers and moderate-to-severe pain between February 2021 and February 2022. Participants were randomized 1:1 to MCPC + enhanced usual care or enhanced usual care alone. A clinical psychologist delivered MCPC's manualized protocol over four weekly 60-minute individual sessions via videoconference or telephone. Sessions included education on sources of meaning and training in pain coping skills (e.g., guided imagery, activity pacing), with an emphasis on enhancing engagement in meaningful experiences and activities (e.g., time with family). Participants completed validated measures of pain severity, pain interference, spiritual well-being (i.e., meaning, peace, and faith), pain self-efficacy, and psychological distress at baseline and 5-week and 10-week follow-ups.

Results: 58% (87/151) of screened patients were eligible, and 69% (60/87) of eligible patients consented. Participants (53% female) were on average 61 years old (SD = 11.05, range = 36 to 82) and identified as White/Caucasian (78%) or Black/African American (14%). All feasibility metrics exceeded prespecified benchmarks. Of those assigned to MCPC, 93% completed all sessions and 100% of those who completed follow-ups reported weekly skills use. Retention was strong at 5-weeks (85%) and 10-weeks (78%). MCPC participants reported better scores than control participants on all outcome measures at both follow-ups, including noteworthy decreases in pain severity (Cohen's d [95% CI] = -0.37 [-0.93 to 0.20] and -0.75 [-1.36 to -0.14] at 5-weeks and 10-weeks, respectively) and pain interference (-0.33 [-0.91 to 0.25] and -0.82 [-1.45 to -0.20]).

Conclusions: MCPC is a highly feasible and promising approach for improving pain management in advanced cancer. Our next step is to test MCPC in a large RCT powered to detect clinically meaningful improvements in pain and other outcomes. If shown to be efficacious, MCPC is well positioned for implementation as a brief, telehealth-delivered approach.

CORRESPONDING AUTHOR: Joseph G. Winger, PhD, Department of Psychiatry and Behavioral Sciences, Duke University School of Medicine, Durham, NC; joseph.winger@duke.edu

---

Abstract citation ID: kaad011.0570

POSTER SESSION C: IMPROVING THE MANAGEMENT OF ACUTE MYOCARDIAL INFARCTIONS: EXPLORING THE IMPLEMENTATION OF A SMARTPHONE-APP FOR PHYSICIANS

Katelyn Cullen, MPH[1], Marija Corovic, MPH[1], Karen Mosleh, MSc[1], Hassan Masoom, MD[1], Jacob Crawshaw, PhD[1], Mathew Mercuri, PhD(c), PhD, MSc[2], Hassan Mir, MD, FRCPC, MHI(c), MPH(c)[3], Madhu K. Natarajan, MD, FRCP(C), FACC[1], J D Schwalm, MD, MSc, FRCP(C)[1]

[1]McMaster University, Hamilton, ON, Canada; [2]University of Toronto, Toronto, ON, Canada; [3]University of Ottawa Heart Institute, Ottawa, ON, Canada

Background: Timely diagnosis and access to treatment for ST Elevation Myocardial Infarction (STEMI) requires rapid intervention to decrease mortality. This involves the secure sharing of electrocardiogram (ECG) images between front-line healthcare providers and interventional cardiologists (ICs). To improve this communication pathway, we developed a quick, easy-to-use, privacy-compliant smartphone application for real-time ECG sharing between healthcare providers in Ontario, Canada.

Methods: Implementation of the APP was guided by the RE-AIM framework (Reach, Effectiveness, Adoption, Implementation, Maintenance) to measure impact. To assess the proposed acceptability and uptake of the APP, a pre-implementation survey was disseminated to emergency medicine physicians (EMPs) in the health region between 2020-2021 (Likert scale 1=strongly disagree, 7=strongly agree and free-text questions). Qualitative results were analyzed, and themes related to barriers and enablers of APP integration were identified and matched to the Expert Recommendations for Implementing Change (ERIC) project and the Consolidated Framework for Implementation Research (CFIR). Target reach was download of the APP by 80% of EMPs.

Results: Based on responses from 51 EMPs, key enablers included the perceived need for an APP to securely share ECG images (M=5.57), the implementation of an APP fitting well with existing work-flow processes (M=5.65), and the comfort level of EMPs to use the APP (M=5.51). We obtained an understanding of the preferred mechanism of training on APP use and applied appropriate education strategies. Considering these enablers, we cultivated relationships with opinion leaders (EMP Chiefs), early adopters, and sought advice from ICs and experts in implementation science research. Key barriers identified from qualitative results included concerns over technological challenges and privacy issues. These concerns were addressed with the development and distribution of educational materials (e.g., user guides noting third-party security testing). At < 12 weeks after implementation, 83% of EMPs downloaded the APP.

Conclusions: By developing an understanding of the barriers and enablers related to the acceptability and uptake of the APP, and applying key implementation strategies, initial uptake was very positive. These results, and ongoing evaluation of effectiveness, are informing expansion of the APP intervention to local ambulance services and other health regions.

CORRESPONDING AUTHOR: Katelyn Cullen, MPH, McMaster University, Hamilton, ON, Canada; cullenk@mcmaster.ca

Abstract citation ID: kaad011.0572

POSTER SESSION C: SUPERWOMAN SCHEMA, STRESS AND CARDIOVASCULAR HEALTH AMONG AFRICAN-AMERICAN WOMEN: THE FAITH! HEART HEALTH+ STUDY

Ashley Kyalwazi[1], Cheryl Woods-Giscombe, PhD, RN, PMHNP-BC, FAAN[2], Matthew Johnson[3], Clarence Jones[4], Sharonne Hayes, MD[3], Lisa Cooper, MD, MPH[5], Christi A. Patten, PhD, MA[3], LaPrincess C. Brewer, MD, MPH[3]

[1]Harvard Medical School, Cambridge, MA; [2]University of North Carolina at Chapel Hill, Chapel Hill, NC; [3]Mayo Clinic, Rochester, MN; [4]HUE-MAN Partnership, Minneapolis, MN; [5]Johns Hopkins University School of Medicine, Baltimore, MD

Background: African-American (AA) women are significantly less likely to achieve ideal cardiovascular (CV) health in comparison to women of most other racial/ethnic subgroups, in large part due to structural and psychosocial barriers. The FAITH! Trial, a community-based, cluster randomized controlled trial, demonstrated improvement in CV health among AAs in faith communities following implementation of a CV health and wellness digital application. Whether or not psychosocial factors such as the superwoman schema (SWS) are associated with key CV risk factors and overall CV health among AA women remains unknown.

Methods: This cross-sectional analysis of a community-based participatory research study (FAITH! Trial Ancillary Study [Heart Health+]) was conducted among AA women with high cardiometabolic risk. Pearson correlation was used to evaluate associations between SWS (a sociocultural measure of psychosocial coping), and CV risk factors (eg, stress, hypertension [HTN], diabetes, and hyperlipidemia [HLD]). The SWS questionnaire includes 35 items scored from a scale of 0 (not true) to 3 (all the time) (range 0-105). Stress was measured by the Global Perceived Stress Scale, an 8-item measure capturing individual perceptions of stressful experiences over a 12-month period (range 0-24). CV health was assessed according to the American Heart Association Life's Simple 7 (LS7) rubric (range 0-14, poor to ideal) of health behaviors and biometrics.

Results: A total of 38 women were included in the study sample (mean age 54.3 [SD 11.5]). Among all women, 71.1% had HTN, 28.9% had diabetes, and 39.5% had HLD. Mean stress level was 7.68 [SD 5.15], mean LS7 score was 6.73 [SD 1.79], and mean SWS score was 60.3 [SD 18.0]. An aggregate of all SWS subscales was moderately correlated with stress levels (r= 0.39; p=0.02). In particular, feeling an "obligation to help others" and "obligation to present an image of strength" had the strongest correlations with stress among all SWS subscales (r= 0.51; p=0.002 and r=0.39; p=0.02, respectively). Correlation between the SWS and traditional CV risk factors were weaker and not statistically significant (HTN: r= -0.027, p=0.87; diabetes: r= -0.12, p=0.47; HLD: r= -0.19, p=0.27; LS7: r= -0.013, p=0.94).

Conclusion: Our analyses demonstrate a positive association between the SWS and stress levels, suggesting that the obligation to help others and to project an image of strength could be contributing to overall stress levels among AA women.

CORRESPONDING AUTHOR: Ashley Kyalwazi, Harvard Medical School, Cambridge, MA; ashley_kyalwazi@hms.harvard.edu

Abstract citation ID: kaad011.0573

POSTER SESSION C: A THEMATIC ANALYSIS OF PEDIATRICIAN AND PARENT DISCUSSIONS AROUND INFANT FEEDING AT WELL-CHILD VISITS

Meghan Bastyr[1], Melanie K. Bean, PhD[2], Laura J. Caccavale, PhD[3], Romesh Wijesooriya, MD[4], Olivia Finnegan[1], Sarah Burkart, PhD[1], Bridget Armstrong, PhD[5], Michael Beets, PhD, MEd, MPH[5], R Glenn Weaver, PhD[1], Elizabeth Adams, PhD[1]

[1]University of South Carolina, Columbia, SC; [2]Virginia Commonwealth University, Richmond, VA; [3]Children's Hospital of Richmond at Virginia Commonwealth University, Richmond, VA; [4]Virginia Commonwealth University Medical Center, Richmond, VA; [5]University of South Carolina, Columbis, SC

Background: Infancy is a critical period to establish healthful nutrition for optimal growth and development. Well-child visits are an ideal setting to introduce early feeding guidance, yet some families may need in-depth behavior change guidance that is often not feasible during visits, given limited time. This study characterized pediatrician guidance and parent questions/concerns on infant feeding during well-child visits to understand information parents receive and identify potential gaps for interventions.

Methods: Mother-infant dyads (N=20) were recruited from an academic medical center. Visits at 2, 4, and 6 months of age were audio recorded and transcribed. Grounded theory methods of qualitative analysis were used to derive emergent themes around infant feeding. Conversations were labeled as pediatrician-initiated guidance, parent-initiated questions/concerns, or general updates. Themes were compared across ages. Pediatricians (N=5) and mothers completed a survey after evaluating their desire for additional guidance after the 6-month visit. Responses were analyzed using descriptive statistics.

Results: Resultant themes included: 1) introducing solid foods (how, when, type); 2) feeding amount and timing (volume, hunger cues); 3) feeding in specific situations (when back to work, with spit up); 4) breast milk/formula preparation (supply, storage, safety). At each visit, pediatricians initiated introducing solid foods with few parent questions/concerns until 6-months. Parents initiated discussion around feeding in specific situations at 4-months. Parents initiated conversation around breast milk/formula preparation at 2-months, while pediatricians initiated guidance at 4- and 6-month visits. Surveys indicated that parents desired additional guidance on transitioning to solids (42.1%), introducing allergen foods (31.6%), and nighttime feedings (36.9%). Pediatricians (80%) felt the amount of guidance to deliver during well-child visits was too much, and all (100%) mentioned time as a barrier to delivering optimal care. Most pediatricians (80%) felt that providing additional guidance in ancillary visits would be valuable.

Conclusions: Four unique themes around infant feeding emerged from the parent-pediatrician discussions. The frequency and detail of discussions varied leaving a need for more guidance. Therefore, adjunctive interventions could further support parents by providing supplementary guidance within a clinical setting.

CORRESPONDING AUTHOR: Meghan Bastyr, University of South Carolina, Columbia, SC; mbastyr@email.sc.edu

---

Abstract citation ID: kaad011.0574

POSTER SESSION C: THE ROLE OF THE FAMILY ENVIRONMENT ON ADOLESCENT ALCOHOL SIPPING BEHAVIORS: SECONDARY DATA ANALYSIS OF A LARGE NATIONAL DATASET

Alejandra Fernandez[1]

[1]UTHealth School of Public Health, Dallas, TX

Introduction: Alcohol use and abuse is a public health concern with approximately 14.5 million people (over the age of 12) having an alcohol use disorder. Further, 85.6% of adolescents under the age of 18 report having drunk alcohol during their lifetime. One of the stronger predictors of alcohol dependence is the age at first use, however, relatively less is known about the concept of sipping alcohol. To combat adolescent alcohol use, family-based interventions (aimed at improving family functioning) have been used and have shown efficacy in reducing alcohol use behaviors among adolescents. However, less is known regarding how discordance between reported family functioning across parent and child may influence health outcomes, which may be especially important for interventions in which the parent is the agent of change. This study used secondary data analysis to examine the effects of parental rules, accessibility, and discordance across reported family functioning on adolescent sipping behavior. Methods: This is a cross-sectional study using data from the Adolescent Brain Cognitive Development study from 11,876 adolescents (Mage = 9.9 years, SD = .62; 52.2% male; 79.4% non-Hispanic). We used logistic regression to examine the associations and likelihood between parental alcohol rules, accessibility of alcohol, family functioning, and sipping alcohol. Results: Among the 11,876 participants 22.5% (n = 2673) reported having a sip of alcohol in their lifetime. Adjusted for sex assigned at birth, age, primary caregivers' highest level of education, and Hispanic origin, we found adolescents were more likely to sip if it was easier to get alcohol, reported a worse family environment, or were allowed to drink at home but only on special occasions. Finally, we also ran a model to determine the effect of discordance between adolescent and parent family functioning on sipping with results indicating adolescents reporting lower levels of family functioning compared to their parents were more likely to report sipping. Conclusion: These findings highlight the large portion of adolescents who have already sipped alcohol by early adolescence. Additionally, these findings suggest that making improvements for both adolescents and parents through family-based interventions is important. The family environment continues to prove itself as an important point of intervention to prevent future alcohol use dependence.

CORRESPONDING AUTHOR: Alejandra Fernandez, UTHealth School of Public Health, Dallas, TX; alejandra.fernandez@uth.tmc.edu

Abstract citation ID: kaad011.0575

POSTER SESSION C: THE RELATIONSHIP BETWEEN HOUSEHOLD FOOD INSECURITY AND OBJECTIVELY MEASURED SLEEP AMONG ELEMENTARY AGE CHILDREN

Layton Reesor-Oyer, PhD[1], Sarah Burkart, PhD[1], Xuanxuan Zhu[2], Elizabeth Adams, PhD[1], Christopher D. Pfledderer, PhD[1], R Glenn Weaver, PhD[1], Bridget Armstrong, PhD[2], Michael Beets, PhD, MEd, MPH[2]

[1]University of South Carolina, Columbia, SC; [2]University of South Carolina, Columbis, SC

Background: Food insecurity (FI) is related to poor sleep (duration, quality) among adults, but less is known about these relationships among children. During the summer, many children lose access to food assistance programs (e.g., National School Lunch Program) resulting in increased FI prevalence. Further, degradation of children's health behaviors including sleep is common during the summer when children are not enrolled in school. This study aims to longitudinally evaluate the relationship of household (HH) FI with objective measures of children's sleep from school-year to summer.

Methods: Children (n=354, K-5th grade, 48% female, 47% Black, 39% free/reduced price lunch) with HH income < 300% Federal Poverty Limit (FPL) wore an Actigraph GT9X accelerometer on their non-dominant wrist 24 hours/day for 14 days during the school year (April/May) and/or summer (July/August) 2021. Data were processed using GGIR (v2.6-4) in R. Sleep outcomes included duration (hours), timing (midpoint), and variability (sleep regularity index). FI was assessed using the 2-item FI screening questionnaire during the same time frames. We utilized linear mixed effects models with measurements nested within children and children nested within families to evaluate differential changes in sleep outcomes between groups (time-x-FI interaction) from the school year to summer (time). All models included age, sex, and income (as FPL%) as covariates.

Results: HH FI prevalence was similar during the school year (25%) and summer (25%); 17% consistent across both time points. Children exhibited changes in sleep outcomes during the summer (slightly longer duration: B=.09, 95%CI 0.02 to 0.16); later timing: B=1.1, 95%CI 0.98 to 1.11; increased variability: B=-3.62, 95%CI -4.70 to -2.55), regardless of HH FI status (time-x-FI interaction p >.05). HH FI was only predictive of sleep variability (B=-3.35, 95%CI -5.53 to -1.18), not duration (B=-.15, 95%CI -.29 to .002), nor timing (B=-1.01, 95%CI -1.15 to 0.13).

Discussion: It is possible that inconsistent sleep patterns (sleep variability) mirror inconsistent food access or other instability experienced by those in food insecure households. Intensive longitudinal studies are needed to better understand how daily access to food is related to children's same-day sleep patterns. However, other factors such as school appear to be more influential on children's sleep.

CORRESPONDING AUTHOR: Layton Reesor-Oyer, PhD, University of South Carolina, Columbia, SC; lreesor@mailbox.sc.edu

---

Abstract citation ID: kaad011.0576

POSTER SESSION C: THE ROLE OF PSYCHOLOGICAL AND PHYSICAL FAMILY VIOLENCE ON CHILD EMOTION REGULATION DURING COVID-19

Lauren V. Butler, BS[1], Lucy Lurie, MA[2], Meredith Gruhn, PhD[3], Crystal Thinzar, BS[4], Margaret Sheridan, PhD[5]

[1]University of North Carolina at Chapel Hill, Durham, NC; [2]University of North Carolina, Chapel Hill, Chapel Hill, NC; [3]UNC, Durham, NC; [4]UNC Greensboro, Greensboro, NC; [5]UNC-CH, Chapel Hil, NC

Childhood exposure to threat can be detrimental to the development of children's emotion regulation. In turn, children with difficulty regulating their emotions are more likely to develop psychopathology. In an effort to contain the spread of COVID-19, pandemic lockdown policies in the U.S. inadvertently increased children's experiences of family violence. This is one pathway that COVID-19-related stress may have impacted children's emotion regulation skills, which may contribute to increased mental health concerns. The present study examines trajectories of psychological conflict (e.g., insulted, swore, or threatened) and physical conflict (e.g., pushed, shoved, kicked, bit, or hit) during the COVID-19 pandemic and associations with child emotion regulation. Participants were parent-child dyads (n = 66) with children ages 5-12 (M_{age} = 7.31, 52.5% female). Caregivers reported on family conflict across 48 self-report surveys between April 2020 and June 2021 during the COVID-19 pandemic. At week 38, caregivers completed one self-report measure of their children's emotion regulation. Longitudinal mixed-effect models were estimated to assess trajectories of psychological and physical family conflict across 48 timepoints. Individual random effects were extracted from the longitudinal models and included in regression analyses examining the association between family psychological and physical conflict intercepts and slopes with children's emotion regulation. Both psychological (ß = .756; p = .001) and physical family conflict (b =.034 = X; p < .001) significantly increased during the course of the COVID-19 pandemic. In both models, intercepts and slopes were negatively correlated such that children with lower levels of family conflict at baseline experienced greater increases in psychological (b = -0.013; p < .001) and physical conflict (b = -0.027; p < .001) over time. Physical conflict intercept (ß = 3.45; p = .048) and slope (ß = 4.003; p = .023) were positively associated with greater emotion dysregulation at week 38. There was no associations of psychological conflict intercept or slope with emotion regulation. The findings suggest that increased physical violence may be a risk factor for child emotion dysregulation throughout the pandemic, further underscoring the importance of public health efforts to provide children and families with resources and preventive intervention to mitigate the risk of physical conflict in the home. Furthermore, given the rise in pediatric mental health diagnoses since the start of the COVID-19 pandemic, emotion dysregulation could be investigated potential intervention target, particularly for children who have experienced increased physical conflict in the home.

CORRESPONDING AUTHOR: Lauren V. Butler, BS, University of North Carolina at Chapel Hill, Durham, NC; lbutl001@unc.edu

Abstract citation ID: kaad011.0577

POSTER SESSION C: EXAMINING THE TEMPORAL STABILITY OF WEIGHT-RELATED PARENTING PRACTICES AMONG MOTHERS: A SIX-WAVE LONGITUDINAL STUDY

Jeremy C. Morales, BSPH[1], Reout Arbel, PhD[2], Genevieve F. Dunton, PhD, MPH, FSBM[1], Tyler B. Mason, PhD[3]

[1]University of Southern California, Los Angeles, CA; [2]Univeristy of Haifa, Zichron Yaakov, Hefa, Israel; [3]University of Southern California, LOS ANGELES, CA

Weight-related parenting practices (e.g., restrictive feeding, pressure to eat) play a vital role in forming children's eating behaviors. Yet, few studies have examined the temporal stability of weight-related parenting practices (i.e., how much they change over time), including factors that are associated with individual differences in temporal stability. Hence, the objectives of this analysis were to examine (1) the temporal stability of weight-related parenting practices and (2) associations of baseline maternal sociodemographic and mental health with temporal stability indices for weight-related parenting practices.

Mothers (N=202; Mage=40.87) completed self-report measures of weight-related parenting practices (Parenting Strategies for Eating and Activities Scale; Child Feeding Questionnaire; & Parental Role Modeling of Healthy Eating) across six semi-annual waves. Sociodemographic factors and mental health were assessed at baseline. Intraclass correlation coefficients (ICC) were calculated to estimate the temporal stability of the parenting measures overtime. Correlations examined associations between ICCs for parenting measures and baseline sociodemographics and mental health.

Measures relating to eating activity, such as Pressure to Eat, Discipline, Limit Setting, and Monitoring showed weak temporal stability (ICC< .5), whereas Healthy Eating Role Modeling and Restrictive showed moderate temporal stability (ICC between .5 and .75). Greater annual income was significantly positively associated with temporal stability of Limit Setting and Healthy Eating Role Modeling ($p< 0.05$). Higher education, older age, and better mental health (i.e., lower anxiety and depressive symptoms and greater self-esteem) were positively associated with temporal stability of Healthy Eating Role Modeling (p's< .05).

Results have implications for longitudinal study development by demonstrating the need to measure weight-related parenting multiple times over the course of a study and to conceptualize them dynamically, particularly for mothers with lower socioeconomic status, who are younger, and have mental health symptoms. Understanding the temporal stability of weight-related parenting practices will provide insight into appropriate study designs to use in pediatric obesity and eating disorder research.

CORRESPONDING AUTHOR: Jeremy C. Morales, BSPH, University of Southern California, Los Angeles, CA; jeremycm@usc.edu

---

Abstract citation ID: kaad011.0578

POSTER SESSION C: SAVE THE MATERIALS, SAVE THE LANDFILL: A QUALITATIVE EXPLORATION OF STRATEGIES AND BARRIERS FOR THE ADOPTION OF REUSABLE CUPS

Maricarmen Vizcaino, PhD[1], Christopher Wharton, PhD[1]

[1]Arizona State University, Phoenix, AZ

Introduction: Utilization of plastic has increased exponentially around the world. In the US, it is estimated that about 50 billion coffee cups – either plastic or paper lined with plastic – are thrown away every year. This represents a significant amount of resources lost (i.e., water, trees) during the production process as well as accumulation of solid waste and subsequent generation of greenhouse gas emissions that contribute to climate change. The purpose of this study was to explore the potential strategies and barriers for the adoption of reusable cups among coffee customers in a university setting.

Methods: Adults 18+ years or older who regularly purchase a beverage at a major coffee chain were recruited via social media and announcements posted around the university campuses. Participants were asked to take part in a brief semi-structured interview conducted via zoom that explored strategies and barriers to adopt and maintain the habit of reusable cup use. Interviews were audio recorded and transcribed using the zoom platform. Data was coded and analyzed for major themes.

Results: A total of 18 interviews were conducted. Interviews lasted between 7-20 minutes. Six major themes were identified: 'Building Up the Habit', 'Multiple Benefits of Reusable Cups', 'The Importance of Environmental Consciousness', 'Commitment to Make a Difference', 'General Barriers', and 'General Recommendations from Customers to Coffee Chains'. One key finding was the relevance of environmental awareness to adopt and sustain the habit of using a reusable cup when purchasing a drink at this major coffee chain ("I want to be sustainable", "I don't want to use materials that I do not need to use", " "...to know that I can contribute in some way to like limit my plastic...I'm helping the environment"). General recommendations included the incorporation of environmental messages within the store that highlight customers' positive impact ("[I like to know] I am being appreciated [for my efforts]") and continuation of current discounts.

Discussion: The combination of corporate initiative (e.g., discounts, promotions) coupled with personal responsibility and commitment seem to be a powerful strategy to address the problematic of plastic use and subsequent environmental impact. Findings from this study will serve as the foundation for the development of a theoretical model that predicts adoption of reusable cups among US adults and informs future promotional campaigns.

CORRESPONDING AUTHOR: Maricarmen Vizcaino, PhD, Arizona State University, Phoenix, AZ; mvizcain@asu.edu

Abstract citation ID: kaad011.0579

POSTER SESSION C: BLACK AND LATINA WOMEN'S LIVED EXPERIENCES NAVIGATING FOOD SWAMPS TO FIND HEALTHY FOOD: A PHOTOVOICE APPROACH

Curtis J. Antrum, MHA[1], Kristen Cooksey Stowers, PhD[2], Abiodun Atoloye, PhD[3], Olasubomi Ajayi[4]

[1]University of Connecticut, Hamden, CT; [2]University of Connecticut, Storrs, CT; [3]Utah State University, Logan, UT; [4]University of Connecticut, Storrz, CT

Background: Previous research has linked racial inequities in dietary and shopping habits, obesity, and diabetes to food swamp environments where unhealthy retailers inundate healthier options. Participatory action research methods like photovoice have been underutilized in research on food swamp environments to date. This study employs photovoice methodology to examine how adults residing in food swamps perceive their access to healthy vs. unhealthy foods and beverages, understand how they navigate food swamps to feed their families, and solicit resident feedback on proposed actions to promote food equity in their community.

Methods/Design: In the context of a multi-year Community Based Participatory Research project in the North Hartford Promise Zone (Connecticut), we conducted a pilot photovoice study of five women of color living in a food swamp. First, participants completed a baseline survey measuring food insecurity, perceived food access, social cohesion, and self-efficacy. Second, they took photographs for 3 days and documented their experiences via annotations using the Our Voice Discovery Tool. A follow-up focus group and survey was completed to co-analyze the photos and emerging themes, and to identify solutions to alleviate food swamps in their neighborhood.

Results: Participants conveyed the "frustrating" experience of taking images, documenting what they feel is the unfair experience of purchasing food in their neighborhoods. Several themes related to food access including marketing, quality, and affordability were identified. Participants highlighted structural changes to advance food equity (e.g., a new full-service supermarket with health-promoting services, improved transportation access, improving food inventory within existing retailers, and leveraging community assets). Participants also identified stakeholders who can assist them.

Conclusion: Residents are resilient, aware of the unjust prevalence of unhealthy foods in their neighborhoods, and willing to collaborate to achieve equitable food environments. After completion of the study, participants felt more confident about their ability to influence community decisions.

CORRESPONDING AUTHOR: Curtis J. Antrum, MHA, University of Connecticut, Hamden, CT; curtis.antrum@uconn.edu

---

Abstract citation ID: kaad011.0580

POSTER SESSION C: MORE CIVIC ENGAGEMENT, MORE PROBLEMS? EXAMINING READINESS FOR CIVIC ENGAGEMENT AMONG YOUNG ADULTS WITH NO COLLEGE EDUCATION

Natalie Fenn, PhD[1], Cheyenne Reyes, MPH[2], Kathleen Monahan, MA[2], Mark L. Robbins, PhD[2]

[1]Alpert Medical School of Brown University, PROVIDENCE, RI; [2]University of Rhode Island, Kingston, RI

Introduction: Civic engagement (e.g., voting, volunteering, protesting) is generally associated with positive health outcomes, and the American Medical Association recently endorsed voting as a social determinant of health. However, little is known about the process of beginning and maintaining civic engagement, particularly among young adults without a four-year college education. The current study examines readiness for civic engagement using the Transtheoretical Model (TTM) in a sample of non-college young adults (NCYAs). According to TTM stage-of-change principles, we expect importance of the pros to increase from lower readiness to higher readiness; importance of the cons to decrease from lower readiness to higher readiness; and self-efficacy, civic engagement behavior, and well-being to increase from lower readiness to higher readiness.

Methods: NCYAs (N=621) completed a one-time online survey in January 2021 regarding sociodemographic information; readiness, pros, cons, and self-efficacy for civic engagement; civic engagement behavior; and well-being. According to the TTM staging algorithm, participants were classified into five readiness stages: pre-contemplation (n=431), contemplation (n=113), preparation (n=32), action (n=23), and maintenance (n=20). We conducted a MANOVA to examine relationships between readiness groupings and pros, cons, self-efficacy, civic behavior, and well-being.

Results: Participants had a mean age of 20.64 years (SD=2.07) with 11.66 (SD=1.43) years of education. There were significant differences between readiness groupings for importance of the pros, self-efficacy, and overall civic engagement, $F(20, 2024)=6.61$, $p < .001$; Wilks' λ=0.81, η^2=.05. Post-hoc Games-Howell tests showed that compared to pre-contemplators, those in contemplation or preparation demonstrated greater pros, higher self-efficacy, and greater overall civic engagement. Cons and well-being did not significantly differ across readiness groups.

Conclusions: Study findings are inconsistent with past applications of the TTM, likely because this was a relatively disengaged population. Interestingly, cons and well-being did not vary across groupings, perhaps given the time at which this research was conducted (amidst the Covid-19 pandemic, Black Lives Matter protests, and following a contentious election) and the conflictual nature of certain types of engagement. This area of study would benefit from additional measure development efforts and research examining ways to best support and encourage civic engagement among NCYAs.

CORRESPONDING AUTHOR: Natalie Fenn, PhD, Alpert Medical School of Brown University, PROVIDENCE, RI; natalie_fenn@brown.edu

Abstract citation ID: kaad011.0581

POSTER SESSION C: DEVELOPING ROUTINE PSYCHOLOGICAL SCREENING FOR YOUTH WITH TYPE 1 DIABETES: IMPORTANCE OF INCLUDING SUBSTANCE USE

Dana Albright, PhD[1], Melissa DeJonckheere, PhD[2]

[1]Parkview Health - Mirro Center for Research and Innovation, Coldwater, MI; [2]University of Michigan - Department of Family Medicine, Ann Arbor, MI

Psychological functioning is well-established as an important consideration in the care of adolescents and young adults (AYA) with type 1 diabetes (T1D) (Young-Hyman, 2016). Quality care recommendations for individuals with T1D suggest routine screening across a variety of psychological factors that may impact their adjustment, functioning and glycemic outcomes including diabetes distress, depression, anxiety, disordered eating, and cognitive capacity (ADA, 2021). Clinically, it is challenging to screen for all the recommended factors due to limited resources. This project aimed to identify the psychological constructs that are most related to diabetes outcomes to guide the development of practical clinical screening tools.

Methods: 65 participants, ages 14-22, completed an electronic screening battery including Rapid Assessment of Adolescent Preventions Services (substance use), Patient Health Questionnaire-9 (depression), Generalized Anxiety Disorder 7, Problem Area in Diabetes (diabetes distress), Fear of Hypoglycemia Scale, and Diabetes Conflict Scale. Electronic medical records were reviewed for HbA1c and diabetes adherence behaviors collected as part of routine clinical care.

Results: Substance use (r= -.44, p=.000), depression (r= .38, p= .001), diabetes distress (r= .34, p= .006), and generalized anxiety (r= .30, p= .015) were all significantly correlated HbA1c; however, none of the psychological constructs measured were correlated with diabetes care behaviors. Interestingly, the single item depression and generalized anxiety functional score was similarly correlated as the full symptom scores (PHQ9: r= .38, p=.001; functional: r= .41, p= .001 and GAD7: r= .30, p= .015; functional: r= .27, p= .029). A multiple regression was completed with all significantly correlated constructs. Substance use (t=2.27, p=.03) was the only significant predictor of HbA1c (F(8,46) = 2.97, p < .009). Further examination of the inter-item correlations indicate use of drugs, alcohol, vaping, tobacco, and other substances were all significantly correlated with HbA1c (all p = .000). When specific substance use items were aggregated and placed in a regression, the model was significant for both HbA1c (F(2,61) = 10.36, p = .000). and diabetes care behaviors (F(1,60) = 4.22, p = .04).

Conclusions: Substance use is less commonly referenced in psychological screening for AYA with T1D. Results suggest clinical care should not skip routine screening for multiple substance use given the impact on HbA1c. Clinical applications of screening tools should continue to aim to balance validated assessments with practical considerations of clinical care settings including time to complete, scoring burden and patient questionnaire fatigue. Challenges related to third-party reimbursement for psychological screening need to be addressed to implement and sustain screening.

CORRESPONDING AUTHOR: Dana Albright, PhD, Parkview Health - Mirro Center for Research and Innovation, Coldwater, MI; dana.albright@parkview.com

---

Abstract citation ID: kaad011.0582

POSTER SESSION C: FEAR OF HYPOGLYCEMIA IS NOT ASSOCIATED WITH DIRECTLY MEASURED PHYSICAL ACTIVITY AMONG ADOLESCENTS WITH TYPE 1 DIABETES.

Daniel Tilden, MD MPH[1], Sarah S. Jaser, PhD[2], Amy E. Noser, PhD[3]

[1]University of Kansas Medical Center, Prairie Village, KS; [2]Vanderbilt University Medical Center, Nashville, TN; [3]University of Minnesota School of Medicine, Shoreview, MN

Background: Along with tight glycemic control, physical activity is a cornerstone of prevention of adverse cardiovascular outcomes among patients with Type 1 Diabetes (T1D). Therefore, identifying and addressing the barriers to meeting targets for moderate or vigorous physical activity (MVPA) is critical in promoting the health of this population. Fear of hypoglycemia (FOH) is frequently cited by patients, parents and providers as a barrier to youth with T1D engaging in physical. While previous work – relying on self-reports of physical activity – did not find significant associations between FOH and MVPA, the relatively weak relationship between self-reported and directly measured rates of MVPA left the possibility that a true association was not detected. This study sought to use actigraphy, an objective measure of physical activity, to assess this relationship more accurately.

Methods: This cross-sectional study used baseline data collected as a part of a sleep-promoting trial for adolescents with T1D. Analysis included data collected across 1 week from adolescents' wrist-worn acitgraphs, as well as parents and adolescent reports of FOH from survey data. We used adjusted and unadjusted linear regression models to assess the association between MVPA and parental and adolescent FOH measures.

Results: Study participants (n=26) were 54% female and 85% Non-Hispanic White. Participants had an average age (SD) of 15.8 (1.3), BMI of 24.7 (6.0), HbA1c at enrollment of 9.1% (1.8) and wore actigraphs for more than 20hrs across 6.1 (1.6) days. The median time spent in MVPA (IQR) was 17.5 minutes per day (10.7 – 27.3) with participants accruing at least 30 minutes of activity on only 1.16 (2.3) days per week. In our primary analysis, participant FOH was not associated with time spent in MVPA in adjusted or unadjusted analyses. Similarly, we found no associations between participant FOH and meeting weekly MVPA goals nor between parental FOH and any of the activity outcomes in adjusted and unadjusted analyses.

Conclusions: In this analysis of adolescents with T1D, we did not observe an association between adolescent or parental FOH and objectively measured physical activity. This finding is consistent with previous literature despite our more direct measure of physical activity. Our study provides further evidence that while FOH is frequently cited by providers and patients as a main barrier to PA, it is at most a minor factor for patients not meeting PA targets.

CORRESPONDING AUTHOR: Daniel Tilden, MD MPH, University of Kansas Medical Center, Prairie Village, KS; dtilden@kumc.edu

Abstract citation ID: kaad011.0583

POSTER SESSION C: DEPRESSION AND DIABETES SELF CARE ACTIVITIES AMONG ADULTS IN INDIA: A LONGITUDINAL CROSS-LAGGED STRUCTURAL EQUATION MODEL

Swathi Sekar, MPH[1]

[1]Emory University, Atlanta, GA

Background: Depression is a highly prevalent condition and is two times more prevalent in those with chronic disease, such as type-2 diabetes mellitus (T2DM). Depression and diabetes often co-exist with bi-directional negative impact on outcomes, resulting in poor diabetes self-care activities (SCA), worse glycemic control, and higher mortality. Among studies taking place within the Indian subcontinent, many show two times greater odds of having depression among those with T2DM compared to those without diabetes. Although these variables have been explored in relation to one another, the magnitude and direction of these relationships have not been as diligently explored. This study aims to fill that gap, while rooting this question within the Theory of Planned Behavior (TPB).

Methods: Considering the bi-directional influence of depression and diabetes SCA, a cross-lagged panel analyses was selected for the analytic plan. The data for this cross lagged study comes from the INDEPENDENT (Integrating Depression and Diabetes Treatment) trial. INDEPENDENT was a multicenter, open-label clinical trial with randomization at the patient level to either an intervention group (n=196) receiving 12 months of collaborative care, followed by 12 months of passive follow-up or the control group (n=208), who received usual care over 24 months. Depression was assessed using the PHQ9 (Patient Health Questionnaire-9) scale. This scale ranges from 0-27, with higher values indicating greater depression. Diabetes SCA was on an overall scale ranging from 0-77 and contained four categories within the scale: Diet, Exercise, Blood Sugar Testing, and Foot Care.

Result and Conclusions: At baseline, a one-point increase in depression score was associated with a 1.5-point decrease in overall SCA (p< 0.001), 0.65-point decrease in diet related SCA (p< 0.0001), 0.37-point decrease in exercise related SCA (p=0.002), 0.19-point decrease in blood sugar testing related SCA (p=0.002), and 0.32-point decrease in foot care related SCA (p< 0.001). The cross lagged structural equation modeling approach was conducted in R studio using maximum likelihood estimation and standardized estimates. Controlling for age, sex, and intervention group, all path coefficients were significant (p< 0.01). Controlling for the autoregressive effects, with an increase in depression, there was a decrease in diabetes SCA (with path estimates ranging from 0.34 to 0.63), and with an increase in diabetes SCA, there was a decrease in depression (with path estimates ranging from -0.12 to -0.27). Fit indices after modification indices were examined were chi-sq (df) of 30.7 (18) and p-value of 0.03, CFI 0.99, TLI 0.98, RMSEA 0.04 and SRMR 0.02, indicating strong fit. These results show that improving diabetes SCA can decrease depression and decreasing depression can improve diabetes SCA over time.

CORRESPONDING AUTHOR: Swathi Sekar, MPH, Emory University, Atlanta, GA; swathi.sekar@emory.edu

---

Abstract citation ID: kaad011.0584

POSTER SESSION C: FAMS 2.0 SELF-CARE SUPPORT INTERVENTION IMPACTS DIABETES DISTRESS, SELF-EFFICACY, FAMILY INVOLVEMENT, AND WELLBEING

McKenzie K. Roddy, PhD[1], Lyndsay A. Nelson, PhD[1], Robert A. Greevy, PhD[1], Andrew J. Spieker, PhD[1], Ruth Q. Wolever, PhD[1], James E. Aikens, PhD[2], Tom A. Elasy, MD, MPH[1], Lindsay S. Mayberry, PhD[1]

[1]Vanderbilt University Medical Center, Nashville, TN; [2]University of Michigan, Ann Arbor, MI

Introduction: Sustained daily self-care behaviors for persons with type 2 diabetes (PWD) prevent complications and premature mortality. However, sustained self-care remains quite challenging and high diabetes distress is common. Family and friends can either reinforce or undermine PWD self-care. While family involvement is associated with illness-related distress, interventions to shape involvement have rarely been investigated. To address these gaps, we developed Family/Friend Activation to Motivate Self-Care (FAMS 2.0), a 9-month mobile phone-delivered intervention that includes phone coaching for PWD focused on improving social support and self-care goals plus text message support for both PWD and their family/friends. We tested the impacts of FAMS 2.0 on wellbeing, self-care, self-efficacy, and family involvement in a randomized controlled trial (RCT).

Methods: Adult PWD (N=329) were randomized to information control (n=165) or FAMS 2.0 (n=164). At baseline and 6 and 9 months post randomization we assessed diabetes distress (Problem Areas in Diabetes) global wellbeing (World Health Organization Well-Being Index), self-care behaviors (Personal Diabetes Questionnaire dietary subscales; Rapid Assessment of Physical Activity; Summary of Diabetes Self-Care Activities; Adherence to Refills and Medications Scale for Diabetes), self-efficacy (Perceived Diabetes Self-Management Scale), helpful family involvement [Family/Friend Involvement in Adult Diabetes (FIAD) Helpful Scale; Important Others Climate Questionnaire], and harmful family involvement (FIAD Harmful Scale; Family Emotional Involvement and Criticism Scale). We used multiple imputation via chained equations to account for missing data. We used generalized estimating equations with a working independence correlation structure, adjusting for baseline and insulin status, to estimate the effect of FAMS on outcomes at 6 and 9 months. We report between-groups treatment effects with effect sizes (ES).

Results: PWD were 51% male, 38% minoritized race or ethnicity, mean age 57.0 (SD=10.8) years and had 11.5 (SD=8.1) years average duration of diabetes with 36% using insulin and 48% reporting clinically significant diabetes distress. There were moderate treatment effects on reduced distress (ES=0.12–0.19), self-efficacy (ES=0.25–0.32), and helpful family involvement (ES=0.20–0.41) and modest treatment effects on wellbeing (ES=0.09–0.20) and self-care behaviors (ES=0.03–0.26). No treatment effects were found for harmful involvement (ES=0.03–0.06).

Discussion: Consistent with its objectives, FAMS 2.0 improved diabetes distress, self-efficacy, and helpful involvement for adults with T2D and produced modest effects on wellbeing and self-care behaviors. Interventions that support self-management alongside improving family involvement may help mitigate distress for adults with T2D.

CORRESPONDING AUTHOR: McKenzie K. Roddy, PhD, Vanderbilt University Medical Center, Nashville, TN; mckenzie.roddy@vumc.org

Abstract citation ID: kaad011.0585

POSTER SESSION C: SOCIAL SUPPORT, SOCIAL COMPARISON, AND MENTAL HEALTH IN RESPONSE TO #T1D SOCIAL MEDIA: EXPERIENCES OF ADULTS WITH TYPE 1 DIABETES

Danielle Arigo, PhD[1], Allyson Hughes, PhD[2], M. Cole C. Ainsworth, PhD[3], Daija A. Jackson, MA[4], Daniela Hernandez, BA[5], Kristen Pasko, MA[1]

[1]Rowan University, Glassboro, NJ; [2]Ohio University, Athens, OH; [3]Noom, Inc., Glassboro, NJ; [4]Chicago School of Professional Psychology, Glassboro, NJ; [5]Tulane University, Glassboro, NJ

Living with type 1 diabetes (T1D) requires careful disease management to limit complications (e.g., neuropathy, retinopathy). Social media is increasingly a source of social support for adults with T1D, as they can connect with one another for emotional and informational support. Yet, evidence also shows the detriment of social media - including body dissatisfaction and symptoms of depression and anxiety - which often result from negative support experiences and social comparisons. The extent to which social media engagement is associated with perceptions of social support, social comparison, and mental health among adults with T1D is not clear. Additional information about these associations may inform recommendations for optimal use of social media for those with T1D. Toward this end, adults with T1D who follow illness-related content on social media (N=141, M_{Age}=35.7 years, 16% men, 11% racial/ethnic minority identity) completed an electronic survey of their experiences. The average participant had lived with T1D for ~20 years and reported a recent Hb_{A1C} of 6.9; 83% indicated that they use a continuous glucose monitor (CGM). A subset reported consequences of severe low blood sugar in the past year, including loss of consciousness (8%), visits to the emergency department (2%), and changes in cognitive or emotional state that required assistance (20%). Nearly all participants (>90%) endorsed awareness of the early signs of hypoglycemia. Most respondents (>90%) also indicated that they view social media more than once per week and had done so for more than 1 year. When asked to select from a set of images depicting CGM and blood glucose monitors as they often appear in social media posts, the majority of respondents (83%) indicated that they found the images of blood glucose values in target range most motivating (vs. images of hyperglycemia or hypoglycemia). Those who reported viewing T1D content on social media more (vs. less) often perceived more emotional and instrumental support from social media (rs=0.16, 0.28; ps< 0.05). However, those who perceived more (vs. less) *negative* support from T1D social media also reported more severe depressive symptoms and worse body satisfaction (rs=0.34, -0.29; ps< 0.01). With respect to social comparison, those with T1D who endorsed stronger (vs. weaker) tendencies to make comparisons perceived greater social support from T1D social media (r=0.42. p< 0.001), though they also reported more severe distress about their T1D management and anxiety symptoms (rs=0.45, 0.32; ps< 0.01). These findings underscore the benefits of T1D social media (e.g., positive social support, motivation for illness management). Importantly, however, these findings also highlight the need for attention to potential negative use of this content (e.g., for negative support or unhelpful social comparisons), which may contribute to mental health symptoms and illness distress.

CORRESPONDING AUTHOR: Allyson Hughes, PhD, Ohio University, Athens, OH; ashughes@ohio.edu

Abstract citation ID: kaad011.0586

POSTER SESSION C: ASSOCIATIONS BETWEEN WIC PARTICIPATION AND WOMEN'S DIET QUALITY, NHANES 2011-2018

Yarisbel Melo Herrera, MS, RDN[1], Maya Vadiveloo, PhD, RD, FAHA[2], Alison Tovar, PhD, MPH[3], Nekehia Quashie, PhD[4], Brietta Oaks, PhD, MPH[2]

[1]University of Rhode Island, Boston, MA; [2]University of Rhode Island, Kingston, RI; [3]Brown University, Providence, RI; [4]University of Rhode Island Department of Health Studies, Kingston, RI

Background: It remains unclear how the diet quality of women who participate in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) compares to pregnant and postpartum women in the general population. Better understanding how WIC participation shapes women's diet quality is crucial given that during the perinatal period, diet plays a critical role in determining mothers' and children's short- and long-term overall health.

Objective: To compare the diet quality of WIC-participating women to WIC-eligible non-participating women and higher-income pregnant and postpartum women using a nationally representative sample.

Methods: This is a cross-sectional study using data from the National Health and Nutrition Examination Survey (NHANES) 2011-2018 cycles. There were 626 eligible women aged 20-44 with at least one 24-hour recall and complete data on pregnancy and postpartum status and WIC participation. Diet quality was evaluated using the Healthy Eating Index 2015 (HEI-2015) total and component scores (n=13) using the "per person" scoring algorithm. A higher total HEI-2015 score (range 0-100) corresponds to a higher-quality diet. All statistical analyses used survey-specific procedures to account for unequal selection probability, clustered design, and weights for nonresponse and noncoverage. Multivariable Tukey-adjusted linear models were used to compare HEI-2015 total and component scores between groups. Models were adjusted for age, race and ethnicity, pregnancy and postpartum status, breastfeeding status, and food security. There was no effect modification by breastfeeding status or pregnancy and postpartum status.

Results: Women in this sample were on average 29.30 + 0.39 years old. Women were primarily Non-Hispanic White (58%), postpartum and not pregnant (75%), non-breastfeeding (60%), with some college education or above (66%), and had full food security (64%). At the household level, the sample had a mean ratio of family income to poverty (PIR) of 2.34 + 0.10. WIC participants, WIC-eligible non-participants, and higher-income women had mean HEI-2015 total scores of 52.7 + 1.1, 54.2 + 1.3, and 55.0 + 1.6, respectively. There were no statistically significant differences between total and most component scores among groups.

Conclusions: This study found no differences in overall diet quality between WIC-participating, WIC-eligible non-participating, and higher-income women. More research is needed to explore potential barriers preventing WIC from adequately improving the diet quality of its participating women, including food benefit redemption patterns and the food packages' alignment with cultural food preferences, to ensure WIC's continued support for the health and nutrition status of low-income women.

CORRESPONDING AUTHOR: Yarisbel Melo Herrera, MS, RDN, University of Rhode Island, Boston, MA; ymelo@uri.edu

Abstract citation ID: kaad011.0587

POSTER SESSION C: DISCREPANCY IN PATIENT- AND THERAPIST-PERCEIVED USEFULNESS OF A DIGITAL APP FOR EATING DISORDER TREATMENT PREDICTED OUTCOMES

Jianyi Liu, MA[1], Laura D'Adamo, BA[1], Adrienne S. Juarascio, PhD[1]

[1]Drexel University, Philadelphia, PA

Incorporating digital treatment tools into traditional psychotherapy may potentially increase patients' treatment engagement. However, how well patients' and therapists' perceived usefulness of digital treatment tools align is not well understood. Discrepancies in perceived usefulness may lead to low engagement and poorer treatment outcomes. We previously developed a digital treatment tool, a smartphone app that included several components (e.g. self-monitoring of eating and therapeutic skills use, just-in-time adaptive interventions) as an augmentation to enhanced cognitive-behavioral therapy (CBT-E) for adult with bulimia spectrum eating disorders (BN-EDs). The current study examined whether there was discrepancy between patients' and therapists' perceived usefulness of the app, and whether the discrepancy predicted treatment outcomes (i.e., eating pathology, loss of control (LOC) episodes and compensatory behaviors). Fifty-five participants receiving 16 sessions of CBT-E were instructed to self-monitor their eating and skills practice in the app. Each week, participants and therapists rated the questions "How useful do you find the app?" or "Please rate your perception of how useful the participant finds the app", respectively, on a 6-point Likert scale (1 = extremely useless; 6 = extremely useful). Participants' Eating Disorder Examination (EDE) global scores, frequency of LOC episodes and compensatory behaviors for the past 28 days were assessed at the end of the treatment (EOT) and at 3-month follow-up. Each participant-therapist dyad's weekly discrepancy score was calculated by subtracting the participant's rating from the therapist's rating; we then averaged the 16 weekly discrepancy scores, thus negative scores meaning participants perceived higher usefulness than therapists did. Linear regressions were used to examine association between discrepancy scores and treatment outcomes. Results showed on average, there was no significant difference in perceived usefulness between therapists (M= 4.41, SD = 1.07) and participants (M = 4.32, SD = 1.21; *t*(54) = -.64, *p* = .52). However, the higher therapists' perceived usefulness for their participants was relative to participants' own perceived usefulness, the lower participants' EDE global scores were at follow-up (B = -.37, *p* = .02, R2 = .12), indicating worse eating pathology. Results suggest that discrepancy in perceived usefulness of digital treatment tools might predict worse treatment outcomes for patients with BN-EDs, especially if therapist's perceptions of how useful the patient finds the app is higher than the patient's own perception. It is important for future research to explore reasons behind the discrepancies to inform user-centered design of digital interventions, and to explore strategies to facilitate communication about the digital tool's usefulness between patients and therapists.

CORRESPONDING AUTHOR: Jianyi Liu, MA, Drexel University, Philadelphia, PA; jl4528@drexel.edu

---

Abstract citation ID: kaad011.0588

POSTER SESSION C: POSITIVE AFFECT DYSREGULATION AND ITS RELATION TO BINGE EATING SIZE AND FREQUENCY

Rebecca L. Flynn, BS[1], Thomas A. Massion, BS[1], Jacqueline A. Kosmas, MA[1], Shannon R. Smith, BS[1], Carli N. Mastronardi, BA[1], Andrea K. Graham, PhD[1]

[1]Northwestern University Feinberg School of Medicine, Chicago, IL

Negative affect is an established driver of binge eating, but less is known about positive affect. Low positive affect has been theorized to increase the risk of binge eating disorder by directly and indirectly maintaining binge eating. Validating this theory requires a better understanding of the relationship between positive affect and binge episode size and frequency, given differences in levels of negative affect and eating disorder psychopathology based on binge size, and thus it is the focus of this study. Treatment-seeking adults with self-identified recurrent binge eating (*N*=182; 76% female; 44% self-identified as Black and 40% as White; 25% self-identified as Hispanic/Latino) completed the Positive and Negative Affect Schedule (PANAS) survey to assess affect, as well as the Eating Disorder Examination interview to assess frequency of objective binge episodes (OBEs) and subjective binge episodes (SBEs) over the past 3 months. Independent t-test and regression analyses were used to test associations between positive affect scores and binge episode size and frequency, respectively, as well as to compare people with low versus high positive affect (highest vs. lowest PANAS quartiles) on OBE and SBE frequencies. Additionally, because positive affect can vary with respect to identities and social determinants of health, we controlled for race, ethnicity, education level, and income. Lower positive affect was significantly correlated with more binge episodes regardless of size (*r*=-0.19; *p*=0.01); this finding held when the covariates were included in the model (*B*=-0.20; *p*=0.03). However, positive affect scores were not associated with frequency of OBEs (*p*=0.14) nor SBEs (*p*=0.12) when tested independently. There was no significant difference in average OBEs between those with high vs. low positive affect (*p*=0.28). However, people with low positive affect had significantly more SBEs compared to people with high positive affect (*M*=21.7, *SD*=23.9 vs. *M*=12.6, *SD*=15.8 episodes; *p*=0.03). Overall, results support the theory that positive affect dysregulation is associated with binge eating, particularly among people with SBEs. Increasing positive affect may be an important treatment consideration for those with recurrent binge eating. Given past work showing variations in positive affect by identities/social determinants of health, more work may be needed to disentangle how these factors may be implicated in the link between positive affect and binge eating.

CORRESPONDING AUTHOR: Rebecca L. Flynn, BS, Northwestern University Feinberg School of Medicine, Chicago, IL; rebecca.flynn@northwestern.edu

Abstract citation ID: kaad011.0589

POSTER SESSION C: VARIANCE IN FOOD CUE REACTIVITY IS ASSOCIATED WITH ENERGY INTAKE AMONG WOMEN UNDERGOING TREATMENT FOR BINGE-EATING DISORDER

Daisuke Hayashi, MSc[1], Caitlyn Edwards, PhD, RDN[2], Jennifer A. Emond, PhD, MS[3], Andrea Rigby, PsyD, MEd, MS[4], Travis Masterson, PhD[1]

[1]The Pennsylvania State University, State College, PA; [2]Vida Health, San Francisco, CA; [3]Geisel School of Medicine at Dartmouth College, Hanover, NH; [4]Penn State Health Milton S. Hershey Medical Center, Middletown, PA

Introduction: Responsivity to food cues, which is experienced as food craving, has been shown to influence eating-related outcomes in experimental studies in laboratory settings. However, studies exploring this relationship in an ecologically valid manner are lacking.

Methods: Fourteen females (BMI=45.8 ± 8.1, Age=42.9 ± 12.3) attending a remote binge eating support group at a regional academic medical center followed a 7-day Ecological Momentary Assessment protocol. Participants received 9 text messages every two hours between the waking hours of 6:00 am to 8:00 pm which prompted them to respond on a Likert scale (1=strongly disagree, 5=strongly agree) to questions from each of the five subscales of the General Food Craving Questionnaire – State (G-FCQ-S). These questions reflect momentary states related to food cue reactivity. Participants also completed 7 self-administered 24-hour dietary recall (ASA-24) at the end of each day. Generalized Linear Mixed Models (GLMM) were used to evaluate the association between calorie intake and either participant's deviation from their weekly mean response to each of the five questions or variance in response to each question throughout the day, while controlling for average weekly response.

Results: Daily variance in responses to three food cue reactivity questions were predictive of daily energy intake. Specifically, "an intense desire to eat" (β=409.490, p=.003), "obsessive preoccupation with food" (β=378.791, p=.002), and "anticipation of positive reinforcement" (β=-379.013, p=.047). Conversely, daily average deviations from weekly means were not predictive of daily energy intake.

Discussion: This study provides initial evidence that measuring responsivity to food cues in real-life situations using EMA can help predict fluctuations in energy intake among women undergoing treatment for binge-eating disorder. Assessing variance in food cue reactivity over the course of a day shows particular promise, however, deviations from weekly means do not appear to be predictive. A further understanding of the relationship between variance in food cue reactivity and energy intake could provide researchers and practitioners with valuable information when working with treatment and relapse-prevention in binge-eating disorder and enable the development of just-in-time intervention strategies.

CORRESPONDING AUTHOR: Daisuke Hayashi, MSc, The Pennsylvania State University, State College, PA; dbh5557@psu.edu

---

Abstract citation ID: kaad011.0590

POSTER SESSION C: IDENTIFYING MOTIVATORS & BARRIERS TO SELF-MONITORING OF BEHAVIORAL INTERVENTION OUTCOMES IN PEOPLE WITH BINGE EATING & OBESITY

Thomas A. Massion, BS[1], Jacqueline A. Kosmas, MA[1], Rebecca L. Flynn, BS[1], Shannon R. Smith, BS[1], Carli N. Mastronardi, BA[1], Andrea K. Graham, PhD[1]

[1]Northwestern University Feinberg School of Medicine, Chicago, IL

Self-monitoring (i.e., observing and recording one's behaviors and outcomes) can induce behavior change and improve monitored outcomes. Yet consumers of behavioral interventions describe self-monitoring as difficult and often do not maintain self-monitoring long-term. This study aimed to understand motivators and barriers for self-monitoring to improve behavioral health monitoring systems that can sustain consumers' motivation for monitoring and behavior change. We conducted a secondary analysis of data from a proof-of-concept randomized trial of 50 adults with recurrent binge eating and obesity (self-identified demographics: 52% female; 10% Asian, 14% Black, 16% Hispanic or Latino, 58% White, 2% non-reported race or ethnicity). Participants were asked to self-monitor outcomes relevant to reducing binge eating and managing weight for 3 weeks; they reported their attitudes and reflections towards self-monitoring before, during, and after the 3-week period via open-ended and video response prompts. Qualitative data were analyzed using thematic analysis. Motivators for self-monitoring were grouped into 5 themes: 1) motivated to improve favorable outcomes (improved health outcomes, improved quality of life, improved family experiences, improved health metrics, building better habits, improved self-image/esteem, emotional growth, self-motivation); 2) motivated to reduce unfavorable behaviors, perceptions, and emotions (guilt, weight/binge eating, outward appearance, improved self-control); 3) monitoring as a motivator (increased awareness, acknowledging imperfection, progress, goals, self-accountability, consistency); 4) external motivators (family members, activities, prompts to monitor, peer support and accountability); and 5) monitoring system-related motivators (desired monitoring system features, collecting progress data, novelty). Barriers to self-monitoring were grouped into 3 themes: 1) personal barriers (confronting one's reality, remembering, positive emotions, negative emotions, translating monitoring to success); 2) external barriers (lack of support, lack of external motivators, environmental barriers); and 3) monitoring system-related barriers (disliked monitoring system characteristics). Results point to motivators and barriers for self-monitoring that can be leveraged or addressed by behavioral intervention monitoring systems. Design efforts are needed to improve self-monitoring systems and increase their capacity for sustained behavior change.

CORRESPONDING AUTHOR: Thomas A. Massion, BS, Northwestern University Feinberg School of Medicine, Chicago, IL; thomas.massion@northwestern.edu

Abstract citation ID: kaad011.0591

POSTER SESSION C: MEDIATION BY EXECUTIVE FUNCTIONS IN THE ASSOCIATIONS BETWEEN PSYCHOSOCIAL FACTORS AND DIETARY INTAKE IN PREGNANT WOMEN

Mei-Wei Chang, RN[1], Alai Tan, PhD[1], Duane T. Wegener[1], Brett Worly, MD, MBA, FACOG[2], Katherine Strafford, MD[3], Jonathan Schaffir, MD[4], Cassandra Sampsell, RN[1], Loriana Soma, MD[1], Maggie Rosen, MD[1]

[1]The Ohio State University, Columbus, OH; [2]Ohio State University College of Medicine, Columbus, OH; [3]The Ohio State University Medical Center, Columbus, OH; [4]Dept of Obstetrics & Gynecology, Ohio State University, Columbus, OH

Background: The study explored potential mediation by executive functions (behavioral regulation index [BRI] and metacognition index [MI]) in association between perceived stress, prenatal distress, emotional control, and dietary intake (total calorie, total fat, added sugar, fruits, and vegetables).

Methods: 70 overweight or obese pregnant women completed validated online surveys and two 24-hour dietary recalls. Path analyses were performed.

Results: Increased perceived stress was associated with increased BRI both directly ($p < 0.001$) and indirectly through increased MI (perceived stress to MI: $p < 0.001$, MI to BRI: $p < 0.001$). Subsequently, increased BRI was associated with increased total fat intake ($p = 0.01$). Two-stage mediation was found in the association of prenatal distress with total fat intake. Increased prenatal distress was associated with increased MI ($p < 0.001$). Higher MI was associated with higher BRI ($p < 0.001$), and higher BRI was associated with increased total fat intake ($p = 0.01$).

Conclusions: Future intervention studies for overweight or obese pregnant women might focus on stress management to alleviate perceived stress and prenatal distress or on strategies to boost executive functions, each of which might ultimately help to reduce total fat intake.

CORRESPONDING AUTHOR: Mei-Wei Chang, RN, The Ohio State University, Columbus, OH; chang.1572@osu.edu

---

Abstract citation ID: kaad011.0592

POSTER SESSION C: INTRA-INDIVIDUAL VARIABILITY IN PHYSICAL ACTIVITY PERFORMANCE: A LONGITUDINAL STUDY

Jason Baik[1], Vincent Berardi, MS, PhD[2], Marc A. Adams, PhD, MPH[3]

[1]Chapman University, Downey, CA; [2]Chapman University, Orange, CA; [3]Arizona State University, Phoenix, AZ

Background: Mobile health (mHealth) devices typically collect intensively longitudinal data, which presents the opportunity to provide more nuanced descriptions of behavioral phenomena. This work derives novel measures of intra-individual variability in physical activity (PA) performance from a year-long longitudinal PA promotion mHealth trial and relates them to the amount of moderate-to-vigorous physical activity (MVPA) produced during a study follow-up.

Methods: Data were generated by WalkIT Arizona, a clinical trial where inactive adults wore an accelerometer daily for one year and were assigned daily MVPA goals. Two weeks of follow-up data were collected a year after the trial ended at the 24-month mark. This analysis considered a year's worth of minute-level linear acceleration vector magnitude (VM), a measure of PA intensity, for participants who wore the device the entire year (N = 296). A Seasonal-Trend algorithm was used to decompose each participant's time series into three components: seasonality (i.e., daily patterns), yearly trend, and a residual. The yearly trend component was then analyzed via the CUSUM chart approach, which allows each minute of data to be characterized as belonging to an interval labeled: in control (within a participant's typical VM range), lower (< typical VM), or upper (> typical VM). The data was split into thirds (months 1-4, 5-8, and 9-12), and for each third, the number of in-control/upper/lower minutes, unique intervals (a proxy for consistency), and total MVPA bouts were calculated. A multiple linear regression model was then fit with the follow-up MVPA bouts as the outcome and the engineered features as predictors.

Results: The association between total minutes in both in-control and upper intervals and MVPA bouts was statistically significant in both months 1-4 and 9-12, albeit in different directions. One standard deviation (SD) increase in in-control and upper intervals in months 1-4 was associated with 25 and 28 more bouts of MVPA at follow-up (p = 0.08, p = 0.02). In contrast, in months 9-12, each additional SD in in-control and upper intervals was associated with 47 and 40 fewer bouts of MVPA at follow-up (p = 0.03, p = 0.11). Significant associations were not found for the months 5-8 features.

Conclusion: Early in the study, participants that spent more time in in-control and upper intervals were associated with more MVPA at follow-up. Later in the study, more time in lower intervals was associated with better outcomes. This may reflect the utility of building rest periods into routines for long-term PA engagement.

CORRESPONDING AUTHOR: Jason Baik, Chapman University, Downey, CA; jabaik@chapman.edu

Abstract citation ID: kaad011.0593

POSTER SESSION C: A WEIGHT-INCLUSIVE PODCAST PROGRAM RESULTED IN GREATER INTUITIVE EATING AND BODY APPRECIATION AMONG UNIVERSITY STUDENTS

Melissa Goode, BS[1], Abigail Pye, BS[2], Natalie M. Papini, MA[1], Nikole Squires, MS, CHES[1], Nanette V. Lopez, PhD, MS/MS[1], Dawn Clifford, PhD, RDN[1]

[1]Northern Arizona University, Flagstaff, AZ; [2]Northern Arizona University, FLAGSTAFF, AZ

Disordered eating occurs across the lifespan but is particularly prevalent in late adolescence and young adulthood. Weight inclusive approaches such as the Health At Every Size® paradigm and intuitive eating have been shown to reduce disordered eating patterns and improve body appreciation. Podcasting has become a popular method to share health messages, though very little research has explored the impact of podcasting on health-related attitudes and behaviors. The current study aimed to assess the effectiveness of an 8-week Weight-Inclusive Podcast (WIP) intervention on intuitive eating and body appreciation in college students.

A quasi-experimental design was used to assess the effects of a WIP intervention on university students enrolled in two sections of a senior-level undergraduate nutrition course (intervention n=16, control n=29; 80% white). . The WIP series included 8 weekly podcasts on nutrition through the lifecycle and addressed themes of body acceptance, body positivity, weight stigma, and non-diet approaches. The control podcast series included 8 weekly podcasts that only addressed nutrition through the lifecycle. Intuitive eating and body appreciation were assessed pre and post intervention using the Intuitive Eating Scale-2 (IES-2) and the Body Appreciation Scale-2 (BAS-2).

A two-way ANOVA revealed significant effects of time for IES-2 (F (1,43) = 10.587, p = .002) and BAS-2 scores (F (1, 43)= 8.466, p= .006). In addition, there were significant interaction effects of time by condition, with improvements in the IES-2 scores in the WIP group from baseline (Mean= 3.40, SD=.346) to post-intervention (Mean=3.78, SD=.507) and improvements in BAS-2 scores in the WIP group from baseline (Mean=3.54, SD=.541) to post-intervention (M=3.90, SD=.365).

Listening to podcasts with weight-inclusive messages improves eating attitudes, attention to hunger and satiety cues, and internal characteristics of acceptance, love, and respect toward one's body.

CORRESPONDING AUTHOR: Melissa Goode, BS, Northern Arizona University, Flagstaff, AZ; mry69@nau.edu

---

Abstract citation ID: kaad011.0594

POSTER SESSION C: A QUALITATIVE ANALYSIS OF PARTICIPANT RESPONSES TO WEIGH-IN POSTS IN A FACEBOOK-DELIVERED LIFESTYLE INTERVENTION

Cindy Pan, BS, BA[1], Lindsay Palmer, PhD in Psychology and Women's, Gender, and Sexuality Studies[2], Danielle E. Jake-Schoffman, PhD[3], Joseph DiVito, BS[4], Sherry Pagoto, PhD, FSBM[5]

[1]University of Connecticut, West Hartford, CT; [2]University of Connecticut, Chicago, IL; [3]University of Florida, Gainesville, FL; [4]UConn Center for mHealth and Social Media, Storrs, CT; [5]University of Connecticut, Storrs, CT

Social media-delivered behavioral weight loss interventions have been shown to be efficacious and provide a low-cost alternative to traditional interventions. Engagement, defined as participant posts, replies, or reactions to posts (e.g., like, love, haha), has been shown to be a strong predictor of weight loss outcomes. One study found that certain types of engagement are more predictive of weight loss outcomes than others; for example, engaging in weekly weigh-ins was highly predictive of weight loss. In the current project, we expand upon this work by performing a mixed methods examination of participant engagement in weekly weigh-ins. In a Facebook-delivered weight loss program, participants were instructed to weigh themselves weekly and report their weight change over the past week in a group discussion thread referred to as "weigh-ins." We content analyzed (N=1,277) replies to weekly weigh-ins from 134 adults with overweight or obesity who were participating in a 16-week Facebook-delivered weight loss intervention. We summarized engagement in the 16 weekly weigh-ins and the nature of the weight change reported (i.e., gained, lost, no change). Pairs of independent coders then coded participant replies in terms of sentiment (positive, negative, neutral) (IRR=85%). Pearson correlations were used to test the association between weigh-in engagement, reported weight change, and weight change during treatment, and then regression analyses controlling for number of weight change reports (loss or gain, respectively) were used to examine the association between sentiment (positive or negative, respectively) with weight change. Participants engaged in a mean of 33.7% (SD=31.7) of weigh-in posts (N=686 replies). Of these, 63.6% (n=436) were weight loss reports, 25.5% (n=175) were weight gain, and 10.2% (n=70) were no change. Of 686 weigh-in reports, 27.0% (n=185) were positive sentiment, 14.4% (n=99) were negative sentiment, and 58.6% (n=402) were neutral sentiment. Greater weigh-in participation was associated with greater weight loss (r=-0.33, *p*< 0.001). Greater weigh-in replies that reported a weight loss was associated with greater weight loss (r=-0.40, *p*< 0.001) but number of weigh-in replies that reported weight gain (r=-0.15, *p*=0.08) or no change (r=0.03, *p*=0.73) were not associated with weight change. Regression analyses controlling for the number of weight loss reports revealed no significant relationship between positive sentiment replies (*p*=0.94) or negative sentiment replies (*p*=0.99) and weight change. Future research should examine ways to increase participation in weigh-ins.

CORRESPONDING AUTHOR: Cindy Pan, BS, BA, University of Connecticut, West Hartford, CT; cindy.pan@uconn.edu

Abstract citation ID: kaad011.0595

POSTER SESSION C: THE DIGITAL THERAPEUTICS REAL WORLD EVIDENCE FRAMEWORK: GUIDING EVIDENCE-BASED DESIGN, DEVELOPMENT, TESTING, AND MONITORING

Meelim Kim, PhD[1], Kevin Patrick, PhD, MD[2], Camille Nebeker, EdD, MS[3], Job Godino, PhD[4], Spencer Stein, MPH[5], Predrag Klasnja, PhD[6], Clare Viglione, MPH, RD[2], Aaron Coleman[7], Eric Hekler, PhD[8]

[1]University of California San Diego, San Diego, CA; [2]University of California San Diego, La Jolla, CA; [3]UC San Diego, La Jolla, CA; [4]Family Health Center San Diego, La Jolla, CA; [5]Spiral Health Inc., La Jolla, CA; [6]University of Michigan, Ann Arbor, MI; [7]Small Steps Labs LLC dba Fitabase, La Jolla, CA; [8]UC San Diego, San Diego, CA

Digital Therapeutics (DTx) are increasingly seen as a promising way to provide safe, effective, accessible, sustainable, scalable, and equitable approaches to advance individual and population health. Developing DTx is inherently complex in that DTx may include multiple interacting components, such as tools to support activities like medication adherence, health behavior goal-setting or self-monitoring, and algorithms that adapt the provision of these according to individual needs. As recommended in a recent worldwide review of regulatory approaches for DTx, a way to address this complexity is to base the design, development, testing, and iterative improvements of DTx on real-world evidence (RWE). Notably, that review highlights the need for improved guidance on when and how to use RWE for DTx. In this paper, we propose the *DTx RWE Framework* to provide a pragmatic, iterative, milestone-driven approach for producing RWE for DTx regulation. The *DTx RWE Framework* is based on best practices from human-centered design, optimization trials for behavioral interventions, behavioral health research, and implementation science. It maps these onto the traditional four phase development model for pharmaceuticals but includes key adaptations relevant to RWE production for DTx, such as including early and ongoing partnerships between developers of DTx and their intended users in clinical and/or community settings. Adoption of our *DTx RWE Framework* may help address known problems with current DTx, including questionable marketing claims, lack of evidence-based guidance for patients, providers, and health care leaders and the need to improve economic incentives that advance the adoption and use of DTx.

CORRESPONDING AUTHOR: Meelim Kim, PhD, University of California San Diego, San Diego, CA; meelim91@gmail.com

---

Abstract citation ID: kaad011.0596

POSTER SESSION C: RELATIONSHIP BETWEEN HOPE AND MENTAL AND PHYSICAL HEALTH: A STUDY USING MOBILE SURVEYS AND WEARABLE SMARTWATCH TECHNOLOGY

Kristen Gilley, BS, MPH[1], Kelly Mayhew, BS[1], Miao Yu, BS, MS[1], Matthew Demoss, BS, MS[1], Michelle Rozwadowski, BS[1], Loubna Baroudi, BS[1], Ronald F. Zernicke, PhD[1], Natalie Colabianchi, PhD[1], Julia Cunningham, PhD[1], Kira Birditt, PhD[1], Stephen Cain, PhD[2], Dvora Corn[3], Benjamin Corn, MD[4], Sung Choi, MD, MSc[1], Muneesh Tewari, MD, PhD[1]

[1]University of Michigan, Ann Arbor, MI; [2]West Virginia University, Morgantown, WV; [3]Life's Door, Jerusalem, Yerushalayim, Israel; [4]Hebrew University Faculty of Medicine, Jerusalem, Yerushalayim, Israel

Background and Purpose: Snyder et al. conceptualized "hope" as a cognitive construct that comprises goals, a sense of agency, and pathways (i.e., a strategy for achieving one's goal). Hope has been associated with multiple outcomes, including health-promoting behaviors, such as engaging in exercise and abstaining from smoking. Herein, we sought to study the relationship between hope and self-reported measures of physical and mental health, as well as physiological data from Fitbit® devices, in a population of >1100 students at the University of Michigan.

Methods: We carried out this study in the academic school year. Upon enrollment, participants completed a baseline survey followed by monthly surveys for a total of four months, during which they were asked to wear a Fitbit® smartwatch. The surveys comprised validated scales for hope as a state or trait, and a range of surveys related to mental health (e.g., scales for anxiety, depression, flourishing, compassion, loneliness, meaning and purpose, and resilience) as well as physical health and functioning (e.g., scales for physical function, fatigue, and sleep disturbance). Participants were provided a mobile health (mHealth) app called *Roadmap* that gave access to optional positive psychology activities (e.g., gratitude journaling) and integrated with Fitbit® servers through an API to access data on physical activity (i.e., steps), sleep, and heart rate. Data were analyzed with standard statistical methods using the R programming language.

Results: Salient findings to date included statistically significant anti-correlations of anxiety, depression and loneliness with hope state (coefficients -0.59, -0.64, and -0.30, respectively), while flourishing and compassion were positively correlated with hope state (0.49 and 0.26). In analyses of hope and physical health and functioning, both hope state and trait were anti-correlated with sleep disturbance (coefficients -0.42 and -0.29, respectively) and with level of self-reported fatigue (coefficients -0.54 and -0.32).

Conclusions: We found new associations between hope and flourishing and compassion, as well as with sleep disturbance and fatigue. Given the potential to modify hope state with positive psychology interventions (e.g., hope enhancement workshops), modifying hope might have potential for improving not only mental health, but other outcomes such as fatigue and sleep disturbance. The latter may, in turn, have ramifications for illness and well-being.

CORRESPONDING AUTHOR: Muneesh Tewari, MD, PhD, University of Michigan, Ann Arbor, MI; mtewari@med.umich.edu

Abstract citation ID: kaad011.0597

POSTER SESSION C: PILOT RANDOMIZED CONTROLLED TRIAL OF HEALTHY JUNTOS: A DIGITAL LIFESTYLE INTERVENTION FOR HISPANIC ADOLESCENTS AND PARENTS

Sara M. St. George, PhD[1], Vanina Pavia Aubry, MD[2], Rana Saber, MS, MSL, PMP[3], Yanexy Rivera, MPH, MA[4], Cristine Concha-Gomez, MSEd[2], Blanca S. Noriega Esquives, MD, PhD[5], Vanessa Morales, MSPH[2], Roberto M. Benzo, PhD, MS[6], Rafael O. Leite, MS[7], Maria Estevez, BS[2], Ruth G. St Fleur, PhD[8], Guillermo Prado, PhD[2]

[1]University of Miami Miller School of Medicine, Miami, FL; [2]University of Miami, Miami, FL; [3]Northwestern University, Chicago, IL; [4]University of Miami School of Nursing and Health Studies, Miami, FL; [5]University of Miami, Sylvester Comprehensive Cancer Center, Miami, FL; [6]University of Miami, Miami Beach, FL; [7]University of Miami, Coral Gables, FL; [8]Brown University, Providence, RI

Background: U.S. Hispanic youth have the highest prevalence of obesity. Family-based interventions improve youth weight status and lifestyle behaviors and are highly relevant to Hispanics due to *familismo*. However, few existing family-based obesity prevention interventions for Hispanics target parent-adolescent dyads, and those that do are often not designed to facilitate widespread reach.

Methods: Our team developed *Healthy Juntos (Healthy Together),* a family-based digital lifestyle intervention grounded in family systems and behavioral theories that targets family communication/positive parenting, behavioral skill-building, and autonomy support through eight modules delivered over 10-12 weeks. Our pilot RCT assessed its feasibility, acceptability, and preliminary effects on BMI, moderate-to-vigorous physical activity (MVPA), and diet in adolescents at risk for obesity and their parents. We collected objective measures of height/weight and self-reported measures of MVPA, diet, family functioning, and positive parenting. We randomly assigned 25 adolescents (13.8±1.2 years old, 56% female, BMI: 21.6±3.5) and their parents (44.5±6.2 years old, 88% mothers, 84% immigrants, BMI: 34.7±14.7) to *Healthy Juntos* or a digital health referral control condition. *Healthy Juntos* families received access to our web-based app, Fitbits, and brief parent-only consultations with bilingual health coaches. Families in our control condition received referrals to publicly available health websites and apps.

Results: We retained 84% of families from baseline to post-intervention. Eighty-five percent of parents and 60% of adolescents initiated the intervention. Of those who initiated, parents and adolescents completed 6.0±2.7 and 6.0±2.6 of 8 modules, respectively. Parents completed 6.0±2.6 coaching sessions. Effect sizes corrected for our small sample size (Hedges' *g;* small=*0.2;* medium=*0.5;* large=*0.8*) showed promising effects of *Healthy Juntos* vs. control at post-intervention for adolescent BMI (g=-0.65), MVPA (g=0.25), fruit and vegetable intake (g=1.29) and health-related positive parenting practices for diet (g=0.28) and physical activity (g=0.37). There were also promising effects for parent vegetable (g=0.46) and sugar-sweetened beverage intake (g=-0.59).

Conclusions: *Healthy Juntos* shows promising effects on adolescent and parent lifestyle outcomes. We will discuss our plans to improve adolescent engagement and evaluate the intervention using a fully powered RCT.

CORRESPONDING AUTHOR: Sara M. St. George, PhD, University of Miami Miller School of Medicine, Miami, FL; s.stgeorge@med.miami.edu

---

Abstract citation ID: kaad011.0598

POSTER SESSION C: LONELINESS, MENTAL HEALTH, AND WELL-BEING: EXPLORING THE ROLE OF DIGITAL MENTAL HEALTH

Kirby Magid, MA[1], Sara Sagui-Henson, PhD[2], Cynthia Castro Sweet, PhD, FSBM[2], Brooke Smith, MS[2], Camille E. Welcome Chamberlain, MSc[3], Sara M. Levens, PhD[1], Myra Altman, PhD[2]

[1]University of North Carolina at Charlotte, Charlotte, NC; [2]Modern Health, San Francisco, CA; [3]Modern Health, Honolulu, HI

Background: Loneliness negatively impacts mental health, yet can be overlooked in the assessment and provision of digital mental health care. In this study, we examined loneliness, mental health symptoms, and engagement in care among adults seeking support from an employer-sponsored digital mental health platform.

Methods: A sample of 950 participants (58.8% women, M_{age} = 33.88, SD = 8.70, 42.1% BIPOC) newly enrolled in a digital mental health platform completed a survey on depression (PHQ-9), anxiety (GAD-7), loneliness (UCLA Loneliness), well-being (WHO-5), and stress (PSS) at baseline and 3-month follow-up. Upon enrolling, participants selected their preferences for care (e.g., 1:1 care, self-guided digital content, or small groups) and topics of focus. We tracked their engagement with therapeutic modalities during the study period. We examined: (1) baseline differences between lonely and not lonely participants, (2) associations between loneliness and mental health symptoms, and (3) longitudinal changes in loneliness and its association with engagement in care.

Results: At baseline, 57.8% of the sample were categorized as lonely. Lonely participants were slightly younger (p =.03) and had fewer years of formal education (p = .03). There were no significant gender, race/ethnicity, or care preference differences between lonely vs. non-lonely groups. Lonely participants were more likely to select 'my emotions' as their topic of focus (p = .02), whereas non-lonely participants were more likely to select 'my professional life' as their topic (p = .01). Baseline loneliness was positively associated with depression, stress, and anxiety (ps < .001) and negatively associated with well-being and social support (ps < .001). There was a significant decrease in the percentage of lonely participants at follow-up (57.6% to 52.9%, p = .03). Among lonely participants, there was significant interaction between engagement and time, where those who engaged in care reported a greater reduction in loneliness at follow-up compared to those who did not engage (F (1,394) = 4.14, p = .04).

Conclusion: In a large sample of people seeking digital mental health support, loneliness was highly prevalent and associated with poorer mental health. Engagement with digital mental health care shows promise in reducing loneliness. Future research should incorporate loneliness into the intake process, and implement digitally-delivered care that is designed to specifically impact loneliness.

CORRESPONDING AUTHOR: Kirby Magid, MA, University of North Carolina at Charlotte, Charlotte, NC; kmagid@uncc.edu

Abstract citation ID: kaad011.0599

POSTER SESSION C: WILLINGNESS TO SHARE MEAL AND WORKOUT PHOTOS IN A HYPOTHETICAL INSTAGRAM-DELIVERED GESTATIONAL WEIGHT GAIN INTERVENTION

Molly E. Waring, PhD[1], Danielle Arigo, PhD[2], Grace E. Heersping, BS[1]

[1]University of Connecticut, Storrs, CT; [2]Rowan University, Glassboro, NJ

In social media delivered lifestyle interventions, feedback from the interventionist and peer support are only available as participants are willing to share about their behavior change efforts. As part of research to develop an Instagram-delivered gestational weight gain (GWG) intervention, we surveyed pregnant women about their willingness to share photos of their meals or workouts. We recruited pregnant women with pre-pregnancy overweight or obesity from the US who engage on Instagram at least weekly to complete an online survey in March 2021. We described a hypothetical GWG intervention delivered via a private group on Instagram and asked about interest in the proposed program and then willingness to post photos of meals and workouts (very willing/willing vs not at all/somewhat willing). We examined willingness to post meal or workout photos in relation to Instagram use habits and program interest using unadjusted logistic regression models. Participants (N=229) were on average 32.2 (SD:4.4) years old and 23.7 (SD:9.1) weeks gestation; 74% were non-Hispanic white, and 89% had at least a Bachelor's degree. Fifty percent were willing to post meal photos and 37% were willing to share workout photos. Willingness to share meal photos was more likely among women whose main Instagram account was public (65% vs 45% private, OR=2.2, 95% CI: 1.2-4.1), who posted a photo or Story on Instagram in the past 7 days (56% vs 43%, OR=1.7, 95% CI: 1.0-2.9), have posted about what they eat during this pregnancy (79% vs 45%, OR=4.7, 95% CI: 1.9-11.3), have posted about exercise or workouts this pregnancy (76% vs 46%, OR=3.7, 95% CI: 1.6-8.6), and are quite a bit or very interested in the hypothetical GWG intervention (82% vs 34%, OR=8.7, 95% CI: 4.4-16.9). Willingness to share workout photos was more likely among women whose main Instagram account was public (58% vs 29% private, OR=3.4, 95% CI: 1.9-6.3), who posted a photo or Story on Instagram in the past 7 days (43% vs 28%, OR=2.0, 95% CI: 1.1-3.5), have posted about what they eat during this pregnancy (56% vs 33%, OR=2.5, 95% CI: 1.2-5.3), have posted about exercise or workouts this pregnancy (76% vs 30%, OR=7.3, 95% CI: 3.1-17.0), and are quite a bit or very interested in the hypothetical GWG intervention (66% vs 22%, OR=7.1, 95% CI: 3.8-13.0). Understanding the target population's willingness to share their behavior change efforts in social media delivered lifestyle interventions can inform intervention development.

CORRESPONDING AUTHOR: Molly E. Waring, PhD, University of Connecticut, Storrs, CT; molly.waring@uconn.edu

---

Abstract citation ID: kaad011.0600

POSTER SESSION C: THE EFFECT OF MINDFULNESS INTERVENTIONS ON STRESS IN MEDICAL STUDENTS: A SYSTEMATIC REVIEW AND META-ANALYSIS

Edie Sperling, PT, DPT, OCS, CMPT[1], Jennifer M. Hulett, PhD, APRN, FNP-BC[2], LeeAnne B. Sherwin, PhD, MS, APRN-BC, RN[3], Sarah Thompson, PhD, FAAN[4], B. Ann Bettencourt, PhD[4]

[1]Western University of Health Sciences, SUBLIMITY, OR; [2]University of Missouri, Columbia, MO; [3]University of Missouri, COLUMBIA, MO; [4]University of Missouri-Columbia, Columbia, MO

Background: Medical students have high levels of stress, which is associated with higher incidents of burnout, depression, and suicide compared to age-matched peers. Mindfulness practices have been shown to reduce stress among medical students.

Purpose: The purpose of this systematic review and meta-analysis was to examine the effectiveness of mindfulness interventions on stress outcomes in medical students. Mindfulness interventions were defined as any intervention designed to promote mindfulness, including seated meditation, mantras, breathing exercises, yoga, or a combination.

Methods: A comprehensive literature search was completed to include multiple databases, ancestry, and hand-searching. Standardized mean difference effect sizes (ES) were synthesized across studies using a random-effects model for changes in stress levels in medical students ≥ 18. Moderator analyses were performed to explore variations in effects by participant and intervention characteristics.

Results: Mindfulness interventions significantly improved stress among medical students ($d = 0.385$, $k = 18$, $n = 2{,}141$, 95% CI 0.228 – 0.541, $p < .001$). Moderator analyses found longer total intervention duration was associated with less improvement in stress outcomes.

Conclusions: Mindfulness interventions have a modest effect on stress reduction among medical students. Various mindfulness techniques are available for implementation. Medical schools may benefit from implementing mindfulness curriculum to support students' wellbeing. Future research looking at physiological outcome measures and the combination of mindfulness with other support strategies will be beneficial.

CORRESPONDING AUTHOR: Edie Sperling, PT, DPT, OCS, CMPT, Western University of Health Sciences, SUBLIMITY, OR; esperling@westernu.edu

Abstract citation ID: kaad011.0601

POSTER SESSION C: STUDENT AGING RESEARCHERS IN TRAINING (START): PROMOTING DIVERSITY IN AGING RESEARCH AMONG COLLEGE UNDERGRADUATE STUDENTS

Diana Morales, BS[1], Ana Laura Selzer Ninomiya, MS[1], Susan Aguinaga, PhD[1], Andiara Schwingel, PhD[2]

[1]University of Illinois at Urbana-Champaign, Urbana, IL; [2]University of Illinois Urbana Champaign, Champaign, IL

Introduction: As the growing older adult population becomes more diverse, there is a need for culturally sensitive perspectives in aging research. Despite advancements in the science of aging, racial/ethnic groups and first-generation college students are still underrepresented. The Student Aging Researchers in Training (START) program was established at the University of Illinois Urbana Champaign to build a culture of research related to aging among underrepresented undergraduate students. This study describes the assessment of students' aging knowledge and perceptions of START since its 5-year implementation.

Methods: Year-round, students participate in academic enrichment training, including work in research labs to gain hands-on research experiences and mentorship. A total of 66 students (M_{age}= 20±1.6) from the College of Applied Health Sciences completed the program. Outcomes were evaluated using a mixed methods approach. A pre-post program survey was conducted to assess students' knowledge change about aging-related topics and research resources. An open-ended follow-up survey was conducted with alumni to understand how the program aided their professional development. A focus group with students and interviews with lab mentors (n=4) were conducted at the end of the first year to learn about their experiences and adapt as appropriate for the next cohorts.

Results: Students were first-generation college students from African American, Latinx, and Asian backgrounds (29%, 24%, and 25%, respectively). A Wilcoxon signed rank test revealed a significant increase in knowledge related to all topics proposed. 76% continued working in their research labs beyond the year-long program. Post-graduation, alumni entered a health-related graduate degree program (82%) or were working full-time in clinical research labs (18%). From this survey, many described feeling empowered to pursue a research career and perceived that the program made their applications stand out. Focus groups revealed positive perceptions and experiences in the program and students saw themselves as contributing to the field of aging research. Mentors described the opportunity to increase diversity in their labs as extremely valuable.

Discussion: Findings show the importance of research programs such as START that intentionally recruit diverse groups of undergraduate students. Such initiatives build a culture of appreciation for aging research and increase representation in aging-related fields.

CORRESPONDING AUTHOR: Diana Morales, BS, University of Illinois at Urbana-Champaign, Urbana, IL; dianam3@illinois.edu

---

Abstract citation ID: kaad011.0602

POSTER SESSION C: A COMMUNICATION SKILLS TRAINING ON MENTORING: DEVELOPMENT, FEASIBILITY, AND PRELIMINARY EFFICACY

Smita Banerjee, PhD, MS, BS[1], Patricia A. Parker, PhD[2], Jessica Staley, B.A.[2], Ruth Manna, MA[2], Laura Liberman, MD[2]

[1]Memorial Sloan Kettering Cancer Center, Bedford, NY; [2]Memorial Sloan Kettering Cancer Center, New York, NY

Mentoring is an integral part of academic medicine. Despite its importance to the development of trainees and faculty, very few have received any training about how to be an effective mentor and there are few opportunities to receive training in this area. Recognition of the need to train mentors is evident in the National Institute of General Medical Sciences (NIGMS) T32 training grant guidelines, which require that program mentors are "trained to ensure the use of evidence-based teaching, training, and mentoring practices that promote the development of trainees from all backgrounds." Guided by the NIGMS training grant guidelines, prior literature, and discussions with institutional experts in mentoring, the study investigators developed a novel intervention, the Communication Skills Training on Mentoring for cancer care faculty (referred to as Comskil Mentoring Training hereafter). The objectives of the Comskil Mentoring Training were to provide mentors with communication skills necessary to guide mentees to achieve their objectives, which may include skills, personal and professional development, research opportunities, and academic development. The training was offered remotely and included a combination of didactic lecture with exemplary skill demonstration videos (45-minutes), followed by facilitator-led small group role plays (90-minutes). This study examined the feasibility and preliminary efficacy of the Comskil Mentoring Training. Nineteen (N = 19) faculty members representing different departments across one institution participated in the training. Overall, there was widespread support noted as participants rated the training favorably (evident by more than 80% of the participants indicating that they "agreed" or "strongly agreed" with training evaluation). Participants' overall self-efficacy to communicate with mentees significantly improved [t(18) = -3.97, p < .001] from pre- (M = 3.51, SD = .74) to post-training (M = 4.03, SD = .37). Finally, overall use of communication skills improved significantly, t(18) = -5.06, p < .001 from pre- (M = 3.26, SD = 1.45) to post-training (M = 5.47, SD = 1.77) and use of mentoring-specific language also improved significantly [t(18) = -5.04, p < .001] from pre- (M = 7.26, SD = 2.81) to post-training (M = 10.42, SD = 2.77). Results demonstrate that mentoring training at a major cancer center is feasible, was evaluated favorably, and has the potential to improve participants' self-efficacy, communication skills and mentoring-specific language use. The findings of the study highlight the need to train multidisciplinary mentors - not just research mentors - with the communication skills needed to effectively mentee graduate students, post-graduate fellows, residents, and junior faculty.

CORRESPONDING AUTHOR: Smita Banerjee, PhD, MS, BS, Memorial Sloan Kettering Cancer Center, Bedford, NY; banerjeS@mskcc.org

Abstract citation ID: kaad011.0603

POSTER SESSION C: PREDICTING INTENTIONS TO DELIVER PSYCHOLOGICALLY INFORMED PHYSICAL THERAPY CARE USING THE THEORY OF PLANNED BEHAVIOR

Rupal Patel, DPT[1]

[1]The University of Texas at Austin, Austin, TX

Background: Physical therapists are well suited to offer a biopsychosocial approach to pain management, however the extant literature has demonstrated low efficacy for psychologically informed interventions. This is further complicated by PTs reporting difficulty in implementation and a lack of time for additional modalities for care. This study examines the relationships between motivational beliefs of physical therapists towards delivery of psychologically informed physical therapy care using the theory of Planned Behavior and implementation intentions.

Method: Two hundred ninety-two physical therapists were surveyed. Using implementation intentions as our outcome, data were analyzed using a stepwise multiple linear regression method.

Results: Theory of planned behavior constructs (attitudes, subjective norms and perceived behavioral control) accounted for 32.5% of our model with attitudes ($\beta = 0.640$, $p< 0.000$) and perceived behavioral control ($\beta = 0.771$, $p< 0.000$) significantly predicting implementation intentions. When self-efficacy was added to the model, it accounted for an additional 12.6% of variance [$F_{change}(1, 239) = 58.148$, $p < 0.000$]. In addition, while attitudes ($\beta = 0.409$, $p=0.001$) remained significant, perceived behavioral control ($\beta = 0.230$, $p= 0.176$) did not. Instead, perceived behavioral control and attitudes had an indirect effect on implementation intentions through self-efficacy. The final model including behavioral intentions accounted for 49.29% of variance in implementation intentions.

Conclusion: These findings suggest that individual-level factors such as attitudes, perceived behavioral control and self-efficacy for implementation of psychologically informed physical therapy can help improve physical therapist intentions to deliver this type of care. The present findings highlight the need for education in both formal physical therapist training and post-degree continuing education that promote self-efficacy towards adoption of a biopsychosocial approach in the physical therapy clinic.

CORRESPONDING AUTHOR: Rupal Patel, DPT, The University of Texas at Austin, Austin, TX; rupal@utexas.edu

---

Abstract citation ID: kaad011.0604

POSTER SESSION C: COMPARISON OF HEALTH BEHAVIORS AND CHARACTERISTICS BETWEEN COVID-19 VACCINATED AND UNVACCINATED INDIVIDUALS

Meghan Neumann[1], Dingjing Shi, PhD in Quantitative Psychology[2], Krista M. Kezbers, PhD, DipACLM, ACSM-EIM[3], Jillian Robison[1], Megan E. Piper, PhD[4], Michael S. Businelle, PhD in Clinical Psychology[5]

[1]TSET Health Promotion Research Center, University of Oklahoma Health Sciences Center, OKC, OK; [2]University of Oklahoma, Norman, OK; [3]TSET Health Promotion Research Center/Stephenson Cancer Center/University of Oklahoma Health Sciences Center, OKC, OK; [4]Center for Tobacco Research and Intervention, Department of Medicine, University of Wisconsin, Madison, Wisconsin, USA, Madison, WI; [5]University of Oklahoma Health Sciences Center, Oklahoma City, OK

Background: Although the COVID-19 vaccine is readily and freely available in the United States, many individuals feel hesitant or refuse to receive the vaccine. This research aimed to identify associations between health behaviors, demographic characteristics, and vaccination status.

Methods: Participants were 456 adults that enrolled in a nationwide study to examine the effects of five different factors on compliance with daily smartphone-based ecological momentary assessments (EMAs). Participants downloaded the *Insight mHealth Platform* smartphone application onto their personal Android phone and completed the baseline assessment and daily EMAs. The 20-30-minute baseline survey included questions about demographics and various health behaviors (i.e., smoking status, self-reported weight, physical activity, fruit and vegetable intake, problematic alcohol usage, and sleep) assessed via relevant measures (e.g., the *Self Rated Health Questionnaire, AUDIT-C, Behavioral Risk Factor Surveillance System)*. COVID-19 related questions (e.g., vaccination status, vaccine hesitancy) were also assessed. Logistic regression analyses were conducted to determine if specific health behaviors were related to COVID-19 vaccination status and vaccine hesitancy among those that had not been vaccinated. All analyses included age, race (recoded as White/non-White), sex, and education as covariates.

Results: Participants (N=456) were predominantly female (76.1%), White (70.1%) and were 48.2 (SD=12.5) years old on average. Average years of education was 14.5 (SD=2.2). Younger adults ($p< 0.05$) and those with lower levels of education ($p< 0.05$), were less likely to have received the COVID-19 vaccine. Furthermore, participants that self-reported weighing too much ($p< .10$), non-smokers ($p< .05$), and those that reported lower levels of physical activity ($p< 0.05$) were more likely to be vaccinated. None of the other assessed health behaviors were related to COVID vaccination status. None of the demographic variables predicted vaccine hesitancy.

Conclusion: Study results are complex. While some groups that had higher risk for serious adverse effects of COVID-19 infection were more likely to be vaccinated (e.g., older, overweight or physically inactive adults), other groups with elevated risk for negative COVID-19 related outcomes (e.g., smokers) were actually less likely to be vaccinated. Future research should examine reasons for vaccine non-compliance in unvaccinated high-risk populations.

CORRESPONDING AUTHOR: Meghan Neumann, TSET Health Promotion Research Center, University of Oklahoma Health Sciences Center, OKC, OK; meghan-neumann@ouhsc.edu

Abstract citation ID: kaad011.0605

POSTER SESSION C: PANDEMIC HEALTHCARE EXPERIENCES OF OLDER ADULTS WITH COGNITIVE IMPAIRMENT PRIOR TO COVID-19: FINDINGS FROM THE LITCOG STUDY

Sophia W. Light, MS[1], Andrea M. Russell, PhD[1], Rebecca M. Lovett, PhD[1], Stephanie Batio, MS[1], Laura M. Curtis, MS[1], Julia Yoshino Benavente, MPH[1], Morgan Eifler[1], Alissa Bernstein Sideman, PhD, MPH, MA[2], Michael S. Wolf, PhD, MPH, MA[1]

[1]Feinberg School of Medicine, Northwestern University, Chicago, IL; [2]University of California, San Francisco, San Francisco, CA

Background: The risk of cognitive impairment (CI) increases with age, as does the prevalence of comorbid chronic conditions that cause considerable medical care complexity. Compared to cognitively intact individuals, those with CI have been found to demonstrate poorer self-management capacity and use of preventive health services. COVID-19 has been particularly concerning for older adults with CI and comorbid conditions given a heightened risk of adverse outcomes if infected, but also due to possible difficulty accessing healthcare services that rapidly transitioned to telehealth. We sought to capture perceptions and health behaviors of adults who had preexisting CI as they managed their health throughout COVID.

Methods: Survey data from an ongoing cohort study, COVID-19 & Chronic Conditions (C3), were used. Middle age and older adults were recruited from active, NIH-sponsored studies that had well-characterized participants prior to COVID. All were from 3 academic internal medicine practices and 7 federally qualified health centers in the Chicago area. A total of 297 participants had objectively-determined cognitive status from before the onset of the pandemic, determined via performance on a neuropsychological assessment. Health behaviors and perceived health self-management were assessed via self-report at Wave 6 of the C3 study, conducted from 4/12/21 to 7/16/21. Bivariate and multivariable analyses (controlling for age, sex, and presence of 3+ chronic conditions) were conducted.

Results: Prior to the pandemic, 11.1% of participants had objectively-determined mild cognitive impairment (MCI) and 10.8% had early-stage dementia. In multivariable analyses, those with early-stage dementia were less likely than those without CI to have gotten a COVID vaccine (76.7% vs 94.3%, p=0.004), yet more likely to miss or cancel medical appointments because of worrying about getting COVID (18.8% vs 5.2%, p=0.02). Those with early-stage dementia were more likely to report greater difficulty accessing and remembering to take medications compared to those without CI (3.1 vs. 1.7, p=0.004). No significant differences were found between those with MCI and those without CI.

Conclusion: Between April and July 2021, as COVID vaccines became available to all US adults, those with a preexisting early-stage dementia were less likely to report having been vaccinated when it became available to them, were more likely to avoid medical care, and perceived greater difficulty in managing medication regimens. Issues with recall are expected in CI, but supplemental materials and increased support typically available at in-person visits to enhance retention were likely impacted by canceled appointments and shifts to telehealth. Targeted promotion of vaccines, as well as extra support for health self-management, are particularly important for individuals with moderate to severe cognitive impairment.

CORRESPONDING AUTHOR: Sophia W. Light, MS, Feinberg School of Medicine, Northwestern University, Chicago, IL; sophia.wl@northwestern.edu

---

Abstract citation ID: kaad011.0606

POSTER SESSION C: RELATIONSHIPS OF SUBJECTIVE AND OBJECTIVE SOCIAL STATUS TO HEALTH-RELATED QUALITY OF LIFE IN HISPANIC-AMERICAN ADULTS

Shea E. O'Donnell, BA[1], Chelsea Rapoport, BA[2], Georgia R. Robbins Sadler, BSN, MBA, PhD[3], Vanessa Malcarne, PhD, FSBM[4]

[1]San Diego State University, San Diego, CA; [2]San Diego State University/UC San Diego Joint Doctoral Program in Clinical Psychology, La Jolla, CA; [3]UC San Diego, School of Medicine, La Jolla, CA; [4]San Diego State University/University of California, San Diego, San Diego, CA

Background: Subjective social status (SSS), or one's own perception of societal standing, has been proposed as an important predictor of health outcomes, and as an alternative to objective social status (OSS) indicators (e.g., annual household income [AHI], employment status [ES], and education level [EL]). It has been hypothesized that SSS may be connected to physiological responses that adversely affect health. The relationship between OSS and SSS, which has a stronger relationship to health-related quality of life (HrQoL) domains, is understudied in diverse groups, including Hispanic Americans (HA).

Methods: A community sample of HA adults ($N = 436$) completed the MacArthur Scale of Subjective Social Status, including community (C-SSS) and United States (US-CCC) ladders (1-10 scale, with 10 as highest perceived social standing); and the WHOQOL-BREF, which includes four HRQoL subscales: environmental, physiological, psychological, and social. OSS information (AHI, ES, EL) was also collected. Hierarchical linear regression analyses examined OSS and SSS associations, and the relationships of OSS and SSS to HrQoL, with sociodemographic factors (language, religion, and birthplace) included as covariates.

Results: The sample was 50.2% women and 55.2% born outside of the US. All covariates were non-significant in regression models (all ps > .05). Regression analysis indicated that no OSS variables significantly predicted C-SSS. EL was the only significant predictor of US-SSS ($\beta = .2$, $p = .001$). After controlling for OSS, US-SSS significantly predicted environmental ($\beta = .35$), physiological ($\beta = .22$), psychological ($\beta = .31$), and social relationship ($\beta = .2$) HrQoL (all ps $< .001$). After controlling for OSS, C-SSS only significantly predicted environmental ($\beta = .27$, $p < .001$) and psychological ($\beta = .25$, $p < .001$) HrQoL. EL significantly predicted environmental HrQoL ($\beta = .16$, $p = .008$; $\beta = .20$, $p = .001$).

Conclusion: Our findings for a HA community sample are consistent with previous studies that have supported SSS perceptions as an important predictor of HRQoL, even after controlling for more traditional OSS indicators. Higher US SSS was associated with better HRQoL for all domains assessed, while higher community SSS was only associated with better environmental HRQoL. In contrast, OSS indicators were largely unrelated to HRQoL domains. These findings suggest that interventions to enhance SSS may provide an avenue for improving HRQoL in underserved communities.

CORRESPONDING AUTHOR: Shea E. O'Donnell, BA, San Diego State University, San Diego, CA; sodonnell3153@sdsu.edu

Abstract citation ID: kaad011.0607

POSTER SESSION C: IMPLEMENTATION OF TECHNOLOGY TO MEASURE HEALTH BIOMARKERS IN UNDERSERVED RURAL AND ELDERCARE SETTINGS

Jeffrey Nightingale, MS[1], Jack Harth[1], Colin Gardner, MS[1], Annaleesa Rogers[1], Taylor Leathers[1], Lisa M. Renzi-Hammond, PhD[1], Billy Hammond, PhD[1]

[1]University of Georgia, Athens, GA

Background: Poor diet quality and low access to nutritionally dense foods have been implicated in a number of chronic diseases, from cardiovascular diseases to Alzheimer's disease. However, diet quality is difficult to measure, particularly in medically underserved communities with limited access to dietitians. Macular pigment (MP) is a collection of dietary carotenoids: lutein and zeaxanthin in the fovea of the neural retina. Lutein and zeaxanthin are found in dark green, leafy vegetables and brightly colored fruits. MP optical density (MPOD) is measured non-invasively and reflects food access and, consequently, diet quality. Past research has related low MPOD to a number of chronic diseases, from age-related macular degeneration to cognitive impairment. In this study we demonstrate the feasibility of using portable technology to quickly measure MPOD in medically underserved communities.

Methods: A portable macular densitometer was used to measure MPOD via heterochromatic flicker photometry at 30-minutes of retinal eccentricity. Densitometers were deployed in two locations: a rural health fair in a predominantly Black/African American farming community, and a continuing care retirement community (CCRC) in a different rural Georgia county.

Results: Measuring MPOD even in crowded, public settings was feasible. MPOD was lower in farming community residents than higher-income CCRC residents with reliable access to fruits and vegetables through dining services.

Conclusions: High MPOD is related to reduced risk for age-related cataract and macular degeneration, improved cognitive health, and overall better systemic health. Portable device technology can effectively measure MPOD outside laboratory and eye care settings, in medically underserved communities.

CORRESPONDING AUTHOR: Jeffrey Nightingale, MS, University of Georgia, Athens, GA; jw76061@uga.edu

---

Abstract citation ID: kaad011.0608

POSTER SESSION C: VAPING, QUITTING, AND MENTAL HEALTH: INSIGHTS FROM INTERVIEWS WITH YOUNG ADULT USERS OF A VAPING CESSATION TEXT PROGRAM

Giselle Edwards, MHS[1], Megan A. Jacobs, MPH[1], Sarah Cha, MSPH[1], Amanda L. Graham, PhD[1]

[1]Truth Initiative, Washington, DC

Introduction: Vaping nicotine is associated with feelings of stress, depression, and anxiety, yet the relationship between quitting vaping and mental health remains poorly understood. This study sought to better understand the relationship among vaping, quitting, and mental health through qualitative interviews with young adults.

Methods: Study participants were registered users of *This is Quitting,* a quit vaping text message program. Eligibility criteria were age 18-24 years, past 30-day or former e-cigarette use, at least 1 quit attempt in the past year, smartphone usage, U.S. residence and English speaking. Eligible participants met with 2 researchers via Zoom for a 45-minute semi-structured interview to discuss their quitting journey, their mental health, and how their mental health was affected by vaping initiation and cessation. Two researchers thematically analyzed interview notes and recordings.

Results: 10 individual interviews were conducted, including 5 females, 4 identifying as a sexual minority, and 2 with formal mental health diagnosis. Most participants reported 3 or more quit attempts in the past year, and all noted experiencing anhedonia and/or anxiety while quitting. Participants had an awareness of the negative impacts of vaping on mental health. Some experienced these consequences and used them as reasons to quit (e.g., *"Maybe it really is the vaping that's messing me up…I feel so good and so clear when I'm not"*). Others, however, vaped to cope with mental health symptoms because it provided some relief (e.g., *"When I was having an anxiety attack and I hit a vape I would feel much better"*). Four interviewees mentioned how their mental health affected their ability to quit vaping (e.g., lack of self-worth: *"If I was more in love with myself…[quitting] would be a lot more easy";* inability to focus: *"The nicotine seemed to sharpen my focus on things I needed to get done"*).

Conclusion: The relationships between vaping, quitting, and mental health are complex. Young people recognize the harm vaping has on their mental health yet continue to vape to ease mental health symptoms; others may quit knowing their mental wellbeing could improve without vaping. Vaping cessation programs should support mental health to reduce barriers to quitting. Mental health benefits of quitting vaping should be broadly promoted, as it may inspire quit attempts and encourage use of support resources.

CORRESPONDING AUTHOR: Giselle Edwards, MHS, Truth Initiative, Washington, DC; gedwards@truthinitiative.org

Abstract citation ID: kaad011.0609

POSTER SESSION C: PREDICTORS OF COVID-19 VACCINATION AMONG SOCIALLY VULNERABLE REPRODUCTIVE-AGED WOMEN IN KANSAS CITY

Jenifer Allsworth, PhD[1], Carole Bowe Thompson, BS[2], Frank Thompson, MS[3], Eric Williams, MDiv[4], Turquoise Templeton, BA[5], Jannette Y. Berkley-Patton, PhD[6]

[1]UMKC School of Medicine, Kansas City, MO; [2]University of Missouri-Kansas City, Kansas City, MO; [3]N/A, Kansas City, MO; [4]Calvary Temple Baptist Church, Kansas City, MO; [5]University of MIssouri-Kansas City, Kansas City, MO; [6]University of Missouri-Kansas City School of Medicine, Kansas City, MO

Background: Vaccination has proven to be both safe and effective in preventing morbidity and mortality following infection with SARS-CoV2. However, the acceptance of COVID-19 vaccination is heterogeneous; nationally, lower vaccination rates have been documented among African American and young adult populations. Among women, low income, living with children and history of seasonal flu vaccination have been associated with lower rates of COVID-19 vaccination.

Methods: Our Healthy KC Eastside (OHKCE) is a community-wide initiative promoting and delivering COVID-19 vaccines and other health services to residents on the east side of Kansas City, Missouri. Surveys were administered at OHKCE events between July and November 2021. Nine hundred four women of reproductive age (18-49 years) were examined. Potential predictors included: measures of low socioeconomic position (CDC Social Vulnerability Index, food insecurity, challenges with housing and transportation), living with children, history of influenza vaccination, and socio-demographic characteristics (age, race, education, employment as an essential worker, and health insurance). Attitudes toward COVID-19 vaccination and sources of information about COVID-19 are described. Relative risks for completed initial course of COVID-19 vaccination were estimated using Poisson regression with robust error variance.

Results: Among women of reproductive age (N=904), 48% completed the initial course of COVID-19 vaccination. Participants were predominantly African American (71%) with a mean age of 33.4 years. Over half were uninsured (23%) or on public health insurance (31%), 17% lived with a child under the age of 18, and 70% lived in socially vulnerable census tracts. In adjusted analyses, residence in an area of high social vulnerability, living with a minor, no health insurance, and public health insurance were associated with decreased rates of vaccination. African American race, Hispanic ethnicity, age, education, and no history of influenza vaccination were not associated with vaccination. The most common sources of information on COVID-19 vaccination included discussions in the community (84%), local radio (85%) and TV (87%) and family conversations (90%). Individuals that reported family discussions of the vaccine were more likely to have completed their initial vaccination course (RR=2.98; 95% CI 1.79, 4.97).

Conclusion: Addressing accessibility of COVID-19 vaccination can reduce health disparities among underserved and African American populations; a community-based approach that engages families may reduce disparities in underserved populations.

CORRESPONDING AUTHOR: Jenifer Allsworth, PhD, UMKC School of Medicine, Kansas City, MO; allsworthj@umkc.edu

---

Abstract citation ID: kaad011.0610

MERITORIOUS AWARD WINNER

POSTER SESSION C: INTERDISCIPLINARY UNDERSTANDING OF PRE-EXISTING DISABILITY AND CANCER-RELATED HEALTHCARE: A NARRATIVE REVIEW OF LITERATURE

Regina F. Hockert[1], Winston Kennedy, PT, DPT, MPH, PhD[2], Gulaiim Almatkyzy, MS[3], Assel Ibadulla[4]

[1]California Polytechnic State University,, San Luis Obispo, CA; [2]Merrimack College, North Andover, MA; [3]Oregon State University, North Andover, MA; [4]Yale, North Andover, MA

Background: Typical social/physical environments constrain regular participation in physical activity by people with disabilities, which is controversial given that physical activity significantly buffers against cancer risk as well as morbidities/mortalities due to cancer. A set of dose-response guidelines for improving cancer morbidity during and following treatment has been produced; yet research discourse on policies and programs for promoting longevity and improving health-related quality of life all seem to focus on disability due to cancer and its subsequent treatment. The purpose of this study was to promote a better understanding of ways pre-existing disability affect the access to, and quality of, cancer-related healthcare, namely through a critical commentary of the research literature.

Methods: Systematic search procedures were used to locate articles for inclusion in a narrative review of the research literature. The inclusion criteria included peer-reviewed articles, written in English, and must have focused on pre-existing disability and cancer-related healthcare. A priori search terms were used to systematically search for eligible articles (e.g., "cancer screening" and "pre-existing disability"), using four online databases (i.e., PubMed, Medline, Google Scholar, and PsychInfo). The third and fourth authors screened search results for inclusion at two levels (title & abstract; full review). A 100% consensus was reached at each stage. These authors thematically analyzed trends in the research findings using a descriptive-interpretive paradigm. Critical friends were utilized to ensure perspectives described people with disabilities who are then diagnosed with cancer; and to descriptively interpret findings, and to support, organization, reporting, and interpretation of thematic findings.

Results: Twenty-four articles were included in the narrative review (MPublication Date = 2012.67, SD = 5.66). Four themes were identified. People with pre-existing disability have (1) lower screening rates (2) and greater barriers to cancer screening, (3) pre-existing disability moderates cancer incidence, treatment, and survival, and (4) recommendations for supporting increased health-related quality of life of cancer survivors with pre-existing disabilities has been advanced.

Conclusion: Previous research shows people with pre-existing disabilities face unique societal barriers to health services. Our findings illustrate a need for interdisciplinary research focused on ways pre-existing disability intersects with cancer-related healthcare (e.g., preventative lifestyle counseling, rehabilitation using physical exercise). Future research focused on ways pre-existing disability may shape access to, and quality of, cancer-related healthcare is needed.

CORRESPONDING AUTHOR: Regina F. Hockert, California Polytechnic State University,, San Luis Obispo, CA; rhockert@calpoly.edu

Abstract citation ID: kaad011.0611

CITATION AND MERITORIOUS AWARD WINNER

POSTER SESSION C: PRE-DEATH GRIEF IN CULTURALLY DIVERSE INFORMAL CAREGIVERS WITH LIFE-LIMITING ILLNESSES: A SYSTEMATIC REVIEW

Carol Fadalla, BA[1], Jonathan Singer, PhD[1], Miranda Tello[1]

[1]Texas Tech University, Lubbock, TX

Introduction: The fatalities and conspicuous portrayal of systemic inequity brought by the COVID-19 pandemic highlight the critical need to support racial-ethnic minority informal caregivers experiencing pre-death grief (PDG). PDG symptoms (i.e., yearning and longing for the loved one to be healthy again) occur in some informal caregivers of individuals with life-limiting illness (e.g., Cancer; Dementia) and is a robust predictor of prolonged grief disorder. Racial-ethnic minority caregivers may experience PDG given the greater burden of disease, lower quality palliative care, and disproportionate healthcare access. Therefore, this study investigates PDG in diverse populations to understand PDG operationalization across cultures, categorize limitations of current studies, and provide recommendations on PDG in diverse populations.

Methods: A mixed-method systematic review utilized six databases and was conducted July 10, 2021. The search strategy was developed using Medical Subject Headings. This study was prospectively registered on PROSPERO (CRD42020166254). Data synthesis of 132 studies was conducted to evaluate PDG in participants from cross-cultural and racial/ethnic backgrounds.

Results: Out of 132 articles, 36% failed to report any racial or geographical characteristics regarding participants. Of the articles that reported geographic characteristics of the sample, 36% were conducted in the U.S., and 28% were conducted in other countries, such as 11% in East Asia, 3% in the Middle East, and 1% in South Asia. Among studies in the U.S. that reported participant racial/ethnic characteristics, Black, Ingenious, and People of Color commonly made up only 0-5% of the total participant pool whereas only White/Caucasian participants made up 81-100% of the participant pool. Studies globally used a variety of definitions to operationalize PDG, yet there were several inconsistencies–even when using the same term–and 17.9% of studies did not report a definition of PDG. Notably, studies in China tended to characterize PDG as a phenomenon among caregivers of dementia patients.

Conclusion: This study highlights the scant inclusion of cross-cultural and racial-ethnic minorities in research on PDG despite documented cultural differences in expressions of grief. Further, homogenous samples generate an ethnocentric understanding of psychopathological phenomena and category fallacy. Inconsistent operationalization of PDG limits the ability to produce standard measures to detect caregivers at risk for developing pathological grief outcomes, understand unique experiences/symptoms specific to PDG, and develop cross-cultural interventions. Researchers should investigate PDG in diverse populations as an early intervention target for prolonged grief disorder, which was recently added to the DSM-5-TR, and standardize the operationalization of PDG.

CORRESPONDING AUTHOR: Carol Fadalla, BA, Texas Tech University, Lubbock, TX; cfadalla@ttu.edu

---

Abstract citation ID: kaad011.0612

POSTER SESSION C: EXAMINATION OF WEIGHT STIGMA AMONG ADOLESCENT/PARENT DYADS

Mindy L. McEntee, PhD[1], Emma Millett[1], Alison F. Cantley, MPH[1], Marc A. Adams, PhD, MPH[1]

[1]Arizona State University, Phoenix, AZ

Background: Weight stigma, defined as devaluation and discrimination of an individual based on body weight/shape/size, is associated with adverse physiological and psychological effects, particularly when weight stigma is internalized. Adolescence may reflect a developmental period of increased vulnerability, as data indicates experiences of weight stigma as youth shape self-esteem, health behaviors, and coping strategies carried into adulthood. To date, much of this research has focused on peers, leaving critical gaps in understanding how parent/child dynamics impact how adolescents process and cope with weight stigma. This study examined the concordance between weight stigma experience and internalization within parent/adolescent dyads.

Methods: Adolescent/parent dyads (N=42) independently completed questionnaires assessing baseline weight stigmatizing experiences, internalization, coping, exercise avoidance, and self-efficacy for physical activity as part of a larger pilot study examining the efficacy of an mHealth physical activity intervention among insufficiently active adolescents.

Results: 67.5% of adolescents (age M = 14.7, SD = 1.4; 52% female; 70% White; 33% Hispanic) and 97.5% of parents (age M = 46.6, SD=5.6; 93% female; 79% White; 21% Hispanic) reported experiencing weight stigma. Weight stigma internalization was the only measure correlated with adolescent BMI (r=.43, p=.006); parent weight data was not available. Paired sample t-tests indicated parent scores were significantly higher than adolescents on measures of weight stigma experience, t(37)=3.56, p< .001; internalization t(39)=4.35, p< .001; maladaptive coping, t(24) = 3.14, p=.004; and exercise avoidance, t(41)=3.93, p< .001. There was no significant difference in parent and adolescent scores on self-efficacy for physical activity. The pattern of correlations across measures differed for adolescents and parents.

Conclusion: The prevalence of weight stigma was higher in this cross-sectional sample (67.5% for adolescents, 97.5% for parents) relative to other estimates reported in the literature. Contrary to hypotheses, parent/adolescent and adolescent scores were not significantly correlated, with parents reporting significantly higher scores on weight stigma experience, internalization, maladaptive coping, and exercise avoidance. Longitudinal studies are needed to better understand the bidirectional effects of parent/child relationship dynamics on weight stigma experience and internalization.

CORRESPONDING AUTHOR: Mindy L. McEntee, PhD, Arizona State University, Phoenix, AZ; mindy.mcentee@asu.edu

Abstract citation ID: kaad011.0613

POSTER SESSION C: SIMILAR BUT NOT THE SAME: PATTERNS OF PHYSICAL ACTIVITY BEHAVIOR CHANGE AMONG LINGUISTICALLY DIVERSE SOUTH ASIAN IMMIGRANTS

Sugandha K. Gupta, MA[1], Tyrel J. Starks, PhD[2], Tracey A. Revenson, PhD, FSBM[3], Nadia Islam, PhD[4]

[1]The Graduate Center, CUNY, New York, NY; [2]Hunter College, CUNY, New York, NY; [3]Hunter College & the Graduate Center, CIty Univ of NY, New York, NY; [4]New York University School of Medicine, New York, NY

Background: Culturally-tailored health behavior interventions employ behavior change strategies within a particular set of cultural norms for a racial/ethnic group. Assumptions of cultural homogeneity (often implicit) limit the ability to understand, and adapt to, diverse experiences. Aim: This study applies a socio-cultural lens to explore variation in physical activity (PA) outcomes among a specific racial/ethnic subgroup, South Asian immigrants (SAIs). SAIs are disproportionately affected by cardiovascular disease (CVD), in part, because of low engagement in PA. Methods: We conducted secondary logistic and linear regression analyses of longitudinal data collected from 302 SAIs (54.0% women, ages 25 – 85) who participated in a community-led, culturally-tailored health behavior intervention. Cultural heterogeneity was approximated by participants' preferred language for study materials. Behavioral outcome variables were (a) total amount of moderate to-vigorous-intensity PA (MVPA) and (b) whether participants met the World Health Organization (WHO) guidelines for PA (i.e., $\geq$ 150 minutes of moderate-intensity PA and/or $\geq$ 75 minutes of vigorous-intensity PA). Results: The sample was linguistically-diverse; preferred languages included Bengali (59.6%), English (27.8%), Punjabi (19.5%), Urdu (17.2%), and Hindi (2.6%). After controlling for age and gender, participants who preferred Bengali had greater amounts of MVPA at the six-month follow-up compared to those who preferred English (p =.04). Preference for spoken language was not associated with meeting the WHO guidelines for PA (p's $\geq$ .08). Conclusions: PA outcomes were similar but not the same for this diverse sample of SAIs. Offering linguistically-diverse materials in culturally-tailored health behavior interventions may enhance the impact of these interventions, even if the behavior changes are not sufficient to meet recommendations. Further exploration of the diverse experiences within a cultural group, with focused consideration of language, may be necessary to better identify the needs of at-risk health disparity populations.

CORRESPONDING AUTHOR: Sugandha K. Gupta, MA, The Graduate Center, CUNY, New York, NY; sgupta@gradcenter.cuny.edu

Abstract citation ID: kaad011.0614

POSTER SESSION C: THE RELATIONSHIP BETWEEN CANNABIS USE AND EXECUTIVE FUNCTIONING ON HIV-RISK IN YOUNG BLACK MEN WHO HAVE SEX WITH MEN (YBMSM)

Peter Fantozzi, MA[1], Scott Hunter, PhD[2], John Schneider, MD, MPH[3]

[1]The Children's Hospital of Philadelphia, Philadelphia, PA; [2]WCG Clinical Endpoint Solutions; Chicago Center for HIV Elimination, Chicago, IL; [3]Chicago Center for HIV Elimination; University of Chicago, Chicago, IL

Objective: Among groups most impacted by HIV in the United States, YBMSM shoulder the greatest risk burden relative to their proportion of the population. Understanding their vulnerability and contextual factors related to these disparities is key to identifying approaches that reduce HIV risk. Research suggests that both individuals who use cannabis and those who have impaired executive functioning (EF) are more likely to be nonadherent to medication and to engage in risky sex behaviors. Cannabis use can also impair EF, and while widespread cannabis use has been reported among YBMSM, it is unclear if cannabis use or executive dysfunction are related to HIV serostatus. This study aimed to identify relationships between cannabis use frequency, EF, and HIV serostatus in this population.

Methods: 506 YBMSM, with a mean age of 23.0 years (SD = 3.1) were assessed for HIV using antigen testing. Cannabis use and EF data were collected from self-report surveys and the Behavior Rating Inventory of Executive Functioning (BRIEF-A). General linear model analyses evaluated differences in EF between those who never smoke cannabis, those who smoke lightly, and those who smoke heavily. Logistic regressions evaluated the associations between cannabis use, EF, and HIV serostatus. Secondary models adjusted for covariates known to influence these variables (e.g. homelessness, insurance, incarceration, and psychiatric morbidities).

Results: 37% of YBMSM surveyed tested positive for HIV. 73% reported having smoked cannabis in the past six months, with 32% reporting heavy use. Those who never used cannabis demonstrated significantly less EF impairment across all BRIEF-A subdomains. Significant relationships held after adjusting for covariates with the exception of the Shifting subdomain ($\beta = -0.56$, $p = 0.05$, 95% CI [-1.10, 0.01]). Analyses further revealed that heavy users were more likely to test positive for HIV than YBMSM who never smoked cannabis (OR = 0.59, $p = 0.031$, 95% CI [0.36, 0.95]). However, after controlling for demographic and psychiatric variables, the relationship was no longer significant. Prior to adjustments, greater executive impairment on the Metacognitive index (OR = 1.02, $p = 0.04$, CI 95% [1.00, 1.03]) and the Initiation subdomain (OR = 1.06, $p = 0.05$, CI 95% [1.00, 1.13]) were significantly associated with testing positive for HIV. However, after adjusting for covariates, these relationships no longer held.

Conclusions: Findings revealed significant relationships between cannabis use, executive functioning, and HIV serostatus among YBMSM surveyed. However, data suggests that structural and individual level factors mediate or moderate these associations, highlighting the importance of contextual considerations when understanding the health of marginalized groups. Results underscore potential cognitive and behavioral mechanisms for HIV-related health disparities.

CORRESPONDING AUTHOR: Peter Fantozzi, MA, The Children's Hospital of Philadelphia, Philadelphia, PA; fantozzip@chop.edu

Abstract citation ID: kaad011.0615

POSTER SESSION C: PERCEIVED RISK IN CONTRACTING STIS AND HIV AND LEVEL OF ENGAGEMENT IN RISKY BEHAVIORS FOR YOUNG ADULTS, 18-24

Anthony Galeana[1], Patricia Trinidad[2], Natalia Gatdula[2], Giselle Garcia[1], Melawhy L. Garcia, MPH, PhD[3]

[1]California State University Long Beach, Long Beach, CA; [2]California State University, Long Beach, LONG BEACH, CA; [3]CSULB Center for Latino Community Health, Evaluation, and Leadership Training, Long Beach, CA

Title: Perceived Risk in Contracting Sexually Transmitted Infections and Level of Engagement in Risk Behaviors among Hispanic/Latino Young Adults

Authors: Anthony Galeana, Patricia Trinidad, MPH, Natalia Gatdula, MPH, Giselle Garcia & Melawhy Garcia, MPH, Ph.D.

Background: Young adults are more susceptible to sexually transmitted infections (STIs) including HIV due to their sexual risk behaviors. Young adults show great concern in contracting STIs, but many are still unaware of how common STIs are. Perception in contracting STIs/HIV is an important indicator for assessing level of engagement in risk behaviors. The objective of this study was to test whether there is an association between perceived risk in STI/HIV contraction and engagement in risk behaviors.

Methods: Chi-square tests were conducted on responses from a large cross-sectional study with 309 young adults. The respondents answered a survey with questions relating to self-assessed reports of engaging in sexual activities and practicing safe sex measures. Participants' perceived risk in contracting STIs and HIV were measured through a set of questions on rating level of risks in scenarios relating to engaging in unprotected sex. Participants were also asked to report their sexual behaviors.

Results: Most participants, 78.6% (mean: 0.79, SD = 0.412) reported having sexual experience. Rates of unprotected oral, vaginal, and anal sex were at 77.3%, 71.4%, and 29.9%, respectively. A significant association was found between individuals who perceive unprotected oral sex to be of low/moderate risk and those who report having sex ($p = .024$, CST). A similar association was found for individuals who report having unprotected oral sex ($p = .036$, FET). Associations were also found amongst those who report moderate to great risk for unprotected anal sex and having had anal sex within 30 days, ($p=.032$, CST), and having had unprotected anal sex, ($p=.016$, CST).

Conclusion: Results show that individuals who perceive high risks in contracting STIs/HIV still engage in risky behaviors. Further research is needed to determine why and how individuals engage in risky behaviors.

CORRESPONDING AUTHOR: Anthony Galeana, California State University Long Beach, Long Beach, CA; anthony.galeana@student.csulb.edu

---

Abstract citation ID: kaad011.0616

POSTER SESSION C: ASSOCIATION OF ART TYPE AND ADHERENCE WITH VIRAL SUPPRESSION: AN OBSERVATIONAL STUDY OF A CLINICAL POPULATION OF PEOPLE WITH HIV

Jasmine Manalel, PhD[1], Jennifer E. Kaufman, MPH[2], Ethan Fusaris, MPH[3], Arlene Correa, MPA[3], Jerome Ernst, MD[3], Mark Brennan-Ing, PhD[2]

[1]Brookdale Center for Healthy Aging, New York, NY; [2]Brookdale Center for Healthy Aging at Hunter College, CUNY, New York, NY; [3]Amida Care, New York, NY

Background: Adherence to antiretroviral therapy (ART) is essential to effective management of HIV, which includes suppressing HIV viral load to undetectable levels. Some formulations of ART are more "forgiving" of poor adherence, allowing people living with HIV (PLWH) to be virally suppressed at lower adherence levels (i.e., < 90%). The primary objective of this study was to determine how ART forgiveness varies depending on ART type and adherence.

Methods: Data came from the claims and clinical records of 3,552 HIV-positive members of a Medicaid managed care plan who were 18 years or older and continuously enrolled from 2017 through 2019. Pharmacy fill data were used to characterize ART medication usage using latent class analysis (LCA). This approach captures the complexity of real-world ART usage, including multiple medications and ART switching. We eliminated low frequency ART prescriptions (< 1% of fills each year) from over 1,100 unique combinations. Logistic regression models were estimated for each ART pattern to determine whether odds of viral suppression differed by ART adherence level (< 50%, 50% to < 80%, 80% to < 85%, 85% to < 90%, and >= 90%).

Results: Among members with valid pharmacy data, 66% were men, 54% were Black, and average age was 45 years. Two-thirds of members were over 90% adherent to their ART medications. LCA yielded five ART medication patterns (i.e., latent classes) over three years, all of which were characterized by more recent ART formulations, though they varied in number of tablets, drugs, and in medication class. After adjusting for demographics, multimorbidity, nadir CD4 count, and ART switches, ART medication patterns did not differ significantly in odds of maintaining viral suppression with at least 80% adherence. For example, patterns characterized by boosted protease inhibitor (PI) medications were generally as effective as patterns characterized by medications containing integrase strand transfer inhibitors (INSTIs).

Conclusions: These findings add to a growing body of evidence suggesting that ART adherence required for viral suppression may be lower than the 90% + standard used in clinical settings. The clinical implications of these findings can guide provider-patient communication for PLWH, especially those who have difficulty maintaining near-perfect adherence. This includes those experiencing unstable housing, mental health conditions, or substance use. Providers might use these findings to inform clinical care for patients in these vulnerable groups.

CORRESPONDING AUTHOR: Jasmine Manalel, PhD, Brookdale Center for Healthy Aging, New York, NY; jm10927@hunter.cuny.edu

Abstract citation ID: kaad011.0617

POSTER SESSION C: KICKIN IT WITH THE GURLZ: THE DEVELOPMENT OF A STATUS-NEUTRAL INTERVENTION WITH, FOR, AND BY TRANSGENDER WOMEN OF COLOR

Laura Jadwin-Cakmak, MPH[1], Wesley M. King, MPH, EdM[1], Kristi Gamarel, PhD, EdM[1], Racquelle Trammell[1], Julisa Abad[2], Harmony Harris[2], Latrice Ward, n/a[2], Ini-Abasi Ubong, MPH[1], Lilianna Reyes, MPA[2]

[1]University of Michigan, Ann Arbor, MI; [2]Trans Sistas of Color Project, Highland Park, MI

Background: Transgender women of color experience interlocking systems of oppression rooted in cisgenderism and racism that give rise to violence and drive HIV inequities across both the prevention and care continua. This project presents preliminary findings on the development and evaluation of a community-led, multi-component, status-neutral intervention, called "Kickin' it with the Gurlz."

Methods: This project is led by the Love Her Collective, a community-academic partnership that seeks to address the needs of transgender women of color in Detroit. Through two federally funded grants, we developed Kickin with the Gurlz as a unifying status-neutral intervention. Kickin it with the Gurlz is a multi-component intervention that pairs a rigorous adaptation of Seeking Safety group sessions with peer navigation sessions. As part of the evaluation plan, participants completed baseline and follow-up surveys, session evaluation surveys, and exit interviews.

Results: Between August 2021 and September 2022, 37 transgender women of color were enrolled in the one-arm pilot of Kickin' it with the Gurlz. Participants' mean age was 28.6, 88% identified as Black, 21% earned less than $1000 month, 21% were food insecure, 49% reported unstable housing, 30% reported living with HIV, and 56% met criteria for PTSD. Thus far, retention is 90% for follow-up surveys among those whose windows have opened. Many participants (82%) rated the quality of each of the eight groups sessions as "excellent," and rated the content of sessions as "very relevant" (87%).

Discussion: Although follow-ups are going and planned to be complete by February 2023, Kickin' it with the Gurlz has demonstrated adequate acceptability and feasibility. Qualitative analyses from the exit interviews has suggested the program was beneficial in healing from trauma, coping with stigma, and contributed to participants making positive changes in their lives, including obtaining linkage to needed services. Participants provided concrete suggestions on how to improve the program and what should stay the same for a future large-scale trial.

CORRESPONDING AUTHOR: Kristi Gamarel, PhD, EdM, University of Michigan, Ann Arbor, MI; kgamarel@umich.edu

---

Abstract citation ID: kaad011.0618

POSTER SESSION C: HIV TESTING BELIEFS AND PREP KNOWLEDGE IN YOUNG ADULTS ATTENDING A HISTORICALLY BLACK COLLEGE IN THE SOUTHEASTERN US

Megan L. Wilkins, PhD[1], Peter Rebeiro, PhD[2], Leah Alexander, PhD, MPH[3], M. Lisa McGee, PhD[3], Calverta McMorris, EdD[4], Ashley Ross, MHA[1], Maile Karris, MD[5], Elizabeth A. Propst, MSW[1], Brianna Davis, BA[3], Cathleen Willging, PhD[6], April C. Pettit, MD[2]

[1]St. Jude Children's Research Hospital, Memphis, TN; [2]Vanderbilt University, Nashville, TN; [3]Meharry Medical College, Nashville, TN; [4]LeMoyne Owen College, Memphis, TN; [5]UCSD, San Diego, CA; [6]PIRE, Albuquerque, NM

Background: Data on determinants of HIV prevention are urgently needed in the southeastern US where Black adolescents and young adults (AYA) are disproportionately impacted. Historically Black Colleges and Universities (HBCUs) are uniquely positioned to inform interventions addressing these disparities. Prior research shows low HIV perceived risk, low HIV testing, and moderate HIV risk behavior engagement at HBCUs. Thus, we assessed pre-exposure prophylaxis (PrEP)-era determinants of HIV prevention for Black AYA at a southeastern HBCU.

Method: Data were collected via electronic survey by in-person and social media recruitment at a southeastern HBCU in 2022. The survey measured: demographics, HIV testing/PrEP knowledge and utilization, HIV risk behaviors, mental health, and the HIV Testing Belief Inventory (HTBI; 1="Strongly Disagree" to 5="Strongly Agree"). Students who had condomless sex in the past 6 months, ever used PrEP, or agreed/strongly agreed they had higher HIV risk than peers were coded "high-risk". Characteristics were reported using summary statistics.

Results: Participants included 153 AYA (61% female; 86% Black); 48% had sex without a condom in the last 6 months, 5% had sex with someone known to have HIV, and 58% reported higher perceived risk for HIV than peers. Of AYA with "high risk" (n=84), 55% received HIV testing in the last year. Although 40% had heard of PrEP, only 6% had taken it; 34% had interest in learning more. Most (60%) were aware of campus locations to get free condoms. Mean HTBI responses reflected the importance of knowing their own (4.24; IQR=4, 5) and their partner's (4.26; IQR=4, 5) HIV status. Nearly 13% of participants had moderate/severe depressive symptoms, 14% had moderate/severe anxiety symptoms, and 9% had a history of intimate partner violence (IPV) in the last year.

Conclusion: Though more than half of HBCU students in this sample had increased behavioral risk for HIV, and most rated knowing their own and partner's HIV statuses as important, only about half of those at "high-risk" had a recent HIV test. While 40% had knowledge of PrEP, few had taken it. Other HIV risk factors such as IPV were also reported at rates higher than recent college samples. Thus, despite reporting HIV acquisition risks and knowledge of PrEP, HIV prevention uptake, including condom and PrEP use, remained low among these AYA. A deeper understanding of factors that influence HIV risk perception and proactive prevention decisions remain critical to HIV prevention in AYA.

CORRESPONDING AUTHOR: Megan L. Wilkins, PhD, St. Jude Children's Research Hospital, Memphis, TN; megan.wilkins@stjude.org

Abstract citation ID: kaad011.0619

POSTER SESSION C: MULTILEVEL EFFECTS OF EXPRESSIVE ARTS-BASED INTERVENTION ON PSYCHO-SPIRITUAL WELLBEING OF ELDERLY VIA AMBASSADOR TRAINING

Ted C.T. Fong, PhD[1], Caitlin K.P. Chan, PhD[2], Rainbow T.H. Ho, PhD[2]

[1]Centre on Behavioral Health, University of Hong Kong, Hong Kong, N/A, Hong Kong; [2]Centre on Behavioral Health, The University of Hong Kong, Hong Kong, N/A, Hong Kong

Introduction: Expressive Arts-based intervention (EABI) is an innovative treatment that allows the elderly to express their feelings through arts creation. The present study aimed to evaluate the effects of the EABI in promoting mental health of the elderly via trainings of ambassadors.

Research Design: A single group pre-post design was adopted. Eighty-four healthcare workers in Hong Kong received the EABI training as an ambassador and delivered the 8-week EABI to 915 elderly between 2017 and 2021. The elderly completed assessments on depressive symptoms, spirituality, and quality of life (QoL) and the ambassadors completed measures on self-efficacy before and after the training. Intervention effects were examined by paired t-tests and multilevel path modeling on the associations among the changes.

Results: The elderly reported significant improvements in depressive symptoms, spiritual well-being, and QoL ($d = 0.37 - 0.91$, $p < 0.01$) and the ambassadors reported a significant increase in self-efficacy ($d = 0.53$, $p < 0.01$). Greater increases in ambassadors' self-efficacy showed significant indirect effects on greater decreases in depressive symptoms and greater increases in QoL via changes in spiritual wellbeing.

Conclusions: The findings suggest beneficial effects for both ambassadors in terms of self-efficacy and elderly in terms of spiritual and mental well-being. These provide empirical support to the viability of using the train-the-trainer approach in providing clinical interventions.

Acknowledgement: This work was supported by the Keswick Foundation Limited. We would like to express our thanks to our team members for their help in study coordination and EABI training delivery.

CORRESPONDING AUTHOR: Ted C.T. Fong, PhD, Centre on Behavioral Health, University of Hong Kong, Hong Kong, N/A, Hong Kong; ttaatt@hku.hk

---

Abstract citation ID: kaad011.0620

POSTER SESSION C: BARRIERS AND ENABLERS TO IMPLEMENTING A 12-MONTH CHURCH-BASED PHYSICAL ACTIVITY AND HEALTHY EATING PROGRAM

Jasmin Parker-Brown, MS[1], Sara Wilcox, PhD, FSBM[1], Jessica Stucker, MSW[2], Kelsey R. Day, MPH[1]

[1]University of South Carolina, Columbia, SC; [2]University of South Carolina, COlumbia, SC

Background: Churches have the potential to promote community-level improvements in health, but few scalable programs exist in this setting. We are conducting a national implementation study of the Faith, Activity, and Nutrition (FAN) program. FAN promotes increased opportunities, messages, polices, and pastor support for physical activity and healthy eating with the goal of creating a healthier church environment. The purpose of this study was to examine church leaders' barriers and enablers to implementing FAN 12 months after completing an online training with online supports.

Methods: Twelve months after completing the 8-week online FAN training, program coordinators (n= 36, 84% completion) and pastors (n= 32, 74% completion) from the first three cohorts (43 churches, 79% African American) answered open-ended questions regarding their perceived barriers and enablers to implementing the program in their respective congregations. The responses were coded using thematic analysis assisted by NVIVO software.

Results: Similar themes appeared among program coordinators and pastors. The most common barriers to implementation among program coordinators were COVID-19 restrictions lack of healthy opportunities, characteristics of the church (e.g., congregational demographics and physical traits), and lack of internal support and leadership. The most common barriers among pastors were COVID-19 restrictions, characteristics of the church, and lack of healthy opportunities. COVID-19 was noted as being the largest barrier to implementation of FAN in many of the responses. The most common enablers to implementation for both groups were healthy opportunities, internal support, FAN materials and media, and leadership support.

Conclusion: Overall, the COVID-19 pandemic created significant barriers to implementing the program as many churches were operating virtually. Nevertheless, examining the barriers and enablers to implementation can assist in strengthening resources for the development and implementation of other faith-based and similarly aligned online training programs. Upon study completion, analyses will be conducted with the full study sample.

This study was funded by CDC through a cooperative agreement (U48DP005000 &U48DP006401). The contents are solely the responsibility of the authors.

CORRESPONDING AUTHOR: Jasmin Parker-Brown, MS, University of South Carolina, Columbia, SC; jp94@email.sc.edu

Abstract citation ID: kaad011.0621

POSTER SESSION C: UTILIZATION OF BEHAVIORAL HEALTH SERVICES AMONG THOSE WITH A HISTORY OF ADVERSE CHILDHOOD EXPERIENCES

Molly Sygulla, MD[1], Afton Koball, PhD[1], Sparks Vicki, MD[1], Olson-Dorff Denyse, PsyD[1], Klevan Judy, MD[1], Alec Fitzsimmons, MPH[1], Andrew Borgert, PhD[1]

[1]Gundersen Health System, La Crosse, WI

Background: Adverse Childhood Experiences (ACEs) negatively impact long-term physical and emotional health. Individuals with more ACEs utilize health care differently than those with less ACEs (i.e. more overall appointments, lower odds of successful completion). However, this has not yet been examined specifically for behavioral health (BH) care (e.g., psychotherapy, drug or alcohol counseling, psychiatry services).

Purpose: The current study sought to examine the relationship between ACEs and utilization of outpatient BH services.

Methods: Individuals receiving care in an outpatient BH department within a Midwestern health care system were administered the ACE screening questionnaire by Felitti and colleagues (1998). Participant demographic information and healthcare visit utilization (i.e. completed and missed appointments) were gathered from the electronic medical record (EMR).

Results: Participants included in this study were 5,147 adults (66% female, *m* age = 40, *sd* = 15.1, range = 17 - 98) who completed an ACE screener (81% with ≥ 1 ACE; *m* ACE score = 3.4, *sd* = 2.8, range = 0 - 10). Insurance type (i.e., public vs private) was related to magnitude of ACEs experienced, with those having higher ACEs being more likely to have public insurance than private (of those with 4+ ACEs 39.7% have Medicaid vs 15.5% for those with 0 ACEs, p< 0.0001).

During the study period 95,413 visits were scheduled in BH (*m* scheduled visits per patient = 19, *sd* = 30.1, range = 1 – 430); 76,725 visits were completed (*m* = 15, *sd* = 24.7, range = 1 - 323). Overall, the rate of missed appointments was 20% (15% late canceled, 5% no-showed). Individuals with 4+ ACE scores had higher utilization of care in BH (i.e., higher number of scheduled appointments). Of those patients in the top utilization quartile, 50.25% had High (4+) ACEs vs 16.64% had Low (0) ACEs, P < 0.0001. Higher ACE scores were associated with an increased rate of missed appointments (Late cancelled appointments: *OR* = 1.266 [1.193-1.344], *p* < 0.0001; No showed appointments: *OR* = 1.893 [1.68-2.1330, *p* < 0.0001).

Conclusions: This study is the first to examine magnitude of ACEs in relation to BH utilization. Results align with previous literature on healthcare utilization. Consideration of ACE history may improve BH treatment. More research is needed to inform efforts towards better health outcomes for those facing adversity.

CORRESPONDING AUTHOR: Molly Sygulla, MD, Gundersen Health System, La Crosse, WI; msygulla@gundersenhealth.org

---

Abstract citation ID: kaad011.0622

POSTER SESSION C: MENTAL HEALTH PATIENT NAVIGATION FOR INDIVIDUALS WITH A MOOD DISORDER

Karl B. Williams[1], Arjan van der Star, PhD, MSc[1], Margaret Henderson, MLIS, AHIP[2], Kristen Wells, PhD, MPH[1], Cristian Garcia Alcaraz, MA[3]

[1]San Diego State University, San Diego, CA; [2]SDSU Library, San Diego, CA; [3]SDSU/UC San Diego Joint Doctoral Program in Clinical Psychology, San Diego, California, San Diego, CA

Background: Individuals living with a mood disorder (IWAMD) may benefit from mental health patient navigation (MHPN), a barrier-focused, patient centered intervention with the intent of increasing access to mental health services. It is unclear to what extent MHPN has been evaluated. Therefore, the authors systematically reviewed the literature on the effectiveness of clinical, non-clinical, and hybrid MHPN in improving initiation and adherence to any type of mental health service among IWAMD.

Methods: The following databases were individually probed: PubMed, CINAHL, PsycINFO and Scopus. Inclusion criteria were 1) reports quantitative data on initiation of and adherence to any type of mental health service, 2) includes participants experiencing symptoms of any type of mood disorder, and 3) evaluates a MHPN model that aimed to specifically increase access to any type of mental health service. The following study designs were considered for inclusion: case study, case series, cross-sectional study, longitudinal study, randomized controlled trial, case control trial, or quasi-experimental study. Studies were evaluated for their quality using the Effective Public Health Practice Project (EPHPP) Quality Assessment Tool.

Results: Nine studies from India, United States, New Zealand, and Canada were included in the review. Two clinical and seven non-clinical MHPN models were evaluated. MHPN appears to improve IWAMD's engagement with a psychologist/therapist/social worker or any other type of mental health service, insurance claims for outpatient behavioral and physical behavioral health, adherence to antidepressants and mental health appointments, and wait times to engage with mental health services. Not all studies conducted hypothesis testing, rather only reporting rates. Two studies were rated moderate on the EPHPP, while the remaining seven studies were rated weak.

Discussion: A trend suggests that MHPN may facilitate access to mental health services in IWAMD. The field should build on the present evidence to design large, fully powered randomized control trials with strong internal validity and test the various MHPN model(s) among diverse subgroups of IWAMD. A hybrid model, consisting of both clinical and non-clinical MHPN, could be a great avenue to improve mental health access because non-clinical patient navigators could be hired to get patients to mental health care that is delivered by a clinical patient navigator (e.g., counselor).

CORRESPONDING AUTHOR: Karl B. Williams, San Diego State University, San Diego, CA; kbwilliams97@gmail.com

Abstract citation ID: kaad011.0623

POSTER SESSION C: REFERRAL OF CANCER PATIENTS TO PSYCHOSOCIAL SERVICES: A SYSTEMATIC REVIEW

Elle R. Zelakiewicz[1]

[1]The Ohio State University, Menomonee Falls, WI

Background: Cancer patients often report elevated levels of distress. In an effort to alleviate this burden, many hospitals and clinics refer cancer patients to psychosocial services including psychiatrists, psychologists, and social workers. A portion of these institutions systematically refer patients to services based on elevated scores on screening tools, such as the Distress Thermometer, above a specific threshold. Other institutions rely primarily on the discretion and judgment of social workers, nurses, medical assistants, and other healthcare personnel to make appropriate referrals. This often occurs after screening tools have been administered to identify psychologically burdened patients.

Purpose: There is a scarcity of research describing the types of patients who are less likely to receive psychosocial referrals. A systematic review was conducted to identify descriptors and predictors of cancer patients most likely to receive referrals, which may reveal insight into patients that are not appropriately referred, yet are in need of psychosocial intervention.

Design and Methods: Six databases were searched including PsychINFO, PubMed, Scopus, CINAHL, EMBASE, and Psychology and Behavioral Sciences Collection. The search terms *psychosocial*, *psychological*, *cancer*, *oncology*, *referral*, and *healthcare utilization* were used (n = 49). A number of relevant articles were identified (n = 22).

Conclusions: Consistent patterns among which cancer patients were most likely to receive psychosocial referrals were identified. Distressed patients were referred more frequently than their non-distressed counterparts; however, despite the use of screening tools, a sizeable percentage of patients identified as distressed did not receive necessary referrals. Similar patterns were found among depressed patients. The literature revealed an inconsistency between cancer patients who are psychologically burdened and those who are referred, as many cancer patients in need of psychosocial services do not receive appropriate referrals. In addition, younger patients were referred to psychosocial services notably more frequently than older patients. While younger patients are referred at relatively high rates, older patients' psychological distress is not given commensurate attention and concern. It is recommended that future research focus on strategies to reduce these discrepancies and address biases.

CORRESPONDING AUTHOR: Elle R. Zelakiewicz, The Ohio State University, Menomonee Falls, WI; ellezelak@gmail.com

---

Abstract citation ID: kaad011.0624

POSTER SESSION C: GRIT AS A MODERATOR OF CHRONIC ILLNESS, PSYCHOLOGICAL ADJUSTMENT, AND PERCEPTIONS OF ILLNESS RECOVERY

Kayla D. Pitchford, MS[1], Jessica Brooks, PhD Clinical Psychology[2], Reginald Hopkins, PhD Clinical Psychology[2], Crystal Wynn, PhD Public Health[2]

[1]Virgina Consortium Program in Clinical Psychology, North Dinwiddie, VA; [2]Virginia State University, Virginia State University, VA

Chronic illness plagues over 40% of the entire United States population. Given the intersectionality of race, sociodemographic risk, and susceptibility, African Americans are disproportionately more vulnerable to being diagnosed with a chronic illness than the national average. Psychological adjustment to illness and perceptions of illness recovery plays an integral role by measuring an individual's ability to respond and regain a meaningful life after diagnosis. Literature supports both psychological adjustment and illness perceptions may be better for those with higher grit. Grit combines optimism with sustained effort toward a goal in the presence of struggle or failure and is distinct from resilience in that it accounts for both hope and goal orientation. Thus, the present study sought to examine chronic illness's impact on mental health functioning, psychological adjustment, and perceptions of illness recovery, investigating if grit could moderate these relationships among a sample of predominately African American adults. Participants (n = 255) aged 18-70 (*Mage* = 28.3, 89.4% African American) were recruited from a historically black university located in the southeast region of the United States and the surrounding community to complete a series of surveys assessing demographics, mental and physical health functioning, presence of psychological distress, and level of grit. An additional survey assessing attitudes toward recovery was administered only to participants who reported a chronic illness diagnosis (n = 99). Pearson correlations revealed individuals diagnosed with multiple chronic illnesses had the worst physical and mental health functioning ($r = -0.24$, $p < .01$) and highest psychological distress ($M = 3.71$, $SD = 1.43$). A simple moderator analysis was performed using the Hayes PROCESS model to investigate whether grit moderated the association between chronic illness diagnosis and psychological adjustment or perceptions of illness recovery. Responses indicated that individuals diagnosed with one chronic illness scored high on psychological distress, and grit moderated this association such that those who scored higher on grit experienced less psychological distress ([$\beta = 1.42$, 95% C.I. (.58, 2.25), $p < .01$]). Grit had no effect on individuals diagnosed with multiple chronic illnesses and did not moderate the association between chronic illness and perceptions of illness recovery. Results support the diagnosis of chronic illness's detrimental impact on individuals' physical and mental health functioning, with grit as a potential mitigating factor. Possessing high grit may help buffer against poor psychological adjustment that commonly ensues after a chronic illness diagnosis. Developing interventions that bolster grit, particularly in African American adults, may improve psychological functioning in individuals coping with chronic illness.

CORRESPONDING AUTHOR: Kayla D. Pitchford, MS, Virgina Consortium Program in Clinical Psychology, North Dinwiddie, VA; kpitc001@odu.edu

Abstract citation ID: kaad011.0625

POSTER SESSION C: INVESTIGATING THE UTILITY OF A ROBOTIC BABY BED TO SUPPORT POSTPARTUM MOTHERS

Michele L. Okun, PhD[1], Leilani Feliciano, PhD[1]

[1]University of Colorado Colorado Springs, Colorado Springs, CO

The perinatal period significantly increases the risk for mood disorders, with rates for incident and recurrent postpartum depression (PPD) of 5% and 30%, respectively. Since the onset of the COVID-19 pandemic, several reports suggest that maternal mood has worsened. One potential contributor to the increase in mood disorders may be the decrease in perceived social support from all sources during the pandemic. Despite these reports, few studies have examined those who are most vulnerable, women with a history of mood disorders. Considering the restrictions of the pandemic (e.g., mandated stay at home orders) and the fears associated with contracting the virus and its potential consequences for the pregnancy, it is likely that many high-risk women became even more vulnerable to a recurrent mood disorder. This study aimed to investigate whether the use of technology could be supportive to mothers in the postpartum. Participants were provided a SNOO, a robotic, responsive bassinet to use up to 6 months postpartum. The SNOO is a responsive bassinet that calms a fussing infant with motion and womb-like sound. It automatically responds to encourage self-soothing and sleep training, allowing for fewer parental interventions, particularly at night. A potential benefit of the SNOO may be tangible or instrumental support, as it can act like “another caretaker” that “attends” to the fussing or crying infant allowing the mother to remain asleep, perform self-care, or even eat.

Pregnant women (n = 147) with a history of depression but were not currently depressed were shipped a SNOO to use immediately following delivery. Participants answered questions via Qualtrics on depressive and anxiety symptoms during months 1-6 postpartum.

PPD (EPDS score ≥ 12) averaged 15.8% in our high-risk sample. Likewise, moderate to severe anxiety was observed on average in 17.0% of the sample.

The findings of this study are promising for two reasons: (1) the prevalence rates of depression and anxiety reported in the US and globally during the same time frame were higher than in the current study. Rates were reported to be 11.0% - 38.2%; and (2) the current cohort was high risk as compared to contemporaneously collected data which were collected in convenience samples or those that purposely excluded women with a history of mood disorders. These data suggest that the use of the SNOO may mitigate the risk of postpartum depression in women with a history of depression.

CORRESPONDING AUTHOR: Leilani Feliciano, PhD, University of Colorado Colorado Springs, Colorado Springs, CO; lfelicia@uccs.edu

---

Abstract citation ID: kaad011.0626

POSTER SESSION C: CULTIVATING SELF-COMPASSION THROUGH EXPRESSIVE ARTS-BASED INTERVENTION AMIDST THE PANDEMIC: CAN WE DO IT ONLINE, TOO?

Adrian H.Y. Wan, Certified Mindful Self-Compassion Teacher[1], Caitlin K.P. Chan, PhD[2], Johshua Yau[1], Rainbow T.H. Ho, PhD[2]

[1]Centre on Behavioral Health, HKU, Hong Kong, N/A, Hong Kong; [2]Centre on Behavioral Health, The University of Hong Kong, Hong Kong, N/A, Hong Kong

Background: The pandemic has imposed threat on psychosocial wellbeing of the citizens around the world. The global prevalence of anxiety, depression, and other mental health conditions had increased by 25% in the first year of the COVID-19 outbreak. Concerns about potential increases in mental health conditions had prompted responses to deploy mental wellness and psychosocial support services as part of the multidisciplinary response plan in 90% of countries worldwide. This study attempted to contrast the comparative effectiveness of an Expressive Arts-based Self-Compassion program delivered face-to-face and one that is delivered online.

Methodology: A 2-arm, randomized controlled study design was adopted to compare the comparative effectiveness of a professional-led, Expressive Arts-based Self-Compassion Program on self-compassion, mindfulness qualities, resilience, as well as positive and negative affect of community-dwelling, healthy individuals in Hong Kong during the pandemic period 2021-2022. Participants were surveyed once at baseline (T_0) and at post-intervention (T_1) as they participated in a 6-week program curated by an Expressive Arts Therapist and a Certified Mindful Self-Compassion Teacher. Focus group interviews were also conducted for a subset of participants to attain fine-grained information related to their personal experience in the program.

Results: For evaluating the effectiveness of the online (N = 21) and face-to-face (N = 19) program, repeated measures ANCOVA controlling for socio-demographics and Bonferroni-adjusted post-hoc tests were conducted to determine whether there were *time* and *time x group* effects in outcomes over time. All *time x group* effect for the outcome measures was not significant, suggesting that participants in both groups did not differ in the outcomes across pre- and post-program. However findings of the present study showed statistically significant time effect for self-kindness, $F(1,32) = 6.90$, $p = .01$, self-judgement, $F(1,32) = 4.33$, $p = .05$, isolation, $F(1,32) = 6.34$, $p = .02$, mindfulness, $F(1,32) = 4.61$, $p = .04$, *self-compassionate tendency*, $F(1,32) = 7.14$, $p = .01$, non-compassionate tendency, $F(1,32) = 6.01$, $p = .02$, the describing subscale, $F(1,32) = 7.22$, $p = .01$, negative affect, $F(1,32) = 4.72$, $p = .04$, as well as ego-resilience, $F(1,32) = 5.46$, $p = .03$. Focus group interviews (N = 11) showed that both groups enjoyed the connection they have with each other at times of heightened needs of social distancing; as well as the use of art-based activities to foster mindful awareness and self-compassion.

Conclusions: Findings suggested that both the online program and the face-to-face program was efficacious in improving overall self-compassion, cultivating awareness to internal experiences, as well as in alleviating negative affect and self-coldness attitude of healthy, community-dwelling adults amidst of the pandemic.

CORRESPONDING AUTHOR: Adrian H.Y. Wan, Certified Mindful Self-Compassion Teacher, Centre on Behavioral Health, HKU, Hong Kong, N/A, Hong Kong; awan@hku.hk

Abstract citation ID: kaad011.0627

POSTER SESSION C: RACIAL DIFFERENCES IN MENTAL HEALTH TREATMENT RECEIVED AMONG PEOPLE WITH COMORBID CARDIOMETABOLIC & DEPRESSIVE SYMPTOMOLOGY

Tyra Dark, PhD, MA[1], Rachel Harris, MSW[2], Jacob Chernicky, BA[1], George Rust, MD[1]

[1]Florida State University College of Medicine, Tallahassee, FL; [2]Florida State University, Tallahassee, FL

Background: Depressive Disorder (DD) and Cardiometabolic Syndrome (CMetS) are both common and frequently co-occur. To date, little research has been done to examine racial ethnic differences in depression treatment strategies among populations with DD/CMetS comorbidity. While depression has been more intensively studied with regard to diabetes outcomes, racial-ethnic disparities in appropriate use of medication therapy and talk therapy for minorities with co-occurring depression and CMetS are poorly understood.

Purpose: To document patterns of treatment (talk therapy and/or medication therapy) of depression among racial/ethnic groups with co-occurring depression and CMetS.

Methods: This research conducts secondary data analysis of individuals with Depressive Disorder /CMetS comorbidity in NHANES 2015-2018 study cohorts in order to identify the racial/ethnic and socioeconomic mental health treatment patterns among individuals with CMetS and Depression co-occurrence.

Results: Health conditions were not equally distributed across racial/ethnic groups (X^2 (9) = 31.02; p < .001). Among all racial/ethnic groups, depressive symptomology only (no cardiometabolic risk factors) was the most common designation and comorbid conditions was the least common designation. Among participants with depressive symptomology only, treatment type was not equally distributed across racial/ethnic groups (X^2 (9) = 33.32; p < .001) and the majority of the participants did not receive any mental health treatment for their symptoms. Although fewer participants reported comorbid CMetS and depressive symptomology, racial/ethnic treatment patterns were similar to participants experiencing only depressive symptomology. The non-Hispanic White participants were more likely to receive only medication or both medication and mental health professional treatment compared to other racial/ ethnic groups. Non-Hispanic Black participants were more likely to receive treatment only from a medical professional compared to other racial ethnic groups. Mexican American participants were most likely to receive no mental health treatment compared to other racial ethnic groups.

Conclusions: The burden of illness represented by depression care, as well as new evidence suggesting that care and outcomes systematically can be improved, suggest important opportunities for optimizing the treatment of depressive disorder in primary care and community health settings. Potential exists to leverage the results of this research to develop collaborative community intervention initiatives to focus on reducing both the excess prevalence of cardiometabolic and depression risk factors and the disproportionate impact those risk factors impose on the health of populations in greatest need.

CORRESPONDING AUTHOR: Tyra Dark, PhD, MA, Florida State University College of Medicine, Tallahassee, FL; tyra.dark@med.fsu.edu

---

Abstract citation ID: kaad011.0628

POSTER SESSION C: TESTS OF RECRUITMENT MODALITIES AND MESSAGES IN A REMOTELY CONDUCTED TRIAL

Ivelina Arnaoudova, Master of Medical Science[1], Laura Scanlan, MA[2], Angela Pfammatter, PhD, FSBM[3], Alexis Hernandez, BS[4]

[1]Montefiore Medical Center, Lawrenceville, GA; [2]Northwestern University, Chicago, IL; [3]University of Tennessee, Knoxville, Knoxville, TN; [4]Northwestern University, Green Bay, WI

Behavioral weight loss interventions, while not targeted towards a specific demographic, tend to receive a higher enrollment rate of woman than men and frequently lack racial and ethnic diversity. In this recruitment effort for EVO, a 12-month remote behavioral weight management study, we examined the effects of national recruitment modalities and advertisement message content on racial and ethnic diversity and male participation rates. In two waves we tested modalities including mail lists, email lists, Facebook ads, and streaming radio ads, while messages focused on threat of illness, health information, transparency about protections and voluntary participation, or were personalization based on identity or interest. In wave one, four unique advertisements were disseminated through each modality (16 ads in total). Results indicated an equal reach for each modality, with the email constituting the most overall ad clicks (50.4%) while mailing received the highest number of completed web screens (47.8%), followed by the email (36.3%); both Facebook and Spotify were low performers (15% and 0.8% of the web screens respectively). Looking at targeted reach, the mail received the most male interest (22.2% of ad clicks, compared to 19.0% for the email list), while email was slightly more successful in recruiting races and ethnicities typically underrepresented in clinical research (26.1% versus 22.2% from mail). For all four modalities, there was no significant difference in ad clicks based on the unique recruitment message, indicating that placement may have affected participant interest to a higher extent than the content of the message. The second wave used mail and Facebook, historically high performing modalities for the study. Two unique advertisements used were threat of illness and "male call to action". The "male call to action" advertisement was used in a Facebook ad the prior summer and was successful in recruiting male participants. Letters were mailed to 10,000 individuals while the Facebook ads ran for 10 days, which resulted in 57,648 overall impressions. The two Facebook ads generated 901 ad clicks overall, where threat of illness had more clicks than "male call to action" (88.8% vs. 11.2%), yet the "male call to action" ad had higher male interest (68% vs. 22% for threat of illness). While the completed web screens for each modality were comparable, (40 from mailing vs 60 from Facebook) mailing, compared to Facebook, was more successful in recruiting underrepresented races and ethnicities (25% vs. 13.3%) and males (25% vs 5%). Thus, both ad content and ad placement can have effects on participant interest.

CORRESPONDING AUTHOR: Ivelina Arnaoudova, Master of Medical Science, Montefiore Medical Center, Lawrenceville, GA; ivea95@gmail.com

Abstract citation ID: kaad011.0629

POSTER SESSION C: MEASURE DEVELOPMENT FOR PARENT-ADOLESCENT WEIGHT-CONVERSATIONS

Jacqlyn Yourell, MS[1], Jennifer L. Doty, PhD[2], Michelle I. Cardel, PhD, MS, RD, FTOS[3]

[1]University of Florida, Gainesville, FL; [2]University of Oregon, Eugene, OR; [3]WW International, Inc.; University of Florida College of Med, Gainesville, FL

Introduction: Negative weight-conversations between parents and their children are often harmful for youth's health and psychosocial outcomes. However, most research to date does not often look at differences between positive and negative comments, but instead focus on those that are negatively framed or neutral. Guided by family systems theory, the purpose of the current research was to develop scales for a measure that captures different types of weight-conversations and identify a factor structure for a psychometrically sound model.

Methods: Item development was informed by focus groups from a previous study, and items were reviewed by three experts in adolescent health research. Cognitive interviews were conducted with adolescents to pilot weight-conversation items to ensure the items were interpreted as intended. Forty-two items were included in a Qualtrics national panel study of adolescents (N = 503; M_{age} = 15.35 years; 44.1% female; 30.4% White, 22.7% Black, 22.7% mixed race, 16.7% Hispanic, 0.2% other; 45.9% with overweight/obesity) and their parent (52.5% mothers; 46.1% fathers). The sample was randomly divided into a validation sample (exploratory factor analysis [EFA]; n = 253) and a cross-validation sample (confirmatory factor analysis [CFA]; n = 250). Maximum Likelihood with Robust Estimation was utilized. Differential item functioning (DIF) analysis and measurement invariance tests were conducted to ensure the measure was valid across adolescent demographics: gender, race/ethnicity, weight status. No data were missing except for weight status (6.2%) due to youth reporting biologically implausible data and were handled with listwise deletion.

Results: Results from EFA and CFA revealed a three-factor model best fit the data for the weight-conversation measure: χ^2 (55) = 1135.38, p < .001, RMSEA= 0.046, 90% CI = [.02 – .07], CFI = .98, TLI = .97, SRMR .04. The three factors included Negative Weight (3 items; α = .77), Health-Focused (4 items; α = .88), and Body Positivity Conversations (4 items; α = .87). Items had high loadings on each of their respective factors (0.63 – 0.85; p < .001). No items demonstrated DIF and the model demonstrated strong (scalar) invariance across gender, age, race/ethnicity, and weight status. The Negative Weight and Health-Focused scales were significantly correlated with Weight-Bias Internalization (r = .39; r = .19; p < .01) and extreme unhealthy weight control behaviors (r = .44; r = .20) respectively, while the Body Positivity scale was not (p > .05) suggesting criterion validity.

Conclusion: The current research resulted in a psychometrically sound measure to assess parent-adolescent weight-conversations. The measure can be used in future research to examine relationships between different types of weight-conversations and health and psychosocial outcomes among adolescents from a diversity of racial/ethnic backgrounds and weight statuses.

CORRESPONDING AUTHOR: Jacqlyn Yourell, MS, University of Florida, Gainesville, FL; jacqlyny@ufl.edu

---

Abstract citation ID: kaad011.0630

POSTER SESSION C: OVERCOMING CHALLENGES TO COLLECTING BEHAVIORAL HEALTH DATA FROM BLACK COLLEGE EMERGING ADULTS

Laura Marks, PhD[1]

[1]Florida State University, Tallahassee, FL

Race-related health disparities are rampant in the United States (Centers for Disease Control and Prevention) (CDC, 2021) making it vital to investigate social determinants of health and conduct clinical studies with Black emerging adults (18 to 25 years old) that may benefit their long-term health outcomes. At predominantly White institutions (PWIs), Black college students face numerous barriers (e.g., racism) that impact not only their health (Marks et al., 2021) but also their academic success. Recruiting Black college students for clinical studies to improve the health and academic outcomes of this population can be challenging, but behavioral health interventions need to be culturally tailored. Hence, despite it being more difficult to recruit and retain this population for both in-person and online studies, it is vital to strategically do so. The COVID-19 pandemic has further exacerbated recruitment challenges with many studies being moved online (Jurich, 2021) and making personal connections with researchers more challenging to establish. This poster will include an overview of the challenges faced by a team of clinical researchers while recruiting Black emerging adult college students at a PWI for a behavioral health study, and present recommendations for the recruitment and retention of Black emerging adult college students in clinical studies based on lessons learned.

CORRESPONDING AUTHOR: Laura Marks, PhD, Florida State University, Tallahassee, FL; laura.reidmarks@fsu.edu

Abstract citation ID: kaad011.0631

POSTER SESSION C: A MEASUREMENT INVARIANCE STUDY OF GASTROINTESTINAL HEALTH ACROSS BIOLOGICAL SEX

Emily Jayne Ross, PhD[1], Mackenzie Shanahan, PhD[2], Dana Joseph, PhD[3], Jeffrey Cassisi, PhD[3]

[1]University of Miami School of Medicine, Miami, FL; [2]VA HSR&D Center for Innovations in Quality, Effectiveness, and Safety, Michael E DeBakey Veterans Affairs Medical Center, Houston, TX; [3]University of Central Florida, Orlando, FL

Introduction: Disorders of gut-brain interaction (DGBI) are characterized by chronic and recurrent gastrointestinal symptoms that do not have an identifiable structural etiology. There is evidence for sex-based differences in DGBI across symptom type, severity, and trajectory. Further, emerging adults are a susceptible age group for DGBI as the gut-brain-microbiota axis is particularly vulnerable because the gut microbiota is less diverse and more unstable compared to other age groups. DGBI symptoms are often assessed using self-report measures (i.e., PROMIS-GI®). As DGBI symptoms are heterogenous; the clinical utility of a higher-order construct of “GI health” using the PROMIS-GI® is to describe the overall severity of symptoms, rather than focusing on individual symptoms. However, it is yet to be determined if measurement equivalence of “GI health” is satisfied across biological sex. The main aim of this study was to test if the “GI health” latent construct exhibits strong measurement equivalence across biological sex.

Methods: 402 male and 459 female emerging adults in psychology courses at a southeastern university in United States were recruited to complete an online survey. CFA analyses were used to test measurement models for combining the six symptom subscales of the PROMIS-GI® into a latent variable of GI health for males and GI health for females. Then, measurement equivalence across sex was tested.

Results: The overall fit of the male GI health CFA was adequate (RMSEA = .069; TLI = .956; CFI = .976; SRMR = .025) and was acceptable for the female group: (RMSEA = .079; TLI = .953; CFI = .978; SRMR = .025). Results demonstrated acceptable fit for the configural invariance model (RMSEA = .064, SRMR = .048, CFI= .937, TLI = 0.922). Then, the metric invariance was tested, and the configural model and metric invariance model were compared. The metric invariance model did not result in significantly worse fit (ΔCFI < .002), supporting weak measurement equivalence. Additionally, the RMSEA confidence intervals overlapped (configural invariance 90% CI: 0.052, 0.076), metric invariance 90% CI: 0.050, 0.073). Then, the scalar model was tested, and the model did not result in significant worse fit (ΔCFI = -.002) and the RMSEA 90% CIs for the metric and scalar models overlapped (metric invariance: RMSEA=0.061, 90% CI: 0.050, 0.073; scalar invariance: RMSEA= 0.061, 90% CI = 0.050, 0.072). Results indicated strong measurement equivalence and that “GI health” was measured similarly between the male and females.

Discussion: This study provides evidence of the utility of a psychometrically sound, latent construct of GI health for male and female groups separately. Due to the heterogeneous and fluctuating nature of DGBI symptoms across the continuum, we advocate for the use of the PROMIS-GI® as a latent construct when making sex-based comparisons.

CORRESPONDING AUTHOR: Emily Jayne Ross, PhD, University of Miami School of Medicine, Miami, FL; ejr168@miami.edu

---

Abstract citation ID: kaad011.0632

POSTER SESSION C: SOCIAL COGNITION CONSTRUCTS MEDIATE THE EFFECT OF HEALTH LITERACY ON HEALTH BEHAVIORS AND OUTCOMES: A META-ANALYSIS

Kaylyn McAnally, MA[1], Martin S. Hagger, PhD[1]

[1]University of California, Merced, Merced, CA

Objective: Research has indicated that health literacy, an individual’s capacity to obtain, process, and understand basic health information, is independently associated with disparities in health behavior participation. We proposed a model in which the effects of health literacy on health behavior participation and health-related outcomes are mediated by belief-based constructs from social cognition theories. We aimed to test this model using meta-analytically synthesized data from studies reporting relations among health literacy, social cognition constructs, and health behavior and outcomes. The model offers a potential mechanism which may, in part, account for the health literacy-health behavior relationship.

Method: Studies (k=203, N=210,622) reporting relations between health literacy, social cognition constructs (attitudes, self-efficacy, knowledge, risk perceptions), and health behaviors and outcomes were identified in a systematic database search. Relations among proposed model variables, including indirect effects of health literacy on health behavior and outcomes mediated by social cognition constructs, were tested using random effects multi-level meta-analysis and meta-analytic structural equation modeling.

Results: The analysis revealed non-zero averaged correlations between health literacy, social cognition constructs, and health behavior and outcomes with small-to-medium effect sizes. Structural equation modeling indicated that self-efficacy and attitudes partially mediated the relationship between health literacy and health behavior and outcomes. Sensitivity analyses revealed that model effects did not vary substantively when omitting studies targeting health risk behavior, studies using comprehension measures of health literacy, and studies in countries with high education provision.

Conclusion: Findings indicate that health literacy has unique averaged effects on health behavior and health outcomes across studies, and relations between health literacy and health behavior and outcomes are partially mediated by theory-based health behavior beliefs suggesting a potential mechanism by which health literacy may relate to health behavior and outcomes. Given these findings are based on correlational data, further corroboration is needed in studies adopting longitudinal or experimental designs.

CORRESPONDING AUTHOR: Kaylyn McAnally, MA, University of California, Merced, Merced, CA; kmcanally@ucmerced.edu

Abstract citation ID: kaad011.0633

POSTER SESSION C: BARRIERS AND CONFIDENCE AMONG COLORECTAL AND PROSTATE CANCER SURVIVORS PARTICIPATING IN TWO BEHAVIORAL INTERVENTION STUDIES

Vivian Liu, BS[1], Kyle Zuniga, MD, MS[2], Alan Paciorek, BS[3], Li Zhang, PhD[3], June M. Chan, ScD[4], Katherine Van Loon, MD, MPH[3], Angela Laffan, NP, MSN[3], Alan Venook, MD[3], Erin L. Van Blarigan, ScD[3], Stacey A. Kenfield, ScD[3]

[1]UCSF, Foster City, CA; [2]UCLA, Los Angeles, CA; [3]UCSF, San Francisco, CA; [4]UCSF, san francisco, CA

Objective: Exercise and healthy diet are key components of cancer survivorship. We sought to explore perceived barriers to engaging in healthy diet and exercise, and whether these barriers change throughout remote-based behavioral interventions.

Methods: Smart Pace (SP) and Prostate 8 (P8) were two pilot randomized controlled trials (RCTs) assessing the feasibility of remote-based 12-week behavioral interventions among 42 colorectal cancer (CC) survivors and 76 prostate cancer (PC) survivors, respectively. The interventions encouraged participants to implement exercise (both) and healthy diet (P8 only) through text messaging and wearable fitness monitors; P8 also included web materials. Participants completed surveys on perceived barriers and confidence in ability to implement healthy behaviors at enrollment and 12 weeks; P8 also included a 52-week assessment. All analyses (assessing the 5-point summary scores at enrollment, mean change, difference in means between groups, and change in exercise/diet over time) were conducted separately for SP and P8.

Results: At enrollment, CC survivors commonly reported a lack of discipline/willpower (36%), lack of time (33%), and lack of energy (31%); PC survivors often reported a lack of knowledge about healthy dietary behaviors (26%). Not having anyone with whom to exercise with was a common exercise barrier among both groups (21% in CC, 20% in PC). Among the intervention groups, various enrollment barriers were associated with change in behavior over time: in the SP group, higher exercise scores (fewer barriers) for *functional/psychological disability (FPD)* exhibited a positive correlation (0.49) with change in physical activity. However, in the P8 group, exercise scores (*overall*, *aversiveness, FPD,* and *excuses*) at enrollment were negatively correlated (-0.42 to -0.53) with change in exercise. So, among men with PC, having fewer barriers was associated with less physical activity change. The P8 group also had higher diet scores (*overall*, *FPD*, and *inconveniences*) that correlated with positive changes in dietary habits (0.43 to 0.5).

Conclusions: Among colorectal and prostate cancer survivors, there are multiple potential barriers related to motivation, time, social support, and lack of knowledge, that can be addressed and overcome to improve healthy behaviors. Tailoring lifestyle interventions to participants' individual barriers and confidence is needed to promote and sustain behavior change.

CORRESPONDING AUTHOR: Vivian Liu, BS, UCSF, Foster City, CA; vivian.liu@ucsf.edu

---

Abstract citation ID: kaad011.0634

POSTER SESSION C: PREDICTORS OF MEDICATION ADHERENCE AMONG PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE: A RETROSPECTIVE STUDY

Ann Cameron, MA, PhD[1], Meredith A. Barrett, PhD[2], Anita Malik, PhD[1], Caleb Woodford, BS[3], Naomi Alpert, MS[1], Leanne Kaye, PhD, MPH, RD[4], Vy Vuong, MPS[5], Kimberly L. Sterling, Pharm D, MS[1]

[1]ResMed Science Center, San Diego, CA; [2]ResMed, NA, OR; [3]ResMed Science Center, Halifax, NS, Canada; [4]ResMed, Redwood City, CA; [5]Res Med Science Center, NA, CA

Background: Suboptimal medication adherence among patients with chronic obstructive pulmonary disease (COPD) contributes to poorer clinical outcomes and increased healthcare resource use and costs. This retrospective observational study describes adherence among a large, diverse sample of US patients with COPD, and identifies predictors of optimal adherence.

Methods: Patients were identified from administrative claims data 1/1/16-12/31/17. Eligible patients were aged ≥ 40 years; had 1 COPD-related hospitalization or emergency room (ER) claim or 2 other COPD-related claims (index date); pharmacy data available; and 2 years of data post-index date (baseline year, follow-up year). COPD complexity, a proxy for disease severity, was classified as high, moderate, or low based on comorbid respiratory conditions. Among patients with a maintenance medication claim in the first 270 days of each study year, adherence to maintenance medication was calculated using proportion of days covered (PDC) per year; PDC ≥0.80 was categorized as adherent. Predictors of adherence at follow up were measured during baseline and assessed using multivariable logistic regression models among patients with adherence data in both years.

Results: 1,123,924 patients were included; mean (SD) age was 63.1 (11.1) years, 56.2% were female. COPD complexities were 41.9% low, 49.7% moderate, and 8.4% high. During baseline, 30.4% of patients had a maintenance medication prescription in the first 270 days; mean PDC was 0.61 (0.31) and 36.6% were adherent. During follow up, mean PDC was 0.63 (0.30) and 39.7% were adherent. Mean PDC was comparable across complexity levels. Factors that increased the likelihood of being adherent included older age (odds ratio [OR] age 55-64=1.34; 95% confidence interval [CI]=1.26, 1.42; OR age 65-69=1.36; 95% CI=1.27, 1.45; OR age ≥ 70=1.28; 95% CI=1.20, 1.37, vs age 40-44), use of oxygen therapy (OR=1.22; 95% CI=1.20, 1.25), and use of a rescue inhaler (OR=1.17; 95% CI=1.15, 1.20), all *p*< .001. Factors that decreased the likelihood of being adherent included baseline nonadherence (OR=0.15; 95% CI=0.15, 0.15), having a baseline ER visit (OR=0.91; 95% CI=0.89, 0.93), having depression (OR=0.91; 95% CI=0.89, 0.93), and having Medicaid coverage (OR=0.84; 95% CI=0.82, 0.87), all *p*< .001.

Conclusions: Our study provides important insights into predictors of medication adherence among adults with COPD. Further complementary research, including personal, social, and contextual barriers to optimal medication use, would be beneficial in developing medication adherence interventions.

CORRESPONDING AUTHOR: Leanne Kaye, PhD, MPH, RD, ResMed, Redwood City, CA; leanne.kaye@resmed.com

Abstract citation ID: kaad011.0635

POSTER SESSION C: PERCEPTIONS OF INCLUDING YOGA PRINCIPLES IN A LIFESTYLE BEHAVIOR-CHANGE PROGRAM ADAPTED FOR ENDOMETRIAL CANCER SURVIVORS

Mary Frazier, BS[1], Samantha M. Harden, PhD[1], Shannon D. Armbruster, MD, MPH[2], Brandon Ganjineh, BS[3]

[1]Virginia Tech, Blacksburg, VA; [2]Carilion Clinic, Virginia Tech Carilion School of Medicine, Roanoke, VA; [3]Virginia Tech Carillon School of Medicine, Roanoke, VA

Background: Endometrial cancer is the most prevalent gynecologic malignancy and it is commonly diagnosed and treated at early stage, resulting in a large survivorship community. Most endometrial cancer survivors (ECS) have obesity-associated comorbidities and mortality, leading to a growing need for survivor-focused lifestyle interventions. To speed the translation of science into impact, FitEx, an existing lifestyle behavior-change program focused on team goal setting, self-monitoring, and facilitated feedback, was adapted and refined for ECS (FitEx-ECS) using the Obesity Related Behavioral Intervention Trials (ORBIT) model. Based on earlier stage ORBIT work, ECS shared concerns for quality of life and preference for low intensity exercise. Therefore, yoga principles that focus on holistic well-being were integrated. The purpose of this work is to qualitatively evaluate participant perceptions of the inclusion of yoga principles in FitEx-ECS.

Methods: During a proof-of-concept study (Phase IIa of ORBIT), three ECS and eight team members were randomized in the FitEx-ECS with yoga group. Weekly 30-minute sessions on Zoom included synchronous movement and meditation and discussion of weekly yoga principles topics. Six months after the program, two ECS (67%) and three team members (38%) participated in semi-structured interviews. Transcripts were analyzed in a mixed deductive/inductive approach.

Results: Yoga utilization varied whereas one ECS reported that yoga and meditation were helpful for reducing stress and the other ECS reported that while the yoga poses (asana) were a good fit, she did not adopt yoga and meditation opting for walking instead. Notably, no team members attended Zoom sessions in order to provide rich feedback on the yoga principles. One ECS, who attended regularly, noted a desire for increased attendance and connection with other ECS on Zoom. The other ECS reported limited capacity to participate in the Zoom sessions but recognized the value in group connection and the impact of low Zoom attendance.

Conclusions: This small sample of FitEx-ECS participants provided rich, invaluable data that yoga principles were acceptable, but the demand varied—predominantly based on a lack of attendance. Therefore, strategies to increase adherence to Zoom sessions and yoga principles are warranted before full-scale launch.

CORRESPONDING AUTHOR: Mary Frazier, BS, Virginia Tech, Blacksburg, VA; mcf712@vt.edu

---

Abstract citation ID: kaad011.0636

POSTER SESSION C: DOES THE EARLY BIRD REALLY CATCH THE WORM? ASSOCIATIONS BETWEEN CHRONOTYPE AND WEIGHT LOSS DURING A WEIGHT LOSS INTERVENTION

Taylor N. Swanson, BA[1], Andrea N. Brockmann, MA[1], Umelo A. Ugwoaba, MS, MPH[1], Kelsey M. Arroyo, MS[1], Kelsey L. Barrett, BS[1], Meena N. Shankar, MS, RD[1], Kathryn M. Ross, PhD, MPH[1]

[1]University of Florida, Gainesville, FL

Introduction: Chronotype (i.e., sleep/wake time preference) has been associated with weight and weight-related behaviors, such that having a later chronotype (i.e., being a "night owl") has been associated with higher body mass index (BMI), greater caloric intake, and lower levels of physical activity. Less is known, however, regarding whether chronotype may predict changes in weight-related behaviors and weight loss during a behavioral weight management program.

Methods: The current study investigated associations between chronotype, adherence to caloric intake and physical activity goals, and weight loss in 235 non-shift working adults with obesity (*M*±*SD* age = 50.43±10.65 years; BMI = 35.78± 4.18 kg/m^2; 84.3% female, 77.9% White) enrolled in a 4-month behavioral weight management program. Chronotype was assessed at baseline via the self-report Munich Chronotype Questionnaire. Adherence to caloric intake and physical activity goals was assessed via self-monitoring logs returned to intervention staff, and weight was assessed using in-home BodyTrace e-scales. Regression analyses were used to examine associations between chronotype, adherence to program goals, and weight loss, and to test the hypothesis that adherence to program goals would mediate the association between chronotype and weight loss.

Results: Participants lost an average of 6.89±4.58% of their baseline weight at Month 4. Greater adherence to caloric intake and physical activity goals was significantly associated with greater weight loss, *r*s = -.55 and -.37, respectively, *p*s < .001. Having a later chronotype significantly predicted lower adherence to caloric intake goals, *r* = -.16, *p* = .02; however, there were no significant associations between chronotype and adherence to physical activity goals or percent weight change during the intervention. Moreover, adherence to caloric intake and physical activity goals did not serve as mediators between chronotype and weight change.

Discussion: Although having a later chronotype predicted lower adherence to caloric intake goals, chronotype was not significantly associated with adherence to physical activity goals or weight loss. Thus, behavioral weight loss interventions may be similarly beneficial for individuals regardless of chronotype. Future studies should replicate these results using alternative measures of chronotype (e.g., directly measuring sleep patterns via sleep diaries or actigraphy).

CORRESPONDING AUTHOR: Taylor N. Swanson, BA, University of Florida, Gainesville, FL; taylorswanson@phhp.ufl.edu

Abstract citation ID: kaad011.0637

POSTER SESSION C: SERUM C REACTIVE PROTEIN, BUT NOT IL-6, IS STRONGLY ASSOCIATED WITH OBESITY IN PRE-PUBESCENT LATINX CHILDREN

Denise Dixon, PhD[1], Ronald Goldberg, MD[2], Neil Schneiderman, PhD[2], Alan M. Delamater, PhD, FSBM[3]

[1]CHS, Port Jefferson, NY; [2]University of Miami, Miami, FL; [3]University of Miami Miller School of Medicine, Miami, FL

Background: The noted increased occurrence of Type 2 Diabetes Mellitus (T2DM) in children has been linked to obesity and insulin resistance. Serum C-reactive protein (CRP) and Interleukin 6 (IL-6) have been determined as increased in adults who later developed diabetes and cardiovascular disease.

Objective: To examine whether CRP and IL-6 are similarly associated with BMI/obesity and insulin resistance in school-aged Latinx children.

Methods and Procedures: One hundred twelve (112) Latinx children aged 5-10 years recruited from elementary schools, of whom 43.8% were found to be obese (BMI $\geq$95th percentile) and 51.8% had a family history of T2DM. With one exception, all had normal glucose tolerance. Assessment of insulin sensitivity was performed by the homeostasis model assessment (HOMA-IR), serum CRP levels were measured using high sensitivity nephelometric methodology (Dade-Behring) in 73 children, and IL-6 levels were assessed with ELISA in 104 children.

Results: CRP levels were higher in obese than in non-obese children (.20 ± .03 versus .03 ± .03 mg/L; F (1,71) = 45.38, p< .000). Moreover, CRP levels were significantly higher in obese children with versus without a family history for T2DM (.24 ± .04 versus .11 ± .04 mg/l; F (1,28) = 5.16, p< .03). CRP was positively correlated with both HOMA-IR (p< 0.04) and with BMI (p< 0.001) in separate regression analyses after controlling for age, gender and fasting glucose. When analyzed together with BMI, HOMA-IR lost its association with CRP. In contrast, IL-6 levels were non-detectable in 103/104 children, and were thus not entered into any of the statistical analyses.

Discussion: These results indicate that, as in adults, CRP is elevated in obese school-aged Latinx children in proportion to their body weight, and has a weaker relationship with a surrogate measure of insulin resistance, HOMA-IR. Therefore, CRP may represent an early indicator of the increased risk for diabetes and atherosclerosis in obese Latinx children. In contrast, IL-6 may not be a reliable marker of inflammation or disease processes within this same population.

CORRESPONDING AUTHOR: Denise Dixon, PhD, CHS, Port Jefferson, NY; info@suffolkhealthpsy.com

---

Abstract citation ID: kaad011.0638

POSTER SESSION C: NON-FOOD-SPECIFIC DRIVE AS A MODERATOR OF THE RELATIONSHIP BETWEEN FOOD REWARD RESPONSIVITY AND CONSUMPTION

Abigail L. Metzler, BA[1], Diane H. Dallal, PhD[2], Evan M. Forman, PhD[3]

[1]Yale University, New Haven, CT; [2]University of Pennsylvania, Philadelphia, PA; [3]Drexel University, Philadelphia, PA

Given the ubiquity of highly rewarding, highly caloric foods in the modern food environment, it can be difficult to make healthy dietary choices. One factor that influences food choice is *food reward responsivity*, or an individual's self-reported and neural experience of pleasure following exposure to food stimuli. Previous studies have found that higher food reward responsivity often, but inconsistently, predicts greater intake of highly rewarding foods (e.g. high-fat, high-sugar foods) (Burger & Stice, 2011; Nansel et al., 2016). This inconsistency may be explained by individual differences in other reward-related processes. One likely individual difference is *non-food-specific drive*, or an individual's willingness to work for rewards beyond food. Although previously untested as a moderator in this context, one's drive to obtain non-food rewards may produce differing degrees of reward satiety, which may then interact with one's baseline food reward responsivity to impact consumption. Although our preliminary work (Metzler et al., 2022) found a trend-level negative association between non-food-specific drive and one's frequency of consumption of high-reward foods, it remains unknown whether the relationship between food reward responsivity and consumption is moderated by an individual's drive to pursue non-food rewards. The present study examined drive for non-food reward, food reward responsivity, and consumption (i.e., frequency of high-reward foods consumed) at baseline in a sample of 86 undergraduates ranging across the BMI spectrum. Participants reported on diet quality via an idiosyncratic Food Frequency Questionnaire, non-food-specific drive via the Drive subscale of the BIS/BAS, and food reward responsivity via the Food Tasted subscale of the Power of Food Scale. A general linear model revealed a weak and nonsignificant moderating effect of drive on the relationship between food reward responsivity and high-reward food consumption (b=-.01 SE_b=.02, p=.62), controlling for age, sex, and race, indicating that the relation between food reward responsivity and consumption was not qualified by one's level of non-food-specific drive. Future research should examine other potential moderators that may impact this relationship, such as one's baseline stress levels or impulsivity.

CORRESPONDING AUTHOR: Abigail L. Metzler, BA, Yale University, New Haven, CT; ametzler@sas.upenn.edu

Abstract citation ID: kaad011.0639

POSTER SESSION C: EXAMINING THE IMPACT OF SOCIAL STATUS VARIABLES ON PERCEIVED STRESS AND NUTRITION LABEL CHECKING BEHAVIORS

Abigail L. Metzler, BA[1], Michael P. Berry, MS[2], Tanja Kral, PhD[3], Evan M. Forman, PhD[2]

[1]Yale University, New Haven, CT; [2]Drexel University, Philadelphia, PA; [3]University of Pennsylvania, Philadelphia, PA

Previous studies have suggested that lower socioeconomic status (SES), as measured by income and education level, predicts higher obesity rates and less healthy dietary intake. However, previous work has generally neglected an important dimension of SES, i.e., subjective social status (SSS). SSS is more nuanced than measures of income or education level because it captures an individual's perception of their social class relative to others. SSS may be influenced by factors including overall health status, upbringing, and cultural factors. Importantly, SSS may be more predictive of unhealthy eating and obesity than SES because it encompasses a wider range of social/environmental influences. However, it is unclear whether the traditional conceptualization of SES (i.e. income, education level) or SSS is more influential in the etiology of obesity, which limits the ability to appropriately tailor obesity interventions. Therefore, this study evaluated the relationship between SSS and SES and two theoretically relevant variables to eating behavior and obesity—frequency of nutrition label checking and perceived stress. In order to understand if these particular variables are influenced more by SSS than by SES, participants (n=159) completed an online survey examining SES, SSS, perceived stress, and frequency of checking nutrition labels. Independent-samples *t*-tests were used to compare scores on these two outcome variables between participants in the upper tertile (above 67th percentile) of the sample with regard to SSS and those in the upper tertile concerning SES. This same comparison between SSS and SES was repeated for the lower tertiles (below 33rd percentile). Results revealed no evidence of difference between individuals with high SES and high SSS on measures of perceived stress (t = -0.25, df = 101, p = .40, 95% CI [-3.21, 2.48]) and frequency of checking nutrition labels (t = 0.65, df = 101, p = .26, 95% CI [-7.74, 15.33]). The same patterns emerged when comparing individuals of low SES against individuals with low SSS. Findings suggest that, in this sample, there was no evidence of SSS better explaining variability in two variables relevant to the onset of obesity—perceived stress or frequency of checking nutrition labels—relative to SES, both when comparing high SES to high SSS and when comparing low SES to low SSS. Future research should explore other factors that may differentiate SSS from SES in explaining the etiology of obesity.

CORRESPONDING AUTHOR: Abigail L. Metzler, BA, Yale University, New Haven, CT; ametzler@sas.upenn.edu

---

Abstract citation ID: kaad011.0640

POSTER SESSION C: A DESCRIPTIVE EVALUATION OF GROWTH PATTERNS FROM A LONGITUDINAL COHORT OF NEBRASKA YOUTH

Bryce M. Abbey, PhD, CSCS[1], Kate A. Heelan, PhD[1], John Masker, MaEd[2]

[1]University of Nebraska at Kearney, Kearney, NE; [2]University of Nebraska Kearney, Kearney, NE

Body Mass Index (BMI) changes substantially as children age due to stature and body mass changes during growth, development, and maturation. The purpose of the current investigation is to describe growth characteristics of 8–14-year-old boys and girls in a longitudinal study from a Midwestern Nebraska community. Anthropometric characteristics were assessed annually for 646 children from age 8 to 14 years (55% boys). Growth rate changes of stature (cm/year), body mass (kg/year), and BMI (kg/m^2/year) were analyzed. Children were classified as normal weight, overweight, or obese based on BMI percentile at age 12 using CDC growth charts. Body mass, stature, and BMI changes were compared using a general linear regression model with post hoc analysis to determine statistical significance ($p< 0.05$) in growth rates among the different weight categories at each age by sex. Children with obesity experienced more than two times greater rate of body mass gains at ages 8, 9, 10 and 11 compared to children at normal weight ($p< 0.05$). After 12 years of age, the significant differences in body mass gains were no longer observed as children were gaining close to the same amount of mass regardless of weight classification and at ages 11- to-14 years of age, the rate of stature velocity was significantly lower in children with obesity. By age 14, there was no difference in rates of growth for BMI or body mass but significant gains in stature among children with normal weight. These differences held true for both boys and girls. The significant differences between weight categories at different ages further emphasize the variability in growth and maturation among children, especially during puberty and the adolescent spurt and timing for weight gain prevention programming. Given the findings that obesity can persist into adolescence and adulthood, an emphasis must be placed on prevention at earlier ages. Indeed, there is agreement among leading experts that obesity prevention programs should begin early in life and involve the family to promote lifestyle behavioral change that leads to a healthy weight across the lifespan.

CORRESPONDING AUTHOR: Bryce M. Abbey, PhD, CSCS, University of Nebraska at Kearney, Kearney, NE; abbeybm@unk.edu

Abstract citation ID: kaad011.0641

CITATION AND MERITORIOUS AWARD WINNER

POSTER SESSION C: EVALUATING THE UTILITY OF TEMPORAL SELF-REGULATION THEORY FOR PREDICTING PHYSICAL ACTIVITY DURING WEIGHT LOSS MAINTENANCE

Christiana M. Field, BA[1], Zeely A. Denmat, BS[2], Tricia M. Leahey, PhD[1], Amy A. Gorin, PhD[1]

[1]University of Connecticut, Storrs, CT; [2]University of Connecticut, Hartford, CT

Physical activity (PA) is a critical factor in weight loss maintenance (WLM). However, most adults in WLM trials do not engage in PA to the extent necessary for sustained weight management. Understanding the mechanisms behind PA engagement may suggest new WLM intervention targets. Temporal self-regulation theory (TST) seeks to explain why people fail to translate intention into action. TST posits that beliefs, intention, behavioral prepotency, and executive control predict a given behavior. The present study explores the utility of TST in predicting PA among adults enrolled in a behavioral WLM program.

Adults (N = 214; 82% female; 28% racial/ethnic minority; mean age = 53.4) who achieved a ≥ 5% weight loss at the end of a 16-week online weight loss intervention were eligible to participate in the 18-month WLM trial. TST constructs were measured via self-report measures. PA was measured with waist worn Actigraph GT9X. Analyses were conducted on an intent-to-treat basis with multiple imputation.

At 18-months, adding beliefs about PA to a model predicting intention to exercise significantly improved the model after controlling for age, sex, BMI, and treatment arm (Wald $X^2(3) = 11.53$, $p < .001$). Short-term negative beliefs about PA (e.g., feeling sore) were negatively associated with intention to exercise ($\beta = -.26$, $p < .001$), while short term-positive beliefs (e.g., improved mood) were positively associated with intentions to exercise ($\beta = .33$, $p = .004$). The association between long-term positive beliefs about PA (e.g., weight loss) and intentions was not significant. Further, including intention, behavioral prepotency, and executive control significantly improved models predicting both total MVPA minutes (Wald $X^2(3) = 8.17$, $p < .001$) and bouted MVPA (Wald $X^2(3) = 8.74$, $p < .001$). However, only intention was a significant predictor for total MVPA minutes ($\beta = .18$, $p = .002$) and bouted MVPA ($\beta = .38$, $p < .001$).

At the end of the WLM intervention, short-term beliefs about the outcomes of exercise, both positive and negative, significantly predicted intention to exercise. Long-term positive beliefs about PA appeared to play a lesser role, perhaps due to our tendency to devalue future rewards considering more immediate rewards and consequences. Further, two essential TST constructs, behavioral prepotency and executive control, did not predict either total MVPA minutes or bouted MVPA. Results suggest that interventions targeting exercise beliefs may be warranted.

CORRESPONDING AUTHOR: Christiana M. Field, BA, University of Connecticut, Storrs, CT; christiana.field@uconn.edu

---

Abstract citation ID: kaad011.0642

POSTER SESSION C: LONG-TERM WEIGHT MAINTENANCE AFTER WEIGHT LOSS: PRELIMINARY FINDINGS FROM THE ECHANGE PILOT TRIAL

Rikke Aune Asbjørnsen, MSc[1], Elin Børøsund, PhD[2], Jøran Hjelmesæth, MD, PhD[3], Marianne Ollivier, MSc[1], Mirjam Lien Smedsrød, MSc[4], Jobke Wentzel, PhD[5], Matthew M. M. Clark, PhD[6], Lisette van Gemert-Pijnen, PhD[7], Lise Solberg Nes, PhD, LP[1]

[1]Department of Digital Health Research, Division of Medicine, Oslo University Hospital, Oslo, Norway, Oslo, Oslo, Norway; [2]Department of Digital Health Research, Division of Medicine, Oslo University Hospital, Oslo, Norway, OSLO, Oslo, Norway; [3]Morbid Obesity Centre, Department of Medicine, Vestfold Hospital Trust, Norway, Tønsberg, Vestfold, Norway; [4]Interaction Unit, Sørlandet Hospital Trust, Kristiansand, Norway, Kristiansand, Vest-Agder, Norway; [5]Research Group IT Innovations in Health Care, Windesheim University of Applied Sciences, Zwolle, The Netherlands, Zwolle, Overijssel, Netherlands; [6]Department of Psychiatry & Psychology, Mayo Clinic, Rochester, Minnesota, U.S., Rochester, MN; [7]Center for eHealth and Wellbeing Research, Department of Psychology, Health and Technology, University of Twente, Enschede, The Netherlands, Enschede, Overijssel, Netherlands

Background: Obesity is a complex, chronic disease and a significant global health concern. Even though weight loss can be achieved through various diets and weight loss support programs, maintaining the new weight after weight loss is difficult and only a few manage to do so long term. Digital solutions have emerged in support of weight loss and weight loss programs, but few of these so far focus on weight maintenance after weight loss.

Aim: To evaluate feasibility, usability and preliminary effects after using eCHANGE, a digital intervention program aiming to support long-term weight loss maintenance.

Method: A 3-month multi-site pilot-trial (i.e., ClinicalTrials.gov: NCT04537988) testing eCHANGE, a digital weight loss maintenance intervention, was conducted with 60 participants (i.e., adults with obesity, BMI ≥30 kg/m^2) after weight loss (i.e., ≥8%). Quantitative (e.g., weight measurements, demographics, outcome measures; N=60) and qualitative (i.e., semi-structured post-trial interviews; n=15) data were collected to assess intervention feasibility, usability and preliminary effects.

Results: Preliminary analyses examining pre- and post-weight measurements of participants (N=60; 36/24 women/men, average age 50, range 22-71 years) indicated that 48/60 (80%) of the participants maintained weight post intervention (i.e., < 3% weight increase). Interviews with participants (n=15; 7/8 women/men, average age 50.6, range 29-72 years) identified experiences and preferences related to incorporated design features. The participants described feeling supported through the use of eCHANGE, and highlighted receiving reminders, visual feedback and overviews to enhance behavioral insight, as well as information and individual strategies, as important eCHANGE intervention factors in support of continued health behavior change to maintain weight.

Conclusion: This pilot study tested eCHANGE, an evidence-informed digital behavior change intervention for people with obesity aiming to maintain weight after weight loss. Preliminary findings indicate that the eCHANGE intervention may have the potential to support weight maintenance. Findings also highlight end user perspectives and design features experienced as supporting sustainable lifestyle and behavior change in pursuit of long-term maintenance.

CORRESPONDING AUTHOR: Rikke Aune Asbjørnsen, MSc, Department of Digital Health Research, Division of Medicine, Oslo University Hospital, Oslo, Norway, Oslo, Oslo, Norway; rikasb@siv.no

Abstract citation ID: kaad011.0643

POSTER SESSION C: THE ROLE OF PAIN "RESILIENCE", PAIN DISABILITY, AND QUALITY OF LIFE IN LOW-INCOME, UNINSURED PATIENTS IN PRIMARY CARE

Julie Langan, MS[1], Bernadette Davantes Heckman, PhD[2], Nancy M. Gimbel, EdD[3], Rachael I. Ajetomobi, MS[4], Kelly A. Ruminski, MS[1]

[1]University of Georgia, Athens, GA; [2]University of Georgia, Watkinsville, GA; [3]University of Georgia, Atlanta, GA; [4]University of Georgia, Minneapolis, MN

Introduction: Chronic pain is related to significant negative psychological and physiological consequences. A higher prevalence of chronic pain is associated with indicators of lower socioeconomic status. This study tested whether pain interference and one's self-efficacy to overcome pain (i.e., pain resiliency) were related to the outcome measures of emotional well-being and physical well-being in a sample of low income, uninsured primary care patients, many of whom were from marginalized and under-represented groups.

Methods: Using a cross-sectional design, 37 participants (70% female; M_{age} = 49; 70% White, 22% Black/African American) in a primary care clinic completed self-administered measures assessing pain interference, pain resiliency, emotional and physical well-being, and demographic characteristics.

Results: An initial hierarchical regression analysis modeled physical functioning, using pain interference and pain resiliency as predictor variables. In Block 1, pain interference significantly predicted physical functioning, *B*= -9.67, t=11.8, p< .001, R^2=54.1%, *F*(1.34)=40.11, p < .001. In Block 2, pain resiliency significantly predicted physical functioning above-and-beyond pain interference, *B*= -2.60, Change in R^2=6.8%, Change in R^2=F(1,33)=8.3, p=.007. Together, the two variables explained 73% of the variance in physical functioning, F=44.3, p < .001. A second hierarchical regression analysis modeled emotional well-being using the same predictor variables. In Block 1, pain resiliency significantly predicted emotional well-being, *B*=25.95, t=4.2, p < .001, R^2=36%, *F*(1,33)=19.14, p < .001. In Block 2, pain interference entered the model, but only marginally predicted emotional well-being, B= -3.5, t= -1.86, p =.072. Moreover, in the presence of pain interference, the previously significant predictor variable (i.e., pain resiliency) was only marginally significant, *B*=0.51, p=.067.

Discussion: This study suggests that interventions that focus on increased pain resiliency and reduced pain interference have the potential to be associated with improved physical well-being in low-income chronic pain patients but not emotional well-being. Efforts to improve emotional well-being in this group will need to address factors other than those assessed in this study. Future research should identify intervention leverage points of emotional well-being in this vulnerable group.

CORRESPONDING AUTHOR: Julie Langan, MS, University of Georgia, Athens, GA; julie.langan@uga.edu

---

Abstract citation ID: kaad011.0644

POSTER SESSION C: UNMET TREATMENT NEEDS, CHRONIC PAIN, AND CANNABIS USE IN A LARGE SAMPLE OF ADULTS FROM OKLAHOMA

Hannah Appleseth, MA[1], Desiree R. Azizoddin, PsyD, PhD[2], Amy Cohn, PhD[3]

[1]TSET Health Promotion Research Center, Stephenson Cancer Center, University of Oklahoma Health Sciences Center, Oklahoma City, OK; [2]Department of Family and Preventive Medicine, College of Medicine, Oklahoma City, OK; [3]Department of Pediatrics, College of Medicine, Oklahoma City, OK

Background: Recent national data found that the likelihood of experiencing chronic pain is higher among rural versus urban residents (NCHS Report, 2020). Rural individuals experience higher levels of socioeconomic disadvantage, poor or no health insurance coverage, health disparities, and unmet treatment needs. Accessing health care services remains more difficult for rural residents likely leading to delays or avoidance of needed healthcare services (Spleen et al., 2014) – often negatively impacting chronic pain treatment. In 2018, Oklahoma legalized medical cannabis and 1 in 10 adults now have a medical license. Considering that 40% of Oklahomans reside in rural areas and nearly 17% of rural Oklahomans do not have health insurance, cannabis may be an accessible and low-cost alternative treatment for chronic pain. We hypothesize that rurality and unmet treatment needs would predict a higher likelihood of past 30-day cannabis use, even after controlling for other factors associated with cannabis use.

Methods: A sample of 3,588 adults aged 18-years and older from Oklahoma were recruited into a repeated cross-sectional online survey via a research panel. Participants answered questions about demographics (including zip code), chronic pain diagnoses, unmet medical treatment needs, and past 30-day cannabis use. Bivariate analyses compared those with and without chronic pain on demographics and past 30-day cannabis use. In stratified analyses by chronic pain, separate hierarchical logistic regression models examined the main and interactive effects of rurality and unmet treatment need (yes/no) on any past 30-day cannabis use, controlling for sex, age, race/ethnicity, and health insurance.

Results: Both groups were primarily middle-aged (no chronic pain M_{Age} = 41.7 vs. chronic pain M_{Age} = 42.6), White (70.4% vs. 69.9%), and female (52.8% vs. 58.9%). In the full sample, just over a third (33.6)% reported past 30-day cannabis use and 20% did not have health insurance. Compared to those without chronic pain, a higher proportion of those with chronic pain lived in a rural area (36.9% vs 39.2%), reported unmet treatment needs (24.2% vs 44.3%), and reported past 30-day cannabis use (25.0% vs 72.1%). Within the chronic pain group, there was a significant rurality x unmet treatment need interaction (*p*=.03). Rural individuals who also reported unmet treatment needs had a higher likelihood of reporting past 30-day cannabis use compared to urban individuals, (a*OR*= 2.33, *95% CI*= 1.08-5.04). As for the respondents without chronic pain, only unmet treatment needs (a*OR*= 1.92, *95% CI*= 1.46-2.51) were associated with increased odds of past 30-day cannabis use, but no interaction was present.

Conclusion: Findings suggest that rural residents with chronic pain who are not seeking or accessing necessary medical treatment may be using cannabis for symptom relief as a treatment alternative.

CORRESPONDING AUTHOR: Hannah Appleseth, MA, TSET Health Promotion Research Center, Stephenson Cancer Center, University of Oklahoma Health Sciences Center, Oklahoma City, OK; hannah-appleseth@ouhsc.edu

Abstract citation ID: kaad011.0645

POSTER SESSION C: THE EFFECT OF THE DOCTOR-PATIENT RELATIONSHIP ON RHEUMATOID ARTHRITIS TREATMENT

Alexandra M. Otto[1], Sarah Wilson, MS, MA[2], Karima K. Shehadeh[1], Dallas N. Robinson, MS Clinical Psychology[3], Daniel Luedtke, BA[4], Sara Hayes, MPH[5], Amanda Lipski, MBA[5], Amy Wachholtz, PhD, MDiv, MS, FSBM[1]

[1]University of Colorado Denver, Denver, CO; [2]University of Colorado Denver, Centennial, CO; [3]University of Colorado Denver, Aurora, CO; [4]University of Colorado Denver Clinical Health Pychology, Denver, CO; [5]Health Union, LLC, Philadelphia, PA

Introduction: Rheumatoid Arthritis (RA) is an autoimmune disease that causes inflammation and damage in joints, often leading to chronic pain. Successful treatment often requires multiple drugs and constant advisement by medical professionals. Due to the frequent interactions between doctors and patients in RA management, the doctor-patient relationship is especially relevant to treatment outcomes. The purpose of this study was to examine the impact of the doctor-patient relationship on patients' perceived control over RA symptoms. A secondary aim of this study was to determine if patient ethnicity affected the impact on RA symptoms.

Methods: A 2021 *Rheumatoid Arthritis in America* survey was electronically distributed to 3,852 adults with diagnosed RA and included questions regarding their RA treatment. Linear regression analyses were performed to determine the relationship between perceived care from healthcare providers and perceived control over RA symptoms. Further analyses were performed to determine if Hispanic/Latino participants experienced a different relationship between perceived care and perceived RA control than non-Hispanic/Latino participants.

Results: Linear regression analyses revealed that perceived care from healthcare providers accounted for a significant amount of the variance among perceived control over RA symptoms, $F(1, 3{,}750) = 165.0$, $p < .001$, $R^2 = 0.042$. The regression coefficient ($\beta = 0.205$) indicated that participants felt their RA was better managed when they also believed their doctors cared for them as a person. Further analyses revealed that this association between perceived care and control over RA symptoms was stronger among Hispanic/Latino participants ($F(1, 169) = 11.875$, $p < 0.001$, $R^2 = 0.066$, $\beta = 0.256$) compared to non-Hispanic/Latino participants ($F(1, 3{,}492) = 148.948$, $p < 0.001$, $R^2 = 0.041$, $\beta = 0.202$).

Discussion: The results of this study suggest that patients who perceive their provider cares about them as a person are more likely to report that their RA is well-managed on their current treatment plan. Furthermore, perceived provider care has higher significance for RA management among Hispanic/Latino patients. It is important for healthcare providers to show genuine care for patients with RA, as it may have a positive impact on treatment outcomes. Future research is needed to include a larger Hispanic/Latino population, and to examine the factors that may contribute to a moderate difference across ethnicities.

CORRESPONDING AUTHOR: Alexandra M. Otto, University of Colorado Denver, Denver, CO; ALEXANDRA.OTTO@UCDENVER.EDU

Abstract citation ID: kaad011.0646

POSTER SESSION C: EXAMINING POST-SURGICAL EXPERIENCES OF AYAS RECEIVING GENDER AFFIRMING SURGERY: A MIXED METHODS DESIGN

Eleanor A. Battison, MS, LPC[1], Corrin M. Murphy, BS[2], Becky Martinez[1], Navya D. Janapati, BA[1], Emily A. Kenyon, MA[3], Danielle Moyer, PhD[1], Anna C. Wilson, PhD[1]

[1]Oregon Health & Science University, Portland, OR; [2]Oregon Health and Science University, Portland, OR; [3]University of Rhode Island, Kingston, RI

Background and Aims: Gender affirming surgeries (GAS) are often part of care for transgender and gender-diverse (TGD) adolescents and young adults (AYAs), but little is known about postsurgical experiences and pain management strategies used in this age range. TGD AYAs have unique developmental considerations, including high risk for depression, anxiety, substance use, and stigma that may impact postsurgical experiences. This study utilized mixed methods to 1) describe acute postsurgical experiences related to pain, cannabis use and psychological function, and 2) use diary data to assess postsurgical pain management.

Method: AYAs undergoing GAS ($n = 57$, 14-25 years old, $M = 19.53$ yrs) were from an ongoing study of AYAs receiving opioid prescriptions in Oregon, where recreational cannabis is legal. AYAs were recruited < 72 hours after GAS to take part in a study about pain management. Electronic diaries (7 days) captured daily pain, pain management, opioid and cannabis use in the postsurgical period. AYAs completed validated self-reports of pain, psychological function (NIH PROMIS) and substance use. Qualitative interviews ($n = 5$-8) < 30 days of surgery are ongoing.

Results: AYAs reported gender identity as trans-female/feminine (5.3%), trans-male/masculine (73.6%), non-binary/gender diverse (21.1%). Most were undergoing top surgery/mastectomy procedures (86%). AYAs reported moderate past 7 day pain intensity (0-10 NRS; $M = 3.12$, $SD = 1.83$); 19.4% reported daily pain in the past 30 days. PROMIS pain interference ranged from $T = 36$ to 74 ($M = 59.84$). PROMIS anxiety and depression were elevated ($T \geq 60$) in 47.4% and 40.4%, respectively. Postsurgical opioid use was low-moderate (0-7 days) and related to higher average pain ($r = .46^{**}$). 41% reported past 30 day cannabis use; among these, mean days of use was 14.40 (range 1-30). Past 30 day use was associated with use in diary reports, $r = .90^{*}$. Responses to "How much did using cannabis help you feel less pain today?" were moderate ($M = 64.23$/0-100). Daily cannabis use was not associated with daily pain ratings or depression but was related to anxiety and daily affect. AYAs frequently used over the counter pain medications, resting, distraction, and relaxation, all rated as moderately effective. Preliminary findings from ongoing qualitative interviews suggest cannabis was perceived as being helpful for postsurgical pain management.

Conclusions: TGD AYAs use several pain management strategies; a high proportion report cannabis use prior to and after GAS. Diary data effectively assessed postsurgical pain management; these data can inform screening, pain management and harm reduction interventions. Future work should consider presurgical psychological function and substance use, the role of stigma and discrimination in pain and recovery, and how intersectional identities including race and ethnicity may contribute to pain and wellbeing in TGD AYAs.

CORRESPONDING AUTHOR: Eleanor A. Battison, MS, LPC, Oregon Health & Science University, Portland, OR; battison@ohsu.edu

Abstract citation ID: kaad011.0647

POSTER SESSION C: SOCIAL ISOLATION AND PAIN TOLERANCE AMONG FEMALES WITH MIGRAINE

Halle T. McCracken, MA[1], Lauren Thaxter, MA[1], Kaitlyn R. MacCharles, BS[1], Todd Smitherman, PhD[2], Marie-Josée Hymel[3], Jonah Condon[4]

[1]University of Mississippi, Oxford, MS; [2]University of Mississippi, University, MS; [3]University of Mississippi, Baton Rouge, LA; [4]University of Mississippi, New Albany, MS

Socially isolated individuals are at greater risk for health problems, psychological symptoms, and poorer cognitive function (Hawkley & Capitanio, 2015) and social isolation may lead to decreases (Canaipa et al., 2017; Oliveira et al., 2015; Roberts et al., 2015) or increases (Canaipa et al., 2017; Yu et al., 2018) in pain tolerance. Few studies have investigated social variables in relation to migraine pain. The current study aimed to better understand the role of social isolation in migraine pain. We hypothesized that those who were ostracized (i.e., experienced social isolation) would report decreased pain tolerance compared to those who were included.

Data for the current study are part of a larger ongoing project. In the present study, 28 females meeting ICHD-3 criteria for migraine completed measures assessing negative affectivity (DASS-21, Lovibond & Lovibond, 1995), pain catastrophizing (PCS, Sullivan et al., 1995), and loneliness (UCLA Loneliness Scale 3, Russell, 1996). Participants completed a computer-based ostracism task (Cyberball; Williams et al., 2000) where they were randomized to condition (included vs. ostracized). Participants then completed a cold pressor pain task (Hines & Brown, 1936). Differences in pain tolerance based on condition were compared.

Participants' mean age was 20.0 (4.4) years, and most were white (60.7%). On average, participants endorsed experiencing "normal" levels of negative affectivity (M = 25.1, SD = 13.4), low levels of pain catastrophizing (M = 17.1, SD = 11.2), and a moderate degree of loneliness (M = 35.3, SD = 10.2). Those who were in the inclusion condition tolerated the cold pressor pain for 37 more seconds on average (M = 56.5 (78.8) seconds vs. M = 19.7 (10.2) seconds, p = .12) compared to those who were ostracized, although this relationship was not statistically significant.

Though not statistically significant, these results provide insight into the effects of social isolation on pain tolerance among females with migraine, paralleling prior research that suggests mild forms of ostracism may invoke hypersensitivity to pain (Bernstein & Claypool, 2012). Data collection is continuing, and more participants will be analyzed. Observing differences in pain responses in larger and clinical samples may help to clarify the influence of social isolation on pain.

CORRESPONDING AUTHOR: Halle T. McCracken, MA, University of Mississippi, Oxford, MS; hmccrack@go.olemiss.edu

---

Abstract citation ID: kaad011.0648

POSTER SESSION C: USE OF STEP CADENCE TO TARGET PHYSICAL ACTIVITY IN BEHAVIORAL INTERVENTIONS: A NARRATIVE REVIEW AND CASE STUDY

T. Isaac White, MS[1], Courtney M. Monroe, PhD[2], Lauren E. Nieder, MSPH[1], Meredith S. Berry, MS, PhD[1], Demetra Christou, PhD, FAHA[1], Danielle E. Jake-Schoffman, PhD[1]

[1]University of Florida, Gainesville, FL; [2]University of South Carolina, Columbia, SC

A large portion of adults are insufficiently active, failing to meet guidelines for weekly moderate physical activity (MPA). Behavioral interventions targeting MPA can be strengthened by a simple metric that helps adults understand if they are exercising at targeted intensity, ensuring health benefits of MPA are achieved. While this can be done with a variety of metrics, many rely on costly devices or complicated instructions; a potentially simple and broadly applicable tool is step cadence. Laboratory studies establishing step cadences equivalent to MPA have led to targets of 100 steps/min, but its application is largely unexplored in interventions. We conducted a narrative review to describe how interventions have used step cadence, including how its defined, monitored, and measured using various devices. To expand on results, we provide an example of how we used step cadence in a behavioral intervention promoting MPA.

A standardized search string identified articles on the PubMed database. Included studies were interventions aimed at increasing MPA of adults through step cadence. A total of 69 articles were identified, 3 non-human studies were excluded, a review of title/abstract excluded 54 studies, a full-text review excluded 7 non-intervention studies, resulting in a sample of 5 studies. Step cadence was defined by previous literature (n=2), aerobic testing (n=2), or stride-rate calculations (n=1). Strategies used to monitor step cadence, either alone (n=3) or in combination (n=2), included time-oriented goals (n=2), step-counting (n=2), auditory (n=2), visual (n=2), and subjective (n=2) cues. Pedometers (n=4) and an mp3 player (n=1) were utilized. Reviewed studies provided insufficient detail to replicate methods and there was no consensus on best practices for defining, monitoring, and measuring step cadence.

Building off review results, we employed a step cadence of 100 steps/min in an intervention. Insufficiently active adults completed a walking program involving supervised and home-based sessions. Detailed scripts were developed to describe step cadence and instruct participants on how to monitor cadence while walking. Strategies included metronome-guided walking and music with beats per minute matching 100 steps/min. Materials were well-received and resulted in sessions at or above target cadence.

Results point to the versatility of step cadence for behavioral interventions promoting MPA and yield a set of approaches available for refinement and evaluation.

CORRESPONDING AUTHOR: T. Isaac White, MS, University of Florida, Gainesville, FL; tisaac.white@ufl.edu

Abstract citation ID: kaad011.0649

POSTER SESSION C: MATERNAL SOCIAL SUPPORT FOR PHYSICAL ACTIVITY IN PREDOMINANTLY BLACK PERINATAL ADOLESCENTS

Vardha Kharbanda, Clinical Psychology Doctoral Student[1], Sabrina Alam, MPH[2], Katherine Cranston, MD, MPH, MS[3], Sydney Morris-Hill, MS Population Health Candidate[4], Michael A. Welsch, PhD[5], Abigail Gamble, PhD, MS[4]

[1]Illinois Institute of Technology, Chicago, IL; [2]John D. Bower School of Population Health - University of Mississippi Medical Center, Madison, MS; [3]University of Texas Southwestern, Jackson, MS; [4]University of Mississippi Medical Center, Jackson, MS; [5]University of Mississippi Medical Center, Brandon, MS

The importance of maternal social support (SS) for physical activity (PA) in Black teenage girls is well documented but has not been studied in pregnant and postpartum teens. This cross-sectional study used qualitative interviewing and quantitative surveying in predominantly Black (87%) adolescent-parent dyads to explore the influence of SS on adolescent PA during and following pregnancy. A convergent parallel design with thematic analysis was used to identify the types and mechanisms of SS for PA in perinatal teens in the Mississippi Delta (an 18-county rural region in Northwest Mississippi). In partnership with WIC, 145 pregnant or postpartum teens and their mothers were recruited to complete a survey assessing perceived SS (teens and mothers), the importance of PA (mothers), and self-efficacy for PA (teens). A subset of dyads (n=24) participated in an interview to explore contextual factors influencing SS. Interviews revealed Black perinatal teens in the Delta rely on their mothers for SS during pregnancy, which intensifies postpartum. Maternal SS was predominantly informational and related to healthy pregnancy and delivery. Outside of mothers encouraging walking in preparation for labor/delivery ("*so the baby don't stick*"), there was little mention of SS for PA. Postnatal maternal SS shifted from teens' health to the responsibilities of an infant. This was supported by maternal survey data indicating lower SS for PA in later (≥27 weeks) postpartum teens (median [IQR], 2.25 [1.17]) compared with teens in their first trimester (3.33 [0.83]; *p*< 0.05), and was consistent with teens survey data suggesting lower perceived SS for PA in later postpartum (1.42 [1.50]) compared with the first trimester (2.67 [1.33]; *p*=0.38). Interviews with teens revealed positive, close-knit relationships with their mothers regarding pregnancy, delivery, and parenting; yet perceived maternal encouragement for PA as "*nagging*". Teens offered the idea of a "*coach*" as an acceptable and valued source of informational, social, and tangible SS for PA. Pregnant and postpartum teens reported moderate self-efficacy for PA (64.0 [38.0]; scale: 0 – 100) but frequent fatigue and laziness weakened motivation and contributed to excess television viewing during pregnancy. Reasons for wanting to be physically active included preparedness for labor and delivery, weight loss, and physique. From the data, three testable hypotheses were generated. Hyp1*:* Evidence-based peer health coaching strategies will increase perinatal teens' perceived availability of SS for PA. Hyp 2*:* Effective intervention strategies to increase SS for PA in perinatal teens should include role modeling and coping support to overcome barriers. Hyp 3: Intervention strategies to activate mechanisms of dyadic SS will increase PA within dyads. Future studies should longitudinally examine the dynamics of SS for health behaviors in addition to PA

CORRESPONDING AUTHOR: Vardha Kharbanda, Clinical Psychology Doctoral Student, Illinois Institute of Technology, Chicago, IL; Vardhakharbanda@mail.adelphi.edu

---

Abstract citation ID: kaad011.0650

POSTER SESSION C: 11-YEAR TRENDS IN INTERNALIZING DISORDERS AND TREATMENT ACCORDING TO COLLEGE STUDENTS' ORGANIZED SPORT INVOLVEMENT

Isabella Swafford[1], Denver M. Brown, PhD[2]

[1]The University of Texas at San Antonio, Johnson City, TX; [2]The University of Texas at San Antonio, San Antonio, TX

Anxiety and depression are increasingly prevalent mental health (MH) disorders among college students. While sports participation offers protection against MH problems, a dark side of sports is present in college athletics. Recent investments in campus MH counseling have made help more accessible, but certain students may be less likely to use these services due to the stigma associated with MH disorders. The aim of this study was to examine secular trends in anxiety and depression diagnoses/treatment and the use of campus MH services among college students according to their level of sport participation. This study used 22 cycles of the ACHA-NCHA dataset (Fall 2008 to Spring 2019). A total of 1,261,816 college students (n = 90,276 varsity athletes; n = 99,231 club athletes; n = 149,133 intramural sport participants; n = 923,176 students not involved in organized sport) self-reported whether they had been diagnosed with or treated for anxiety and depression in the past 12 months and whether they had utilized campus MH services. Descriptive statistics were computed. Across the 22 cycles, the prevalence of depression and anxiety ranged from 16-34% (M = 25%) and 17-41% (M = 29%) for varsity athletes, 17-43% (M = 30%) and 17-50% (M = 34%) for club athletes, 15-35% (M = 25%) and 16-46% (M = 31%) for intramural participants, and 25-57% (M = 41%) and 26-66% (M = 46%) for students not involved in organized sport, respectively. Similar rates of campus MH service utilization were observed for varsity (9-22%; M = 16%), club (10-24%; M = 17%), and intramural athletes (9-22%; M = 16%) as well as students not involved in organized sport (11-23%; M = 17%). An upward trend for anxiety and depression diagnoses/treatment as well as campus MH service utilization was observed for all groups. Our findings suggest there has been a considerable increase in the prevalence of MH disorders among college students, regardless of their level of organized sports participation, although the highest rates were observed among students not involved in organized sports. Such evidence supports the potential MH benefits associated with sport participation. Although seeking help for MH problems is stigmatized for varsity collegiate athletes, evidence suggests they are equally as likely to access treatment as other students on campus. Collectively, findings highlight the need for interventions to reduce and prevent MH problems on campus, and sports may be a mechanism for doing so.

CORRESPONDING AUTHOR: Isabella Swafford, The University of Texas at San Antonio, Johnson City, TX; Isabella.Swafford@my.utsa.edu

Abstract citation ID: kaad011.0651

POSTER SESSION C: ACTIVE ZONE MINUTES VS. MODERATE TO VIGOROUS PHYSICAL ACTIVITY: WHICH IS A STRONGER PREDICTOR OF WEIGHT LOSS

Zhuoran Huang, BA[1], Charlotte J. Hagerman, PhD[1], Michael Onu, BS[1], Hailing Wang, BS[1], Evan M. Forman, PhD[1]

[1]Drexel University, Philadelphia, PA

Physical activity (PA) supports weight loss by increasing energy expenditure (EE). Consequently, behavioral weight loss (BWL) programs often include PA prescriptions for Moderate to Vigorous Physical Activity (MVPA), defined as activity that is three metabolic equivalents (METs) of a task or higher. Activity monitors (e.g., Fitbit and Garmin) are often used to measure participants' adherence to MVPA prescriptions. In 2020, Fitbit, a leading activity monitor brand used in BWL programs, moved from using "active minutes," their name for MVPA, to Active Zone Minutes (AZM) for activity tracking. AZMs are calculated based on un-bouted time spent in heart rate zones, including "fat burn," "cardio," and "peak zones." Users get double credit for time spent in the more intense heart rate zones (cardio and peak), i.e., every minute spent in the cardio and peak zones counts as two AZMs. AZM may be a better measure to use in BWL programs if heart rate is a better measure of EE than METs. Also, more intense exercise, which AZM rewards, can act as an appetite suppressant, further supporting weight control efforts. Finally, receiving more credit for intense exercise may incentivize participants to engage in more vigorous exercise because participants would likely earn higher values for AZM than MVPA for the same exact activity, which could foster a higher sense of accomplishment and provide stronger reinforcement to participants. These factors led us to investigate if un-bouted AZM is a better predictor of weight loss than un-bouted MVPA. In the current study, adults (N = 95; BMI ≥ 27) completed a 12-week-long BWL consisting of dietary psychoeducation, tracking, PA goals, and calorie goals. PA, including MVPA and AZM, were tracked using Fitbit wristbands, with participants viewing only AZM on their Fitbit dashboards. Participants received an average of 301 minutes of AZM and 247 minutes of MVPA per week. On average, participants lost 5.0% (10.6 lbs.) of their body weight by the end of the 12 weeks. There was a strong, positive correlation between MVPA and AZM (r (93) = .67, $p < .001$), but AZM was significantly higher than MVPA (t (95) = -3.20, p = .002), with a small to medium effect size (d = -.33). Baseline BMI was not correlated with either measure. There was a positive correlation between average AZM and 12-week percent weight loss (r (93) = .22, p = .03). In contrast, the average MVPA did not predict weight loss (r (93) = .16, p = .13). Therefore, this preliminary evidence suggests that AZM may be a better indicator of calorie expenditure compared to MVPA, and BWL interventions should continue using AZM to measure PA. Because participants are rewarded with significantly higher "minutes" when using AZM, future studies should examine whether viewing the higher AZM numbers might motivate more physical activity or establish a sense of complacency.

CORRESPONDING AUTHOR: Zhuoran Huang, BA, Drexel University, Philadelphia, PA; zh424@drexel.edu

---

Abstract citation ID: kaad011.0652

POSTER SESSION C: PHYSICAL ACTIVITY MODERATES THE ASSOCIATION BETWEEN POSITIVE ALCOHOL EXPECTANCIES AND ALCOHOL USE PROBLEMS IN YOUNG ADULTS

Katherine R. Shircliff, BS[1], Haley Coronado, BS[1], Caroline Cummings, PhD[1]

[1]Texas Tech University, Lubbock, TX

Background: Positive alcohol expectancies have been linked to increased alcohol consumption and binge drinking among college students, which increases risk for alcohol-related consequences in later adulthood. College students also demonstrate reduced engagement in health-promoting behaviors (e.g., physical activity). Interestingly, physical activity has been linked to both increased and decreased alcohol use in adults. Further research is needed to elucidate the relationships between alcohol-related cognitions and behaviors and other health behaviors, including physical activity in college students. This is especially important given that emerging adulthood is period during which lifelong health behavior habits are established.

Objective: To examine the independent moderating role of physical activity on the association between positive alcohol expectancies and alcohol use.

Methods: Data analyzed are from a sample of 32 college students (Mage=19.97, SDage=1.93; 73.8% Female; 60.6% White; 66.7% non-Hispanic) who reported regular substance use (at least 3 times in the past week). Data collection is ongoing. Participants completed measures of positive alcohol expectancies, alcohol use and related problems, and physical activity. Linear regression analyses with moderation analyses were run to address the research question.

Results: Both greater positive alcohol expectancies and greater physical activity were associated with greater alcohol use problems. Physical activity also moderated the relationship between positive alcohol expectancies and alcohol use. Specifically, college students who reported greater positive alcohol expectancies and more frequent physical activity engagement also reported fewer alcohol use problems, compared to college students who reported greater positive alcohol expectancies and less frequent physical activity.

Discussion: Physical activity may serve as both a protective and risk factor for alcohol use in college students. Physical activity interventions for this population should be tailored to assess for and address positive alcohol expectancies to reduce risk for alcohol use problems during this high-risk period of development.

CORRESPONDING AUTHOR: Katherine R. Shircliff, BS, Texas Tech University, Lubbock, TX; kshircli@ttu.edu

Abstract citation ID: kaad011.0653

POSTER SESSION C: IMPACT OF RESILIENCY AND STRESS ON THE PHYSICAL ACTIVITY INTENTION-BEHAVIOR GAP DURING WEIGHT LOSS MAINTENANCE

Korina R. Hahn, MS[1], Kayla F. O'Connor, MS[2], Tania B. Huedo-Medina, PhD[3], Amy A. Gorin, PhD[2], Tricia M. Leahey, PhD[2]

[1]University of Connecticut, Worcester, MA; [2]University of Connecticut, Storrs, CT; [3]University of Basque Country, Donostia, Murcia, Spain

Background: Weight loss maintenance has been identified as the next major challenge in obesity treatment. Engaging in regular physical activity is critical for successful weight loss and weight loss maintenance. Despite the importance of physical activity, there is often an intention-behavior gap in which individuals do not exercise as frequently as they intend. This study examined whether perceived stress and resiliency predict the presence of a physical activity intention-behavior gap during weight loss maintenance. We also examined whether demographic variables moderate these effects.

Methods: This is secondary data analysis from the CHAMPS Weight Loss Maintenance Trial. Participants (N=53, 75.9% female, 79.5% non-Hispanic White, 33.9±5.17 kg/m^2) who lost ≥5% of their body weight were enrolled in the 18-month behavioral weight loss maintenance trial. At baseline and month 18, stress, resiliency, and physical activity intention were measured using valid and reliable surveys and physical activity was measured objectively with accelerometry. The presence of the physical activity intention behavior gap was calculated by comparing physical activity intention to objective physical activity behavior.

Results: Baseline resiliency predicted the presence of a physical activity intention-behavior gap during weight loss maintenance; higher levels of resiliency significantly reducing the odds of an intention-behavior gap at month 18 (p=0.044). However, stress at baseline, stress from baseline to month 18, and resiliency and stress at month 18 did not predict an intention-behavior gap at month 18 (*p's*>0.06). Demographic variables (sex, age, race, ethnicity) did not moderate these effects (p's >.14).

Conclusion: This is the first study to show that resiliency significantly reduces the intention behavior gap during weight loss maintenance, suggesting that interventions that enhance resiliency (e.g., empowerment training, coping skills) may improve weight loss maintenance outcomes. Future research may consider adding resiliency training to weight management programs to facilitate long-term behavior change.

CORRESPONDING AUTHOR: Korina R. Hahn, MS, University of Connecticut, Worcester, MA; korina.hahn@uconn.edu

---

Abstract citation ID: kaad011.0654

POSTER SESSION C: EXPLORING THE ROLE OF PHYSICAL ACTIVITY IN MANAGING DEPRESSION AMONG HISPANIC ADULTS

Javier Martinez, MA[1], Justin Montney, MS[1], Gina Besenyi, MPH, PhD[1], Jared A. Durtschi, PhD[1], Emily L. Mailey, PhD[1]

[1]Kansas State University, Manhattan, KS

Background: Cases of depression are increasing among adults in the United States, and this growth is troublesome due to the adverse health effects associated with depression. The Hispanic community may be particularly at risk, as the Center for Disease Control and Prevention listed a growing trend of depression among Hispanic adults at a rate of 59%. Increasing physical activity (PA) may help counteract depressive symptoms, but more research is needed to determine whether Hispanic adults are receptive to engaging in PA and/or discussing PA during therapy. The purpose of this study was to assess the association between PA and depression among Hispanic adults, as well as PA barriers and beliefs within this population.

Methods: U.S. adults currently in therapy for a mental health condition were recruited via Prolific to complete an online survey. For this study, we used data from a subsample of Hispanic adults (n=73, M_{age} = 29.6±8.31 years, 41.1% male/50.7% female) reporting frequency of weekly moderate PA, depression (PHQ-9), PA barriers, and beliefs about the role of PA in managing mental health. Descriptive statistics and correlation analyses were used to explore the research questions.

Results: A majority of the Hispanic adults in this sample (84.9%) reported having depression, and there was a negative relationship between PA and depression (r=-.253, p=0.03). In addition, the most significant barriers for PA were lack of energy (M= 6.46/10), lack of motivation (M=6.23/10), and mental health (M=5.76/10). The participants strongly agreed that PA is beneficial for managing mood (M=4.48/5), stress (M=4.41/5), and anxiety (M=4.23/5). The results also indicated that participants were moderately receptive to discussing PA during therapy (M=3.48/5) and walking outside to manage mental health (M=3.86/5).

Conclusion: The survey data demonstrate that Hispanic participants who are experiencing depressive symptoms acknowledge PA would be beneficial for managing their mental health condition. Furthermore, participants are open to discussing PA with their therapist, which may be beneficial in addressing barriers to being physically active. The results of this study demonstrate that building PA recommendations into therapy sessions could assist in managing depression among Hispanic adults and lead to decreased physical and mental health risk among this population.

CORRESPONDING AUTHOR: Javier Martinez, MA, Kansas State University, Manhattan, KS; martijay@ksu.edu

Abstract citation ID: kaad011.0655

POSTER SESSION C: PSYCHOLOGICAL AND INDIVIDUAL DETERMINANTS OF WINTER BIKING IN QUEBEC, CANADA : A LONGITUDINAL STUDY

Paquito Bernard, PhD[1]

[1]Université du Québec à Montréal, Montreal, PQ, Canada

Introduction. :A drastic reduction of bicycle commuters has been observed in North American urban regions. Cities in Canada have winter climates with snowfall, ice, and freezing temperatures for several months. Winter bicycle commuting is an increasingly popular practice in Quebec and it is associated with benefits for public and environmental health. The Theory of Planned Behavior (TPB) constructs and the automaticity or habit level are associated with modes of transport and active commuting. Research to date has not yet examined psychological factors associated with winter bicycle commuting.

Aims: The aims of the study were to assess whether the TPB and habits constructs are longitudinally associated with winter bicycle commuting use and whether the level of automaticity will have a stronger predictive effect than the intention on winter bicycle commuting.

Methods: A longitudinal design with two online questionnaires was implemented. The first questionnaire assessed sociodemographic variables, personal environmental values, political orientation, perception of the cycling environment, TPB constructs, winter bicycle commuting habits. The second questionnaire collected data four weeks later on the use of winter bicycle commuting in the last seven days.

Results: Participants mainly identified as men (60%) and mean age was 44 years old. Our results demonstrated that attitudes, perceived control, intention, and automaticity were significantly and positively associated with further winter biking. The level of automaticity had a stronger association with behavior than intention.

Conclusion: This study provides a solid foundation for future research and the results can help guide policymakers identify the best measures to increase winter cycling modal share.

CORRESPONDING AUTHOR: Paquito Bernard, PhD, Université du Québec à Montréal, Montreal, PQ, Canada; bernard.paquito@uqam.ca

---

Abstract citation ID: kaad011.0656

POSTER SESSION C: TRACKING PHYSICAL ACTIVITY IN ADULTS WITH SERIOUS MENTAL ILLNESS: FITBIT PROTOCOLS IN A MENTAL HEALTH SERVICES CLINICAL TRIAL

Gina Besenyi, MPH, PhD[1], Kendra N. Marstall, BS Kinesiology[1], Victor Andrews[1], Raeann Bramwell, MS[1], Katie M. Heinrich, PhD[1], Jessica Stewart, MPH PhD[2], Brittany Blair, BA, RVT[2], Andre de Seixas Soares, PT[2], Edil Nour, BS[2], Jacob Weiser, BS[2], Joseph P. McEvoy, MD[2], Catherine L. Davis, PhD[2]

[1]Kansas State University, Manhattan, KS; [2]Medical College of Georgia at Augusta University, Augusta, GA

Objective: Adults with serious mental illness (SMI) achieve less physical activity (PA) than the general population, leading to increased risk of disease and death. Interventions aimed at improving PA in adults with SMI have incorporated wearable activity trackers such as Fitbits with some success. Yet few studies provide adequate details for using Fitbit devices within mental health services settings. Here we present Fitbit device protocols and lessons learned for a park-based PA clinical trial in adults participating in mental health peer counseling.

Methods: Four waves of adults from peer counseling programs in Kansas (2 waves) and Georgia (2 waves) participated in a six-week park-based PA intervention study between 2019-2022. The intervention included semi-structured PA sessions in local parks (45-60 min, 2-3 days/week over 6 weeks). All participants took part in baseline testing where research assistants set up Fitbit accounts and assigned devices to participants to wear for the duration of the study. Initial Fitbit protocols (e.g., account setup, device identification, charging, and data syncing) were modified over time based on challenges reported by participants or research staff (data collected via detailed field notes). Given high sedentary rates, valid wear days were calculated based on at least 10 minutes of PA per day.

Results: Of the 35 participants that completed the study (KS n=17, GA n=18), 17 (49%) wore their devices for at least 75% of the time between baseline and posttest. Six devices (17%) experienced data syncing issues and had to be reset or exchanged for a different device. Another five devices (14%) were lost and had to be replaced. Successful protocols included creating Fitbit accounts ahead of time and ensuring initial device syncing at baseline and each park session or visit to the mental health facility using researchers' mobile devices. Additionally, we asked peers to sign a Fitbit contract acknowledging study wear time requirements and synced devices to a Tile account (pings device location) to help find lost devices and discourage "me too" replacement devices. Charging cables were frequently lost, and peers did not keep their devices charged consistently. To improve data collection continuity, we implemented weekly device charging during sedentary peer group counseling time coordinated by their peer counselors. To visually identify peers' devices, we created a numbering system by punching patterns in the bands using a 1mm diameter hole punch.

Conclusions: Future work will detail Fitbit data processing protocols. Other researchers and practitioners may benefit from our detailed Fitbit protocols within mental health care settings, enabling them to address challenges and improve PA data collection to evaluation programs and clinical trials.

CORRESPONDING AUTHOR: Gina Besenyi, MPH, PhD, Kansas State University, Manhattan, KS; gbesenyi@ksu.edu

Abstract citation ID: kaad011.0657

POSTER SESSION C: EVENT-LEVEL PHYSICAL ACTIVITY CONTEXTUAL FACTORS ON IMPROVEMENTS IN POSITIVE AFFECT AND STRESS

Robin L. Hunt, BS[1], Renee E. Magnan, PhD[2]

[1]Washington State University Vancouver, Kalama, WA; [2]Washington State University Vancouver, Vancouver, WA

Introduction: Physical activity (PA) is generally associated with improvement in positive affect and lower stress when comparing before to directly after activity. Yet, there could be individual variability in the extent to which one experiences such benefits dependent on the context in which PA occurs. The current investigation explored event-level contextual factors of the exercise setting that may influence the degree to which one experiences improvements in affective response and stress including location (exercising inside or outside), being alone or with others, time of day (e.g., morning, afternoon, or evening), type of PA (e.g., aerobic, strength training, or both), perceived exertion, and duration of PA.

Methods: As part of a larger study, individuals (N = 110) who typically engaged in at least 60 minutes of aerobic activity and consumed two standard alcohol drinks per week completed a 14-day ecological momentary assessment protocol using a smartphone application. Participants answered questions about their current affect and stress before a bout of PA (pre-PA) and after the bout (post-PA). Post-PA questionnaires also assessed activity duration, perceived exertion, type of activity, location, and who they were with.

Results: Participants were majority female (58.7%), non-Hispanic White (71.1%), and on average 30.93 years of age. At baseline, they reported an average of 172.67 minutes of past week PA and approximately half (50.9%) met current physical activity recommendations (150+ minutes of at least moderate-intensity activity). A series of random coefficient regressions predicting post-PA affect and stress (controlling for pre-PA), found greater post-PA positive affect was associated with outdoor activity (b = -.23, p = .004), being alone (b = .12, p = .05), greater perceived exertion (b = .09, p < .001), and longer activity bouts (b = .006, p < .001). Less post-PA stress was associated with greater perceived exertion (b = -.03, p = 0.003) and longer activity bouts (b = -.003, p < . 001).

Conclusions: Pre-post PA affective changes vary within-person, and the context in which one engages in PA may translate into more positive post-PA subjective experiences. Considering when and in what circumstances one is physically active could have implications for strengthening interventions to improve affective responses to PA, and subsequently, increase future activity.

CORRESPONDING AUTHOR: Robin L. Hunt, BS, Washington State University Vancouver, Kalama, WA; robin.hunt@wsu.edu

---

Abstract citation ID: kaad011.0658

POSTER SESSION C: INITIAL FEASIBILITY OF RING-FIT ADVENTURE FOR ADULTS WITH DOWN SYNDROME

Kameron Suire, PhD, MS, ACSM-EP[1], Joseph Sherman, MS, ACSM-EP[2], Brian Helsel, PhD[2], Annie Rice, MS[2], Lauren T. Ptomey, PhD, RD, LD[2]

[1]University of Kansas Medical Center, Desoto, KS; [2]University of Kansas Medical Center, Kansas City, KS

Introduction: Participation in physical activity among adults with Down syndrome (DS) is extremely low. Adults with DS face unique barriers to participation in physical activity including disinterest or inability in participating in typical exercise modes due to gait challenges, self-confidence to exercise with typically developed peers, and affordable/accessible transportation to facilities to participate in moderate-to-vigorous physical activity (MVPA). Exergaming, which integrates MVPA into video game play, represents an affordable, accessible, non-traditional home-based exercise mode that has been shown to increase physical activity in typically developed populations. The purpose of this study was to determine the initial feasibility of using a novel exergaming platform, Ring-Fit Adventure™ among adults with DS.

Methods: Adults with DS were asked to play Ring-Fit Adventure™ for ~15 minutes while wearing a portable accelerometer and being observed by research staff. Approximately ~7 minutes were spent learning how to use the game via an in-game avatar and ~8 minutes were spent in active play. Immediately after gameplay, participants completed a survey asking about their experiences and satisfaction with the game. The exercise physiologist who observed each session was also asked to complete a survey about each participant asking about safety concerns and potential feasibility.

Results: 15 adults with DS (M age = 23, 33% female) completed the feasibility study. The accelerometer data indicated participants obtained 4.74 ± 2.43 minutes of light physical activity and 3.32 ± 1.85 minutes of MVPA, during the 8 minutes of active play. No participant fell or became unstable during the gameplay. Participant surveys indicated that 13 (87%) participants reported “highly enjoying” the gameplay and 14 participants (93%) felt they could play the game at home without getting hurt. The observing exercise physiologist felt all 15 participants (100%) could play the game safely at home with varying levels of support.

Conclusion: Ring-Fit Adventure™ appears to be a safe and enjoyable form of physical activity for adults with DS. Future research is warranted to assess the effectiveness and long-term feasibility of Ring-Fit Adventure™ among adults with DS to increase MVPA.

CORRESPONDING AUTHOR: Kameron Suire, PhD, MS, ACSM-EP, University of Kansas Medical Center, Desoto, KS; ksuire@kumc.edu

Abstract citation ID: kaad011.0659

POSTER SESSION C: TIMING OF EXERCISE AMONG YOUNG ADULTS PREVIOUSLY ENROLLED IN A RANDOMIZED CONTROLLED WEIGHT MANAGEMENT TRIAL

Caitlin P. Bailey, MS[1], Jingyi Qian, PhD[2], Loretta DiPietro, PhD, MPH[3], Melissa A. Napolitano, PhD[3]

[1]The George Washington University, Arlington, VA; [2]Brigham and Women's Hospital, Boston, MA; [3]The George Washington University, Washington, DC, DC

Background: Timing of exercise may be associated with circadian rhythms, behaviors (e.g., sleep, activity volume), and weight. Identifying benefits associated with specific activity times can inform future behavioral guidelines and interventions designed to prevent disease and maximize health.

Objective: This study examined self-reported exercise time of day in a cohort of young adults previously (3-6 years earlier) enrolled in a randomized controlled weight management trial.

Methods: An online survey was distributed to participants in the Healthy Body Healthy U (HBHU) trial two years after study conclusion. Questions assessed physical activity (IPAQ), physical activity self-efficacy (5 items), chronotype and sleep duration (MCTQ), sleep onset latency and sleep quality (MOS), and body weight. A single item was used to assess exercise timing: "During the LAST 7 DAYS, I tended to exercise in the…" Response options were: 1) Early morning (4:00-8:59 AM), 2) Mid-morning (9:00-11:59 AM), 3) Afternoon (12:00-4:59 PM), 4) Evening (5:00 PM-3:59 AM), 5) The times I exercised varied throughout the week, or 6) I did not exercise. Differences in demographic variables (baseline) and current characteristics/behaviors (follow-up) were examined across self-reported exercise time using Fisher's Exact and Kruskal-Wallis tests.

Results: Of the 107 HBHU participants contacted for follow-up, 38 responded, and 32 provided data on exercise timing. After excluding 1 individual who reported no exercise, the final analytic sample size was 31. Evening exercise was most frequently reported (N=11), followed by exercise at varied times (N=10), early morning and midmorning (N=4), and afternoon exercise (N=2). Moderate-to-vigorous intensity physical activity was highest in evening exercisers (265.0±123.1 min/week) and was significantly different from that reported by those exercising at other times of day (p=0.035). Physical activity self-efficacy score was also highest in evening exercisers (16.1±2.6) compared with scores of those exercising at other times (p=0.015). Further, control group participants (55%), vs the Tailored (27%) or Targeted (18%) intervention groups, represented the greatest proportion of respondents exercising in the evening (p=0.002). There were no observed differences in baseline demographic factors (age, sex, race), sleep parameters, or body weight at follow-up across exercise timing categories.

Implications: Evening (5:00 PM-3:59 AM) is a popular time to exercise and is associated with greater weekly physical activity volume and physical activity self-efficacy in young adults previously enrolled in a weight management trial. More research is needed to identify when during this evening period young adults are exercising and whether there is a causal relationship between evening activity and total physical activity or physical activity self-efficacy.

CORRESPONDING AUTHOR: Caitlin P. Bailey, MS, The George Washington University, Arlington, VA; cpbailey@gwu.edu

---

Abstract citation ID: kaad011.0660

POSTER SESSION C: HEALTH BEHAVIOR CHANGE FOLLOWING POST-ACUTE SARS-COV-2: INSIGHTS FROM 6 MONTHS OF FOLLOW-UP

Jillian K. Price, PhD[1], Maria Stepanova, PhD[1], Leyla de Avila[1], Brian Lam, MSHS, PA-C[2], Ali Weinstein, PhD[3], Huong Pham[1], Patrick Austin, MPH[1], Wisna'odom Keo[1], Zaid Younossi[1], Mariam Afendy[1], Kathy Terra[1], Suzannah Gerber, MA[4], James M. Estep, PhD[1], Pegah Golabi, MD[1], Manisha Verma, MD, MPH[1], Fatema Nader, MD[1], Andrei Racila[1], Lynn H. Gerber, MD[1], Zobair Younossi, MD, MPH[1]

[1]Inova Medical System, Falls Church, VA; [2]Inova Health System, Falls Church, VA; [3]George Mason University, Falls Church, VA; [4]Inova Medical System, MEDFORD, MA

Background: Many with post-acute SARS-CoV-2 (PASC) have persistent symptoms, daily performance decrements, decreased health and overall health related quality of life (HRQL).

Aim: To assess impact of PASC on health behaviors, function, and quality of life using patient-reported outcomes (PROs) and objective clinical measures over 6 months post infection.

Methods: 320 subjects (n=101 received monoclonal antibodies (mAb) and n=219 who did not), were recruited between November 2020 and October 2021 to study long-term recovery. Questionnaires measured 1, 3 and 6 month changes in health behaviors, function, mood, fatigue, comorbidities, and HRQL.

Results: 320 participants >28 days following acute SARS-CoV-2 infection {52.7±15.3 years, 47.2% male, BMI 31.2±8.3, 23.1% diabetes, 39.7% hypertension, 37.2% hyperlipidemia, 6.9% coronary artery disease, 16.3% cancer; 31.6% (mAb)}, were included. Hospitalized patients were older (p< .001, 59.2±14.2 years), had worse perceived health on EQ-5D (p=.012) at baseline, but not at 6 months. Patients were less likely to be hospitalized if they exercised at least 30 minutes 3x/week at or prior to baseline (chi-square=0.01). SARS-COV-2 had a negative impact on exercise habits (42.7% (33.2% decreased, 9.5% ceased)). At baseline, those with severe fatigue reported worse diet compared to pre-SARS-COV-2 (37.8% versus 13.6%, p=0.0016); worse weight (44.4% versus 20.0%, p= 0.0044), and less uninterrupted sleep (63.9% versus 28.3%, p= 0.0002). Depression scores at 1-Month and cognitive testing scores were also worse in the severe fatigue group (PHQ9 12.8±3.9 versus 2.92±3.00, p=0.0001), and (3.22±0.71 versus 4.14±0.72, p=0.0000). Fatigue scores remained high for non-mAb groups at 6-month follow-up. Many reported behavior changes at baseline held through 6 months. Reported decreases in alcohol consumption and smoking remained stable, as did diet and weight changes. By contrast, uninterrupted sleep increased through 6 months (7.1% to 23.9%).

Conclusion: Hospitalization alone did not influence PASC symptom resolution, however mAb treatment appeared to speed up recovery. Persistent PASC fatigue was associated with depression, worse diet and weight, and uninterrupted sleep at baseline; with cognitive performance at1 month; and with stress at 3 months. Overall, better and worse PASC behavior changes at baseline persisted through 6 months in a third or more of participants regarding exercise, diet, and alcohol intake. PASC symptom severity decreased over 6 months for the entire group, though the average number of symptoms barely changed. The high rate of severe and lingering fatigue at 6 months may correspond to the observed increase in poor outcomes. Pre-COVID and PASC exercise was associated with significantly better health outcomes. Clinical guidance should emphasize the protective benefits of routine exercise for post-acute SARS-COV-2 recovery.

CORRESPONDING AUTHOR: Jillian K. Price, PhD, Inova Medical System, Falls Church, VA; Jillian.Price@inova.org

Abstract citation ID: kaad011.0661

POSTER SESSION C: HELP THE HELPERS: FACTORS ASSOCIATED WITH PROFESSIONAL QUALITY OF LIFE AMONG HONG KONG NURSES IN THE 5TH WAVE OF COVID-19 PANDEMIC

Nelson C. Y. Yeung, PhD[1], Jeremy L. T. Tang, MPH[1], Stephanie T. Y. Lau, BSSc[1], Kam Hei Hui, BSSc[1], Annie W. L. Cheung, MPhil[1], Eliza L. Y. Wong, PhD[1]

[1]The Chinese University of Hong Kong, Hong Kong, N/A, Hong Kong

Purpose: Due to active involvements with patients for COVID-19 treatments, Western studies have found that that nurses are likely to experience both positive and negative emotions in the job as a helping profession (aka professional quality of life) amid the COVID-19 pandemic, and that psychosocial and work-related variables are associated with such outcomes. Relevant studies for nurses in the Asian context are limited. Guided by Stamm's model of professional quality of life (ProQoL) and the Stress and Coping model, this study examined those psychosocial correlates of the three indicators of ProQoL (including compassion satisfaction, secondary traumatic stress (STSS), and burnout) among nurses exposed to the 5th wave (i.e., the deadliest wave so far) of the COVID-19 pandemic in Hong Kong.

Methods: Nurses in Hong Kong (N=220) working in hospitals and community settings during the COVID-19 pandemic were recruited between May 24-June 13, 2022 through nursing associations to complete an online survey measuring the psychosocial aforementioned variables.

Results: Hierarchical regression results found that stressors from clinical work environments, insufficient emotional support, and less positive reframing were associated with poorer ProQoL (i.e., lower compassion satisfaction, higher STSS and burnout) (β*s* ranging from 0.16, p>.05 to 0.44, p>.001). In addition, COVID-19-related worries and uncertainties and emotional processing were associated with higher STSS (β*s* ranging from 0.21 to 0.23, p< .01), whereas insufficient support for communication with the healthcare system was associated with higher burnout among the nurses (β=0.12, p< .05).

Conclusions: Our findings identified the important psychosocial determinants in professional quality of life among nurses in Hong Kong, which could provide recommendations for services supporting those nurses' mental health. Provision of workshops for nurses to train their skills in coping with COVID-19-related uncertainties, worries, stressors from the clinical work environment, in practicing the use of cognitive coping strategies (e.g., positive reframing), in soliciting emotional support from important others could facilitate their professional quality of life. In addition, the provision of organizational support through timely and transparent communication with the healthcare system could also reduce nurses' secondary traumatic stress.

CORRESPONDING AUTHOR: Nelson C. Y. Yeung, PhD, The Chinese University of Hong Kong, Hong Kong, N/A, Hong Kong; nelsonyeung@cuhk.edu.hk

---

Abstract citation ID: kaad011.0662

POSTER SESSION C: GENDER DIFFERENCES IN RELATIONS BETWEEN SOCIAL COMPARISON, SOCIAL SUPPORT, AND SLEEP DISTURBANCE IN MIDLIFE AND OLDER ADULTS

Iris Bercovitz, MA[1], Gabrielle M. Salvatore, PhD[2], Daija A. Jackson, MA[3], Jacqueline Mogle, PhD[4], Danielle Arigo, PhD[1]

[1]Rowan University, Glassboro, NJ; [2]Clinical Health and Social Experiences (CHASE) Lab, Department of Psychology, Rowan University, Turnersville, NJ; [3]Chicago School of Professional Psychology, Glassboro, NJ; [4]Clemson University, Clemson, SC

As the U.S. population ages, effective health promotion across the lifespan is increasingly critical. Specifically, among midlife and older adults (ages 40 and older), sleep disturbance is a strong predictor of physical health, quality of life, and all-cause mortality. Although adequate social support is associated with improved sleep quality, the roles of other social processes such as comparison (i.e., self-evaluation relative to others) and of gender are poorly understood. The present study was designed to examine associations between sleep disturbance, social support, and social comparison among midlife and older adults and to clarify the role of gender in these associations. Participants were 552 adults ages 40 years and older, living independently with no diagnosis of dementia or other cognitive impairments (M_{Age}=57, 53% men, 27% racial/ethnic minority identification). These adults completed validated measures of sleep disturbance (PROMIS Sleep Disturbance-short form), perceived social support (Social Support Appraisals Scale), and social comparison orientation (Iowa-Netherlands Comparison Orientation Measure). Overall, participants reported sleep disturbance of moderate severity (M=52.72 of 73.3), and this did not differ between women and men (t[552]=0.12, p=0.91). Sleep disturbance was positively associated with social support (F[3,537]=15.93, p< 0.01) and this relation was stronger for men then for women (rs=-0.37, -0.25, respectively; interaction t[537]=1.90, p=0.05, η^2=0.01). In contrast, the overall negative association between sleep disturbance and social comparison orientation (F[3,548]=5.71 p< 0.01) masked divergent associations for men and women: the association was negative for women (rs=-0.14, p=0.05) but positive for men (rs=0.19, p< 0.01; interaction (t[548]=-3.92, p< 0.01, η^2=0.03). Thus, the benefits of social support for protecting against sleep problems during midlife and older adulthood seem to be more powerful for men than women, though men's social comparisons may be more problematic for their sleep quality. These findings can inform interventions that target social processes using gender-tailored content, to improve sleep quality (and thus, overall health). Future research is needed to identify the specific mechanisms of action linking social processes to sleep quality among midlife and older adults.

CORRESPONDING AUTHOR: Iris Bercovitz, MA, Rowan University, Glassboro, NJ; bercovitz@rowan.edu

Abstract citation ID: kaad011.0663

POSTER SESSION C: ASSOCIATIONS BETWEEN SLEEP DISTURBANCES AND SELF-REPORTED PHYSICAL AND MENTAL HEALTH OUTCOMES IN SPOUSAL BEREAVEMENT

Morgann West, BA[1], Julia Starikovsky, MA[1], Casey Bonzell, BA[1], Jessica Thomas, MA, LCSW[1], Mercedes R. Carnethon, PhD[1], Diana A. Chirinos, PhD[2]

[1]Northwestern University Feinberg School of Medicine, Chicago, IL; [2]Northwestern University Feinberg School of Medicine, Chicago, IL

Background: The death of a spouse is a highly stressful event that is associated with worsening physical and mental health. However, little is known about the behavioral factors underlying these associations. Sleep complaints are common following stressful events and have been linked to various health outcomes. In this study, we examined the association between sleep disturbances and self-reported physical and mental health outcomes in spousal bereavement.

Methods: Participants were 42 bereaved spouses (64.30% female, M_{age}=66.45, [SD=10.23], $M_{days\ since\ loss}$=60.19 [24.67]) enrolled in the REST to Overcome loss and REduce Risk (RESTore) study. Sleep disturbances were assessed using scores on the Insomnia Severity Index (ISI) and the Pittsburgh Sleep Quality Index (PSQI), as well as the PSQI's individual component scores (subjective sleep quality, sleep latency, sleep duration, sleep efficiency, other sleep disturbances, use of sleep medication, and daytime dysfunction). Outcomes included scores on the Center for Epidemiologic Studies Depression Scale (CES-D), the Inventory of Complicated Grief (ICG), and the physical functioning and general health subscales of the 36-Item Short Form Survey (SF-36). Multiple regression was used to examine associations between sleep and health outcomes and all models adjusted for age, sex, race, education, and days since loss.

Results: Mean scores on the PSQI and ISI were 9.37 (SD=3.79) and 11.27 (5.36), respectively. Mean CES-D, ICG and SF-36 physical functioning and general health scores were 16.88 (10.05), 23.63 (10.96), 79.02 (28.20) and 69.02 (19.50), respectively. Higher scores on both the PSQI and the ISI were associated with poorer general health (β_{ISI}=-0.40, *p*=0.023, β_{PSQI}=0.44, *p*=0.013). Lower subjective sleep quality was associated with higher scores on the ICG (β=0.35, *p*=0.040) and poorer general health (β=-0.41, *p*=0.013). Lower sleep efficiency was associated with poorer general health (β=-0.41, *p*=0.013) and other sleep disturbances were associated with worse physical functioning (β=-0.35, *p*=0.042). Finally, daytime dysfunction was associated with higher scores on the CES-D (β=-0.41, *p*=0.003) and poorer general health (β=-0.35, *p*=0.042).

Conclusion: Sleep disturbances are associated with worse physical and mental health in spousal bereavement. These findings suggest the importance of further examining sleep among bereaved spouses and highlight the need for interventions targeting sleep in this population.

CORRESPONDING AUTHOR: Morgann West, BA, Northwestern University Feinberg School of Medicine, Chicago, IL; morgann.west@northwestern.edu

---

Abstract citation ID: kaad011.0664

CITATION AWARD WINNER

POSTER SESSION C: THE RELATIONSHIPS OF DISCRIMINATION AND MICROAGGRESSIONS WITH SLEEP QUALITY IN BLACK AMERICANS: THE ROLE OF RUMINATION

Elizabeth J. Wilson, PhD[1], Anahi R. Ramirez, MA[2], Kymberley K. Bennett, PhD[2]

[1]Northwestern University, Chicago, IL; [2]University of Missouri-Kansas City, Kansas City, MO

Disparities in health outcomes between Black and White Americans are well-documented, including in sleep quality: Black Americans are more likely to report poor quality sleep than their White counterparts. Sleep may serve as one mechanism for disparities in health over the life course. A meta-model explaining relationships between race, life events, and health outcomes through biological, psychological, and behavioral pathways suggests that cognitive processes may underly the connection between race and poor sleep quality, and ultimately, health disparities. This project tested whether rumination and racism-related vigilance mediate the relationships between (a) discrimination and poor sleep quality and (b) microaggressions and poor sleep quality in Black Americans.

Potential participants were recruited through Amazon Mechanical Turk and screened for eligibility through a brief survey. Inclusion criteria were: 1) Current U.S. residency, 2) age 18 years to 65 years, 3) Black racial/ethnic identity (including participants who identified as biracial or multiracial), 4) having been born in the United States, and 5) having at least one parent born in the United States. Eligible participants were directed to the main survey and completed questionnaires assessing discrimination (via the Experiences of Discrimination Scale); six types of microaggressions (via the Racial Microaggressions Scale); rumination (via the Ruminative Responses Scale); racism-related vigilance (via the Racism-Related Vigilance Scale); and sleep quality (via the Pittsburgh Sleep Quality Index).

A majority of the sample (*N* = 223) identified as men (53.8%); most were partnered (61.4%), worked full-time (72.6%), and reported annual incomes between $20,000 and $70,000 (63.4%), while a plurality (37.2%) completed a four-year college degree.

Results of seven parallel mediation models showed that neither rumination nor racism-related vigilance mediated a relationship between discrimination and poor sleep quality. However, rumination partially mediated relationships between the six microaggression sub-scales and poor sleep quality: there were significant indirect effects for Foreigner/Not Belonging (β = .13, *SE* = 0.03, 95% CI: 0.08, 0.20), Criminality (β = .11, *SE* = 0.03, 95% CI: 0.05, 0.17), Sexualization (β = .10, *SE* = 0.03, 95% CI: 0.05, 0.17), Low-Achieving/Undesirable (β = .10, *SE* = 0.03, 95% CI: 0.05, 0.15), Invisibility (β = .15, *SE* = 0.04, 95% CI: 0.08, 0.23), and Environmental Invalidations (β = .15, *SE* = 0.04, 95% CI: 0.08, 0.23). Findings indicate support for the meta-model, demonstrating a specific pathway from racial microstressors to poor sleep quality. Future research should investigate effective interventions to address the toll microaggressions have on sleep quality in Black Americans.

CORRESPONDING AUTHOR: Elizabeth J. Wilson, PhD, Northwestern University, Chicago, IL; 19wilson88@gmail.com

Abstract citation ID: kaad011.0665

MERITORIOUS AWARD WINNER

POSTER SESSION C: DIFFERENCES IN FEAR OF SLEEP ACROSS POTENTIALLY TRAUMATIC EVENT TYPES IN FEMALE UNDERGRADUATE STUDENTS

Julia A. Russell[1], Favour Oloriegbe[1], Nancy A. Hamilton, PhD[1]

[1]University of Kansas, Lawrence, KS

Introduction: Fear of sleep has been proposed as a key perpetuating factor in trauma-related insomnia, as data have generally supported the relationship between fear of sleep and increased insomnia symptoms. Less is known about how fear of sleep may differ between individuals who experience different types of potentially traumatic events (PTE), as well as how fear of sleep is associated with other common measures of sleep and emotion. The goal of this analysis was to examine the measurement of fear of sleep between female students who reported experiencing Unwanted Sexual Attention and/or sexual assault (UWSA) and those who reported other PTE (e.g., car accident), and to examine associations with constructs of sleep and emotional symptoms.

Methods: Female undergraduate students completed self-report surveys on Qualtrics including the Fear of Sleep Inventory (FOSI), Pre-Sleep Arousal Scale (PSAS), Perceived Stress (PSS), depressive symptoms (PHQ-9), Sleep Hygiene Index (SH), Pittsburgh Sleep Quality Index (PSQI), and the Life Events Checklist. Of the total sample $n = 522$, 496 female students (470 identifying as cisgender women) who reported any PTE were included in the analysis. Data analysis included confirmatory factor analyses and correlational analyses.

Results: A total of 208 female undergrads reported UWSA, and 288 reported other PTE. The two-factor model for the FOSI provided an adequate fit (robust CFI = 0.97, robust TLI = 0.96, RMSEA = 0.07, SRMR = 0.06). Fit indices differed significantly between the group reporting UWSA compared to the group reporting other PTE, such that two factors may not adequately capture the latent structure of fear of sleep in people reporting UWSA. The group reporting UWSA had a mean of 6.80 points higher on the 23-item FOSI and 3.23 higher on the FOSI-SF (both $p < 0.001$). The FOSI was significantly correlated with sleep measures including the SH ($r = 0.34$), PSAS Cognitive and Somatic subscales ($r = 0.52$ and 0.54), PSS ($r = 0.25$), PHQ ($r = 0.43$), and PSQI ($r = 0.46$) at $p < 0.05$.

Conclusions: These data suggest that female students who reported UWSA experience higher levels of fear of sleep than students who reported other PTE. This difference has implications for the treatment of clinical insomnia symptoms in female undergraduate populations, but also for sleep interventions in the college setting given the high likelihood of exposure to sexual violence. Furthermore, results suggest that the factor structure of the FOSI-SF may operate differently between groups of PTE, thus further refinement of this measure may be indicated in future studies.

CORRESPONDING AUTHOR: Julia A. Russell, University of Kansas, Lawrence, KS; julia_russell@ku.edu

---

Abstract citation ID: kaad011.0666

POSTER SESSION C: INSOMNIA SYMPTOMS AND THE RISK OF "COGNITIVE IMPAIRMENT, NO DEMENTIA (CIND)" AMONG MIDDLE-AGED AND OLDER ADULTS IN THE US

Asos Q. Mahmood, MD, PhD, MPH[1], Meredith A. Ray, PhD[2], Satish K. Kedia, PhD, MPH, MS[2], Kenneth D. Ward, PhD[3], Aram Dobalian, PhD, JD, MPH[4], SangNam Ahn, PhD, MPSA[5]

[1]Department of Medicine-General Internal Medicine, College of Medicine, University of Tennessee Health Science Center, Memphis, TN; [2]The University of Memphis School of Public Health, Memphis, TN; [3]University of Memphis School of Public Health, Memphis, TN; [4]College of Public Health, The Ohio State University, Columbus, OH; [5]Saint Louis University College for Public Health and Social Justice, St. Louis, MO

Background: Insomnia is a major public health concern in the US. Despite growing evidence that insomnia symptoms are associated with debilitating health consequences and chronic medical conditions, there is no consensus about the future risk of "cognitive impairment, no dementia (CIND)" related to insomnia symptoms.

Methods: We utilized 2004–2016 data from Health and Retirement Study (HRS) in the US for 14,530 cognitively-healthy respondents (aged ≥ 50 years) who were followed for 12 years. Respondents' cognitive functioning was assessed using the modified Telephone Interview for Cognitive Status (TICS) screening test at each follow-up. Prospective associations between time-varying insomnia symptoms (including difficulty initiating sleep, difficulty maintaining sleep, early-morning awakenings, and nonrestorative sleep) and repeated measures of the probability of CIND (yes vs. no) were analyzed on a cumulative scale. We used a marginal structural modeling (MSM) approach in our analyses to account for the differential loss of respondents during follow-up, and for time-dependent confounding biological, psycho-cognitive, and behavioral health factors. Generalized estimating equations models were fit to compute adjusted odds ratios (aOR) and 95% robust confidence intervals (CIs).

Results: Impacts of insomnia symptoms on CIND varied across respondents' age. For those 50 to 64 years, experiencing two (aOR=1.38; 95% CI: 1.19–1.63) and three to four (aOR=1.39; 95% CI: 1.16–1.65) insomnia symptoms were associated with higher risks of CIND compared to being symptom-free. For those 65 to 74 years old, experiencing three to four insomnia symptoms was associated with a higher risk of CIND (aOR=1.31; 95% CI: 1.08–1.58). No associations were found among those aged ≥ 75.

Conclusion: Experiencing insomnia symptoms on a cumulative scale was associated with subsequent CIND among those middle-aged, and older adults < 75 years. Thus, insomnia symptoms, as potentially modifiable risk factors, could be targeted early as preventive measures for cognitive decline, which can potentially transition to dementia.

CORRESPONDING AUTHOR: Asos Q. Mahmood, MD, PhD, MPH, Department of Medicine-General Internal Medicine, College of Medicine, University of Tennessee Health Science Center, Memphis, TN; asos.mahmood@fulbrightmail.org

Abstract citation ID: kaad011.0667

CITATION AWARD WINNER

POSTER SESSION C: PERCEIVED DISCRIMINATION EVENTS ARE RELATED TO NEXT-DAY HEALTH BEHAVIORS

Blayne A. Barker, BA[1], Dingjing Shi, PhD in Quantitative Psychology[2], Jessica Becerra, MS[3], Nadia Stanley, BA[4], Emily T. Hebert, DrPH[5], Jamie M. Gajos, PhD[6], Megan E. Piper, PhD[7], Michael S. Businelle, PhD in Clinical Psychology[1]

[1]University of Oklahoma Health Sciences Center, Oklahoma City, OK; [2]University of Oklahoma, Norman, OK; [3]TSET Health Promotion Research Center, Stephenson Cancer Center, Oklahoma City, OK, USA, Oklahoma City, OK; [4]The University of Oklahoma Health Sciences Center, Norman, OK; [5]Department of Health Promotion and Behavioral Sciences, UT Health School of Public Health, Austin, TX, USA, Austin, TX; [6]Department of Human Development and Family Studies, University of Alabama, Tuscaloosa, AL, USA, Tuscaloosa, AL; [7]Center for Tobacco Research and Intervention, Department of Medicine, University of Wisconsin, Madison, Wisconsin, USA, Madison, WI

Background: Discrimination, the unjustified or prejudicial treatment of people and groups based on qualities such as race, age, gender, or sexual orientation, can damage the well-being of an individual. Prior research suggests experiencing increased daily discrimination events are associated with higher stress and depressive symptoms, which may lead to poorer health outcomes, such as alcohol use, drug use, smoking, and lack of sleep. The purpose of this study was to examine the relationship between discrimination events and next-day health behaviors, and the effects of discrimination events on these health behaviors over time.

Methods: Data for the current sub-study comes from a large nationwide randomized trial that examined how five different factors (e.g., fixed versus random assessments) impact ecological momentary assessment (EMAs) compliance. Eligible participants ($N = 434$) received 2-4 daily EMA prompts on their personal smartphones over 28 days. Previous-day perceived discrimination was measured each morning (i.e., Do you believe you experienced discrimination yesterday?). Discrimination was treated as a continuous variable (i.e., 0=no to 3=yes, absolutely sure). Next-day health behaviors were measured each morning (e.g., cigarette use, cannabis use, sodas consumed, and physical activity).

Results: Participants were 48.3 years old (SD=12.2), and mostly White (71.7%) and female (77.0%). Multilevel time lag analyses were conducted. Perceived discrimination yesterday was positively related to next-day number of cigarettes smoked ($p< .01$), likelihood of cannabis use ($p< .05$), number of sodas consumed ($p< .05$), and a negative trend for next-day vigorous physical activity ($p< .10$). There was also a significant discrimination by time interaction on physical activity such that the negative effect of discrimination yesterday on physical activity increased over the 28-day EMA period ($p< .05$). There was also a significant interaction between discrimination and time on sleep quality, whereby, the negative impact of discrimination on sleep quality decreased over time ($p< .05$).

Conclusion: Results suggest that perceived discrimination events negatively influence next-day health behaviors. This influence may be subconscious, making it important to find novel ways to counteract this adverse impact. Further, it is important to educate the public on how discriminatory behaviors may negatively impact members of their community.

CORRESPONDING AUTHOR: Blayne A. Barker, BA, University of Oklahoma Health Sciences Center, Oklahoma City, OK; blayne-barker@ouhsc.edu

---

Abstract citation ID: kaad011.0668

POSTER SESSION C: ARE HISPANIC/LATINXS MORE SOCIALLY VIGILANT THAN NON-HISPANIC WHITES?

Amelia Ibarra-Mevans[1], Melissa A. Flores[1], Riley M. O'Neill[1], John M. Ruiz[1]

[1]The University of Arizona, Tucson, AZ

Objective: Social vigilance, the active behavior of scanning one's environment for possible interpersonal challenges or threats, is associated with the activation of stress responses related to downstream disease outcomes, including cardiovascular disease (CVD; Ruiz et al., 2017). Hispanics/Latinxs (H/L) living in the U.S. navigate significant economic, psychosocial, and physical stressors that may influence their vigilant behavior including high rates of poverty, neighborhood segregation, interpersonal discrimination, and poor healthcare access (Ruiz et al., 2016). Additionally, Anglo acculturation among H/L has been associated with worsening health status (Abraído-Lanza et al., 2016). A competing hypothesis suggests that H/L collectivism may buffer the need for vigilance, particularly amongst those lower in Anglo acculturation. The aim of this study was to assess if H/L report greater social vigilance than Non-Hispanic Whites (NHW) in a sample of young adults, in addition to exploring whether social vigilance varies as a function of acculturation.

Methods: The current study assessed a subsample of H/L (N=1,237) and NHW (N=1,076) young adults from a larger cross-sectional psychosocial survey of undergraduate students at multiple universities in the U.S. Social vigilance was assessed via the *SVQ* (Ruiz et al., 2017), and acculturation was measured via the *ARSMA – II* (Cuellar et al., 1995).

Results: Linear regression analyses revealed that NHW young adults reported significantly higher social vigilance scores than H/L young adults (p=0.039). Post-hoc analyses revealed that this effect was driven by lower trait vigilance scores among female-identifying participants across racial/ethnic groups (p= < .05; b= -1.39). Lastly, among H/L young adults, there was no significant association between Anglo orientation and vigilance scores. However, higher Mexican orientation was associated with lower social vigilance ($p < .05$; b=-1.09).

Discussion: Overall, H/L reported significantly lower trait social vigilance than NHW young adults with the difference driven by particularly lower scores amongst women compared to men. Furthermore, greater Mexican acculturation was associated with lower social vigilance scores potentially reflecting hypothesized cultural stress-buffering effects of collectivism and the benefits of larger, tighter social networks (Ruiz et al., 2016).

CORRESPONDING AUTHOR: Amelia Ibarra-Mevans, The University of Arizona, Tucson, AZ; ameliaibarram@arizona.edu

Abstract citation ID: kaad011.0669

POSTER SESSION C: ASSOCIATIONS OF ECOLOGICAL FACTORS ON BMI AND PHYSICAL ACTIVITY OUTCOMES IN UNDERSERVED AFRICAN AMERICAN COMMUNITIES

Marie Filatov, BS[1], Allison M. Sweeney, PhD[2], Taylor R. White, BS[3], Dawn K. Wilson, PhD, FSBM[2]

[1]University of South Carolina, Cayce, SC; [2]University of South Carolina, Columbia, SC; [3]University of South Carolina, Tarrant, AL

African Americans are at an increased risk of heart disease, high blood pressure, and obesity relative to their White counterparts. Body mass index (BMI) has been shown to be positively associated with an increased risk of heart disease, high blood pressure, and diabetes. Studies have also shown that moderate to vigorous physical activity (MVPA) provides various health benefits including reducing risk for obesity and heart disease. As growing health disparities continue to disproportionately affect underserved (low income) African American communities, it is important to understand what factors contribute to health behaviors such as physical activity and weight-related outcomes. This study used an ecological framework to evaluate social-environmental predictors of accelerometer-assessed MVPA and BMI. Study participants were African American adults who took part in the Positive Action for Today's Health (PATH) trial. The PATH trial aimed to investigate the effects of a 24-month environmental intervention to improve access and safety for walking in three low-income communities in the Southeastern United States that were matched by rates of crime, physical activity, proportion of ethnic minority residents, and annual income level using census data. Baseline data were collected from African American participants (N= 431; aged 51 ± 16 years of age, 62% female,) including objective measures of height and weight (mean BMI= 30.9, SD=8.4), 7-day accelerometry estimates of MVPA, and psychosocial surveys. The present study examined the cross-sectional associations of social environmental factors (social life, social support, and access to neighborhood supports for walking) on BMI and MVPA outcomes of participants in the PATH trial. Linear regression analyses controlling for age, income, and sex showed a significant effect of social life on BMI ($p < .05$) indicating that a more positive social life was associated with a lower BMI. There was also an effect of having access for places for walking on MVPA ($p = .058$), such that greater access for walking was positively associated with MVPA. Finally, social support was not significantly associated with BMI or MVPA. These results shed light on the importance of social and environmental supports in understanding both MVPA and BMI related outcomes in underserved African American communities, especially the importance of creating a positive social life within neighborhoods and access for walking.

CORRESPONDING AUTHOR: Marie Filatov, BS, University of South Carolina, Cayce, SC; mariefilatov@gmail.com

---

Abstract citation ID: kaad011.0670

POSTER SESSION C: GIVE IT YOUR ALL: USING A RESILIENCE FRAMEWORK TO BETTER UNDERSTAND UNACCOMPANIED LATINO MIGRANT YOUTH IN U.S. AGRICULTURE.

Alma A. Manzo, BS[1], Fiorella L. Carlos Chavez, PhD[1]

[1]Edson College of Nursing and Health Innovation at Arizona State University, Phoenix, AZ

Unaccompanied Latino migrant youth (LMY) come to the United States (U.S.) to look for better job opportunities to provide for their families through remittances. There are various factors that "push" LMY to migrate to the U.S. For example, financial instability in their country of origin leads LMY to migrate to the U.S. for work. Farm work is one place LMY can work and make money while still being young and with limited education. LMY confront various stressors including economic hardships, discrimination, death along their journey, loneliness, and social isolation. Despite these risks, LMY have developed *strategies* to overcome adversity, for instance familial support and long-distance family interdependence. While there is no standard measure for healthy development among LMY working in U.S. agriculture, ethnic and cultural considerations are needed to understand how LMY maintain resilience despite experiencing mental and physical hardships.

The purpose of this thematic analysis was to understand how resilience can be identified and described in unaccompanied LMY working in agriculture despite risk to adversity. Thus, the two core aims are: (1) to determine what strategies LMY use to overcome adversity, and (2) to identify the context or precursors of resilience in LMY.

Data came from $N = 20$ audio-voice recorded interviews in Spanish with LMY (100% males; aged 15-20; 50% undocumented youth, 50% H-2A temporary visa program) from Guatemala (n = 10) and Mexico (n = 10) currently working in U.S. agriculture. We applied thematic analysis to these interviews and incorporated both an inductive and deductive approach to the concept of resilience in migrant youth based on Ungar et al.'s (2007) conceptualization of resilience.

Guided by Ungar et al.'s conceptualization of resilience (2007), thematic analysis identified seven "*tensions*" (i.e., disturbances, stressors). LMY who learn to navigate through these *"tensions"* are seen as more resilient. Seven subthemes emerged: 1) access to material resources, 2) relationships, 3) identity, 4) cohesion, 5) power and control, 6) social justice, and 7) cultural adherence. Four subthemes were recognized as precursors to resilience for LMY, these are: 1) perilous journey, 2) loneliness, 3) labor intensive work, 4) cultural barriers. These "*tensions*" and precursors to resilience suggest that LMY need community, familial, and peer support, as well as strength within themselves (i.e., inner strength, grit) to maintain and potentially sustain healthy development.

Due to the cultural and environmental circumstances of LMY, the need for mental health services support is crucial. Designing a resilience-based intervention to implement mentors (e.g., peer mentorship) who can offer guidance and immediate support could further support healthy development among this vulnerable population of young migrant farmworkers.

CORRESPONDING AUTHOR: Alma A. Manzo, BS, Edson College of Nursing and Health Innovation at Arizona State University, Phoenix, AZ; aamanzo2@asu.edu

Abstract citation ID: kaad011.0671

POSTER SESSION C: GRATITUDE AND ADJUSTMENT TO COVID-19: RELATIONSHIPS WITH GENERAL STRESS AND PANDEMIC-SPECIFIC STRESS

Allen C. Sherman, PhD[1], Stephanie Simonton-Atchley, PhD[1], Benjamin Amick, PhD[2], Erick L. Messias, MD, PhD, MPH[3], Teresa J. Hudson, PharmD, PhD[2], Mark L. Williams, PhD[4]

[1]Winthrop P. Rockefeller Cancer Institute, University of Arkansas for Medical Sciences, Little Rock, AR; [2]University of Arkansas for Medical Sciences, Little Rock, AR; [3]Department of Psychiatry and Behavioral Neuroscience, Saint Louis University School of Medicine, Saint Louis, MO; [4]Fay W. Boozman College of Public Health, University of Arkansas for Medical Sciences, Little Rock, AR

The COVID-19 pandemic created pervasive changes in daily life, including major financial hardships, constrained access to medical care, and disrupted social functioning. Heightened stress was a common concern. This study examined associations between trait gratitude, a personal resource that has elicited growing attention in health research, and severity of perceived stress experienced by community residents. Participants in this cross-sectional study completed an online survey during an earlier critical period when businesses were beginning to reopen but infection case rates were increasingly markedly, contributing to a basic sense of uncertainty or vulnerability that was further amplified by conflicting health messages. Gratitude was evaluated using the Gratitude Questionnaire-6. Outcomes included conceptually-discrete measures of both general stress (Perceived Stress Scale-10) and pandemic-specific stress.

As hypothesized, in separate multivariable analyses that adjusted for a range of pandemic-related and demographic factors, higher levels of trait gratitude were significantly related to diminished general stress ($\beta = .17$, $p < .0001$) and reduced pandemic-related stress ($\beta = -.09$, $p = .014$). As a further test of incremental validity, the models were additionally adjusted for other important psychosocial resources (i.e., general social support and COVID-specific social support). Gratitude remained a significant predictor ($\beta = .17$, $p < .0001$ for general stress, $\beta = -.11$, $p < .008$ for pandemic stress). Findings are cross-sectional, but consistent with the notion that gratitude may be among the helpful personal resources that assist community residents to adapt to the demands of a public health crisis. Results offer support for theoretical models of gratitude, and provide a basis for further longitudinal research that evaluates these effects, and their mediators, over the course of the pandemic.

CORRESPONDING AUTHOR: Allen C. Sherman, PhD, Winthrop P. Rockefeller Cancer Institute, University of Arkansas for Medical Sciences, Little Rock, AR; shermanallenc@uams.edu

---

Abstract citation ID: kaad011.0672

POSTER SESSION C: EXAMINING THE PSYCHOMETRIC PROPERTIES OF THE PARTNER INVESTMENT IN PHYSICAL ACTIVITY SCALE (PI-PA)

Slaton Z. Freeman, BA[1], Stephanie A. Callan, MS, MA[2], Jessica L. Hopkins, MC[1], Chloe M. Tan[1], Kelsey A. Nogg, MA[1], Krista W. Ranby, PhD[1]

[1]University of Colorado Denver, Denver, CO; [2]University of Colorado Denver, New Haven, CT

Introduction: Romantic relationships are one of the strongest influences on behavior change. As such, interpersonal processes may account for more variance in health behavior than intrapersonal factors alone. Identifying and operationalizing these processes is therefore an important task for behavioral health researchers. The Partner Investment in Health scale (PI-H) quantifies the degree to which romantic partners are invested in each other's health by capturing constructs central to dyadic theories (i.e., shared appraisal and collaborative action). The current study aimed to determine whether the psychometric properties of the PI-H extend to the measurement of a specific health behavior, physical activity (PA), using the novel Partner Investment in Physical Activity scale (PI-PA).

Method: Participants in a committed romantic relationship (n =261) completed an online survey comprised of the PI-H and PI-PA (24-items measured on a Likert scale ranging from 1 'Strongly Disagree' to 6 'Strongly Agree'), demographic questions, and measures of PA. PI-PA items were adapted to be specific to physical activity (e.g., "I am invested in my partner's physical activity," "My partner is invested in my physical activity"). We conducted an exploratory factor analysis (EFA) using direct oblimin rotation and extracted factors with eigenvalues greater than 1. Further, we examined correlations between PI-PA scores, PI-H scores, and participant's PA levels.

Results: As with the PI-H, EFA of the PI-PA ($\alpha = .971$, M = 4.39, SD = .99) produced a two-factor structure such that Factor 1 represented the participant's perception of their partner's investment in their PA ($\alpha = .97$, M = 4.23, SD = 1.15), and Factor 2 represented the participant's investment in their partner's PA ($\alpha = .96$, M = 4.54, SD = .99). Overall, The PI-PA correlated with the PI-H ($r = .789$, $p < .001$). Participants' PA levels (measured by whether they met Center for Disease Control PA guidelines) were significantly correlated with PI-PA scores ($r = .20$, $p = .009$), but not with PI-H scores ($r = .11$, $p > .05$).

Conclusion: While PI-PA scores were strongly correlated with PI-H scores, the PI-PA alone was correlated with PA. Therefore, the PI-PA may have greater predictive utility than the PI-H for PA. Researchers can utilize the PI-PA to understand the ways in which PA varies as a function of partner investment. Clinically, the PI-PA could aid in the development of interventions that promote PA, as partner investment may be a modifiable treatment target.

CORRESPONDING AUTHOR: Slaton Z. Freeman, BA, University of Colorado Denver, Denver, CO; zane.freeman@ucdenver.edu

Abstract citation ID: kaad011.0673

POSTER SESSION C: ACTION CONTROL MEDIATES THE ASSOCIATION BETWEEN PARTNER'S AUTONOMY SUPPORT AND HEALTHY EATING.

Jean-Philippe Gouin, PhD[1], Kayla B. Hollett, MA[1], Emily Carrese-Chacra, MA[1]

[1]Concordia University, Montreal, PQ, Canada

Background: Self-determination theory suggest that autonomy support promotes motivation for health behaviour change. The health action process approach identifies different self-regulatory processes that promote health-related behaviours. The goal of this study was to examine associations between partner's autonomy support, individual self-regulatory processes, and healthy eating behaviours among individuals in committed romantic relationships.

Methods: In this cross-sectional study, 191 participants completed the Important Other Climate Questionnaire to assess eating-related partner's autonomy support, the Rapid Eating Assessment for Participants to evaluate healthy eating habits, a Health Action Process Approach questionnaire to assess intention, goal monitoring, action planning, action control and self-efficacy, the Dyadic Coping Inventory to assess common dyadic coping, and self-reported their height and weight to calculate their body mass index.

Findings: Partner's eating-related autonomy support was significantly related to better healthy eating, r = .17, as well as to intention, r = .27, action planning, r = .31, goal monitoring, r = .21, action control r = 29, and self-efficacy r = .36. In contrast, common dyadic coping was not associated with health eating, r = .09. Action control mediated the association between autonomy support and healthy eating, indirect effect = .07 (.03); 95% CI = .02-.13. This mediation effect was not moderated by participant's body mass index and remained significant after adjusting for common dyadic coping.

Discussion: Partner's autonomy support specifically related to eating behaviours appears to promote increased self-regulatory efforts to maintain healthy eating habits. Dyadic interventions should focus on promoting autonomy support specifically related to eating behaviours.

CORRESPONDING AUTHOR: Jean-Philippe Gouin, PhD, Concordia University, Montreal, PQ, Canada; jp.gouin@concordia.ca

---

Abstract citation ID: kaad011.0674

POSTER SESSION C: SOCIAL VIGILANCE MEDIATES THE ASSOCIATION BETWEEN RACIAL DISCRIMINATION AND BLOOD PRESSURE VARIABILITY IN A COMMUNITY SAMPLE

Giovanni Marquez, BS[1], Melissa A. Flores[1], Matthias R. Mehl, PhD[2], Riley M. O'Neill[1], Chul Ahn, PhD[3], Matthew Allison, MD, PhD[4], Timothy W. Smith, PhD[5], Joshua M. Smyth, PhD[6], Daniel J. Taylor, PhD[1], Bert N. Uchino, PhD[5], John M. Ruiz[1]

[1]The University of Arizona, Tucson, AZ; [2]University of Arizona, Tucson, AZ; [3]University of Texas Southwestern Medical Center, Dallas, TX; [4]University of California San Diego, La Jolla, CA; [5]The University of Utah, Salt Lake City, UT; [6]The Pennsylvania State University, University Park, University Park, PA

Introduction: Exposure to racial discrimination is associated with negative cardiovascular health outcomes including high blood pressure. Although blood pressure variability (BPV) is an independent predictor of cardiovascular disease and mortality, less is known about its relationship with racial discrimination, as well as potential mechanisms and moderating factors. Social vigilance, a behavioral stress response involving the scanning of one's environment for interpersonal threats, may either be a mechanism between racial discrimination and BPV, or it may influence the strength of this relationship. Considering the lack of research on these phenomena, we developed two competing aims. We examined social vigilance as both a mediator (Aim 1) and moderator (Aim 2) of the relationship between the experience of racial discrimination and systolic/diastolic BPV.

Methods: In a sub-sample of racial-ethnic minority adults from a large community study in Texas (N=120, M age=38.79; SD=11.61), participants wore a blood pressure cuff over two days while systolic and diastolic blood pressure was randomly measured approximately every 30 minutes. BPV was calculated using the standard deviation of participants' 2-day blood pressure measures. Social vigilance and experiences of racial discrimination were assessed at baseline. We examined social vigilance as both a moderator and a mediator of the association between racial discrimination and systolic/diastolic BPV. To test our aims, a series of multiple regressions were estimated. For each aim, analyses were adjusted for mean blood pressure (magnitude), age, education, BMI, and smoking status.

Results: (Aim 1) Social vigilance was a mediator for the association between racial discrimination and diastolic BPV, ab = -0.75, 95% CI(-1.70, -0.09), p = 0.019, however, not for systolic BPV, ab = -0.69, 95% CI(-1.69, 0.05), p = 0.072 . (Aim 2) Additionally, we found that social vigilance was not a moderator for the association between racial discrimination and systolic BPV, (F(1, 87) = 3.41, p = 0.068), nor diastolic BPV (F(1, 87) = 0.004, p = 0.949).

Conclusion: Our results suggest that discrimination precipitates more social vigilance, but ultimately leads to lower BPV. These results may indicate that despite high levels of racial discrimination and social vigilance, BPV may be lower given an attenuated blood pressure response to chronic exposure to stress via racial discrimination. Cross-sectional data limited our ability to test true mediation and identify the temporal precedence between our variables. Future research should aim to investigate this relationship longitudinally.

CORRESPONDING AUTHOR: Giovanni Marquez, BS, The University of Arizona, Tucson, AZ; giovannimarquez@arizona.edu

Abstract citation ID: kaad011.0675

POSTER SESSION C: EARLY PREDICTION OF POST-INTERVENTION STRESS IN PREGNANT WOMEN ACROSS TWELVE WEEKS OF A PRENATAL STRESS REDUCTION INTERVENTION

Boyang Wei, MS[1], Renee C. Edwards, PhD[1], Yudong Zhang, PhD[1], Stephanie Krislov[1], Aditi Rangarajan, MSc[2], Peter Cummings, MPH[3], Mahdi Pedram, PhD[1], Darius Tandon, PhD[4], Lauren S. Wakschlag, PhD[1], Nabil Alshurafa, PhD[1]

[1]Northwestern University, Chicago, IL; [2]Ann & Robert H. Lurie Children's Hospital of Chicago, Chicago, IL; [3]Northwestern Feinberg School of Medicine, Chicago, IL; [4]Northwestern University Feinberg School of Medicine, Chicago, IL

Background: Prenatal stress can contribute to adverse health and developmental outcomes for both mother and infant. Mothers and Babies (MB) is an evidence-based intervention based on cognitive behavioral therapy (CBT) and attachment theory that aims to reduce maternal stress during pregnancy. Traditional CBT has organized intervention delivery schedules. However, rigidity in the number and content of intervention sessions may not be maximally beneficial for all participants. Predicting later stress in the early intervention stages may help clinicians adjust the scope and intensity of the intervention to help clients manage mood and stress more effectively. In this study, we explored data from the early stages of the MB intervention period and used machine learning models to predict perceived stress during the post-intervention assessment.

Method: Pregnant women (N=99) were randomized into a control (N=51) or MB intervention group (N=48) at study enrollment, with average gestational age around 11.6 weeks.. Women in the MB group were offered 12 weekly one-on-one sessions focused on behavioral activation, social support, cognitive restructuring, and individualized "just-in-time" stress reduction content. In addition, ecological momentary assessments (EMAs) of perceived stress (PSS-4) were sent 4 times daily via text to participants in both groups. Participants completed the Perceived Stress Scale (PSS-10) at enrollment and post-intervention. Participant baseline demographics, the number of intervention sessions received, and PSS-4 scores up to weeks 2, 4, 6, and 8 were applied to five commonly used machine learning models for detecting post-intervention stress at each of the four timepoints. Results are averaged from 5-fold cross-validation for the control and MB intervention group.

Results: Random forest overall performed the best for predicting post-intervention stress in both groups from weeks 2 through 8. The best performance was achieved at week 4 for the MB intervention group (F1: 0.85, Precision: 0.83, Recall: 0.87) and the control group (F1: 0.81, Precision: 0.81, Recall: 0.80). From our exploration of different combinations of predictors, we found that weekly PSS-4 score at week 2, 3 and 4, marital status and income-to-need ratio were the most predictive features.

Conclusions: Our findings show that late pregnancy stress can be predicted early and robustly in pregnancy by EMAs and demographic features. Future studies can further strengthen the findings by using large sample sizes and participants from more diverse backgrounds. Early prediction can help identify mothers at risk of high stress and enable clinicians to adjust the intensity and content of interventions before the emergence of high stress. This study also supports the utility of applying machine learning models to promote the perinatal well-being of pregnant women.

CORRESPONDING AUTHOR: Boyang Wei, MS, Northwestern University, Chicago, IL; boyang.wei@northwestern.edu

---

Abstract citation ID: kaad011.0676

POSTER SESSION C: SALIENCE OF MEANING IN LIFE AND CARDIOVASCULAR RESPONSES TO ACUTE STRESS: A RANDOMIZED, CONTROLLED EXPERIMENTAL STUDY

Kaitlyn M. Vagnini, MA[1], Jennifer Morozink Boylan, PhD[2], Christina L. Rush, PhD[3], Kevin S. Masters, PhD[4]

[1]University of Colorado Denver, Wyandotte, MI; [2]University of Colorado Denver, Denver, CO; [3]Massachusetts General Hospital/Harvard Medical School, Denver, CO; [4]University of Colorado Denver|Anschutz Medical Campus, Denver, CO

Objective: Meaning in Life (MIL), or the sense that one's life has purpose, makes sense, and matters, is associated with health, fulfillment, and longevity. However, there is limited knowledge regarding the underlying psychobiological mechanisms responsible for the health-promoting effects of MIL. One hypothesis is that MIL may buffer against the deleterious effects of stress. The present study tests this hypothesis by using a randomized controlled experimental design to evoke salience of MIL and investigate whether meaning salience influences cardiovascular responses to acute laboratory stressors.

Method: Healthy community participants (N = 148; 66% female; $M(SD)_{age}$ = 37.2(14.4) years) were randomly assigned to complete either a meaning salience induction task (experimental group) or a control task (control group). Participants in the experimental group wrote about an imagined day lived in sync with what is most meaningful to them, whereas those in the control group wrote about how to prepare binders for a meeting. After the experimental manipulation, all participants underwent a standardized acute stress protocol. Participants' blood pressure, heart rate, and self-report meaning salience (e.g., 'How meaningful does your life feel right now?'; 0 = *Not at All*, 7 = *Quite a Bit*) were assessed throughout the laboratory study.

Results: Participants in the experimental group reported greater meaning salience following the experimental manipulation (t_{141} = -2.95, $p < .01$), but not following the mental arithmetic and speech tasks (t_{141} = -1.35, p = .17). There were no group differences in cardiovascular reactivity to or recovery from the acute stress tasks. Controlling for group membership, participants who reported greater meaning salience following the experimental manipulation demonstrated quicker heart rate recovery from stress (p = .05) and a trend toward greater blood pressure reactivity during stress (ps = .07).

Conclusions: This study is among the first to examine the causal effects of MIL on cardiovascular stress reactivity and recovery by experimentally manipulating the salience of MIL under controlled conditions. Meaning salience was successfully evoked during the experimental manipulation, though the effects of the manipulation were not sustained during the stress tasks. Results identified self-report meaning salience, and not evoked meaning salience, as a significant predictor of cardiovascular responses to stress.

CORRESPONDING AUTHOR: Kaitlyn M. Vagnini, MA, University of Colorado Denver, Wyandotte, MI; kaitlyn.vagnini@ucdenver.edu

Abstract citation ID: kaad011.0677

POSTER SESSION C: CAN SUBJECT EDUCATION & OXIMETRY INCREASE COMFORT DURING SLOW-PACED BREATHING?

Samuel Kohlenberg, PhD, MA, MEd[1]

[1]University of Denver, Denver, CO

This placebo-controlled two-group experimental study examined the effects of subject education and oximetry on discomfort (dyspnea) sometimes associated with slow-paced breathing. Despite overlapping clinical and research implications, there existed no previous literature addressing the mitigation of dyspnea in non-hyperventilating normal adults during slow-paced breathing. This study investigated whether the use of viewable oximetry and subject education mitigated dyspnea associated with slow-paced breathing thus increasing comfort.

Clinical experience, and the results of a related study suggested that subject education and viewable oximetry lead to greater comfort during slow-paced breathing. A sample of 50 sequentially randomized healthy adults constituting two groups of 25 subjects underwent two 2-minute sessions of video-guided paced breathing at a rate of 4.5 breaths per minute during a single office visit. A treatment group viewed oximetry after hearing an educational script, and a placebo group received instrumentation with a thermometer and was read a placebo script. All subjects answered questionnaires about breathing comfort and short-form Staite Trait Anxiety Inventories (STAI-6). This method provided a way of investigating intergroup differences and intrasubject changes in comfort while assessing potential correlations with anxiety.

Results demonstrated a highly significant relationship between treatment and breathing comfort at p of 0.00 as evaluated by Chi-Square, that the treatment resulted in significantly more comfort than the placebo at $p < 0.05$ as evaluated by Mann-Whitney U Test (One-tailed), and that the treatment group showed significant within-subject gains in comfort at $p < 0.01$ as evaluated by a Wilcoxon Signed-Rank Test (One-tailed). Results further demonstrated that the treatment group showed significant within-subject decreases in anxiety at $p < .01$ as evaluated by a Wilcoxon Signed-Rank Test (One-tailed) while the placebo group did not at $p < 0.05$.

This work demonstrates the benefits of using viewable oximetry and education for increasing comfort and for decreasing anxiety during slow-paced breathing. It is recommended that the method described in this research be used when appropriate in all relevant research and clinical settings. Researchers may wish to plan for these effects in both experiment design and interpretation. Future researchers may wish to examine this effect in clinical populations.

CORRESPONDING AUTHOR: Samuel Kohlenberg, PhD, MA, MEd, University of Denver, Denver, CO; skohlenbergphd@gmail.com

---

Abstract citation ID: kaad011.0678

POSTER SESSION C: THE INDIRECT EFFECT OF SEXUAL MINORITY WOMEN'S GENDER EXPRESSION ON OPIOID USE THROUGH CONNECTION TO THE LGBTQ+ COMMUNITY

Lauren Bernier, BA[1], Jacklyn Foley, PhD[1], Abigail W. Batchelder, PhD, MPH[2]

[1]Massachusetts General Hospital, Boston, MA; [2]Harvard Medical School / Massachusetts General Hospital, Boston, MA

There is growing research to suggest a greater prevalence of opioid use disorders (OUDs) among sexual minority women and other gender diverse individuals assigned female at birth (SMW+) compared to heterosexual women. Recent literature suggests a positive association between masculine gender expression and alcohol and other drug use severity among SMW+; however, there is less of an understanding as to why more masculine gender expression is associated with more frequent substance use. Social connection to the LGBTQ+ community may be one possible explanatory factor to consider in the positive association between more masculine gender expression and substance use among SMW+. Masculine gender expression among SMW+ may be perceived as a "violation" of gendered social norms, thereby exacerbating minority stress (e.g., rejection, discrimination), leading to greater substance use. We conducted secondary analyses with self-report data from a convenience sample of 239 participants (M_{age} = 28.7, SD = 6.67; 80.0% female; 82.4% Caucasian; 13.0% Hispanic or Latinx) to: a.) confirm the positive association between masculine gender presentation and opioid use, and b.) evaluate the potential indirect effect (mediation) of less social connection to the LGBTQ+ community in the association between masculine gender presentation and opioid use in a sample of SMW+. Assessments included the Connectedness to the LGBT Community Scale (Frost & Meyer, 2012), the Gender Expression Measure Among Sexual Minority Women Scale (Lehavot et al., 2011), and a single item for any opioid use within the past 30 days. An indirect effect analysis was conducted using bias-corrected bootstrapping to generate a 95% confidence interval to test the indirect effect (PROCESS; Hayes, 2013). Regression models controlled for race, ethnicity, gender (cisgender versus nonbinary or transgender), sexual orientation (bisexual+ versus monosexual), and education. There was a direct association between gender expression and opioid use, such that more masculine presentation was associated with a greater likelihood of endorsing opioid use in the past 30 days (β = 1.46, $p < .001$). Additionally, masculine gender expression was negatively associated with connection to the LGBTQ+ community (β = -1.36, $p < .01$). Finally, there was a partial positive indirect association between gender expression and opioid use, with social connection to the LGBTQ+ community accounting for 40% of the total effect association (β = 0.11, 95%CI: 0.005, 0.295). The results contribute to the growing literature indicating potential opioid use disparities among SMW+. Further, they emphasize the clinical relevance of considering gender expression and promoting social connection to the LGBTQ+ community in opioid use risk reduction interventions.

CORRESPONDING AUTHOR: Lauren Bernier, BA, Massachusetts General Hospital, Boston, MA; lebernier@mgh.harvard.edu

Abstract citation ID: kaad011.0679

POSTER SESSION C: FACTORS ASSOCIATED WITH CURRENT CANNABIS USE AMONG HIGH SCHOOL SENIORS: EVIDENCE FROM THE MONITORING THE FUTURE DATA

Guijin Lee, PhD[1], Satish K. Kedia, PhD, MPH, MS[1], Sanjaya Regmi, MPH[2], Patrick J. Dillon, PhD[3]

[1]The University of Memphis School of Public Health, Memphis, TN; [2]Division of Social and Behavioral Sciences/School of Public Health/ The University of Memphis, Memphis, TN; [3]School of Communication Studies, Kent State University at Stark, North Canton, OH

Background and Purpose: Cannabis is the most commonly used federally illicit drug in the US. It reached a historic high among adolescents in 2021 with 42.6% of lifetime use and 28.5% of current use. There is a paucity of literature examining the association of perceived risk of cannabis use, mental health, and substance use behavior with current cannabis use. Thus, this study examines the multiple factors associated with current cannabis use among high school seniors.

Methods: For this study, we used the Monitoring the Future data, a representative cross-sectional survey of substance use and risky health behaviors among high school students in the U.S. This study examines data collected through Form 5 in the 2020 survey (12th graders; *N*=617). Demographic measures (sex, race/ethnicity, community, school program, parents' education), perceived risk of cannabis use (cannabis is addictive, weak-willed, criminal), mental health (life is meaningless, hopeless, loneliness), and substance use behavior (binge drinking, alcohol intoxication, smoking cigarette) were assessed. Multivariable logistic regression was conducted in Mplus Version 8 to identify factors associated with the outcome variable of current cannabis use.

Results: Results show 24.3% of adolescents reported current cannabis use. 44.3% of them reported alcohol intoxication, 20.7% reported smoking cigarettes, and 17.2% reported binge drinking. 26.4% of adolescents reported that people who use cannabis several times a week are more weak-willed than other people and 20.8% reported that life often seems meaningless. The multivariable logistic regression model found that adolescents who self-reported as Black (OR=1.90, p=.008), binge drinking (OR=1.83, p=.006), alcohol intoxication (OR=1.95, p=.003), smoking cigarettes (OR=3.24, p< .001), life often seemed meaningless (OR=1.50, p=.014), and disagreed with using cannabis is weak-willed (OR=.75, p=.047) had greater odds of current cannabis use.

Conclusions and Implications: Substance use is an important focus for practitioners working with adolescents as continued substance use may lead to physiological reactions, trigger other substance use disorders, and increase the chance of overdose and death. Thus, evidence-based intervention strategies for adolescents and their parents should be implemented to prevent substance use and the consequence of cannabis use in this population. Decreased perceived risk due to cannabis legalization may increase the risk of further cannabis use. Thus, prevention approaches are needed to address perceptions of the safety of cannabis and claims of its medicinal use.

CORRESPONDING AUTHOR: Guijin Lee, PhD, The University of Memphis School of Public Health, Memphis, TN; glee2@memphis.edu

---

Abstract citation ID: kaad011.0680

POSTER SESSION C: SHARED EXPERIENCES AMONG YOUTH THAT "ABSTAIN" AND "PERSIST" IN RIDING WITH AN IMPAIRED DRIVER AND DRIVE IMPAIRED

Federico Vaca, MD, MPH[1], Deepa R. Camenga, MD[2], Kaigang Li, PhD[3], Barbara Banz, PhD[4], Vanessa Zuniga[4], Ronald J. Iannotti, PhD[5], Candice Grayton, MPH[5], Denise L. Haynie, PHD[6], Bruce Simons-Morton, EdD[6], Leslie Curry, PHD[7]

[1]University of California Irvine School Of Medicine, Orange, CA; [2]Yale School of Medicine, New Haven, CT; [3]Colorado State University, Fort Collins, Colorado, CO; [4]Yale University School of Medicine, New Haven, CT; [5]The CDM Group, Inc., Chevy Chase, MD; [6]Eunice Kennedy Shriver National Institute of Child Health & Human Development, Bethesda, MD; [7]Yale University School of Public Health, New Haven, CT

Background: This qualitative study explored individual and social-environmental factors informing decisions to Ride with an Impaired Driver (RWI) and Drive While Impaired (DWI) among youth that "Abstain" and "Persist" in these behaviors from adolescence through early adulthood.

Methods: We conducted virtual in-depth individual interviews from March-September 2020 with 60 young adults (26.36±0.52 y/o, ♀47.7%) who participated in the NEXT Generation Health Study. Participants were purposively sampled to include 33 "Abstainers" (no RWI/DWI) and 27 "Persisters" (consistent reports of RWI/DWI) from high school to 1-4 years after high school. We explored participant RWI/DWI experiences during high school up to early adulthood (pre-Covid pandemic, January 2020). Guided by Ecodevelopment Theory, a 6-member multidisciplinary team used directed content analysis to apply inductive and deductive codes to each transcript. Agreement was achieved by team consensus. Themes derived from the code "Facilitators of RWI/DWI" using data immersion, investigator reflexivity, and team dialogue are presented.

Results: During high school "Abstainers" and "Persisters" identified parental disapproval [*"I just try to get home cuz I didn't want my Mom to be fussing… mad and stuff"*- ♂Abstainer] and a lack of sober peers to drive [*"I could have hopped in a truck with somebody else, but they probably were drinking and doing drugs too"*- ♀Persister] as important to their decision to RWI/DWI. After high school, both groups considered alternative transportation costs [*"I don't want to spend the extra money to get an Uber"* ♀Persister] and the need to access their car [*"I didn't want to leave my car…because I work the next day"*- ♀Persister]. They also reported concerns with being ticketed or towed [*"[Getting ticketed for overnight parking] is a really, really stupid law… It promotes drunk driving"*- ♂Abstainer]. Both groups considered self-perceptions of impairment in current decisions whether to drive [*"I only had one beer and for me that doesn't really do anything."*- ♂Abstainer].

Conclusion: During high school, youth who "Abstain" and "Persist" in RWI/DWI report social factors (i.e., parental disapproval, sober peer drivers) when deciding whether to RWI/DWI. After high school, individual factors (i.e., perceptions of impairment, transportation cost and access) play a more prominent role in decision making. These findings point to the dynamic nature of influence (i.e., peers/parents vs. life responsibilities) on RWI/DWI decision-making that youth are confronted with while traversing their own socioecological context and development. Targeting these shared factors in programs and policies may promote safe decisions by "Abstainers" and reduce RWI/DWI among "Persisters".

CORRESPONDING AUTHOR: Kaigang Li, PhD, Colorado State University, Fort Collins, Colorado, CO; Kaigang.li@colostate.edu

Abstract citation ID: kaad011.0681

POSTER SESSION C: PREVENTING PRENATAL ALCOHOL EXPOSURE: ENHANCING EHR CAPABILITIES USING MULTIPLE CLINICAL DECISION SUPPORT TOOLS

Bonnie McRee, PhD, MPH[1], Janice Vendetti, MPH[1], Karen Steinberg Gallucci, PhD[1], Jessica Johnson, BSW[2], Lauren Rosato, IMBA[2]

[1]University of Connecticut School of Medicine, Farmington, CT; [2]Planned Parenthood of Southern New England, New Haven, CT

Introduction: Fetal alcohol spectrum disorders (FASD) is a critical public health problem. Two behaviors, consuming alcohol and using less effective contraception, may result in prenatal alcohol exposure (PAE). In the context of alcohol screening and brief intervention (SBI) services, cutoff scores on widely used alcohol risk assessments fail to identify persons whose relatively low levels of consumption may still put them at risk of a PAE due to their less effective contraception method. SBI screening tools are often utilized with electronic health record (EHR) Best Practice Advisories (BPAs) to alert practitioners to provide brief behavioral interventions (BIs) for patients scoring at elevated risk levels, but miss the opportunity to address both behaviors.

Method: Administrative (EHR) data from Planned Parenthood of Southern New England (PPSNE) were extracted between 6/1/20-2/28/22 and included 7584 records to assess the number of patients using less-effective contraception who also screened at low-risk on the Alcohol Use Disorders Identification Test (USAUDIT) and did not receive a BI.

Results: Data showed that 4100 patients screening at low-risk on the USAUDIT did not receive a BI, as would be expected. However, of those, 30% used a less-effective contraception method and were at risk of a PAE.

Conclusion: Our finding underscores the insufficiency of traditional alcohol SBI models using a standardized screening test focusing on alcohol risk alone. Continued focus on singular behavioral risk factors is a substantial area for improvement in health care quality. There is a need for systems modifications to assess multiple risk behaviors simultaneously and alert practitioners when a combination of behaviors increases a specific health risk.

Discussion: With PPSNE's transition to a new EHR system on 11/1/2022, we worked with the clinical decision support (CDS) team to include contraception type along with alcohol use screening results when executing the BPA for an alcohol-focused BI. The adapted BPA incorporating alcohol use and contraception type will be publicly available in the EHR's community library. EHRs are capable of assisting providers in easily identifying patients with multiple risk factors, ensuring they are educated regarding information and advice to optimize public health outcomes. This data-driven approach applies multiple CDS tools to identify factors that contribute to PAE. Ongoing data collection post-EHR transition should reveal increases in the number of patients receiving alcohol BIs or contraception counseling to reduce PAE.

CORRESPONDING AUTHOR: Bonnie McRee, PhD, MPH, University of Connecticut School of Medicine, Farmington, CT; mcree@uchc.edu

---

Abstract citation ID: kaad011.0682

POSTER SESSION C: IMPAIRED CONTROL IN BINGE DRINKING USING SMARTPHONE ECOLOGICAL MOMENTARY ASSESSMENT

Joanna R. Sells, PhD[1], Matthew E. Sloan, MD, MSc, FRCPC[2], Courtney L. Vaughan, MS[3], Bethany L. Stangl, PhD[4], Andrew J. Waters, PhD[3], Vijay A. Ramchandani, PhD[4]

[1]Miami VA Hospital, Miami, FL; [2]Centre for Addiction and Mental Health, Toronto, ON, Canada; [3]Uniformed Services University, Bethesda, MD; [4]NIAAA, Bethesda, MD

As of 2010, excess alcohol consumption cost the US approximately $249 billion ($2.05 per drink) including lost productivity, healthcare, and criminal justice costs. Binge drinking accounts for 77% of these costs. In order to understand alcohol use disorders and develop treatment, insights into psychological processes underlying drinking are needed. Attempts to limit number of drinks or stop drinking altogether in a drinking episode are not well understood. We examined impaired control and drinking using smartphone EMA captured in the field.

Heavy drinking males and females (21+ and 15+ drinks/week respectively, N=16) who were undergoing a lab-based study of impaired control over drinking completed 2-6 weeks of EMA across 4 daily random assessments. Participants completed 954 assessments (77.64% of the expected number) and the mean number of assessments was 60.56 (30.16). Drinking goal, craving, consumption quantity, motivation to stop drinking, and impaired control measures were collected.

Participants reported being motivated to cut down or avoid drinking on 38.58% of assessments. There was no evidence for moderation of an association by motivation to cut back/avoid drinking for the next 24 hours. As alcohol craving increased, drinking before the next assessment increased (p =.007). As motivation to stop drinking increased, drinking before the next assessment decreased (p =.026). Finally, when participants indicated they had a goal of reducing/stopping drinking in the next 24 hours, drinking before the next assessment decreased (p =.022). This is the first study to report a within-subject association between motivation and subsequent drinking during EMA.

This study suggests that EMA can be effectively administered in the field in binge drinkers undergoing lab-based studies of impaired control over drinking. We found that motivation and goals of reducing/stopping drinking are associated with subsequent reduced drinking, while craving for alcohol is associated with increased subsequent drinking. EMA assessed in the field can provide information on recent impaired control episodes and could be used to evaluate if impaired control is an effective target for drinking interventions.

CORRESPONDING AUTHOR: Joanna R. Sells, PhD, Miami VA Hospital, Miami, FL; drjoannasells@gmail.com

Abstract citation ID: kaad011.0683

POSTER SESSION C: MOODINESS, INSOMNIA, AND MUSCLE/JOINT ACHES IN ADOLESCENCE PREDICTS PRESCRIPTION OPIOID ABUSE IN YOUNG ADULTHOOD

Amy M. Goetzinger, PhD[1], Maryam Jowza, MD[2], Brooke Chidgey, MD[2], Seema M. Patidar, PHD[3], Skye Margolies, PhD[4], Irina Phillips, MD[4], Matthew Mauck, MD, PhD[4]

[1]UNC School of Medicine, Apex, NC; [2]University of North Carolina at Chapel Hill, Chapel Hill, NC; [3]UNC at chapel hill, Chapel hill, NC; [4]UNC School of Medicine, Chapel Hill, NC

Background: Prescription opioid abuse is a major public health crisis. According to the CDC, over 100,000 opioid overdose related deaths occurred in the 12-month period May 2020-April 2021. Psychological and physical health problems are correlated broadly with opioid abuse. However, little is known about how psychological and physical health problems in adolescence may predict prescription opioid abuse later in life.

Methods: This study examined Waves I and IV of the National Longitudinal Study of Adolescent to Adult Health, public use dataset. In Wave I, adolescents were between 12–18 years and completed a demographic questionnaire which included subjective measures of physical and psychological health. Participants were asked to consider in the last 12 months if they had experienced the following: "aches, pains, or soreness in your muscles or joints", "moodiness" and "insomnia" on a 4-point Likert scale ranging from 0 (*never*) to 4 (*every day*). Participants were followed longitudinally, and at Wave IV were between 24-32 years. Frequency of abusing prescription opioids in the last 4 weeks was assessed in Wave IV. Multivariate logistic regression, controlling for age, sex, race, and ethnicity, was used to assess associations between moodiness, insomnia, and muscle/joint aches at time 1 (adolescence) with prescription opioid abuse at time 2 (young adulthood). All analyses were performed using SPSS 28.0.

Results: The sample initially included 6504 adolescents with a mean age of 16.0 (SD=1.77) years who were initially interviewed at time 1. Adolescents were sampled approximately equally by grade in school, ranging from the 7th through 12th grades. A majority were White (n=3671, 56.4%), female (n=3356, 51.6%), and non-Hispanic (n=5738, 88.2%). 5,080 participants completed measures at time 2 (for a follow up rate of 78.1%). Overall, 14.2% (720/5,080) of young adults had recent prescription opioid abuse. After controlling for sex, age, race, and ethnicity, moodiness (OR = 1.27, 95% CI 1.17, 1.38), insomnia (OR = 1.18, 95% CI 1.09, 1.27), and muscle/joint aches (OR = 1.13, 95% CI 1.17, 1.24) were significantly associated with recent prescription opioid abuse.

Discussion: These results have significant implications for prevention as well as treatment efforts for optimizing adolescent and young adult wellbeing and health. Early identification of these risk factors (via valid screening and assessment) and psychosocial treatments (eg, coping skills programs) targeting mood, sleep, and pain-specific complaints earlier in life could be helpful in lessening the likelihood of opioid abuse later in life. These findings also provide a foundation for future research designed to expand evidence-based prevention efforts for mitigating opioid abuse as well as inform clinical practice recommendations and important OUD policy.

CORRESPONDING AUTHOR: Amy M. Goetzinger, PhD, UNC School of Medicine, Apex, NC; amy.goetzinger@gmail.com

---

Abstract citation ID: kaad011.0684

POSTER SESSION C: HEATED TOBACCO PRODUCT AWARENESS, PERCEPTIONS AND USE AMONG RECENT FORMER AND CURRENT US TOBACCO USERS, 2021

Lindsey Sparrock[1], Lilianna Phan, PhD, MPH[2], Julia Chen-Sankey, PhD, MPH[3], Kiana Hacker[2], Aniruddh Ajith[4], Bambi Jewett[2], Kelvin Choi, PhD, MPH[2]

[1]American University, Takoma Park, MD; [2]National Institute on Minority Health and Health Disparities, Bethesda, MD; [3]Center for Tobacco Studies, School of Public Health, Newark, NJ; [4]University of Pittsburgh School of Medicine, Bethesda, MD

Background: Heated tobacco products (HTPs) are novel commercial tobacco devices that heat processed tobacco leaves to generate an aerosol for users to inhale. Data on awareness, perceptions, and use of these products among U.S. commercial tobacco users are limited.

Aims: To assess HTP-related awareness, perceptions, and use among U.S. adult commercial tobacco users, sociodemographic correlates of awareness and use, and how HTP-related perceptions varied by use status.

Methods: Data from a nationally representative sample of 1,700 U.S. adult (age > 21 years) recent former and current commercial tobacco users, were collected during January-February 2021. Participants reported their HTP awareness, perceptions, and use status (susceptibility, ever use, current use), as well as current tobacco product use and sociodemographics. We used weighted multinominal logistic regression models to explore the associations between sociodemographics and HTP awareness and use, and used weighted multinomial regression models to examine the associations between HTP-perceptions and HTP use statuses.

Results: Overall, 23.6% of U.S. adult recent former and current tobacco users had ever heard, 8.9% had ever used, and 3.0% were currently using HTPs. Younger individuals (vs. 61+ years), those with annual income $50,000+ (vs. < $50,000), and those who currently use electronic vaping products (vs. nonusers) were more likely to have heard and ever used HTPs, and report currently using HTPs ($p < 0.05$). Additionally, Black individuals (vs. White individuals) were more likely to report ever and current HTP use (AOR = 2.38 and 3.40, respectively; $p < 0.05$). When examining the associations between HTP-related perceptions and HTP use statuses, we found that, compared to those who were non-susceptible to HTP use, individuals who held HTP-favorable perceptions (e.g., HTP is less harmful than cigarettes and electronic vaping products; HTPs do not harm bystanders) were more likely to be susceptible to using, having ever used, and currently using HTPs ($p < 0.05$).

Conclusion: Sociodemographics associated with HTP use are reflective of the tobacco industry's HTP target marketing strategies. However, current cigarette use was not associated with HTP use, which implied that HTPs are unlikely substitutes for cigarettes. Additionally, addressing favorable HTP-related perceptions may prevent commercial tobacco users from co-use of HTPs and other tobacco products.

CORRESPONDING AUTHOR: Lindsey Sparrock, American University, Takoma Park, MD; ls3186a@american.edu

Abstract citation ID: kaad011.0685

POSTER SESSION C: THEORETICAL COMPONENTS OF SMOKING CESSATION INTERVENTION FOR PERSONS WITH PHYSICAL DISABILITIES: A SCOPING REVIEW

Kelsey Wuerstl, MSc[1], Sarah Lawrason, PhD[1], Kendra Todd, PhD[1], Alanna Shwed, MSc[2], Ben Holmes[1], Heather Gainforth, PhD[3]

[1]University of British Columbia Okanagan, Kelowna, BC, Canada; [2]The University of British Columbia Okanagan, Kelowna, BC, Canada; [3]The Univeristy of British Columbia Okanagan, Kelowna, BC, Canada

Rationale: Persons with physical disabilities report higher cigarette smoking rates and a lower likelihood of accessing health services (e.g., smoking cessation services). Explicit and systematic application of behaviour change theory may be a promising approach to addressing these inequities and developing impactful smoking cessation interventions for persons with physical disabilities.

Objective: This scoping review aimed to explore how behaviour change theory and intervention components have been used to design smoking cessation interventions for persons with physical disabilities.

Methods: Electronic databases (Medline, Embase, PsycINFO, CINAHL, Web of Science) were systematically searched. Smoking cessation interventions for persons with physical disabilities were identified. Behaviour change theory and intervention components, including behaviour change techniques, intervention functions, mode of delivery, intervention source, and setting, were extracted from the included articles.

Results: Among the nine included articles, there were seven unique smoking cessation interventions for persons with physical disabilities. Two interventions mentioned theory, but neither of these articles explicitly applied or tested the theory. Intervention components were consistently combined to deliver pharmacotherapy and behavioural counselling-based interventions.

Conclusion: The results of this review highlight the scarcity of theory-based smoking cessation interventions for persons with physical disabilities. While the interventions were not theory-based, they were evidence-based and aligned with best practices for smoking cessation treatment (i.e., behavioural counselling plus pharmacotherapy). Future research should take a theory-based approach to intervention development to enhance the likelihood that smoking cessation interventions for persons with physical disabilities are effective, replicable, and equitable.

CORRESPONDING AUTHOR: Kelsey Wuerstl, MSc, University of British Columbia Okanagan, Kelowna, BC, Canada; kelsey.wuerstl@ubc.ca

---

Abstract citation ID: kaad011.0686

POSTER SESSION C: PROGRESSION TO INITIATION OF E-CIGARETTES AND COMBUSTIBLE TOBACCO PRODUCTS AMONG ADOLESCENT AND YOUNG ADULT BLUNT USERS

Jennifer M. Kreslake, PhD, MPH[1], Sarah Mills, BA[2], Hope Muller, MSc[1], Anna Kostygina, MA, PhD[3], Sherry Emery, MBA, PhD[3], Elizabeth C. Hair, PhD[1]

[1]Truth Initiative, Washington, DC; [2]Truth Initiative, Washington DC, DC; [3]NORC, Chicago, IL

Background: Little cigars and cigarillos (LCCs) are frequently portrayed by social media influencers as devices used to smoke marijuana (“blunts”). Blunt users may not consider themselves to be tobacco or nicotine users nor understand they are exposed to nicotine through the use of the LCC as a blunt wrapper. The goal of this research is to determine whether adolescent and young adult blunt users who are otherwise nicotine-naïve are more likely to initiate other tobacco products over time compared to those who have never used blunts.

Methods: Data were from the Truth Longitudinal Cohort (TLC), a national probability-based sample of youth and young adults (aged 15-24 years). Data were collected from over three waves (Wave 1: February-May 2018; Wave 2: February-May 2019; Wave 3: September-December 2019). The sample was restricted to those who were nicotine naïve at baseline with the exception of ever use of blunts (N=4,594). Logistic regression analyses were conducted to determine whether ever blunts use predicted initiation of tobacco or nicotine products by the final wave of data collection. This study controlled for age, gender, race/ethnicity, sensation seeking tendencies, mental health, and perceived financial situation.

Results: Over the study period, 10.5% of the sample (n=483) reported ever using a blunt. Two-thirds (64.6%) of current blunts users at the final wave reported that they were not current LCC or cigar users, despite the fact that blunts are constructed using an LCC. Those who had ever used a blunt at baseline were significantly more likely to initiate every type of tobacco or nicotine product by the final wave of data collection, compared to respondents who had not used blunts at baseline: increased odds were observed for cigarettes (OR: 1.83, (95% CI: 1.36-2.45, p=0.041) cigars (OR: 2.81, 95% CI: 2.14-3.69, p< 0.001); and e-cigarettes (OR: 2.60, 95% CI: 2.11-3.19, p< 0.001).

Discussion: Blunt use among youth and young adults poses a significant risk of later initiation of cigarettes, cigars, and e-cigarettes. A majority of current blunt users do not consider themselves to be cigar users. The results of this study have implications for health communication and surveillance of LCC marketing approaches, particularly over social media.

CORRESPONDING AUTHOR: Jennifer M. Kreslake, PhD, MPH, Truth Initiative, Washington, DC; jkreslake@truthinitiative.org

Abstract citation ID: kaad011.0687

POSTER SESSION C: E-CIGARETTE SENSORY ATTRIBUTES AND PRODUCT APPEAL: THE INTERACTIVE ROLE OF GENDER AND EATING DISORDER SYMPTOMS

Tyler B. Mason, PhD[1], Alayna Tackett, PhD[1], Raina Pang, PhD[1], Adam M. Leventhal, PhD[1]

[1]University of Southern California, LOS ANGELES, CA

Introduction: E-cigarettes have increased dramatically in the past decade in both men and women. As such, it is of paramount importance to understand differential drivers of e-cigarette appeal for both men and women. Sensory experiences have been shown to impact e-cigarette appeal differently for men and women. Furthermore, eating disorders are a salient psychiatric factor associated with risk for e-cigarette use, but the relationships between eating disorder symptoms and e-cigarette appeal and how this differs by gender has not been tested. The current study examined how eating disorder symptoms (i.e., binge eating, body dissatisfaction, purging) influenced the association of sensory attribute ratings (i.e., sweet, smooth, bitter, and harsh) of e-cigarettes and their respective product appeal by gender.

Method: Male (n=97) and female (n=94) adult tobacco product users (e-cigarettes and/or combustible cigarettes) completed product appeal testing. Participants self-administrated 8-40 standardized doses of different e-cigarette products varying in flavor, nicotine, device power, and other factors. After each administration, they rated the products' sensory attributes and appeal (liking, willingness to use again). Multilevel models examined three-way interactions of gender, eating disorder symptoms, and sensory attributes with appeal ratings, using intensive longitudinal analysis that partitioned between-subjects variance (person-specific; reflective of individual differences one's ratings averaged across all products) from within-subjects variance (product-specific; deviation from one's average rating for a specific product).

Results: There were several three-way interactions between gender, eating disorder symptoms, and within-subjects sensory ratings on e-cigarette appeal. Lower sweetness ratings reduced appeal more strongly among women with elevated binge eating and body dissatisfaction while higher sweetness ratings increased appeal more strongly among women with elevated purging. Higher smoothness ratings increased appeal more strongly among women with elevated body dissatisfaction, and higher bitterness and harshness ratings reduced appeal more strongly among women with elevated body dissatisfaction. Eating disorder symptoms did not moderate the association of sensory attributes and appeal in men.

Discussion: The aversive properties of e-cigarettes reduce e-cigarette appeal more strongly among women with elevated eating disorder symptoms. Regulatory restrictions narrowing the market to primarily e-cigarettes with harsh or bitter qualities may deter women with eating disorder symptoms from use of e-cigarettes.

CORRESPONDING AUTHOR: Tyler B. Mason, PhD, University of Southern California, LOS ANGELES, CA; tylermas@usc.edu

---

Abstract citation ID: kaad011.0688

POSTER SESSION C: "I DON'T FEEL LIKE MYSELF ANYMORE:" EXPLORATION OF REASONS FOR QUITTING VAPING AMONG TREATMENT-SEEKING YOUNG PEOPLE OVER TIME

Sarah Cha, MSPH[1], Giselle Edwards, MHS[1], Michael S. Amato, PhD[1], Megan A. Jacobs, MPH[1], Amanda L. Graham, PhD[1]

[1]Truth Initiative, Washington, DC

Introduction: The landscape of e-cigarette availability, policies, and norms around use and cessation has changed rapidly in the last few years. These changes have included an increase in interest in quitting vaping among youth and young adults. This is Quitting (TIQ) is a free, text message vaping cessation program for 13–24-year-olds. A previous analysis examined user-submitted reasons for quitting among young people who enrolled in TIQ in 2019. This analysis investigates user-submitted reasons for quitting from 2022 to determine whether motivations for quitting vaping have shifted from 2019 to 2022.

Method: Early in the program, TIQ users are asked to text back their reasons for quitting. We randomly selected 200 responses for analysis among users who enrolled between Jan-Jun, 2022. Each response was coded by at least 2 researchers using the structured coding guide developed during our previous analysis. The coding guide encompassed 15 themes, including 4 sub-categories for health.

Results: Of the 200 submissions from 2022, the most frequently mentioned reasons for quitting were health (57.0%), social influence (13.5%), other (11.5%), cost (9.5%) and freedom from addiction (9.0%). In comparison to the previous analysis, the top reasons are similar , but the prevalence of themes has changed, with cost decreasing (21.7% to 9.5%) and "other" increasing (7.7% to 11.5%). Examples of reasons coded as "other" include: "I don't feel like myself anymore," "self disappointment," and "To be better all around." Among four health sub-categories (current, future, general, mental health), increases in prevalence were noted for current health (13.3% to 21.5%) and mental health (2.0% to 8.0%) compared to 2019 submissions.

Conclusions: The reasons for quitting vaping among young people have shifted over the past 3 years. We observed greater concern about current health status and mental health, possibly from experiencing negative impacts from vaping. The lower prevalence of posts noting cost as a reason for quitting may reflect the widespread availability of lower-cost disposable e-cigarettes than had been available in 2019. Higher endorsement of the "other" category may also indicate that additional categories may need to be added to accurately capture users' reasons for quitting, such as "Identity" or general "self-improvement." Shifts in motivations for quitting vaping likely change with the fluctuating e-cigarette landscape and may have implications for cessation interventions and promotional campaigns.

CORRESPONDING AUTHOR: Sarah Cha, MSPH, Truth Initiative, Washington, DC; scha@truthinitiative.org

Abstract citation ID: kaad011.0689

POSTER SESSION C: SWITCHING AWAY FROM CIGARETTES ACROSS 24 MONTHS AMONG US ADULT SMOKERS WHO PURCHASED THE JUUL SYSTEM

Nicholas I. Goldenson, PhD[1], Saul Shiffman, PhD[2], Erik Augustson, PhD[1], Gem M. Le, PhD[1], Ryan A. Black, PhD[1]

[1]Juul Labs, Inc., Washington, DC; [2]PinneyAssociates, Pittsburgh, PA

Objectives: Evidence strongly suggests that electronic nicotine delivery systems (ENDS), while not without risk, are less harmful than combustible cigarettes. Accordingly, adult cigarette smokers who switch to ENDS likely benefit their individual health, and widespread complete switching can positively benefit population health. Rates of switching away from combustible cigarettes (i.e., past 30-day abstinence from cigarette smoking) among US adult smokers who purchased the JUUL System were previously reported up to 12 months between 2018-2020. The present analysis extends this to examine switch rates out to 24 months in groups of adult established smokers with a range of smoking characteristics and histories.

Methods: Adult (≥21 years) current established smokers (smoked within the past 30 days at baseline, smoked ≥100 cigarettes in their lifetime and currently smoking 'some days' or 'every day') were recruited into the Adult JUUL Switching and Smoking Trajectories (ADJUSST) Study following their first purchase of a JUUL Starter Kit. Past 30-day switching (yes/no) was assessed via online surveys at 6 follow-ups up to 12 months, with additional follow-ups at months 15, 18, 21, and 24. Past 30-day switching across the second year after purchase (months 12 to 24) was calculated in the total sample (N=17,986 at baseline) and in six subgroups of smokers defined by baseline smoking frequency and duration: (1) Infrequent Short-Term Smokers; (2) Infrequent Long-Term Smokers; (3) Frequent Short-Term Smokers; (4) Frequent Long-Term Smokers; (5) Daily Short-Term Smokers; and (6) Daily Long-Term Smokers.

Results: In the total sample of established smokers rates of past 30-day switching away from cigarettes increased across the second year after JUUL purchase: 12-month (51.2%), 15-month (52.6%), 18-month (55.8%), 21-month (57.7%) and 24-month (58.6%). Rates of switching varied by smoking subgroup: at the 24-month assessment switch rates ranged from 68.8% among infrequent short-term smokers to 49.7% among daily long-term smokers.

Conclusions: Switch rates among adult smokers were maintained and, indeed, continued to increase across the second year after a JUUL purchase. Higher switch rates were observed among less frequent and shorter-term smokers, but even daily long-term smokers reported switch rates approximating 50% two years after first purchasing JUUL. A substantial proportion of adult smokers, including long-term daily smokers, who purchase JUUL subsequently switch away from combustible cigarettes. Smokers with more extensive histories of smoking may require more time to achieve complete switching.

Disclosure: This study and analyses were supported by Juul Labs, Inc.

Authors NIG, RAB, EMA and GML are full-time employees of Juul labs, Inc.

Through PinneyAssociates, author SS provides consulting services on tobacco harm reduction on an exclusive basis to Juul Labs, Inc.

CORRESPONDING AUTHOR: Nicholas I. Goldenson, PhD, Juul Labs, Inc., Washington, DC; nicholas.goldenson@juul.com

---

Abstract citation ID: kaad011.0690

POSTER SESSION C: AFRICAN AMERICAN VETERAN PERSPECTIVES ON ACCESSING TOBACCO CESSATION TREATMENT

Darius B. Dawson, PhD[1], Briana Johnson, BS[2], Jessica Y. Breland, PhD[3], Patricia Chen, PhD[1], Terri L. Fletcher, PhD[4]

[1]Baylor College of Medicine/Houston VA, Houston, TX; [2]MEDVAMC, Katy, TX; [3]VA Palo Alto, Menlo Park, CA; [4]Michael E. DeBakey VA Medical Center, Friendswood, TX

Nearly 16% of African American Veterans smoke cigarettes compared to approximately 12% of White Veterans and 11% of Hispanic Veterans. Unfortunately, African American Veterans are less likely to use evidence-based tobacco cessation treatment than White Veterans, despite higher use of tobacco. However, few studies examine African American Veteran perspectives on accessing tobacco cessation treatment in the Veterans Health Administration (VHA). We aimed to understand barriers and facilitators in accessing tobacco cessation treatment in VHA among African American Veterans. We recruited 30 African American Veteran primary care patients currently using tobacco to participate in semi-structured interviews (15 using nicotine replacement therapy, 15 rural veterans). Interviews elicited perspectives on tobacco cessation treatment options in VHA and African American cultural factors impacting treatment. We performed a directed content analysis to analyze interviews. Four categories emerged: *Low Awareness of Treatment Options*: Veterans described low awareness of behavioral and telehealth treatment options. However, once treatments were described to them, they expressed high desire to participate. *Treatment Barriers:* Veterans described stigma of mental health treatment, low self-efficacy in navigating VHA treatment options and system structure, transportation to and from facilities, limited behavioral treatment offerings, and competing treatment demands as barriers in accessing tobacco cessation treatment. *Treatment Facilitators:* Veterans described diligent providers, follow up contact from VHA staff and providers, and deteriorating health that was complicated by tobacco use as factors facilitating treatment. *Treatment Initiation Strategies:* Veterans suggested use of African American-specific advertisement within and outside VHA, involvement of peer support specialists and African American community leaders in tobacco cessation treatment, greater focus on tobacco use prevention, more individual behavioral treatment options, integration of discussions of culture prior to and during tobacco cessation treatment, and greater dissemination of telehealth information as strategies to increase treatment use. Findings indicate that African American Veterans who use tobacco show low awareness of treatment options and are limited by cultural and structural barriers such as stigma, transportation, and difficulty navigating the VHA system when accessing treatment. African American population-specific treatment options along with wider variety of culturally specific outreach attempts may increase access for African American Veterans. Results from this study highlight greater understanding of African American perspectives on tobacco cessation treatment, which has been understudied.

CORRESPONDING AUTHOR: Darius B. Dawson, PhD, Baylor College of Medicine/Houston VA, Houston, TX; dariusd@bcm.edu

Abstract citation ID: kaad011.0691

POSTER SESSION C: ASSESSING HOW YOUNG ADULTS CHARACTERIZE THE E-CIGARETTE & CIGARETTE INDUSTRIES: MEASUREMENT & COMMUNICATION CONSIDERATIONS

Lilianna Phan, PhD, MPH[1], Lindsey Sparrock, BS[2], Kelvin Choi, PhD, MPH[1]

[1]National Institute on Minority Health and Health Disparities, Bethesda, MD; [2]American University, Takoma Park, MD

Background: U.S. young adults have the highest prevalence of electronic cigarette (e-cigarette) use. Cigarette smoking prevention efforts have shown that exposing cigarette industry practices and creating negative attitudes toward the cigarette industry is one effective approach to help prevent smoking. Given that many e-cigarette brands are owned by cigarette companies, emphasizing the connection between the industries in e-cigarette health communication may help prevent e-cigarette use. However, it is unclear "who" comes to mind when naming the e-cigarette and cigarette industries, and whether there is awareness about the overlap between the two industries. This is important to precisely communicate to millennial and generation Z young adults and ensure there is a common understanding of these terms.

Methods: Data were from a U.S. sample of n=664 tobacco naïve young adults, ages 18-30 years old, susceptible to e-cigarette use collected through an online panel from August-November 2021. Participants were asked to respond to two open-ended questions about who comes to mind when they think of the "electronic vaping industry" and "cigarette industry", respectively. Qualitative responses were coded into emergent categories and subthemes within each category.

Results: More than half (53.0% e-cigarette and 66.0% cigarette industry questions) of participants named specific brands/companies corresponding to the industry identified in the question; about 75.0% and 83.0% named e-cigarette and cigarette brands/companies, respectively. There was < 10.0% overlap in naming brands/companies from the other industry. About a quarter of the sample also named groups of people who may use the product (24.0% e-cigarette and 20.1% cigarette industry questions). Of which, the majority named young people (32.0%) and their peers/friends (19.9%) for e-cigarette use, while older people (19.9%) and family members were named for cigarette smoking. Additionally, 4.8% of the sample responded with perceptions of the cigarette industry, with 76.6% being unfavorable perceptions.

Conclusions: Although many sampled young adults can decipher e-cigarette and cigarette brands/companies, there may be important utility in clearly defining these "industries" and their connection, which may reduce beliefs evoked about those who use these products. Young adults may also perceive the cigarette industry negatively, while attitudes about the e-cigarette industry may not have yet formed.

CORRESPONDING AUTHOR: Lilianna Phan, PhD, MPH, National Institute on Minority Health and Health Disparities, Bethesda, MD; lilianna.phan@nih.gov

---

Abstract citation ID: kaad011.0692

POSTER SESSION C: SUPPORTING FORMER SMOKERS TO STAY SMOKE-FREE: INSIGHTS FROM PARTICIPANTS OF A FAMILY-BASED THIRDHAND SMOKE INTERVENTION

Carmen Ma, BS[1], Weeko Vang, BS[1], Edgar P. Yu, BS[1], Junlin Chen, MPH[1], Ching Wong, BS[1], Joyce Cheng, MS[2], Peyton Jacob, PhD[1], Janice Y. Tsoh, PhD[1]

[1]University of California, San Francisco, San Francisco, CA; [2]Chinese Community Health Resource Center (CCHRC), San Francisco, CA

Background: Thirdhand smoke (THS) is chemical residue containing toxic contaminants from secondhand smoke that remains on many surfaces such as clothes, furniture, and walls, which accumulates on surfaces over time. THS poses health risks for smokers and non-smoking family members. Awareness and knowledge about THS and its toxicity may support motivation to remain tobacco-free among former smokers. Our team conducted a single-arm pilot study to investigate the feasibility of a family-based THS education and cleaning intervention with 30 dyads of Chinese former smokers and non-smoking family members.

Objective: This study explored impacts of a family-based THS education and cleaning intervention on former smokers' motivation to maintain smoking abstinence from the perspectives of participants who received the intervention.

Methods: Data source was transcripts from four focus group interviews conducted in Cantonese Chinese at 3 months post-intervention, which consisted of groups of former smokers only (n=5), non-smoking family members only (n=4), three smoker-family dyads (n=6), and lay health workers only (LHWs) (n=3) who delivered the education intervention. Non-smoking family participants and LHWs were female, and all former smokers were male who had stopped smoking within 24 months prior to study enrollment. All, except for one participant, had limited English proficiency. Interviews were transcribed and translated into English and inductively coded by two independent coders with data organized on Dedoose. Data were thematically analyzed.

Results: Focus group interview data revealed various impacts this THS education intervention had on former smokers. Emerging themes included: 1) gaining knowledge and awareness about THS, 2) sharing new knowledge about THS with their friends, 3) enhancing collaboration between former smokers and their spouses by incorporating new cleaning methods together, and 4) increasing determination to remain smoke-free.

Conclusion: A family-based THS education and cleaning intervention is promising to support former smokers to maintain smoking abstinence through providing new THS knowledge, engaging both former smokers and their family members in THS remediation or cleaning efforts, and motivating former smokers to share new knowledge with others. Findings additionally highlight the importance of leveraging and enhancing family support for former smokers to stay tobacco-free.

CORRESPONDING AUTHOR: Carmen Ma, BS, University of California, San Francisco, San Francisco, CA; carmen.ma@ucsf.edu

Abstract citation ID: kaad011.0693

POSTER SESSION C: THE COMPREHENSIVENESS POLICY SCORE ON PROVIDING REFRIGERATORS FOR EXPRESSED BREAST MILK AT PUBLIC UNIVERSITIES

Kalila Houston[1], Wyconda Cotton-Curtis, MPH[2], Zakariah Robinson[2], Christopher Rogers, PhD, MPH[2], Kacie Blackman, PhD[2]

[1]California State University, Northridge, Los Angeles, CA; [2]California State University, Northridge, Northridge, CA

The number of lactating students is increasing and ignored demographically on college campuses. It is a students right to breastfeed or formula feed their child, and the students academic institution should accommodate both situations. California Assembly Bill 2785 requires an educational institution to provide lactation accommodations to express, store milk, and address other needs related to breastfeeding. This study aims to determine if breast milk storage resources affect the comprehensiveness of lactation accommodation policies in 4-year public universities in California. We created a lactation accommodation coding tool and key data system evaluating all CSUs and UCs University Systems. Lactation policies were reviewed via a lab-designed policy audit tool. The lactation policies were assessed (yes 1/no 0). Refrigerator storage for breastmilk resources was measured across all 29 institutions. The inclusion criterion was that the institution had to have a policy that was publicly accessible or the institution provide the Title IX or Human Resource Coordinator upon request. Descriptive statistics and an independent t-test were used to analyze the data. When comparing the comprehensiveness score of schools that do not provide a refrigerator (mean=20.29), to the schools that did provide a refrigerator (mean=26.69) they are significantly higher ($t=4.060$, $p< 0.05$). There is a significantly positive relationship between refrigerators for breast milk in schools and the comprehensiveness of the schools lactation policy. Lactating students need to be supported in order to reach their academic goals and providing accommodations for the storage of breast milk and other lactating needs on campus will improve the mother and child's health, well-being, and success.

CORRESPONDING AUTHOR: Kalila Houston, California State University, Northridge, Los Angeles, CA; kalila.houston.635@my.csun.edu

---

Abstract citation ID: kaad011.0694

POSTER SESSION C: APPLICATION OF THE MOST FRAMEWORK TO ADDRESS PELVIC FLOOR DYSFUNCTION IN RURAL POSTPARTUM MOTHERS: THE PREPARATION PHASE

Kailey Snyder, PhD, MS[1], Julie Peterson, DPT[2], Kari Bargstadt-wilson, MPT[2]

[1]University of Nebraska Medical Center, Omaha, NE; [2]Creighton University, Omaha, NE

Background: One in four women suffer from pelvic floor disorders during their lifetime. This is of particular concern during the perinatal period as the risk for pelvic floor dysfunction increases with every childbirth. Further, women in rural areas experience additional barriers due to geographic access to pelvic healthcare providers. More education-based interventions are needed to improve pelvic health self-management among rural postpartum women. The multiphase optimization strategy (MOST) framework allows the development of such interventions to take place in three phases: preparation, optimization, and evaluation.

Purpose: The purpose of this study was to complete the preparation phase of the MOST framework via a multi-method needs assessment and pilot testing of intervention components.

Methods: All preparation phase investigations took place with postpartum mothers residing in rural communities (< 50,000 residents). The two-step needs assessment included an electronic survey (n=364) and 25 interviews guided by the Theory of Planned Behavior. Upon the completed needs assessments, intervention component testing (n=25) included a pelvic healthcare webinar, a supplemental webinar on pelvic health's relationship to mental health, weekly text messages for 8 weeks with pelvic healthcare tips, a one-time virtual consultation with a women's health physical therapist and an educational brochure. Factors such as component fidelity, reach, dose delivered/dose received and participation satisfaction were measured.

Results: Survey findings identified limited pelvic health knowledge and self-reported moderate symptoms of dysfunction via the PFDI-20 scale. Interview findings established women's views are influenced by family/friends and online sources however these are deemed insufficient. Furthermore, women reported limited pelvic health knowledge and desire more education from primary care providers. The intervention component testing determined text messages, the supplemental webinar and the informational handout were limited in their reach and participant satisfaction however the webinar and the personal consultations with a physical therapist were well-received and may produce knowledge change.

Conclusion: The next step of this study (optimization) is to adapt intervention materials based on participant feedback. The updated intervention components will be tested in a full-scale factorial design to determine the influence the intervention components can have on maternal knowledge, self-efficacy and self-management related to pelvic health.

CORRESPONDING AUTHOR: Kailey Snyder, PhD, MS, University of Nebraska Medical Center, Omaha, NE; kasnyder@unmc.edu

Abstract citation ID: kaad011.0695

POSTER SESSION C: STRESS MODERATES THE ASSOCIATION BETWEEN PRECONCEPTION EMOTION DYSREGULATION AND PAIN AT 6-MONTHS POSTPARTUM IN BLACK WOMEN

Kelsey Magee, PhD[1], Christine C. Call, PhD[2], Kate Keenan, PhD[3], Michele D. Levine, PhD[1], Alison Hipwell, PhD, ClinPsyD[1]

[1]University of Pittsburgh, Pittsburgh, PA; [2]University of Pittsburgh, Sewickley, PA; [3]University of Chicago, Chicago, IL

Background: Pain during the postpartum period is common and associated with adverse effects on well-being and quality of life. Emotion dysregulation is a risk factor for the development of pain and is related to difficulty managing emotional responses to stressors. Understanding preconception risk factors for postpartum pain can help identify individuals who may benefit from interventions to support postpartum health. Using data from a peripartum substudy of the Pittsburgh Girls Study (PGS), we examined the moderating effect of stressors on the association between preconception emotion dysregulation and pain at 6-months postpartum.

Methods: Participants were Black women (N = 131) enrolled in the peripartum substudy of the PGS and who had completed the following measures prior to pregnancy, at age 21 years: (1) the Difficult Life Circumstances scale to evaluate negative stressors, (2) two subscales of the Difficulties in Emotion Regulation Scale (lack of emotional awareness and limited access to emotion regulation strategies). Depression scores from the Adult Self-Report Inventory were included as covariates. At 6-months postpartum, participants completed the Pain Interference item from the PROMIS Global-10, for which participants rated their average pain on a scale from 0-10 (0 = "no pain", 10 = "worst pain imaginable").

Results: The results of moderation analyses, conducted using the SPSS PROCESS Macro (Hayes, 2022), showed that the association between limited access to emotion regulation strategies prior to conception and postpartum pain was moderated by preconception stress exposure (B = .046, 95% CI [.017 - .074], t = 3.20, p < .01). Tests of simple slopes indicated that limited access to emotion regulation strategies was positively associated with postpartum pain at high levels of stress exposure (+1 SD; B = .162, 95% CI [.078 - .246], t = 3.82, p < .001), but not at low levels. Stressful context did not moderate the association between lack of emotional awareness and postpartum pain.

Discussion: Results indicate that preconception emotion dysregulation, and limited access to emotion regulation strategies specifically, is a risk factor for postpartum pain in the presence of negative stressors. Thus, encouraging the use of emotion regulation strategies prior to conception has the potential to positively impact postpartum health in Black women.

CORRESPONDING AUTHOR: Kelsey Magee, PhD, University of Pittsburgh, Pittsburgh, PA; mageeke4@upmc.edu

---

Abstract citation ID: kaad011.0696

POSTER SESSION C: WOMEN'S EXPERIENCES WITH MOBILE APPLICATIONS FOR SELF-MONITORING OF PHYSICAL ACTIVITY AND THE MENSTRUAL CYCLE

Gabrielle M. Salvatore, PhD[1], Danielle Arigo, PhD[2]

[1]Clinical Health and Social Experiences (CHASE) Lab, Department of Psychology, Rowan University, Turnersville, NJ; [2]Rowan University, Glassboro, NJ

Across the lifespan, women are less likely than men to achieve recommended levels of physical activity (PA), and their physiological and psychological experiences of PA align with fluctuating experiences across the menstrual cycle (MC). Negative MC experiences such as pain may interfere with PA engagement, though they are rarely studied; traditional female gender roles and associated perceptions of the MC (e.g., that it is not an acceptable topic for disclosure or an acceptable "excuse" for low PA) create barriers to understanding the role of the MC in women's PA. Mobile applications (apps) may offer a solution by capturing time-sensitive data on MC experiences and PA in the natural environment (i.e., without interpersonal disclosure). However, a recent United States Supreme Court decision that allows states to restrict access to women's reproductive healthcare raises concerns about the use of MC apps in research, as resulting data can be used to prosecute women for accessing certain procedures (e.g., abortion care). The present study was designed to explore women's experiences with mobile apps for self-monitoring health experiences such as the MC and PA, to examine whether women in the U.S. are willing to use these apps as part of research studies in the current cultural and legal context. A total of 110 women living in the US completed an anonymous survey during the 8 weeks following the court decision (M_{Age} = 31.8, M_{BMI} = 26.3 kg/m^2, 73.6% White, 71.8% premenopausal). A large subset of respondents reported experience using an MC tracking app; 46% were using an MC tracking app at the time of data collection, while 20% had used such an app in the past. The majority of respondents who previously tracked their MC with an app (80%) did not disclose when MC app use ceased. Over one-third of respondents (37.6%) reported reconsideration of using MC tracking apps as a result of current events in the US, 29% preferred a method of MC tracking for research that did not include an app, and 40.9% reported that they are *not* willing to participate in research that involves daily tracking of the MC. In addition, a majority of respondents (62.7%) reported using a PA tracking tool and 30% reported using apps to track other aspects of their health (e.g., calorie intake, sleep, hydration). Findings show that despite the popularity of digital self-monitoring, many menstruating women in the US have concerns about electronic MC tracking that could be used to establish a timeframe of pregnancy - including MC data collected in a research context. This situation limits the representativeness of samples in future studies and thereby impedes women's health research. To fully understand how experiences across the MC impact women's PA prior to menopause, additional information is needed to establish criteria and protections for use of health-related mobile apps in behavioral research.

CORRESPONDING AUTHOR: Gabrielle M. Salvatore, PhD, Clinical Health and Social Experiences (CHASE) Lab, Department of Psychology, Rowan University, Turnersville, NJ; salvatoreg@rowan.edu

Abstract citation ID: kaad011.0697

POSTER SESSION C: PRECONCEPTION HEALTH AMONG WOMEN OF REPRODUCTIVE AGE THROUGH THE LENS OF INTERSECTIONALITY: RESULTS FROM VIRGINIA PRAMS DATA

Shu-Fang Shih, PhD, MSc, MBA[1], Kenesha Smith Barber, MSPH, PhD[2], Amanda H. Ritter, MD[3]

[1]Virginia Commonwealth University, Richmond, VA; [2]Virginia Department of Health, Richmond, VA; [3]VCU Health/Department of Obstetrics and Gynecology, Richmond, VA

Background: Preconception health refers to the overall health of nonpregnant women during their reproductive years. Previous evidence has shown that preconception health is associated with birth outcomes and maternal health. Preconception health risks are more prevalent among women in racial and ethnic minorities. Studies have found significant disparities in preconception health risk factors between reproductive age women with and without disabilities. However, research examining how the intersection of disability and race or ethnicity impact preconception health among women of reproductive age is scare.

Methods: We used 2019-2020 Virginia Pregnancy Risk Assessment Monitoring System (PRAMS) data to analyze data among women ages 18-44 years (n=1,917). We examined eight pre-pregnancy prioritized preconception health indicators suggested by the National Preconception Health and Health Care Initiative's Surveillance and Research work group: include depression, diabetes, hypertension, cigarette smoking, normal weight, unintended pregnancy, multivitamin use, and alcohol use. Those who self-reported that they have either some difficulty, a lot of difficulty, or cannot do this at all for any of the six PRAMS disability questions (vision, hearing, walking or climbing steps, remembering or concentrating, self-care, and communication) were categorized as having disabilities. We regrouped the intersection variable into eight categories, including race and disability status in each. We also controlled for maternal age, education, marital status, household income, and insurance status in a multivariable logistic regression model. We used Stata 16 for all analyses.

Results: To our knowledge, this is the first study to examine preconception health of reproductive age women with disabilities by racial and ethnic groups using Virginia PRAMS data. Disparities varied by different preconception health indicators based on logistic regression models. Non-Hispanic White women with disabilities, non-Hispanic Black women with disabilities, and other races with disabilities were more likely to have depression before pregnancy compared to White women without disabilities. Moreover, Hispanics with disabilities were more likely to have diabetes than White women without disabilities. Non-Hispanic Black women with disabilities and Hispanic women with disabilities were more likely to have unintended pregnancies compared to White women without disabilities.

Conclusions: This study reveals that the intersection of disability and race or ethnicity has a significant impact on some preconception health indicators but not all of them. Future intervention programs targeting improved preconception health should recognize the differences in risks among intersection groups.

CORRESPONDING AUTHOR: Shu-Fang Shih, PhD, MSc, MBA, Virginia Commonwealth University, Richmond, VA; shihs2@vcu.edu

---

Abstract citation ID: kaad011.0698

POSTER SESSION C: INTEGRATING BEHAVIORAL MEDICINE IN THE CARE OF PATIENTS WITH ADVANCED CHRONIC KIDNEY DISEASE: A NEPHROPSYCHOLOGY MODEL

Chrisitna Pierpaoli Parker, PhD[1], GAURAV JAIN, MD[2], Kristina B. McMahan[3], Kristine Lokken, PhD[2]

[1]University of Alabama at Brimingham, Vestavia Hills, AL; [2]University of Alabama at Birmingham, Birmingham, AL; [3]University of Alabama at Birmingham, Decatur, AL

Background: Depressive and other psychiatric symptoms are highly prevalent among patients with end stage kidney disease (ESKD) and chronic kidney disease (CKD) and are associated with increased morbidity, mortality as well as reduced quality of life and adherence to dialysis in this population. Significant disparities and barriers exist in accessing cognitive behavioral treatment (CBT), including stigma, cost, socioeconomics and shortage of clinicians. Integrated mental health interventions have demonstrated effectiveness for managing the psychological and behavioral challenges of chronic conditions like cancer and diabetes but remain underutilized in patients with kidney disease. We provide preliminary analyses to describe an integrated behavioral medicine service in a nephrology clinic. Methods: A nephropsychology clinic was implemented at our large academic medical center in March 2021, modelled with a psychologist seeing patients in the nephrology clinic one half day a week. The psychologist works alongside nephrologists to provide assessment, consultation and brief-course CBT targeting the psychological and behavioral challenges of ESKD/CKD. As part of a quality improvement initiative to understand clinic usage, we performed descriptive analyses of demographic and clinical information on patients referred to this clinic.

Findings: The sample included 33 adults (76% female; 70% Black; 42% unmarried), ages 21 to 94 (M=54, SD=20), who attended 4 clinic visits on average, and reported 15 medical comorbidities (*range*: 1- 40, SD=9.50). 39.4% completed treatment, 18.2% remain active, 33% referred to long-term psychotherapy, and 9.1% were lost to follow up. The referral complaints (depressive) (78.80%), anxiety (42.40%), and adjustment (15.20%) symptoms mirrored diagnoses rendered following psychodiagnostic intake: Major Depressive Disorder (72.70%), Generalized Anxiety Disorder (39.40%), other (27.30 %), adjustment disorder (18.20%), and insomnia (6.1%). Baseline patient reported outcomes included subthreshold insomnia (M=11; SD=10.63) but moderately severe mood (M=12; SD=5.60) and anxiety (M=12; SD=5.59) symptoms.

Discussion: We describe feasibility for an integrated nephropsychology model to manage the psychiatric and behavioral challenges of ESKD/CKD. Results invite consideration for future mental health clinical developments and interventions for this patient population and outcomes investigations into this model's acceptability, efficacy, and effectiveness.

CORRESPONDING AUTHOR: Chrisitna Pierpaoli Parker, PhD, University of Alabama at Brimingham, Vestavia Hills, AL; cpierpaoli@uabmc.edu

Abstract citation ID: kaad011.0699

POSTER SESSION C: UTILIZATION OF HARM REDUCTION SERVICES AND THE INTENTION TO CUT DOWN CHEMSEX AMONG CLIENTS FROM AN INTEGRATED CHEMSEX CARE CLINIC

Yu-Ru Hung, BS[1], Tsan-Tse Chuang[2], Tsai-Wei Chen, BS[1], An-Chun Chung, MA[3], Nai-Ying Ko, PhD[4], Carol Strong, PhD[1]

[1]Department of Public Health, College of Medicine, National Cheng Kung University, Tainan, Taiwan, Tainan, Tainan, Taiwan (Republic of China); [2]Department of Public Health, National Cheng Kung University, Tainan City, Tainan, Taiwan (Republic of China); [3]Healing, Empowerment, Recovery of Chemsex Health Center, Kaohsiung, Kaohsiung, Taiwan (Republic of China); [4]Department of Nursing, National Cheng Kung University, Tainan City, Tainan, Taiwan (Republic of China)

Introduction: Concern on harm reduction strategies and sexual health interventions needed for gay, bisexual and other men who have sex with men (GBMSM) engaging in chemsex are getting popular, an intention to cut back or get back in control by the clients themselves is important for the service utilization. This study aims to understand the differences in chemsex-related service utilization in a sample of chemsex individuals visiting a sexual health clinic specializing in chemsex between those who have intention to cut down chemsex and those without.

Method: We used data collected from Healing, Empowerment, Recovery of Chemsex Health Center (HERO) in Taiwan from November 2017 to December 2021. Clients were asked to report two questions in the baseline survey to indicate their current and ideal proportion of sex life involving MDMA, ketamine, methamphetamine, GHB/GBL, or mephedrone on a visual analogue scale ranging from 0 to 100%. Having the intention to cut down chemsex was defined as having lower proportion of ideal engagement. Questionnaire responses were linked to clinical data recorded by HERO staff denoted service utilization at HERO followed up till December 2021. The univariable and multivariable of logistic regression and poisson analysis were performed.

Results: A total of 1215 GBMSM completed the questionnaire of whom 152 (12.5%) reported engaging in chemsex. 105 (69.1%) wanted to cut down chemsex. Among the 152 participants, 35 (23.0%) attended chemsex recovery group at HERO, 26 (17.1%) participated in mental health clinic and 16 (10.5%) used both services. In the multivariable logistic model, participants with intention to cut down chemsex (aOR = 3.09, p< .05), high frequency of substance use (aOR = 6.54, p< .01), and living with HIV (aOR = 3.01, p< .05) remained significantly associated with attending chemsex recovery group. Mental health service utilization was only significantly associated with intention to cut down chemsex (aOR = 4.45, p< .05) and living with HIV (aOR = 6.70, p< .001). The multivariable Poisson analysis showed factors including having intention to cut down chemsex (aRR = 2.37, p< .05), having high frequency of substance use (aRR = 2.10, p< .05), and living with HIV (aRR = 2.47, p< .01) remained significantly related to the number of services participants utilized.

Conclusion: Having intention to cut down chemsex at the baseline has an impact on chemsex-related service utilization. Comprehensive harm reduction strategies including mental health and drug use management or recovery are needed for those who want to cut down chemsex. Public health practitioners should raise the awareness of harm-reduction resources available for chemsex individuals and minimize their barriers for service utilization.

CORRESPONDING AUTHOR: Carol Strong, PhD, Department of Public Health, College of Medicine, National Cheng Kung University, Tainan, Taiwan, Tainan, Tainan, Taiwan (Republic of China); carol.chiajung@gmail.com

---

Abstract citation ID: kaad011.0700

POSTER SESSION C: DOES A MULTI-MODAL ADAPTIVE SUPPLEMENT BOOST EFFECTS OF A MINDFULNESS-BASED INTERVENTION?

Dan J. Graham, PhD[1], Rachel G. Lucas-Thompson, PhD[1], Mark A. Prince, PhD[1], Brock A. Rigsby, BA[1], Melanie Adams, MS[1], Reagan L. Miller, MS, MFTC[2], Addie Rzonca, BA[1], Jill T. Krause, MEd[3], Megan Moran, MS[4], Timothy F. Piehler, PhD[5], Nicole Morrell, MEd[6], Lauren Shomaker, PhD[1]

[1]Colorado State University, Fort Collins, CO; [2]Colorado State University, Loveland, CO; [3]Colorado State University, Denver, CO; [4]Colorado State University, for Collins, CO; [5]University of Minnesota, Saint Paul, MN; [6]University of Minnesota, St. Paul, MN

Mindfulness-based interventions (MBIs) are effective for improving mental and physical health (e.g., Dawson et al., 2020), but effects are typically small to moderate in size (e.g,. Ma et al., 2019). Outside of the MBI literature, there is evidence that incorporating supplements to traditional group interventions, including tailoring intervention content to people's current experiences (i.e., "just-in-time" interventions), increases intervention effectiveness (Smyth & Heron, 2016). However, there have been no empirical investigations of a just-in-time extension for MBIs. Our team designed a multi-modal, adaptive supplement (masked for review) to an evidence-based MBI, Learning to BREATHE (Broderick & Frank, 2014). In this study, we provide a preliminary examination of the extent to which this supplement boosts intervention effect sizes. We conducted a randomized controlled trial in college students, a demographic group at high-risk for mental health problems (e.g., Lipson et al., 2019). Participants were 62 university students who participated in the 6-week, group L2B and were also randomized to receive varying types of support between meeting sessions. Participants were randomized to receive, in addition the group MBI: a) daily messages providing reminders about intervention content, targeting motivation for practicing mindfulness, and targeting self-efficacy for establishing a mindfulness practice, b) just-in-time support during periods of high stress (identified through ecological momentary assessments), c) both, or d) neither. Participants reported intervention acceptability and facilitator quality; program staff recorded attendance. Also, before and after the group program, participants reported mindfulness, self-compassion, and mental health problems. We compared participants who received any support (conditions a-c) versus those who received none (condition d). Participants who received between-session support attended more sessions than those who did not receive support; there were trivial condition differences in ratings of acceptability or facilitator quality. In addition, results indicated that participants who received any support between sessions showed greater increases in mindfulness than participants who received no support. In addition, participants who received support displayed smaller increases in mental health problems. Although there were large increases in self-compassion overall, there were no condition differences in change in self-compassion. Also presented will be patterns of differences in outcomes based on the type of support provided (condition a, b, or c vs. d); they supported the value of including both support types. Together, the results suggest that incorporating a multi-modal adaptive supplement into an MBI can boost program effects without decreasing intervention acceptability.

CORRESPONDING AUTHOR: Dan J. Graham, PhD, Colorado State University, Fort Collins, CO; dan.graham@colostate.edu

Abstract citation ID: kaad011.0701

POSTER SESSION C: SEX DIFFERENCES IN REPRODUCTIVE CONCERNS FOR ADOLESCENT AND YOUNG ADULT (AYA) CANCER PATIENTS

Chiu Yi J. Tan, MSW[1], Daria Stelmak, BS[2], Nina Jackson Levin, MSW[1], Anao Zhang, PhD, LCSW[1], Bradley J. Zebrack, PhD, MSW, MPH[1]

[1]University of Michigan - Ann Arbor, Ann Arbor, MI; [2]University of Michigan Medical School, Ann Arbor, MI

Introduction: Adolescent and Young Adult cancer patients (AYAs) who are at risk for infertility after receiving cancer treatment are more likely to experience emotional distress. Female AYAs are likelier to experience depressive and grief symptoms associated with infertility. Additionally, male AYAs who initially forego fertility preservation (FP) have reported regret. While the timeframe to receive FP services prior to the initiation of therapy can be narrow, little has been done to explore the distinct reproductive concerns of AYA patients. The purpose of this study was to explore and differentiate the reproductive concerns of AYA female and male cancer patients.

Methods: Twenty-seven eligible AYA participants between the ages of 12-25 were recruited from adult and pediatric oncology units within an NCI-Designated Comprehensive Cancer Center. The mean age of enrolled participants were 19.1 years. 37% of them were female (n=10) and 63% were male (n=17). All participants completed a questionnaire and semi-structured interview, which were transcribed and deductively coded based on an existing reproductive concerns measure. Emergent, inductive themes related to reproductive concerns were also identified including 1) Differential temporality; 2) Acceptance and openness to alternatives; 3) Partner influence; 4) Parental influence.

Results: Male participants reported fewer reproductive concerns (M = 49.4, SD=9.6) in their survey compared to females (M=56.8, SD=8.4). Male AYAs were more likely to prioritize their current medical concerns compared to female AYAs, who shared more future-focused reproductive concerns. Male AYAs reported more acceptance characteristics than female AYAs. Male AYAs also expressed greater discomfort surrounding future partner disclosure regarding their fertility status. Lastly, female AYAs discussed experiencing more FP decision incongruency with their parents than male AYAs.

Conclusions: Even though there were similar reproductive concerns, there were also sex-specific reproductive concerns. Oncofertility service providers are advised to consider these sex-based characteristics when providing services and resources to AYAs and their parents. Future research is needed to further understand the unique reproductive concerns of all AYAs, including nonbinary and transgender AYAs, as well as to develop tailored resources and long-term follow-up services to address the reproductive concerns of AYAs.

CORRESPONDING AUTHOR: Chiu Yi J. Tan, MSW, University of Michigan - Ann Arbor, Ann Arbor, MI; joeytan@umich.edu

---

Abstract citation ID: kaad011.0702

POSTER SESSION C: FOOD IS FUN UNTIL AGE ONE! CONSTRUCT VALIDITY OF A SCALE TO MEASURE BABY-LED WEANING AS A COMPLEMENTARY FEEDING STYLE

Emma I. Studer-Perez, BS, MA[1], Dara Musher-Eizenman, PhD[1]

[1]Bowling Green State University, Bowling Green, OH

Baby-led weaning (BLW) is a child-centered approach to complementary feeding where a parent responds to an infants' cues as they explore a variety of foods and textures. Although BLW has increased in popularity and may play an important role in the early development of eating behaviors, limited empirical research has investigated the construct, and operationalization of BLW is not well established. As part of a previous study, a scale was created and validated to measure three aspects of BLW: independence, exploration, and family. To assess construct validity, this study examined the relationship between the independence, exploration, and family themes of BLW, infant feeding practices, and Ellyn Satter's Division of Responsibility scale. 149 parents, majority identified as female (67.8%), white/Caucasian (79.9%), middle class (55.7%), and completed a bachelor's degree (40.3%) participated via Cloud Research, an online platform that allows people to complete surveys for compensation. Pressuring and restrictive feeding practices were significantly negatively related to independence ($r=-.37$, $p < .001$; $r=-.36$, $p < .001$), exploration ($r=-.31$, $p < .001$; $r=-.28$, $p < .001$), and family ($r=-.33$, $p < .001$; $r=-.39$, $p < .001$), such that parents who practice less pressure and restriction in feeding, report a feeding style more congruent with the philosophy of BLW. In addition, responsive feeding was significantly positively related to the amount of independence given ($r=.20$, $p=.02$) and exploration ($r=.33$, $p < .001$) allowed during eating occasions. Finally, Ellyn Satter's Division of Responsibility scale was significantly positively related to the independence ($r=.48$, $p < .001$), exploration ($r=.43$, $p < .001$), and family ($r=.41$, $p < .001$) subscales of BLW such that as parents who more strongly endorse following a BLW philosophy for complementary feeding, report allowing the baby to decide what to eat and how much to eat during eating occasions. These results suggest that BLW is consistent with parents being responsive to their child during feedings. In addition, parents who follow a BLW philosophy do not try to control how much the child eats, they simply oversee where and when the food is eaten. These results allow researchers to better operationalize BLW as a complementary feeding style. Future research can examine the advantages of adopting this feeding style for child nutrition outcomes and eating behaviors.

CORRESPONDING AUTHOR: Emma I. Studer-Perez, BS, MA, Bowling Green State University, Bowling Green, OH; studere@bgsu.edu

Abstract citation ID: kaad011.0703

POSTER SESSION C: TO WHAT EXTENT ARE RACIAL/ETHNIC MINORITY INDIVIDUALS BEING STUDIED IN HEALTH PSYCHOLOGY?

Zara K. Khan, B.S.[1], Safia Bacchus, n/a[2], Tracey A. Revenson, PhD, FSBM[3]

[1]The Graduate Center, CUNY, New York, NY; [2]Hunter College, New York, NY; [3]Hunter College & the Graduate Center, CIty Univ of NY, New York, NY

Introduction: Behavioral medicine is an interdisciplinary field with the potential to reduce health inequities. But how diverse are the samples being studied? Can they achieve this goal? The primary aim of this study is to describe the racial/ethnic composition of study samples, specifically, the extent to which Black, Indigenous, and People of Color (BIPOC) are being reported in sample descriptions and analyzed to understand health-behavior relationships.

Methods: We used a bibliometric analysis to examine racial and ethnic representation in a sample of all articles published in the journal *Health Psychology* between 2013-2022. All publications were screened twice (abstract and full-text) for inclusion criteria (original research: regular-length articles and brief reports). Of the 962 articles (without duplicates) that met inclusion criteria, 25% were randomly selected within each year for analysis. U.S. Census categories were used to code for race and ethnicity.

Results: Of the 245 articles analyzed, over one-quarter (26.1%) did *not* report the sample's race or ethnicity. Of those that did, there was great variation in the percentage of BIPOC individuals in the sample (1%-80%), with 59.7% of articles having less than 25% of BIPOC individuals and 10.3% of articles having a sample that was half BIPOC. The sample in another 11.3% of the articles was composed completely of BIPOC individuals, often related to the specific illness being studied (e.g., cardiovascular disease). Despite the distinction between race and ethnicity, over half (57.3%) of the articles measured these constructs as a single (combined) variable. Of the 114 articles that used race and/or ethnicity in statistical analyses, half (51.8%) used a binary (white vs. non-white) distinction.

Discussion: These data show that, even over the past decade, a notable proportion of articles did not report - much less analyze- race and ethnicity, or merged all BIPOC participants into a single "non-White" group for analyses. These choices fail to capture social factors that affect health and illness. It is recommended that behavioral medicine scientists examine how race/ethnicity affects the processes being studied and that journal editors require authors to include a full racial/ethnic description of the sample in all manuscripts.

CORRESPONDING AUTHOR: Zara K. Khan, B.S., The Graduate Center, CUNY, New York, NY; zkhan1@gradcenter.cuny.edu

---

Abstract citation ID: kaad011.0704

POSTER SESSION C: CARDIAC SELF-EFFICACY IMPROVEMENT IN A DIGITAL HEALTH PILOT PROGRAM FOR HEART HEALTH

Kimberly G. Lockwood, PhD[1], Sarah A. Graham, PhD[2], Lisa A. Auster-Gussman, PhD[2], OraLee H. Branch, PhD[2]

[1]Lark Health, El Cerrito, CA; [2]Lark Health, Mountain View, CA

Introduction: Behavior change programs focused on leading a healthy lifestyle can play a critical role in preventing and managing cardiovascular disease risk. A key component of in-person behavior change programs is helping participants develop a sense of self-efficacy around managing their cardiovascular health. Indeed, higher cardiac self-efficacy is associated with better health behaviors and outcomes. Although the number of digital health programs for managing cardiovascular health has increased in recent years, researchers have not yet explored whether participation in these programs is associated with increased cardiac self-efficacy. This study examined changes in cardiac self-efficacy among individuals using a mobile app-based behavior change program for heart health.

Methods: Participants enrolled in a 90-day digital heart health pilot program, involving artificial intelligence (AI)-powered health coaching and educational lessons focused on behaviors that promote heart health. Participants completed the 9-item Cardiac Self-Efficacy (CSE) scale on Day 2 and Day 40 to assess changes in confidence in their ability to manage their heart health. We used paired samples t-tests to examine changes in the sum score and each of the nine items of the CSE.

Results: The sample included 272 participants who submitted a complete CSE at Day 2 and Day 40. Mean age was 59.22 years, 60.66% were female, mean baseline body mass index was 32.87 kg/m², and 68.38% of the sample identified as White. CSE score increased significantly by 12.93% (t = -9.22, p < .001) from Day 2 (M = 25.07) to Day 40 (M = 28.32). Mean score on each of the nine CSE items also increased significantly (ps < .001), with the greatest increases in confidence in *"knowing when to call or visit the doctor for your heart disease"* (17.01% increase; t = -7.90, p < .001), *"knowing how much physical activity is good for you"* (16.26% increase; t = -7.68, p < .001), and *"getting regular aerobic exercise"* (19.98% increase; t = -6.37, p < .001).

Discussion: These results indicate a significant improvement in cardiac self-efficacy after the first 40 days of participation in an AI-powered digital heart health pilot program. These findings suggest that digital health programs for cardiovascular health can lead to improvements in cardiac self-efficacy over a short period of time. Future work could examine these improvements in comparison with a control group and test whether improvements are sustained over time.

CORRESPONDING AUTHOR: Kimberly G. Lockwood, PhD, Lark Health, El Cerrito, CA; kimberly.lockwood@lark.com

Abstract citation ID: kaad011.0705

POSTER SESSION C: OBESOGENIC BEHAVIORS OF CHILDREN WITH AUTISM SPECTRUM DISORDER DURING SUMMER VERSUS SCHOOL MONTHS

Keith Brazendale, PhD, MSc[1], Jeanette Garcia, PhD[1], Susan Quelly, PhD, RN, CNE[1], Shawn Lawrence, PhD, LCSW[1], Shilpa Gurnurkar, MD[2], Ethan T. Hunt, PhD, MPH[3]

[1]University of Central Florida, Orlando, FL; [2]Nemours Children's Health, Orlando, FL; [3]The University of Texas Health Science Center at Houston, Austin, TX

Background: Childhood obesity presents significant health risks such as an increased risk for type 2 diabetes and other comorbidities. Children with autism spectrum disorders (ASD) are 42% more likely to be overweight or obese than neurotypical youth. Summer has been identified as a 'critical window', as studies show children experience significant weight gain during summer months compared to school months. The 'Structured Days Hypothesis' suggests this may be due to the less-structured nature of summer months, where obesogenic behaviors (activity, diet, sleep) can be negatively impacted, compared to school months. This may be especially true for children with ASD, as this population tends to prefer a more structured routine than neurotypical youth. The purpose of this study is to explore sleep, screen time, and diet of children with ASD during summer versus school months.

Methods: Parents of children with ASD who attended one of two local private clinics were invited to participate in this within-person repeated-measures study. Parents (N=16) completed a daily diary to report bed/wake times, daily diet via the Beverage and Snack Questionnaire, and daily screen time, including evening screen time after 8:00$_{\text{PM}}$ for 14 days during both school and summer months. Mixed-effect models and paired-sample t-tests compared differences in obesogenic behaviors during the school and summer months.

Results: Fourteen parents/guardians provided their child's summer and school data (71% boys, 50% non-Hispanic White, mean age 5.7 ±1.8 years, 36% Overweight/Obese). Parents/guardians reported their child engaged in +42 minutes of daily screen time (95% CI: 22.1, 62.5), and +11 minutes of screen time after 8:00$_{\text{PM}}$ (95%CI: 4.4, 17.1) on summer months versus school months. Parents/guardians reported their child went to bed ~30 minutes later, and woke up ~50 minutes later, on summer days compared to school month days. No statistically significant differences were observed for sleep duration or reported food and beverage consumption.

Discussion: Preliminary evidence suggests children with ASD engage in higher amounts of screen time and sleep schedules shift later during summer compared to school month days. To design and deliver effective obesity-related interventions in children with ASD, further research is warranted incorporating larger samples of children and additional measures of obesity-related behaviors and outcomes.

CORRESPONDING AUTHOR: Keith Brazendale, PhD, MSc, University of Central Florida, Orlando, FL; keith.brazendale@ucf.edu

---

Abstract citation ID: kaad011.0706

POSTER SESSION C: "I FELT LIKE A COW IN A SLAUGHTER HOUSE": TRANS EXPERIENCES OF MEDICAL CISSEXISM IN SEXUAL AND REPRODUCTIVE HEALTHCARE SETTINGS

Catherine S. Wall[1], Divya Jolly, MS[2], Brittany Charlton, MsC, ScD[3], Eric G. Benotsch, PhD[1], B. Ethan Coston, PhD[1], Allegra R. Gordon, ScD, MPH[4], Ariella R. Tabaac, MSc, PhD[5]

[1]Virginia Commonwealth University, Richmond, VA; [2]University of Oregon/Boston Children's Hospital, Boston, MA; [3]Harvard Medical School, Boston, MA; [4]Boston University School of Public Health, Boston, MA; [5]Boston Children's Hospital, Harvard Medical School, Boston, MA

Background: Transgender and gender diverse (TGD) patients in sexual and reproductive healthcare settings face numerous obstacles in sexual and reproductive healthcare settings. While the sources of these obstacles range from the interpersonal to the systemic, discrimination is one of the largest barriers to care. Whether stemming from overt discrimination or more passive cissexism, these experiences can lead to decreased healthcare utilization by TGD patients. This is particularly noteworthy in sexual and reproductive health where regular, preventive screenings are key to reducing morbidity and mortality.

Methods: To understand unique experiences faced by TGD patients in sexual and reproductive healthcare settings, this study recruited TGD participants (N=69) from two community samples in the United States. Participants completed an online study that asked open-ended questions about lifetime experiences and desires in sexual and reproductive healthcare settings. Participants were asked about both positive and negative experiences including those from their own life and those they've experienced vicariously through their community. Data were assessed using a multi-step inductive coding and thematic development approach.

Results: Three primary themes emerged from these data: Experiences of Abuse; Healthcare Context; and Patient Benefits, Barriers, and Burdens. Experiences of Abuse ranged from intentional gatekeeping of necessary care to verbal and physical abuse. The Healthcare Context theme included two subthemes related to environmental context and provider behaviors which ranged from the words used to describe the healthcare environment to provider knowledge. The Patient Barrier, Burdens, and Benefits primary theme included topics from three subthemes related to patient benefits, patient barriers, and patient burdens which ranged from fear based in previous experiences to research and knowledge burdens placed upon patients to positive experiences where patients were affirmed in their identity.

Discussion: Above and beyond the experiences these themes encapsulate, these results provide patient-centered perspectives and desires that may increase quality in future care. As such, these results can inform future training in and practice of sexual and reproductive healthcarein such a way that patients feel more comfortable seeking care.

CORRESPONDING AUTHOR: Catherine S. Wall, Virginia Commonwealth University, Richmond, VA; wallcs@vcu.edu

Friday
April 28th, 2023
9:00 AM – 9:50 AM
Symposia

Abstract citation ID: kaad011.0707

SYMPOSIUM 14: LESSONS LEARNED BUILDING CROSS-SECTOR PARTNERSHIPS TO ADDRESS SOCIAL DETERMINANTS OF HEALTH IN US MILITARY VETERANS

David E. Goodrich, EdD, MA, MS[1], Gilly Cantor, MPA[2], Leslie R M Hausmann, PhD, MS, FSBM[3], Joseph C. Geraci, PhD[4], Christine Eickhoff, MA[5]

[1]Center for Health Equity Research & Promotion, VA Pittsburgh HCS, Pittsburgh, PA; [2]Syracuse University, Syracuse, NY; [3]University of Pittsburgh, Pittsburgh, PA; [4]US Department of Veterans Affairs, Cornwall On Hudson, NY; [5]Department of Veterans Affairs, Fairfax, VA

Large US healthcare systems like the Department of Veterans Affairs (VA) have recognized that they are not structured to address social determinants of health (e.g., racism, discrimination, poverty) that cause and perpetuate health disparities. Among US military veterans, unmet social needs such as unemployment, homelessness, and incarceration contribute to higher rates of suicide and premature mortality compared to civilians. To address these disparities and promote more equitable outcomes, health systems like VA have worked to establish non-monetary partnerships with public, private, and non-profit organizations in communities where these veterans live. Such collaborative, multisector partnerships can reinforce referral and care coordination networks to aid in linking at-risk individuals with appropriate medical or social service programs. For VA, there is a practical imperative to understand the components of effective partnership models to replicate and spread these networks for population impact in at-risk communities across the nation.

The aims of this symposium are to share perspectives regarding: 1) how to build, sustain, and evaluate multisector networks of organizations that address the medical and social service needs of military-connected populations; 2) evaluation frameworks to monitor partnership outcomes to better meet local community needs; and 3) considerations for implementation and adoption, using a local example from Arizona. The first panelist will provide a theoretical overview of the AmericaServes initiative, a model for multi-level, cross-sector partnerships that has been disseminated in multiple US states over the past eight years and, will highlight the data-driven approach that has been used to iteratively adapt the model over time. The second panelist will present findings from a mixed-methods study characterizing the extent to which VA medical centers have partnered with AmericaServes, describe strategies that have been used to foster strong VA engagement in AmericaServes Networks, summarize the social needs of veterans served by these partnerships, and offer recommendations for bridging the divide across medical and social sectors. The third panelist will report on an in-depth analysis of partnership-building in implementation of the Veterans Sponsorship Initiative, an evidence-based intervention that combines peer sponsorship with linkages to VA and community-based resources to ensure critical support during the military-to-civilian transition period. Finally, the discussant will comment on the implications of the issues raised by panelists and lead a discussion of promising new ways cross-sector partnerships can be leveraged to bring effective evidence-based care services to veteran and civilian populations.

CORRESPONDING AUTHOR: David E. Goodrich, EdD, MA, MS, Center for Health Equity Research & Promotion, VA Pittsburgh HCS, Pittsburgh, PA; david.goodrich2@va.gov

Abstract citation ID: kaad011.0708

1: AMERICASERVES: A MODEL FOR COORDINATED NETWORKS OF CROSS-SECTOR ORGANIZATIONS ADDRESSING SOCIAL DETERMINANTS OF HEALTH FOR THE MILITARY-CONNECTED POPULATION.

Gilly Cantor, MPA[1]

[1]Syracuse University, Syracuse, NY

Military-connected populations consistently report challenges navigating benefits and services, and frequently experience multiple, interrelated needs that span domains (e.g., employment, housing, legal assistance). Collaboration between clinical and social service providers is necessary to meet such varied needs. Yet, the health and human services landscape is fragmented and often lacks transparency and accountability. To address this problem, the D'Aniello Institute for Veterans and Military Families at Syracuse University (IVMF) developed AmericaServes (AS), an adapted collective impact model for building, sustaining, and evaluating coordinated networks of organizations that address the health and human service needs of the military-connected population. Analogous to health care coordination models, AS strengthens how service providers work together through creation of a referral-based system, managed by a coordination center of human navigators operating on a shared technology platform. Launched in 2015, IVMF now supports 18 communities across 11 states and Washington, DC. To date, these networks collectively include over 1,000 organizations and have assisted over 43,000 military-connected persons with 106,000 requests for the full range of resources they need.

In the AS model, prior to launch, stakeholders across sectors are brought together through a series of planning sessions. A coordination center is selected through an RFP process. Network member organizations receive training in the platform and adopt a common initial process to screen clients for social determinants of health and obtain consent to make referrals for needs beyond any single organization's capacity or expertise. Once operating, communities meet with partners regularly to address questions and insights raised by network data, and to adapt processes to tackle common challenges. IVMF supports these efforts through technical assistance, measurement and evaluation services, and a community of practice for coordination centers, and uses findings to inform research and public policy.

Despite its emphasis on shared purpose and measurement, applying traditional program theory and outcome frameworks to collective impact initiatives can be challenging. In the AS model, network health outcomes are defined in accordance with systems theory: a) timeliness (speed), or whether the network effectively supported an expedited referral between client and provider; b) appropriateness (accuracy), or whether the network reduced the rate of poor referrals; and c) scalability, or whether the network increased capacity to successfully serve clients. Long-term study, ideally through continued partnership with the VA, will focus on secondary outcomes, or whether more timely and appropriate service delivery resulted in better care and improved well-being for the military-connected population.

Abstract citation ID: kaad011.0709

2: CHARACTERIZING PARTICIPATION OF VHA MEDICAL FACILITIES IN MILITARY-CENTRIC CROSS-SECTOR COLLABORATIVES

Leslie R M Hausmann, PhD, MS, FSBM[1]

[1]University of Pittsburgh, Pittsburgh, PA

Building cross-sector collaborations is essential to addressing social determinants of health. AmericaServes (AS), the first military-centric coordinated system of public and private organizations, is a promising cross-sector collaborative in which medical facilities operated by the Veterans Health Administration (VHA) can participate. However, whether and how VHA facilities participate in regional AS Networks varies widely. Leveraging this natural variation, we characterized the extent to which VHA medical facilities participate in AS Networks and 2) compared Veterans served in AS Networks that have achieved high versus low levels of participation of VHA facilities.

Guided by Himmelman's Developmental Continuum of Change Strategies for interorganizational collaboration, we interviewed 17 key informants in 7 AS Networks and 14 staff from affiliated VHA facilities. Using rapid qualitative analysis, we classified participation of VHA medical facilities in each network as networking, coordinating, cooperating, or collaborating and identified barriers to and facilitators of more advanced participation. We also merged 2019 AS client data with VHA administrative data to compare characteristics and referral resolution rates of Veterans who were served by both organizations (N=4,296), only by VHA (N= 699,986), or only by AS (N=1,974).

VHA participation was classified as cooperating or collaborating in only two networks. Barriers to more advanced partnerships included getting buy-in from VHA decision-makers, not having a formal agreement that defines the arrangement, and on-boarding VHA providers to the AS referral platform. Facilitators included a shared commitment to serving Veterans, strong interpersonal relationships with individuals across organizations, and regular information sharing. Compared to the VHA-only cohort, Veterans in the AS-VHA cohort were younger (63 v 49 years), more likely to be female (11% v 22%), and more likely to be non-Hispanic Black or African American (24% v 33%). Veterans in the AS-VHA cohort were also more likely to screen positive for food insecurity (1% v 11%) and housing instability (2% v 10%) and have other social risk factors documented in their medical record (e.g., unemployment: 18% v 2%). In the two AS Networks with the highest levels of participation of VHA facilities, resolution of AS referrals was higher for Veterans in the AS-VHA v AS-only cohort (85% v 80%); resolution rates were lower for both cohorts in networks with less VHA participation (72% v 71%).

VHA and AS are serving the most at-risk Veterans. When the collaboration works well, case resolution is higher, thus better serving Veterans. Although challenges to establishing partnerships exist, there are effective strategies to overcoming them. This study will help guide future efforts to foster strong participation of VHA facilities in cross-sector collaboratives such as AS.

Abstract citation ID: kaad011.0710

3: CROSS-SECTOR PARTNERSHIPS TO ADDRESS SUICIDE RISK FOR TRANSITIONING SERVICEMEMBERS AND VETERANS: IMPLEMENTING THE NATIONAL VA VETERAN SPONSORSHIP INITIATIVE IN ARIZONA

Joseph C. Geraci, PhD[1]

[1]US Department of Veterans Affairs, Cornwall On Hudson, NY

The United States' youngest Veterans are experiencing a suicide epidemic. Suicide rates for Veterans aged 18 to 34 nearly doubled between 2001 and 2019. These elevations may be due to elevated risk for suicide during the transition from active-duty military service to civilian life with 200,000 servicemembers exiting the service each year (VA, 2018). In a study of servicemembers exiting the military from 2001 to 2011, suicide rates were nearly three times higher during the first year following military separation (Shen et al., 2016). Correspondingly, some research suggests a positive association between severity of reintegration difficulties and risk of suicidal ideation (Kline et al., 2011). The period between discharge and reintegration to civilian life is referred to as a "deadly gap" with a relative gap in support and increase in suicide risk (Geraci et al., 2020; Sokol et al., 2021).

To aid in addressing the suicide risk and broader psychosocial needs of transitioning Servicemembers and Veterans (TSMVs), the VA's Veteran Sponsorship Initiative (VSI) provides support to TSMVs throughout the transition process through connection to a VA certified, volunteer and community-based peer sponsor. Consistent with recent efforts to maximize utility of public-private partnerships, the VSI is driven by partnerships between the VA, US Department of Defense (DoD), US Department of Labor, national nonprofit organizations, state organizations and offices, and community-based organizations. The VA has established partnerships with these entities to assist in operationalizing the VSI through the Veteran Sponsor Peer Network (VSPN). For instance, the VSPN consists of ETS Sponsorship (nonprofit) at the national level to assist in enrolling servicemembers on military installations into the VSI and VA healthcare. At the local level, the VSPN consists of local community organizations and state-level entities. Aspects of the network are currently being implemented in Arizona with a host of partners to reinforce referral and care coordination to aid in linking at-risk TSMVs with appropriate medical or social service programs.

A recent evaluation of the VSI identified that TSMVs who enrolled within the VSI while in the military and were matched with a sponsor were more connected to VA care (62% vs. 49%), experienced less suicide risk (16% vs. 33%) and experienced less depression (19% vs. 42%) after transition to civilian life compared to TSMVs who enrolled within the VSI and were not matched with a sponsor. These results will be confirmed with large-scale evaluation efforts ongoing across the nation by the VA.

The aims of this presentation are focused on: 1) building, sustaining, and evaluating a network of federal to community entities that address the medical and social service needs of TSMVs and 2) applying the VSI to a specific case example for implementation and adoption in Arizona.

Abstract citation ID: kaad011.0711

SYMPOSIUM 15: ADDRESSING WEIGHT STIGMA IN HEALTHCARE SETTINGS: IDENTIFYING OPPORTUNITIES FOR INTERVENTION

Erin C. Standen, BS[1], Rebecca L. Pearl, PhD[2], Paula Brochu, PhD[3], Sean Phelan, PhD, MPH[4]

[1]University of Minnesota, Minneapolis, MN; [2]University of Florida College of Public Health and Health Professions, Gainesville, FL; [3]Nova Southeastern University, Sunrise, FL; [4]Mayo Clinic, Rochester, Rochester, MN

Weight stigma is harmful to people's mental health, physical health, and overall well-being. Moreover, people with higher weight report that healthcare providers are one of the most common sources of weight stigma, and evidence suggests that providers who specialize in obesity may be particularly likely to hold biased views. As a result of anticipated (or experienced) weight stigma, patients may delay follow-up appointments or avoid healthcare visits altogether, leading to poorer quality of care and poorer health outcomes for patients with obesity. In this symposium, three presenters and a discussant will delve into data about weight stigma in healthcare settings. We will present evidence that patients with obesity experience stigma-related threat when discussing weight loss with a provider, and then will explore two intervention strategies — one targeted at patients and one at providers — that may help reduce the stigma-related threat that people experience in healthcare settings.

The first presenter will report evidence from an experimental study about how people with obesity respond to weight loss advice from healthcare providers. She will highlight the finding that weight loss advice can be useful for motivating behavior change, but it can also be harmful, as it can elicit stigma-related threat. She will also discuss possible ways for weight loss advice to be altered to maintain its motivational potential without stigmatizing people with higher weight.

The second presenter will discuss findings from an acceptability trial of an intervention to reduce patients' own internalized weight stigma during ongoing behavioral weight loss (BWL) treatment. Given that internalized weight stigma may contribute to patients' negative experiences in healthcare settings, this intervention has the potential to dampen any stigma-related threat experienced while undergoing BWL treatment. In addition, she will discuss the usefulness of the additional module targeting internalized weight stigma in comparison to standard BWL treatment.

The third presenter will summarize findings from a systematic review of interventions to reduce weight stigma among healthcare professionals and identify crucial targets for future interventions. She will also present evidence from a weight-inclusive intervention for clinical psychology trainees that targeted weight controllability beliefs, with a particular focus on participants' reduction in anti-fat attitudes and negative attitudes towards fat clients.

Finally, from the Mayo Clinic's Kern Center for the Science of Health Care Delivery, the discussant will identify common threads between the presentations and address implications of the findings for the best practices in the delivery of weight-related healthcare. He will also provide some recommendations for future research exploring weight stigma and health equity in healthcare settings.

CORRESPONDING AUTHOR: Erin C. Standen, BS, University of Minnesota, Minneapolis, MN; stand104@umn.edu

---

Abstract citation ID: kaad011.0712

1: DOCUMENTING THE MOTIVATIONAL AND AFFECTIVE CONSEQUENCES OF RECEIVING WEIGHT LOSS ADVICE FROM A HEALTHCARE PROVIDER: EVIDENCE FROM A PRE-REGISTERED EXPERIMENT

Erin C. Standen, BS[1], Alexander Rothman, PhD, FSBM[2], Traci Mann, PhD[1]

[1]University of Minnesota, Minneapolis, MN; [2]University of Minnesota

It is standard practice for healthcare providers to give weight loss advice to patients with higher weight. According to the U.S. Preventive Services Task Force, this advice is meant to promote healthy habits and participation in behavioral weight loss treatment, but it may also carry some unintended negative consequences. For instance, this advice may induce weight stigma-related threat in patients and contribute to poor affective and behavioral health outcomes (e.g., elevated stress levels, healthcare avoidance).

At present, there is a lack of experimental evidence about the immediate motivational and affective consequences of receiving weight loss advice from a healthcare provider. To examine this phenomenon, we recruited a sample of adults with obesity (N = 294) via Prolific, an online survey platform. To be eligible, participants needed to be U.S. residents, have a BMI > 30, and report having received weight-related advice from a PCP in the past 24 months. Participant age ranged between 18 and 77, and they were predominantly White (82.3% White, 8.8% Black, 8.1% Latinx, 4.4% Asian, 4.1% other) and female (63.9%). In a pre-registered, scenario-based experiment, we randomly assigned participants to read one of two doctor-patient interaction scenarios and asked them to imagine that they were the patient in the scenario. In the *control condition*, the doctor in the scenario provided recommendations for improving sleep quality and managing stress. In the *weight loss advice condition*, the doctor in the scenario provided the same sleep and stress along with standard weight loss recommendations (e.g., eat fewer calories, get more physical activity). Participants then reported their affect, weight-related distress, and motivation to change their eating and exercise behavior.

We found that those who received weight loss advice (compared to control participants) reported greater motivation for healthy eating (4.2±1.6 vs. 3.3±1.8, $p < 0.001$), but also lower positive mood (2.3±0.7 vs. 2.6±0.7, $p < 0.001$), higher negative mood (1.8±0.8 vs. 1.4±0.6, $p < 0.001$), and greater weight-related distress (2.5±1.4 vs. 1.8±1.2, $p < 0.001$). Because poorer mood and greater distress may diminish adherence to behavioral advice and perpetuate healthcare avoidance, the standard delivery of weight loss advice may undermine patients' health and exacerbate health disparities. Ongoing work from our group examines strategies that providers could use (i.e., requesting consent to discuss weight, focusing on health behaviors instead of weight loss) to mitigate patients' experience of weight-based identity threat. Ultimately, the purpose of this work is to provide a foundation for future research and interventions to reduce the experience of weight bias in healthcare settings.

Abstract citation ID: kaad011.0713

2: ACCEPTABILITY OF TARGETING INTERNALIZED WEIGHT STIGMA IN WEIGHT MANAGEMENT: RESULTS FROM A RANDOMIZED CONTROLLED TRIAL

Rebecca L. Pearl, PhD[1], Thomas Wadden, PhD[2], Caroline Bach, BA[3], Erica LaFata, PhD[4], Sharon Leonard, RD[2], Janet Latner, PhD[5], Robert Berkowitz, MD[6]

[1]University of Florida College of Public Health and Health Professions, Gainesville, FL; [2]Perelman School of Medicine University of Pennsylvania; [3]Southern Georgian University; [4]Drexel University; [5]University of Hawaii at Manoa; [6]Childrens Hospital of Philadelphia Perelman School of Medicine University of Pennsylvania

Internalized weight stigma is associated with adverse mental and physical health outcomes. Individuals who seek behavioral weight loss (BWL) treatment report heightened weight-related distress and may be at especially high risk for internalizing weight stigma. The current study tested in a randomized controlled trial the acceptability of a new intervention designed to reduce internalized weight stigma, delivered in combination with BWL treatment, compared to BWL treatment alone. Participants were 105 adults with a body mass index ≥30 kg/m^2, or ≥27 kg/m^2 with increased risk of cardiovascular disease (90.5% women, 70.5% White, 24.8% Black, mean age=49 years, mean BMI=38.0 kg/m^2). Participants received 20 weeks of weekly group BWL sessions, followed by 6 months of monthly sessions and 6 months of every-other-month sessions (29 sessions over 72 weeks). Group sessions included 60 minutes of BWL content; in one treatment group, an additional 30 minutes were devoted to the Weight Bias Internalization and Stigma (BIAS) Program, while the comparison group received 30 minutes of cooking tips and a recipe exchange. Participants rated (1-7) treatment acceptability at weeks 20 and 72 and completed open-ended questions. At week 20 (n=92), participants in the BWL+BIAS group rated the whole program more favorably than those in the BWL group (6.4±1.0 vs. 5.8±1.5, p=0.037). Participants in the BWL+BIAS (vs. BWL) group were also more likely to recommend the program to others (6.7±0.7 vs. 6.1±1.5, p=0.037) and reported that they learned more new things (6.4±0.9 vs. 5.8±1.5, p=0.025), had greater changes in attitudes about themselves (5.7±1.1 vs. 5.0±1.8, p=0.018), and perceived greater benefits for their weight management goals (6.0±1.2 vs. 5.3±1.8, p=0.03). When examining the individual treatment components, the BWL content was rated comparably by both groups (6.1±1.5 vs. 5.9±1.0), but the Weight BIAS content was rated higher than the recipe exchange (6.1±1.1 vs. 4.6±1.8, p< 0.001). Participants in the BWL+BIAS group reported greater learning of BWL skills and greater learning and use of stigma-related skills than did participants in the BWL group (p values≤0.012). At week 72 (n=85), the Weight BIAS component remained higher rated than the recipe exchange (p< 0.001), and participants in the BWL+BIAS (vs. BWL) group reported greater learning overall, more changes in their attitudes about themselves, and greater learning and use of stigma-related skills (p values< 0.01). No other ratings differed at week 72. Overall, acceptability ratings were high for both groups, and open-ended responses highlighted positive treatment experiences. These findings have implications for incorporating content on internalized weight stigma into standard weight management practice. Continued efforts are also needed to prevent weight stigma and its internalization through structural and interpersonal interventions.

Abstract citation ID: kaad011.0714

3: ADDRESSING WEIGHT STIGMA IN HEALTH CARE EDUCATION: RESULTS FROM A SYSTEMATIC REVIEW AND WEIGHT-INCLUSIVE INTERVENTION

Paula Brochu, PhD[1], Alexandria Schmidt, MS[2]

[1]Nova Southeastern University, Sunrise, FL; [2]Nova Southeastern University

Weight stigma is pervasive and commonly exhibited in health care education. Despite the harm of weight stigma, interventions designed to reduce weight stigma are rarely implemented in health care training programs. For patients, the consequences of weight stigma and discrimination in health care settings from health care providers ranges from health care avoidance to poor health outcomes due to lack of adequate care. This issue affects all stakeholders in health care settings, including patients, providers, and trainees. To investigate the efficacy of the few weight stigma reduction interventions that have been conducted in health care settings, a systematic review was conducted. Nineteen articles were identified. They were diverse in educational setting, with studies including nursing students, medical residents, physiotherapists, undergraduate health sciences majors, kinesiology students, and psychology trainees. Six primary types of weight stigma reduction interventions were identified. They were designed to: (1) increase knowledge about "obesity" as a medical condition, (2) increase awareness of the prevalence of weight stigma and its consequences, (3) reduce belief in the controllability of weight and attributions of blame and responsibility, (4) provide trainees with intergroup contact experiences, (5) elicit empathy through perspective taking, or (6) utilize more than one of these components in the intervention. Results varied among the categories such that each contained unsuccessful and at least partially successful interventions depending on how the trainings were executed. However, the most effective interventions incorporated multiple components in combination with one another, filling in gaps that single intervention strategies might miss. Few of the interventions adopted weight-inclusive health care approaches and continued to stigmatize fatness while simultaneously seeking to reduce weight stigma. The efficacy of a weight-inclusive intervention that we conducted with psychology trainees will be highlighted. This intervention presented information that challenged assumptions about weight as a reliable predictor of health and myths regarding the controllability of weight, as well as information about the prevalence and harm of weight stigma. In a pre-post design with 45 clinical psychology trainees, results showed that the intervention reduced anti-fat attitudes and negative attitudes toward fat clients, effects mediated by a reduction in weight controllability beliefs.

Abstract citation ID: kaad011.0715

SYMPOSIUM 16: FROM SURVIVING TO THRIVING: LIFESTYLE MODIFICATIONS TO IMPROVE CANCER SURVIVORSHIP AMONG UNDERSERVED POPULATIONS

Tiffany L. Carson, PhD, MPH, FSBM[1], Acadia W. Buro, PhD, CPH[1], Marilyn Stern, PhD[2], Kristin G. Cloyes, PhD, MN, RN[3]

[1]Moffitt Cancer Center, Tampa, FL; [2]University of South Florida, Tampa, FL; [3]Oregon Health & Science University, Portland, OR

Behavioral interventions to promote a healthy weight, healthy diet, and increased physical activity have been associated with better survivorship outcomes including better quality of life, reduced risk of chronic disease and cancer recurrence, and improved survival among individuals diagnosed with cancer. Still, research suggests that many cancer survivors do not meet recommended guidelines for weight, dietary intake or physical activity. There are also limited interventions to address these behaviors among underserved populations such as cancer survivors who are adolescent and/or young adult (AYA), Spanish language-preferring, or LGBTQIA+ all of whom may have unique cancer survivorship experiences, in part, due to societal inequities associated with each of these attributes.

This symposium will explore the unique cancer survivorship experiences of cancer survivors who are AYA, Spanish language-preferring, or LGBTQIA+ and the current evidence on behavioral interventions to improve survivorship outcomes. Our first presenter, Dr. Acadia Buro, will discuss unique challenges of AYA cancer survivors that may occur as a result of developmental stage and barriers/facilitators to adopting healthier lifestyle behaviors among AYA survivors. Second, Dr. Marilyn Stern will describe the unique survivorship experience of cancer survivors and/or caregivers living in the U.S. who prefer Spanish language and who have lower socioeconomic status. She will present key lessons from her ongoing work of implementing a behavioral lifestyle intervention with this population. The third presenter, Dr. Kristin Cloyes, will present cancer survivorship challenges for individuals who are LGBTQIA+ and discuss ways to cultivate LGBTQIA+ competent cancer research.

The goals of this symposium are 1) to bring attention to unique experiences of cancer survivors from underrepresented groups that occur as a result of societal inequities, 2) to provide an update on the current state of lifestyle interventions for underserved cancer survivors, and 3) to stimulate thought about future directions to address the needs of cancer survivors and eliminate inequities in the care that they receive.

CORRESPONDING AUTHOR: Tiffany L. Carson, PhD, MPH, FSBM, Moffitt Cancer Center, Tampa, FL; tiffany.carson@moffitt.org

---

Abstract citation ID: kaad011.0716

1: BEHAVIORAL INTERVENTIONS FOR ADOLESCENT AND YOUNG ADULT CANCER SURVIVORS

Acadia W. Buro, PhD, CPH[1]

[1]Moffitt Cancer Center, Tampa, FL

Adolescent and young adult (AYA) cancer survivors are at an increased risk for obesity-related chronic diseases. Although this population is often impacted by age-dependent transitions and stressors, including strained relationships and independent living challenges, few behavioral interventions for AYA cancer survivors address age-dependent barriers to healthy lifestyle behaviors. Our current mixed-methods pilot study quantitatively examines associations between perceived stress, diet, and physical activity and qualitatively investigates experiences and unmet needs regarding stress, coping, and health behaviors in AYA cancer survivors aged 18-39 years. AYA cancer survivors completed a survey via REDCap (n=225 thus far) including validated measures on perceived stress, anxiety, depression, eating beliefs, dietary intake, and physical activity, and a subsample of participants completed a semi-structured interview via Zoom (n=23). Quantitative data is being examined with descriptive statistics, bivariate analyses, and stepwise regression with backward elimination. A coding reliability approach to thematic analysis is being used to analyze qualitative data. Survey participants were mean 31 years old and 5 years post-diagnosis; 77% were women. Preliminary analyses indicated that perceived stress, anxiety, and depression were associated with increased added sugar intake ($p< 0.05$) and eating beliefs ($p< 0.001$), and depression was associated with reduced fruit ($p< 0.001$) and vegetable ($p=0.003$) intake, adjusting for significant covariates. Preliminary analysis of qualitative data highlighted stressors aligned with social determinants of health, including health care, economic stability, and social and community context. Peer support and personalized, interactive content with multiple formats (i.e., group Zoom, chat, web repository or handouts) were key themes regarding intervention preferences. Findings thus far highlight a need to address psychosocial stress and social economic stressors, as well as tailored, interactive strategies in behavioral interventions for AYA cancer survivors. Future research may further investigate tailored behavioral intervention strategies to improve survivorship and quality of life among this population with unique psychosocial developmental needs.

Abstract citation ID: kaad011.0717

2: SPECIAL CONSIDERATIONS IN ADAPTING A HEALTHY LIFESTYLE INTERVENTION FOR LATINO PARENTS OF PEDIATRIC CANCER SURVIVORS

Marilyn Stern, PhD[1], Acadia W. Buro, PhD, CPH[2], Sandra Soca Lozano, MS[3], Heewon Gray, PhD[3]

[1]University of South Florida, Tampa, FL; [2]Moffitt Cancer Center, Tampa, FL; [3]University of South Florida

Background: Obesity rates in pediatric cancer survivors (PCS) are alarmingly high (>40% in the US) and associated with long-term health risks. Promoting healthy behaviors in PCS is challenging, and few healthy lifestyle interventions have included Spanish speaking families. We target parents as role models for change in promoting healthy lifestyle behaviors in PCS. This presentation will focus on strategies we identified to engage and retain Spanish-preferring dyads in our lifestyle intervention, NOURISH-T+.

Methods: Of n=116 dyads of PCS (M=10 years) and their parents randomly assigned to NOURISH-T+ or Enhanced Usual Care (EUC) thus far, 28% are Spanish-preferring. NOURISH-T+ consists of 6 parent sessions, 2 PCS sessions and 1 dietitian session. Anthropometric, dietary, and physical activity assessments are conducted at baseline, post-intervention, 3-, 6-, and 12 months follow-up. All procedures are conducted virtually by bilingual research staff.

Results: Participants were ≥ 6 months off-treatment (M =2.5 years). Mean baseline child BMI%ile was 95th. Spanish-preferring families had lower income, more children in the home, and higher fruit, sugar, and fat intake. Bilingual interventionists report that Latino parents often present as less engaged, more permissive with their PCS, requiring greater discussion on parenting styles, and often take longer to complete intervention sessions than non-Latinos. Interventionists report that they must be more directive in sessions and consider financial difficulties in developing meal planning goals with Latino parents as opposed to non-Latinos.

Conclusions: This presentation will highlight strategies implemented to accommodate Spanish speaking parents of PCS, including more reinforcement and contact. Despite differences in how interventionists have learned to work with our Latino families, including being more patient in terms of timing of sessions and assessments, preliminary findings suggest that PCS and their parents are making positive health behavior change. Considerations and specific strategies for meeting the cultural needs of our diverse families will be discussed.

Abstract citation ID: kaad011.0718

3: CANCER SURVIVORSHIP RESEARCH AMONG LGBTQIA+ PATIENTS AND CARE PARTNERS: STRUCTURAL RISKS, COMMUNITY STRENGTHS, AND RECOMMENDATIONS FOR COMPETENT RESEARCH PRACTICE

Kristin G. Cloyes, PhD, MN, RN[1]

[1]Oregon Health & Science University, Portland, OR

Cancer research has lagged for minoritized groups, including LGBTQIA+ survivors and caregivers. This is changing, yet many of the same inequities that drive LGBTQIA+ cancer disparities also limit the advancement of inclusive survivorship research. This talk outlines how the current state of LGBTQIA+ cancer survivorship and caregiving science reflects both a historical lack of representation and recent strides made. Drawing on our team's interdisciplinary research and others' work, we summarize unique challenges that LGBTQIA+ cancer survivors and caregivers may face along the survivorship trajectory. We also highlight historical, cultural resilience and community strengths that may mitigate against poorer outcomes. We examine social support networks as an example of a social determinant of health--and research focus--that can entail dynamic risks and strengths and characteristics that are both common among survivors and caregivers and intersectionally unique to LGBTQIA+ individuals. We discuss lessons learned from our own and colleagues' work, and engagement with community experts across projects, regarding fostering more LGBTQIA+-competent cancer research. This includes intentional design that counters cisheteronormative assumptions and practices; theorizing sources and mechanisms of strengths and protective factors as well as risks; using data collection and analysis methods that attend to context, life course, individual heterogeneity, and intersectional effects; ongoing engagement with diverse LGBTQIA+ survivors and caregivers as community experts; including sexual orientation and gender identity (SOGI) demographic items modeled on current best practice; using language and visuals that acknowledge multiple forms of diversity; incorporating multiple modalities for recruitment and data collection to increase accessibility; providing adequate, respectful levels of compensation including paying consultants and community organizations; ensuring research outputs address community needs and enhance capacity; including LGBTQIA+ community members on study teams; mentoring and supporting LGBTQIA+ students and emerging scientists; fostering reflexive, inclusive labs/workgroups; and maintaining collaborative and supportive relationships with colleagues across the field. Adopting these and other culturally-competent practices across a program of research will support the continued advancement of LGBTQIA+-inclusive cancer survivorship and caregiving science.

Abstract citation ID: kaad011.0719

SYMPOSIUM 17: INDIVIDUAL PSYCHOLOGICAL PROCESSES THAT INFLUENCE PEDIATRIC HEALTH BEHAVIORS

Amy M. Bohnert, PhD[1], Alison L. Miller, PhD[2], Alyssa M. Button, PhD[3], Krya Hamilton, PhD[4]

[1]Loyola University Chicago, Evansotn, IL; [2]University of Michigan School of Public Health, ANN ARBOR, MI; [3]Pennington Biomedical Research Center, Baton Rouge, LA; [4]Griffith University, Mt Gravatt, Queensland, Australia

Individual-level psychological factors like self-regulation and sensitivity or responsiveness to one's environment are major influences on behavior, cognition, and emotion. The ability to self-regulate is a key developmental process that is acquired and refined during childhood and adolescence. Yet these and other individual psychological factors are often overlooked as intervention targets in pediatric health behavior change and chronic illness management interventions that place more emphasis on social and environmental contexts often outside of children's control. This symposium will present empirical data from three cohort studies across three distinct periods of childhood and adolescence (preschool, early adolescence, and adolescence) to examine the role of individual psychological processes (self-regulation, affect, environmental sensitivity) on health behaviors or chronic disease management (physical activity, sleep, medication adherence). The first talk will present an examination of preschool-aged children's self-regulation as it relates to their 24-hour movement behaviors, including physical activity, sedentary behavior, and sleep. The findings illustrate that self-regulation may be more challenging to discriminate in the early years as parental/caregiver and environmental influences more often dictate children's movement patterns. The second talk will present evidence of the role of young adolescent girls' environmental sensitivity, anxiety, anger, stress, and affect as these relate to sleep hygiene including sleep duration, sleep disturbances, and bedtime. Results indicate early adolescence as a pivotal period for processing and experiencing environments that may impair or facilitate sleep. The third talk will present data on adolescents' self-regulation associated with regimen adherence during type 1 diabetes treatment, with mixed results based on parent- vs. adolescent-report of the adolescent's self-regulation. Self-regulation may be increasingly important during mid to later adolescence as the patient takes on more responsibility for self-care and disease management. The discussant will summarize lessons learned and highlight future interventional opportunities to harness self-regulation and other developing psychological processes to support health behaviors throughout childhood and adolescence.

CORRESPONDING AUTHOR: Krya Hamilton, PhD, Griffith University, Mt Gravatt, Queensland, Australia; kyra.hamilton@griffith.edu.au

---

Abstract citation ID: kaad011.0720

1: VARIABILITY IN SLEEP AMONG GIRLS DURING EARLY ADOLESCENCE: THE ROLE OF ENVIRONMENTAL SENSITIVITY AND AFFECT

Amy M. Bohnert, PhD[1], Hannah A. Hagy, MA[2], Elizabeth Rea, MA[2], Stephanie J. Crowley, PhD[3], Frank F. Tu, MD[4], Kevin M. Hellman, PhD[5]

[1]Loyola University Chicago, Evansotn, IL; [2]Loyola University Chicago, Chicago, IL; [3]Rush University Medical Center, Chicago, IL; [4]NorthShore University HealthSystem, Evanston, IL; [5]NorthShore University HealthSystem/University of Chicago, Evanston, IL

Background: Identifying factors associated with health behaviors can inform interventions to maximize benefits. Environmental sensitivity (ES) is an intra-individual trait that captures the tendency to strongly and deeply process a range of experiences which manifests in both physiological (e.g., high stress reactivity) and psychological outcomes (e.g., greater empathy). Although, an online study reported that youth with higher ES reported more disrupted sleep, there is a dearth of published studies on the health implications of ES.

Methods: The current study examined relations between ES and sleep assessed via actigraphy among a sample of premenarchal adolescents and considered whether anxiety, affect, and stress accounted for any additional effects. A community sample of adolescent girls (n= 120; M age =11.5) and their caregivers were recruited one year prior to anticipated menarche from a Midwestern metropolitan area as part of a larger study on menstruation. Caregivers reported on demographics and sleep disturbance (PROMIS Sleep Disturbance Short Form). Girls reported on ES, anxiety, anger, positive affect, and stress using the Highly Sensitive Child Scale and PROMIS measures. They also completed daily diaries while wearing wrist actigraphs for a week which captured the following sleep health dimensions: average wake time (WT), bedtime (BT), duration, WT and BT variability, and efficiency (% time awake).

Results: Actigraphy reports indicated an average sleep duration was 545 minutes (SD = 49.4 minutes) with an average bedtime of 10:27 pm and wake time of 7:34 am. Wake and bedtime variability was 42.0 and 41.5 minutes. Sleep efficiency was 82%. After adjusting for pubertal status, hierarchical linear regressions examined whether ES was associated with sleep health dimensions, and whether anxiety, anger, positive affect, and stress accounted for any additional variation in sleep outcomes. Analyses indicated that higher levels of ES were significantly associated withshorter sleep duration (ß= -.20, p =.034) and later BTs (ß= .19, p =.046). Higher levels of anxiety were associated with higher levels of sleep disturbance after accounting for ES (ß= 1.38, p =.038).

Conclusion: These results indicate that the capacity to deeply process and experience environments may be associated with particular sleep impairments before menarche. Therefore, ES may be a promising variable to consider in future research on health-related outcomes.

Abstract citation ID: kaad011.0721

2: YOUTH AND PARENT-REPORTED SELF-REGULATION AND MEDICAL REGIMEN ADHERENCE IN ADOLESCENT TYPE 1 DIABETES (T1D)

Alison L. Miller, PhD[1], Allison Choe[2], Dana Albright, PhD[3], Joyce Lee, MD, MPH[4], Katherine Bauer, PhD, MS[4], Julie Sturza, MS[5], Hurley Riley, MPH[6], Emily Fredericks, PhD[5]

[1]University of Michigan School of Public Health, ANN ARBOR, MI; [2]University of Michigan; [3]Parkview Health - Mirro Center for Research and Innovation, Coldwater, MI; [4]University of Michigan, Ann Arbor, MI; [5]University of Michigan School of Medicine; [6]University of Michigan School of Public Health

Background: Type 1 Diabetes (T1D) is often diagnosed in childhood or adolescence. Managing T1D is challenging; adolescents often have poor adherence to treatment regimens and suboptimal glycemic control. Self-regulation (SR), or ability to control cognition, emotions, and behavior in service of a goal is hypothesized to underlie capacity for regimen adherence. The current study examined associations between SR and regimen adherence as reported by youth and parents, and observed Hemoglobin A1c (HbA1c; indicating blood sugar level) among youth with T1D.

Method: Youth (n=88) were recruited from pediatric endocrine clinics for an SR-focused intervention (only intervention pretest data are reported here). Inclusion criteria were: youth 13-17 years of age, living with primary caregiver who completed study measures, diagnosed with T1D $\geq$6 months, with HbA1c$\geq$ 7.0 at recruitment. Youth and their parents both completed the Behavior Rating Inventory of Executive Functioning, 2nd Ed. (BRIEF-2), a standardized measure of executive functioning difficulties indicating poor self-regulation (Gioia et al., 2015). To assess T1D regimen adherence, youth and their parents completed the Self-Care Inventory-Revised (SCI-R; Lewin et al., 2009) and youth completed a clinic-based survey covering 6 specific T1D management habits (e.g., checking blood glucose at least 4x/day if not using a continuous glucose monitor; bolusing before meals; Lee et al., 2021). HbA1c was assessed via blood draw. Bivariate correlations and regression analysis were used to test associations between youth- and parent-reported self-regulation, adherence, and HbA1c.

Results: Youth- and parent-reported self-regulation difficulties on the BRIEF-2 were associated with poorer youth- and parent-reported SCI-R adherence, respectively (youth-report r=-.44, parent-report r=-.25; p's< .05). In regression models predicting HbA1c from self-regulation and adherence, higher youth-reported adherence predicted lower HbA1c levels (SCI Beta=-.28, t= -2.35, p=.021; 6-Habits Beta=-.30, t=-2.83, p=.006); SR was not a significant predictor.

Discussion: Self-regulation was associated with adherence but only within reporters, suggesting youth and parents may perceive self-regulation and adherence differently. Findings that youth, not parent-reported adherence was associated with objectively-measured HbA1c confirm youth reports as key sources of information. Adolescence is a unique developmental period of transition in responsibility for T1D management. Youth views on self-regulation and adherence are essential for understanding regimen adherence challenges and planning for effective T1D management.

Abstract citation ID: kaad011.0722

3: PRESCHOOL-AGED CHILDREN'S SELF-REGULATION, PHYSICAL ACTIVITY, AND SLEEP BEHAVIORS

Alyssa M. Button, PhD[1], Kip Webster, PhD[2], Robbie Beyl, PhD[1], Amanda E. Staiano, PhD, FSBM[3]

[1]Pennington Biomedical Research Center, Baton Rouge, LA; [2]The University of Tennessee; [3]LSU's Pennington Biomedical Research Center, Baton Rouge, LA

Background: Self-regulation is a complex construct encompassing both physiological and intentional cognitive processes of behavior in reaction to an individual's thoughts, attention, emotions, and environment. Physiological self-regulation is involved in the processes necessary for sleep (e.g., circadian rhythms) while intentional cognitive processes are necessary for commencing goal-directed behavior such as engaging in PA, while simultaneously inhibiting behaviors that distract from these goals. Self-regulation development in early childhood has been identified as an important opportunity for health behavior interventions and later outcomes. The purpose of the present study was to examine preschool-aged children's self-regulation as it relates to their 24-hour movement behaviors.

Methods: Baseline data from the "PLAY" randomized controlled trial were analyzed. PLAY was a parent-targeted, app-based intervention designed to improve preschool children's motor skills. This ancillary study examined the relationships between child self-regulation using the *Devereux Early Childhood Assessment Preschool Program, 2nd Edition (DECA-P2)* and moderate-to-vigorous PA (MVPA), total PA, sedentary behavior, and sleep using Actigraph GT3X+BT accelerometers among 72 children (57% girls) between the ages of 3 and 5 years old. The bivariate relationships were evaluated using fixed effect regression.

Results: Self-regulation percentile rank on the DECA-P2 was *not* significantly associated with MVPA (β = 0.23, p = 0.17), total PA (β = -0.08, p = 0.46), sedentary behavior (β = -0.07, p = 0.53), or sleep (β = 0.09, p = 0.30) for boys (M = 41.65, SD = 28.46). Similarly, girls did not show significant relationships between self-regulation (M = 50.95, SD = 29.85) and MVPA (β = -0.003, p = 0.98), total PA (β = -0.02, p = 0.83), sedentary behavior (β = 0.05, p = 0.52), or sleep (β = -0.04, p = 0.61).

Discussion: Our findings suggest that young children's ability to independently emotionally and behaviorally self-regulate are unrelated to PA and sleep behaviors. The preschool age range is a sensitive period for self-regulation growth, suggesting that these processes may not yet be fully developed within this age range for this construct. Thus, PA and sleep interventions for children younger than at least 6 years may be more suitably targeted towards parents and caregivers to facilitate. We speculate that at this young age parents may assume greater responsibility of regulating children's sleeping and PA behaviors through overt parenting strategies. Future research may benefit from identifying strategies to support the learning and acquisition of this pivotal ability in relation to PA and sleep behaviors. Our findings contribute a unique understanding of developmental considerations and recommendations for designing and implementing movement behavior interventions among young children.

Abstract citation ID: kaad011.0723

SYMPOSIUM 18: SUCCESSES, CHALLENGES, AND FUTURE DIRECTIONS FOR FOOD AS MEDICINE INITIATIVES TO ADVANCE HEALTH EQUITY

Elizabeth L. Adams, PhD[1], Helena H. Laroche, MD[2], Roger Figueroa, PhD, MPH, MSc[3], Amy L. Yaroch, PhD, FSBM[4]

[1]University of South Carolina, Columbia, SC; [2]Children's Mercy Kansas City, Kansas City, MO; [3]Cornell University, Ithaca, NY; [4]Gretchen Swanson Center for Nutrition, Omaha, NE

This symposium, co-sponsored by the Child and Family Health and Health Equity Special Interest Groups, convenes investigators with expertise utilizing a Food as Medicine (FAM) framework. This framework uses healthy foods (e.g., fruits and vegetables) for disease prevention and treatment, to promote nutrition security and food safety for health and well-being. Speakers include 1) the Scientific Medical Director at a large academic medical center; 2) a professor in public health at an academic institution and 3) a professor in nutritional sciences at a different academic institution. The leader in the field of FAM at the Gretchen Swanson Center for Nutrition will serve as the discussant. The goal of this symposium is to provide diverse perspectives on the successes and challenges to establishing strong clinic-community partnerships in FAM initiatives and offer opportunities to enhance these initiatives to improve health outcomes. Each speaker will present a unique lens in three complementary areas. The first speaker will present on clinical and evaluation challenges to screening for social risk factors, connecting patients to community resources, and receiving feedback on whether patients receive these resources. As a physician scientist, this speaker will integrate first-hand experiences and ongoing research throughout her talk. The second speaker will present on the processes following clinic referrals, including barriers patients experience when accessing food resources in the community. She will integrate the latest research, including her own pilot data from the Veggie Vouchers study on strategies to minimize barriers and encourage sustained food resource use. The final speaker will provide perspectives from a narrative review on barriers, contemporary practices, and recommendations for prospective FAM approaches, including policy, advocacy, with an eye towards implementation science to ensure future dissemination efforts are most effective. Lastly, the discussant will synthesize information across the presentations and provide perspectives on other national work around FAM. Across these three areas, attendees will gain a deeper understanding on recent evidence, lessons learned, successes and challenges, and future directions for FAM research, policy, and clinical care.

CORRESPONDING AUTHOR: Amy L. Yaroch, PhD, FSBM, Gretchen Swanson Center for Nutrition, Omaha, NE; ayaroch@centerfornutrition.org

---

Abstract citation ID: kaad011.0724

1: BARRIERS TO FOOD ACCESS AMONG CLINIC-TO-COMMUNITY FOOD AS MEDICINE PROGRAMS

Elizabeth L. Adams, PhD[1], Carrie Draper, MSW[2], Elizabeth Anderson-Steeves, PhD, RD[3], Kathryn Stephenson, MD[4], Beverly Wilson, MPH[5], Meghan Bastyr[1], abigail Berquist, BS in progress[2]

[1]University of South Carolina, Columbia, SC; [2]University of South Carolina; [3]Gretchen Swanson Center for Nutrition; [4]Prisma Health; [5]FoodShare

Clinic-based Food as Medicine programs often refer patients to community resources to promote food access and improve health outcomes. Yet, following a clinic referral, access to and uptake of community resources presents numerous challenges. For many families, barriers can include *inaccessibility* (transportation; hours of operation), *competing priorities* (other pressing basic needs; limited time); *social considerations* (perceived stigma), *temporary solutions* (lack of sustainability), and *novelty* (unfamiliar foods; inability to store or prepare foods), among others. Thus, evidence-based implementation strategies must be incorporated to mitigate barriers and maximize programmatic uptake of Food as Medicine programs for lasting sustainability. This talk will provide an overview on the latest research related to barriers and facilitators to community food resource uptake. Considerations for patients, providers, and community organizations will be discussed, followed by recommendations for future work to overcome these challenges. Integrated throughout this talk will be pilot data from the speaker's ongoing Veggie Vouchers study, evaluating a novel approach to reducing barriers to community food access among patients with low-income. Participants in the Veggie Vouchers study are screened for food insecurity during pediatric well-child visits. Pediatricians then provide food insecure families (N=100) who receive Supplemental Nutrition Assistance Program (SNAP) benefits with three vouchers for free fruit and vegetable (F&V) boxes at a community organization that participates in SNAP Healthy Bucks. F&V vouchers are intended to incentivize first-time use and encourage subsequent purchasing of F&V boxes using SNAP dollars. In the Healthy Bucks program, SNAP recipients can purchase these F&V boxes at half price or less, thus promoting sustainable and equitable nutrient-rich food access. An online portal is used to track voucher redemption and subsequent F&V box purchasing, with surveys on food insecurity, dietary quality, and perceptions of food boxes and voucher incentives. During this presentation, the Veggie Vouchers study protocol will be presented, along with mixed methods results on voucher redemption and subsequent F&V purchasing. Collectively, this session will provide attendees with greater knowledge on barriers to food access and strategies to encourage sustained resource use in the context of Food as Medicine.

Abstract citation ID: kaad011.0725

2: A CLINICIAN-RESEARCHER'S PERSPECTIVE ON THE CHALLENGES TO IMPLEMENTING AND EVALUATING SOCIAL RISK FACTOR SCREENING AND REFERRAL PROGRAMS WITHIN HEALTH SYSTEMS

Helena H. Laroche, MD[1], Michelle Manaskie, MPH[2], Nakita Sharma, MHA[2], Luke Harris, MBA[2]

[1]Children's Mercy Kansas City, Kansas City, MO; [2]Children's Mercy Integrated Care Solutions

In safety net pediatric healthcare systems, most (52-83%) families have one or more basic unmet need, such as food security. Food insecurity is linked with greater risk for child health conditions and hospitalization which increase healthcare costs. Thus, health systems are beginning to screen for social risk factors (SRF), with preliminary evidence showing benefits from screening and referral to aid organizations. However, robust evaluations are often lacking.

This presentation will provide high-level results and reflections from efforts in Kansas City and Children's Mercy Kansas City (CMKC) health system and affiliated pediatric practices (a clinically integrated network to deliver evidence-based care, care coordination and better health outcomes). Lessons learned from planning an evaluation of a screening and referral process for SRF will be discussed. The focus will be on implementation and evaluation challenges and research opportunities related to screening and referral by health care systems. Topics that will be covered include:

Screening: We will discuss challenges to implementing and evaluating screening. For example, organizations use different screeners. Some are standardized, few validated, and many are designed by organizations without testing. Even within CMKC affiliated practices screeners varied. Additionally, integrating screens into the EMR and clinic workflow and tracking outcomes can be challenging. Due to local insurer incentivized screening, providers tracked screening results via billing codes.

Addressing positive screens. Practices vary in resources and staff available to devote to connecting patients with community resources. The academic and private sector have created social care referral technology platforms. We will discuss limitations to utilizing such programs, implementation in practices and impact on community organizations.

Evaluating receipt of services. One of the biggest challenges is how health systems can receive feedback on whether services were provided to patients. CMKC purchased a social care referral platform and funded designated community-based organizations to accept electronic referrals and provide limited feedback on services provided. Referrals to other organizations and printed referrals were more difficult to track.

Health systems are using screening and referral programs to address SRF; however we don't understand the effectiveness of these programs because they are challenging to implement and evaluate.

Abstract citation ID: kaad011.0726

3: HOW CAN FOOD AND NUTRITION SUPPORT THE PREVENTION AND MANAGEMENT OF DIET-RELATED CHRONIC DISEASES? THE CASE FOR FOOD AS MEDICINE.

Roger Figueroa, PhD, MPH, MSc[1], Charles Platkins, PhD, JD, MPH[2], Natasha Pernicka, MPA[3], Rahul Verma, BSc (in progress)[4], Alexina Cather, MPH[5]

[1]Cornell University, Ithaca, NY; [2]New York City Food Policy Center, Hunter College, New York, NY, USA; [3]The Food Pantries for the Capital District, Albany, NY, USA; [4]Cornell University; [5]Center for Food as Medicine

There is significant evidence on the associations between dietary patterns and health, particularly on specific foods (i.e., sugar sweetened beverages (SSB), ultra-processed foods) that increase the likelihood of diet-related chronic disease conditions (i.e., type II diabetes, cardiovascular disease, cancer). However, emerging philosophies are hinting at the capability for food and nutrition to help build, maintain, and restore health. Through a Food as Medicine (FAM) lens, we examine the evidence base on FAM approaches to support the prevention and management of diet-related chronic diseases. Using evidence synthesis methods, a narrative review was conducted to summarize the barriers, contemporary practices, and recommendations for prospective FAM approaches. In our key findings, FAM barriers include the lack of rigorous nutrition training in the context of Western medicine, the increase of misinformation, and use of FAM as a "buzzword". Contemporary FAM practices include medically tailored meals and fruit and vegetable prescription programs (i.e., FVRx,), which preponderate as the primary FAM approaches in the literature and signaling at the need for a continuum of FAM practices that span from prevention to disease management. Lastly, recommendations fall under the following categories: a) *policy* (FAM-relevant evidence in Dietary Guidelines for Americans, increased federal funding through FAM-centered grant requests, sustainable funding through programs like Medicaid and Medicare, and strengthening food assistance safety net); b) *practice* (i.e., aggregation and coordination within FAM approach spectrum); c) *communications* (i.e., improvement of FAM communication strategies); d) *community* (i.e., increase of retail capacity to offer nutrient dense foods); and e) *medicine* (i.e., implementation of training programs and medical school FAM curricula, buy-in on food, nutrition, and dietetics in hospital settings, and healthcare and insurance incentives to address food insecurity). Implications of these findings will be discussed.

Abstract citation ID: kaad011.0727

SYMPOSIUM 19: USE OF NOVEL DATA COLLECTION METHODS TO MEASURE AFFECT IN RESPONSE AND RELATION TO PHYSICAL ACTIVITY

Courtney J. Stevens, PhD[1], Derek J. Hevel, PhD[2], Bridgette Do, MPH[3], Lauren C. Bohlen, PhD[4]

[1]Dartmouth-Hitchcock Medical Center, Lebanon, NH; [2]Boston University, Boston, MA; [3]University of Southern California, Santa Monica, CA; [4]Brown University School of Public Health, Providence, RI

Among the general population, efforts to identify underlying determinants of moderate-vigorous physical activity (MVPA) have increasingly emphasized the contribution of affective factors. For example, "affective responses to MVPA" (i.e., MVPA specific feelings of pleasure and arousal) have been shown to predict greater MVPA engagement over time. Also, "incidental affect" (i.e., non-MVPA specific feelings of pleasure and arousal), has been shown to predict daily variation in MVPA and sedentary time. Thus, affect may be considered a mechanism of action to target in interventions promoting MVPA. Historically, the evidence linking affective constructs to MVPA has come from controlled laboratory settings. However, more innovative methodologies are needed to better understand how and when affective constructs influence MVPA in the context of individuals' natural living environments. Ecological momentary assessment (EMA) is a method for capturing in-the-moment experiences of everyday life. EMA is particularly useful for capturing affect, which fluctuates within and across days based on contextual factors. Our symposium seeks to highlight novel EMA-based sampling strategies for measuring affective constructs in association with MVPA. First, Hevel examines the relationship between affect and MVPA among a sample of emerging adults (18-29 years) using smartphone-delivered EMA prompts at random time intervals and triggered in response to sensor-detected MVPA. He reports high compliance with this data collection method across the sample as well as differences in patterns of affect and MVPA when analyzed at the between- and within-person levels. Next, Stevens presents data from an ongoing, two-phase MVPA intervention trial for survivors of breast cancer informed by the (Obesity-Related Behavioral Intervention Trials) ORBIT model. Interviews with participant stakeholders suggested use of smartphone-based EMA to measure affective response during MVPA had low acceptability. Instead, participants proposed and endorsed a plan to collect affective response during MVPA via a wrist worn-smartwatch; Stevens details the process of engaging stakeholders to refine the EMA methodology for the second phase of the trial, consistent with ORBIT. Do investigates day-level associations of affective variability and MVPA using smartphones and smartwatches among young adults; findings indicate moment-to-moment fluctuations in positive-activated affect were associated with more day-level MVPA, whereas fluctuations in negative-deactivated affect were associated with less day-level physical activity. She discusses why it is important to look beyond mean levels of affect and understand the dynamic relationship between affective variability and MVPA. Finally, Bohlen synthesizes the lessons learned from the studies presented in this symposium and posits directions for future research.

CORRESPONDING AUTHOR: Courtney J. Stevens, PhD, Dartmouth-Hitchcock Medical Center, Lebanon, NH; courtney.j.stevens@dartmouth.edu

---

Abstract citation ID: kaad011.0728

1: USE OF THE ORBIT MODEL TO REFINE AN ECOLOGICAL MOMENTARY ASSESSMENT (EMA) PROTOCOL FOR COLLECTING AFFECTIVE RESPONSE DURING EXERCISE

Courtney J. Stevens, PhD[1], Kali Morrissette, BA[2], Chloe Lee, BA, MPH[3], Jennifer A. Emond, PhD, MS[4], Grace Crummer, AS[5], Kathleen Lyons, ScD[6], Martha Bruce, PhD, MPH[2], Mary Chamberlin, MD[2], David Williams, PhD, FSBM[7]

[1]Dartmouth-Hitchcock Medical Center, Lebanon, NH; [2]Dartmouth Health; [3]Dartmouth College; [4]Geisel School of Medicine at Dartmouth College, Hanover, NH; [5]Darmouth health; [6]MGH Institute of Health Professions; [7]Brown University, North Kingstown, RI

Background: Physical inactivity is a modifiable risk factor for breast cancer recurrence, but estimates suggest at least 50% of breast cancer survivors are insufficiently active.

Purpose: The present study aims to modify and refine the Physical Activity Hedonically Informed Training (PHIT) for Breast Cancer Recovery Study protocol to increase acceptability among breast cancer survivors. The Obesity-Related Behavioral Intervention Trials (ORBIT) model was devised to increase rigor in the process of developing behavioral interventions. ORBIT provides a roadmap for "bench to bedside" research translation for behavioral scientists. For instance, observational studies have consistently found positive associations between the affective response (AR) *during exercise* and subsequent exercise engagement. When testing the ability of intervention content to engage a target mechanism (e.g., AR), it is critical that the mechanism be reliably measured. Historically, the evidence linking AR to exercise has come from controlled laboratory studies. More recently, smartphone-delivered ecological momentary assessment (EMA) methodology has been used to collect AR in more ecologically valid exercise contexts; however, responding to EMAs on a smartphone *during exercise* poses additional challenges.

Method: Participants (N = 30) were >18 years, physically inactive, stage 0-III breast cancer survivors, with primary cancer-treatment completed within the last 5-years. PHIT Study I is a ORBIT Phase Ib (refine) single-arm trial (NCT04903249; intervention described elsewhere). Data were collected at four points over 12-weeks. The during exercise EMA protocol instructed participants to initiate data collection sessions during self-selected bouts of exercise. Core affect was measured every 5 minutes up to 30 exercise minutes and then every 10 minutes if participants exercised longer than 30 minutes. Acceptability was assessed via the Treatment Acceptability & Preferences (TAP) measure (range: 1– 4; higher scores indicate greater acceptability) and semi-structured interviews with participants at 12-weeks follow-up.

Results: While participants rated their experience participating in the study as acceptable overall (M = 3.3, SD = .53), >50% reported concerns about the during exercise EMA protocol. EMA collection via smartphone during exercise was described as "impractical for most exercise activities other than walking." Participants reported they would be more willing to respond to during exercise EMA prompts using a smartwatch (e.g., Fitbit) so that they would not have to carry anything extra with them.

Conclusion: Engaging participant stakeholders in intervention refinement, per ORBIT, yielded insights for improving data collection that will be tested in the next phase of development. Insights regarding why some methods are more acceptable in certain populations will be discussed.

Abstract citation ID: kaad011.0729

2: AFFECTIVE RESPONSES DURING PHYSICAL ACTIVITY IN EMERGING ADULTHOOD: AN ECOLOGICAL MOMENTARY ASSESSMENT STUDY

Derek J. Hevel, PhD[1], Jaclyn P. Maher, PhD[2]

[1]Boston University, Boston, MA; [2]University of North Carolina Greensboro, Greensboro, NC

Background: Many emerging adults (i.e., individuals aged 18-29 years) do not engage in the recommended levels of moderate-to vigorous-intensity physical activity (MVPA) and, thus, do not reap the health benefits. Affective experiences during MVPA likely influences future MVPA engagement as humans have innate urges to engage in behaviors that makes them feel good. Yet, there is limited understanding of affective experiences during MVPA in real-world environments.

Purpose: This study was designed to elucidate how bouts of MVPA influence affective responses during the behavior in real-world settings using Ecological Momentary Assessment (EMA).

Methods: Physically active emerging adults completed a 10-day study where they responded to random daily EMA prompts and wore an accelerometer to assess MVPA and trigger EMA prompts during bouts of MVPA. Random and triggered EMA prompts assessed affect (e.g., positive affect). Separate multilevel models examined how MVPA influenced affective responses during MVPA compared to non-MVPA occasions.

Results: Emerging adults (n=80; M_{age}=22.8; 79% Female; 56% White, 41% Black or African American; M_{BMI}=25.4) responded to 78% of the random prompts and 80% of the MVPA-triggered prompts. At the between-person level, emerging adults who, across the entire study, engaged in MVPA on a greater proportion of occasions experienced an increase in positive affect (b=24.90, SE=10.38, p=.02) and a decrease in negative affect (b=-39.69, SE=14.53, p=.01) but no difference in feelings of energy (b=13.72, SE=13.08, p=.30) or feelings of fatigue (b=-21.54, SE=16.44, p=.19) compared to those who engaged in MVPA on fewer occasions. At the within-person level, on occasions when emerging adults engaged in MVPA, they experienced a decrease in negative affect (b=-4.81, SE=1.31, p< .01) and feelings of fatigue (b=-7.22, SE=1.90, p< .01) and an increase feelings of energy (b=14.23, SE=2.07, p< .01) but no difference in positive affect (b=1.41, SE=1.36, p=.30) compared to non-MVPA occasions.

Conclusions: There is somewhat consistent evidence that bouts of MVPA can improve affective responses during MVPA compared to non-MVPA. Interventions may target instances of worsened affect and then promote MVPA as means for immediate improvements in affect. Future work should seek to understand: (1) how to improve affective responses during MVPA considering relevant contextual factors and (2) how affective responses can influence future MVPA engagement.

Abstract citation ID: kaad011.0730

3: INVESTIGATING DAY-LEVEL ASSOCIATIONS OF AFFECTIVE VARIABILITY WITH PHYSICAL ACTIVITY USING ECOLOGICAL MOMENTARY ASSESSMENT

Bridgette Do, MPH[1], Donald Hedeker, PhD[2], Wei-Lin Wang, PhD[3], Tyler Mason, PhD[4], Britni R. Belcher, PhD, MPH[4], Kimberly Miller, PhD, MPH[5], Alexander Rothman, PhD, FSBM[6], Stephen S. Intille, PhD[7], Genevieve F. Dunton, PhD, MPH, FSBM[4]

[1]University of Southern California, Santa Monica, CA; [2]University of Chicago, Chicago, IL; [3]University of Southern California, South Pasadena, CA; [4]University of Southern California, Los Angeles, CA; [5]University of Southern California; [6]University of Minnesota; [7]Northeastern University, Boston, MA

Background: Understanding affect as a determinant of physical activity (PA) has gained increased attention in health behavior research. Fluctuations in affect intensity from moment-to-moment (i.e., affective variability) may deplete self-regulatory resources, making it difficult to engage in goal-directed behaviors like PA. Preliminary evidence indicates that individuals with more affective variability engage in lower levels of overall PA. However, the dynamic nature of the associations between affective variability and within-subject PA is unknown. For example, are individuals less physically active on days with greater affective variability? This study used ecological momentary assessment (EMA) to elucidate day-level associations between affective variability (i.e., within-subject variance) and PA.

Methods: Young adults (N=236, M=23.61±3.19 years) provided 3 months of smartphone-based EMA and smartwatch-based activity data. Participants completed 4-day EMA measurement bursts every two weeks, which consisted of hourly signal-contingent EMA surveys assessing momentary positive-activated (happy, energetic), positive-deactivated (relaxed), negative-activated (tense, stressed), and negative-deactivated (sad, fatigued) affect. Participants continuously wore a smartwatch to measure PA across the entire 3 months. Mixed-effects location scale modeling simultaneously examined the effects of within-subject (i.e., day-level) PA on the affective variability and the mean levels of affect, controlling for covariates such as between-subject effects of PA, time of day, day of week, day in study, and smartwatch wear time.

Results: Overall, there were up to 42,028 EMA surveys in the analyses. Above and beyond mean levels of affect, variability in positive-activated affect was associated with more day-level PA compared to usual (B=0.01, p< .001), whereas variability in negative-deactivated affect was associated with less day-level PA compared to usual (B=-0.01, p< .001). Variability in positive-deactivated affect or negative-activated affect were not associated with day-level PA (ps >.05)

Conclusions: Individuals were less active on days with greater variability in feeling sad and fatigued but more active on days with greater variability in feeling happy and energetic. Fluctuations in negative-deactivated affect may deplete self-regulatory resources needed for PA, whereas engaging in PA may coincide with fluctuations in positive-activated affect. Understanding the dynamic relationships of affective variability with day-level PA can strengthen PA interventions by considering how these processes differ within individuals and unfold in the context in daily life. Future research should examine causal pathways between affective variability and PA across the day.

Abstract citation ID: kaad011.0731

SYMPOSIUM 20: WHERE EVIDENCE-BASED LITERATURE MEETS REAL WORLD IMPLEMENTATION: LEARNINGS FROM THE INDUSTRY FRONTLINES

Cynthia M. Castro Sweet, PhD, FSBM[1], Leanne Kaye, PhD, MPH, RD[2], Valerie H. Myers, PhD, FSBM[3], Trina M. Histon, PhD[4]

[1]Modern Health, Chimacum, WA; [2]ResMed, Redwood City, CA; [3]Glooko, Inc., LITTLETON, CO; [4]Kaiser Permanente, Oakland, CA

Digital health is an ever-expanding field with new research, modalities and algorithms being developed daily. Industry behavioral scientists are in the unique position to access such innovations and bridge them with evidence-based learnings when implementing real-world digital health programs and product solutions. This symposium goes to the heart of the Society's mission of translating science into impact, with industry behavioral scientists detailing lessons learned from the frontlines of designing and implementing digital programs for real-world populations.

The first speaker, a leader in the translation of evidence-based programs to commercial settings, will describe the unique challenges and opportunities encountered in the translation of evidence-based mental health interventions into real-world conditions. Specifically, the speaker will focus on the current evidence for digital mental health interventions, the value of clinical assessments and outcomes, and the role of healthcare providers.

The next speaker, and session Chair, has worked in clinical and industry settings for more than a decade, and will share implementation learnings for three patient care models in asthma and chronic obstructive pulmonary disease management. The speaker will focus on the importance of designing programs with patient and healthcare providers in mind, the value of ongoing programmatic and technical support, and the importance of securing dedicated resources and organizational champions.

The third speaker, a highly-respected academic and industry professional, will not only share her experience in implementing a comprehensive digital solution for diabetes management, detailing unique patient and healthcare provider perspectives, but will also delve into clinical workflow adaptation. Further, the speaker will expand on the need and importance for precision engagement technology to drive medication adherence and patient retention.

Finally, the discussant, who serves as a national leader in digital health and wellness, and works for a large integrated managed care consortium, will provide perspectives on the session drawing on both presentation learnings as well as professional experience in translating evidence-based research into practice for commercial digital health tools across the wellness space.

CORRESPONDING AUTHOR: Leanne Kaye, PhD, MPH, RD, ResMed, Redwood City, CA; leanne.kaye@resmed.com

---

Abstract citation ID: kaad011.0732

1: IMPLEMENTATION CHALLENGES IN THE TRANSLATION OF SCIENCE FROM RESEARCH TO PRACTICE IN MENTAL HEALTH

Cynthia M. Castro Sweet, PhD, FSBM[1], Sara J. Sagui-Henson, PhD[2], Julia B. Corcoran, PsyD[2], Myra Altman, PhD[2]

[1]Modern Health, Chimacum, WA; [2]Modern Health, San Francisco, CA

Digital health solutions in the mental health space are proliferating and bringing important discoveries from clinical research into health care delivery to reach wider audiences and provide more rapid and affordable access to mental health services. This presentation will highlight some of the unique challenges and opportunities encountered during this transition from science to scalable practice, and offer suggestions to improve the translation of evidence-based mental health interventions for better and broader implementation in real-world conditions. The presentation will focus on one exemplar digital mental health platform that provides comprehensive services including self-guided digital content, group-based psychoeducational sessions, and access to a global network of professional coaches and licensed clinicians for one-on-one care. The platform is available as an employer-sponsored benefit, has been deployed to over 300 companies, and provides access to over one million eligible employees across 60 countries, with digital content available in over 13 languages and mental health providers fluent in over 50 languages. Some of the challenges encountered in scaling up this platform are centered around themes of (1) the evidence-base for interventions, (2) the role of clinical assessment and outcomes, and (3) the role of providers. In terms of the evidence base, we will highlight the gaps and unevenness of research on the efficacy of care modalities for different mental health concerns and in different global regions. On the topic of assessment and outcomes, we will discuss the tensions around the use and availability of validated clinical assessments to track a variety of mental health outcomes while also balancing participant burden and the user experience. Finally, we will provide an overview of the various challenges presented by working with mental health providers outside of a research setting. The challenges include developing methods to ensure and monitor consistency, quality, and fidelity to evidence-based approaches on a global scale; strategies to train and support providers in incorporating concepts of cultural-humility into practice; interoperability challenges in supporting providers with digital tools; and extending services to existing provider networks and health systems. While the challenges may seem daunting, they also underscore opportunities for implementation science and the value of translational research.

Abstract citation ID: kaad011.0733

2: ADAPTING DIGITAL HEALTH INTERVENTIONS FOR ASTHMA AND COPD FOR REAL-WORLD IMPLEMENTATION

Leanne Kaye, PhD, MPH, RD[1], Helen Lyson, PhD[2], Meredith A. Barrett, PhD[3]

[1]ResMed, Redwood City, CA; [2]ResMed; [3]ResMed, NA, OR

Introduction: The COVID-19 pandemic was a major catalyst in the broad adoption of digital tools to support clinical care in chronic respiratory illnesses like asthma and chronic obstructive pulmonary disease (COPD). However, the implementation and scaling of digital tools for asthma and COPD has proven challenging with tensions arising between evidence-based design and real-world practice.

Methods: We examine how an FDA-cleared digital platform for asthma and COPD self-management (Propeller Health) may be adapted for real-world implementation, and how this may differ by type of patient care model. The digital platform includes sensors to capture inhaler medication use, a paired patient app for medication reminders and tracking, and a web-based clinician portal. We share practical learnings from implementing the platform in three real-world asthma and COPD care scenarios: 1) a clinically-integrated, dual-eligible Medicare program for older adults with COPD, 2) care model for patients with asthma and COPD that includes healthcare provider (HCP) involvement (vs. self-management alone), and 3) an integrated delivery network clinical pharmacist-led program for patients with asthma and COPD.

Results: While each care model presented unique challenges and opportunities, four common themes emerged across all models at each stage of program implementation. First was the early identification of organizational and clinical champions, who were vital to clarifying shared objectives, securing operational budget and resources for implementation, and helping to resolve unforeseen challenges. Second was ensuring alignment of the digital solution to the program-specific patient population. We found that, to be successful, digital solutions needed to be thoughtfully adapted based on population demographics and patient resources, and in doing so, often highlighted the breadth of inequities that affect digital health implementation. Third was the tension between the need for HCP involvement and provider burden in determining how to best promote adoption and retention by lowering HCP entry points (e.g., through electronic health record integration) and creating value for the user. Finally, we found value in ongoing programmatic and technical support for patients and HCPs in the adoption and long-term use of digital tools.

Conclusion: Digital health platforms are effective self-management tools for asthma and COPD, but their real-world translation should consider unique care model designs and workflows, population demographics, programmatic and technical support, and available resources and program champions.

Abstract citation ID: kaad011.0734

3: SCALABILITY AND UTILITY OF A COMPREHENSIVE, CONNECTED CARE PLATFORM FOR DIABETES MANAGEMENT: CHALLENGES AND SOLUTIONS

Valerie H. Myers, PhD, FSBM[1], Sanaz Nosrat, PhD[2], Edward T. Nykaza, PhD, MS[3], Mark Clements, MD, PhD[4], Komathi Stem, MS[5]

[1]Glooko, Inc., LITTLETON, CO; [2]Glooko, Inc., New York, NY; [3]Glooko, Inc., Palo Alto, CA; [4]Glooko, Inc., Roeland, KS; [5]Glooko, Inc.

Digital health tools such as connected care devices and self-management mobile apps can support the monitoring and management of cardiometabolic disease including diabetes. Digital solutions have the ability to collect a high volume and variety of data. However, the utility of many digital health tools is lessened by their inability to scale and synthesize data into actionable insights for patients, providers, and payers. Leveraging the large amount of device data effectively can enable personalized healthcare that delivers better outcomes at lower costs. This presentation will feature a connected care diabetes management solution that is addressing these current gaps in digital health by mobilizing the collaboration between care teams and people living with diabetes (PWD). This platform provides a comprehensive view of diabetes-related information via a data-driven, high touch digital health experience powered by population health tools, actionable insights, and longitudinal real-world data. The platform is device-agnostic; syncing data from over 95% of all diabetes devices on the market and other health and wellness devices such as activity trackers, blood pressure monitors, and scales. PWDs are able to monitor their data using a real-time mobile app. Care teams have remote access to patient data and are able to identify at-risk patients to deliver timely and remote-based interventions (e.g., coaching) outside of routine clinic visits. The platform is currently available in 8,000 clinics across 30+ countries and 22+ languages. This presentation will address challenges and solutions to scalability and utility from the patient and provider perspectives including (1) integrating digital health data into the workflow of providers; (2) enabling the daily decision making of PWDs for improved disease self-management; and (3) enabling providers to directly engage at-risk patients to achieve population health goals. In addition, we will discuss how we are leveraging real-world data from the platform to accelerate the speed of clinical trials while providing precision engagement technology to drive patient engagement and adherence via digital therapeutics.

Abstract citation ID: kaad011.0735

SYMPOSIUM 21: COMPOSITIONAL APPROACHES FOR 24-HOUR MOVEMENT BEHAVIOR DATA ANALYSIS: OPPORTUNITIES TO RETHINK STANDARD METHODS

Christine W. St Laurent, PhD[1], Christopher D. Pfledderer, PhD[2], Sarah Burkart, PhD[2], Denver M. Brown, PhD[3]

[1]University of Massachusetts Amherst, Belchertown, MA; [2]University of South Carolina, Columbia, SC; [3]The University of Texas at San Antonio, San Antonio, TX

Sedentary behavior, physical activity (PA), and sleep (24-hr movement behaviors – or MBs) broadly make up a daily sleep and wake cycle. Independently, MBs are associated with a variety of physical, psychosocial, and cognitive outcomes. However, there is growing evidence that MBs have interactive influences on a range of health-related indicators across the lifespan. Thus, an increased advocacy for considering, understanding, and promoting MBs has emerged. One approach to examine interactions of these behaviors is exploring compliance with MB recommendations as the exposure of interest. However, this typically involves dichotomizing behaviors and therefore ignores much of the variability. Alternatively, researchers interested in the nuances of time use patterns across the whole day have commonly used traditional analytic methods that treat 24-hr data as absolute information, which fails to account for the compositional (i.e., relative) nature of such behaviors given that they are co-dependent and bounded to a 24-hr day. Compositional data analysis (CoDA) is an approach that has gained increasing support, particularly amongst physical activity researchers, but applications span beyond this and may be of interest to sleep researchers as well. An alternative method to consider variables that are components of a constrained whole, it reduces risk of multicollinearity inherent in such data when considered in absolute terms. Components are transformed into log-ratios to explore MBs relative to remaining components of a composition and then can be entered in traditional models. A prevalent approach is examining associations between a MB of interest and a health outcome while also accounting for time spent in other behaviors, as well as the estimated effect on that relationship when time is reallocated from one behavior to others. In this symposium, presenters will describe three examples of how PA and sleep researchers can explore their health data in this manner using CoDA. Through a series of analyses, presenters will illustrate how components of wake or sleep periods can be considered together in linear regression models. The discussant will review the benefits of exploring behavioral data with CoDA, highlight some other relevant applications to common behavioral research questions, address challenges and future directions to consider, and provide resources for attendees to learn about applying this approach to their own work.

CORRESPONDING AUTHOR: Christine W. St Laurent, PhD, University of Massachusetts Amherst, Belchertown, MA; cstlaurent@umass.edu

---

Abstract citation ID: kaad011.0736

1: RELATIONS BETWEEN SLEEP COMPOSITIONS AND PHYSICAL ACTIVITY IN EARLY CHILDHOOD

Christine W. St Laurent, PhD[1], Tracy Riggins, PhD, MPH[2], Sanna Lokhandwala, BS[3], Rebecca Spencer, PhD, MPH[3]

[1]University of Massachusetts Amherst, Belchertown, MA; [2]University of Maryland College Park, College Park, MD; [3]University of Massachusetts Amherst, Amherst, MA

Background: Physical activity (PA) is generally favorably associated with sleep in older adults and children. However, evidence of the inter-relationships of sleep and PA is inconsistent in early childhood, and most studies have explored sleep metrics and PA independently. Thus, time use epidemiologists advocate for approaches such as compositional data analysis (CoDA) that allow researchers to explore behaviors of the 24-hr cycle while accounting for their co-dependence. Although limited research applying CoDA has emerged in early childhood, compositions are typically focused on daytime measures (e.g., sedentary behavior and PA intensities). Importantly, time in bed is often considered a proxy of sleep time, and other meaningful subcomponents, such as wake during sleep periods and sleep stages (sleep architecture), have not been considered.

Purpose: To determine if actigraphy-measured overnight sleep compositions and polysomnography (PSG)-measured nap sleep architecture are associated with PA in preschool children.

Methods: Data will stem from two preschool studies (n=342 children; age: 50.8±9.4 months). Actigraphy-measured overnight sleep metrics will be used from the full sample (9.6±3.7 nights). The overnight sleep composition (sleep v. wake) will include sleep onset latency, sleep duration, and wake after sleep onset. In a subsample of participants (n=51), nap sleep was measured by ambulatory PSG. The nap sleep composition will include wake, rapid eye movement (R) sleep and non-R (N) sleep stages 1, 2 and 3. Average actigraphy-measured activity counts/min (10.7±3.6 days) will serve as the PA variable. Two linear regression models with CoDA (one for each composition) adjusted for appropriate covariates will be run with PA as the outcome. Sleep metrics will be transformed into isometric-log ratios for the compositions as independent variables. Isotemporal substitution will be used to estimate effects of 10-minute time reallocations between sleep metrics on PA.

Results: It is expected that the overnight and nap sleep compositions will be associated with PA and that reallocated time to sleep duration (for overnight) or N3 sleep (for nap) will be associated with increases in PA.

Conclusions: This analysis exploring associations of sleep compositions and PA is an extension of how CoDA is commonly applied with 24-hr behaviors. Findings will suggest whether specific sleep components are more relevant than time in bed for PA levels of young children.

Abstract citation ID: kaad011.0737

2: THE INFLUENCE OF DIFFERENT DATA HANDLING STRATEGIES ON ASSOCIATIONS BETWEEN MOVEMENT BEHAVIORS AND HEALTH OUTCOMES USING COMPOSITIONAL DATA ANALYSIS.

Christopher D. Pfledderer, PhD[1], Sarah Burkart, PhD[1], R Glenn Weaver, PhD[1], Michael Beets, PhD, MEd, MPH[2]

[1]University of South Carolina, Columbia, SC; [2]University of South Carolina, Columbia, SC

Background: Variability in how data is handled prior to performing Compositional Data Analysis (CoDA) on 24-hour movement behaviors and health outcomes of interest may differentially impact results. Researchers may average movement behaviors across multiple days, use weighted averages of weekdays and weekend days, or have a limited number of days of data with which to analyze. The purpose of this symposium presentation will be to illustrate how different data handling strategies may influence results generated from CoDA.

Methods: A CoDA approach will be used to assess the association between 24-hour movement behaviors (physical activity, sedentary behavior, and sleep) and body mass index (BMI) in a sample of 524 children (ages 5-12) from an observational cohort with complete 24-hour movement behavior measures on at least 10 days. Means and standard deviations will be calculated for the BMI outcome and robust compositional means will be calculated for the three 24-hour movement behaviors by first calculating the geometric mean of each movement behavior separately and then closing the geometric means of all components to 1440 minutes (24 hours). Compositions will be mapped into real space via isometric log-ratio (ilr) transformation and covariates will be expressed via pivot coordinates. Results from CoDA will be compared across three data handling situations: 1) Averaging behaviors across all measured days, 2) averaging behaviors across a random sample of 4 days (3 weekdays and 1 weekend day) across 10 iterations, and 3) averaging behaviors across a weighted random sample of 3 weekdays and 1 weekend day across 10 iterations.

Results: Differences in associations between 24-hour movement behaviors and BMI will be compared across three data handling strategies. Differences in mean time-use compositions between different data handling strategies will also be discussed.

Discussion: Results from this presentation will spark discussion about how researchers handle data prior to performing CoDA and shed light on how differences in the amount and type of data may influence estimates produced from CoDA approaches.

Abstract citation ID: kaad011.0738

3: ASSOCIATIONS BETWEEN 24-HOUR MOVEMENT BEHAVIORS AND CHRONOTYPE IN CHILDREN: AN APPLICATION OF STANDARD AND COMPOSITIONAL ANALYTIC APPROACHES

Sarah Burkart, PhD[1], Christopher D. Pfledderer, PhD[1], Bridget Armstrong, PhD[2], Elizabeth L. Adams, PhD[1], R Glenn Weaver, PhD[1], Michael Beets, PhD, MEd, MPH[2]

[1]University of South Carolina, Columbia, SC; [2]University of South Carolina, Columbia, SC

Background: Achieving optimal balance of physical activity, sedentary behavior, and sleep is paramount to healthy development. As 24-hr movement behaviors have typically been studied in isolation, compositional data analysis (CoDA) can account for the co-dependence amongst behaviors and improve our understanding of time use and outcomes of interest. To illustrate differences in analytic approaches and inferences using CoDA compared to standard regression, we will use data from a longitudinal cohort study to examine if 24-hr movement behaviors are associated with chronotype in children. Chronotype (i.e., circadian-based continuum between morningness-eveningness preference) contributes to individual differences in sleep-wake timing and daily activities. As a shift towards eveningness occurs in adolescence, it is unclear if chronotype is related to 24-hr movement behaviors in younger children.

Purpose: To illustrate differences between standard and CoDA analytic methods by examining if device-measured 24-hr movement behavior compositions are associated with chronotype in children.

Methods: Children (n=560, K-5th grade, 49% female) participating in a longitudinal cohort study wore an Actigraph GT9X accelerometer to assess 24-hour movement behaviors for 14 days in Spring 2021. Raw accelerometry data were processed in GGIR (v.2.6-4). The 24-hour movement behavior composition will include minutes spent asleep, inactive, in light activity, and in moderate to vigorous activity. Parents completed a single item about their child's chronotype and indicated whether their child was a: 1) definitely morning, 2) moderately morning, 3) neither, 4) moderately evening, or 5) definitely evening type of person. Covariates include age, sex, and household income. Associations will be analyzed two ways to illustrate nuance between methods using: 1) standard regression and 2) CoDA. Compositional means will be calculated and transformed using isometric log ratios. Regression models will examine associations between overall composition and chronotype. Further, associations of each movement behavior relative to the other behaviors and chronotype will be examined.

Results: Chronotype was categorized as preference for morningness (50% of children), intermediate (11% of children), and eveningness (39% of children). It is hypothesized that inferences regarding associations will differ between standard and CoDA analyses. Further, the 24-hour movement behavior composition will be associated with chronotype such that children with morningness preference will engage in more sleep and physical activity, and less inactive time.

Conclusions: We will demonstrate one application of CoDA as part of a symposium designed to introduce sleep and physical activity researchers to this analytic method. Findings will describe 24-hour movement behavior compositions by chronotype in children.

Abstract citation ID: kaad011.0739

SYMPOSIUM 22: CONDUCTING FULLY REMOTE TRIALS FOR BEHAVIORAL MEDICINE INTERVENTIONS: LESSONS LEARNED AND FUTURE OPPORTUNITIES

Michele L. Patel, PhD[1], Christina M. Hopkins, PhD[2], Kara L. Gavin, PhD, MPH[3], Amanda E. Staiano, PhD, FSBM[4]

[1]Stanford University, Menlo Park, CA; [2]Drexel University WELL Center, philadelphia, PA; [3]University of Wisconsin, Madison, WI; [4]LSU's Pennington Biomedical Research Center, Baton Rouge, LA

Fully remote trials (whereby all study procedures are conducted remotely) provide a novel opportunity to increase operational efficiency, internal validity, and generalizability of behavioral intervention research. Additionally, a fully remote format is a pragmatic method that allows for greater reach to geographically diverse settings and has the potential to speed recruitment, increase retention, and promote engagement by minimizing barriers to participation. Special attention to design considerations is needed to ensure that fully remote trials run as intended. This topic is particularly timely as more researchers are considering moving toward pragmatic trial designs as improvements in digital technologies make possible the adoption of remote procedures. This symposium will showcase three remote clinical trials in behavioral interventions, spanning different topic areas, digital tools, and target populations. Each talk will describe remote strategies used for recruitment, assessment, and intervention delivery, while highlighting lessons learned and future opportunities. The first talk (the *Ruby* trial) will discuss development and execution of a standalone remote intervention that used mindful self-compassion practices to reduce weight bias internalization (WBI) among adults with obesity and elevated WBI. Participants received text messages with video and audio guides, and the study team used tools such as Twilio, Vyond, and ResearchMatch. The second talk (the *Partner2Lose* trial) will highlight strategies for taking a behavioral weight loss intervention remote due to the COVID-19 pandemic. This trial leveraged electronic scales, Fitbits, and electronic data verification methods The third talk (the *GamerFit* trial) will present a remote intervention and trial that delivers physical activity and sleep promotion to youth with psychiatric diagnoses. Intervention participants received a Fitbit, exergames, an investigator-designed mobile app with exergaming challenges and on-demand exercise and health tip videos in the style of TikTok, and telehealth coaching. The discussant will gather insights from across these three presentations to synthesize recommendations, challenges, and concrete strategies for conducting fully remote trials. Taken together, the goal of this symposium is to equip behavioral medicine researchers with a better understanding of how to employ a fully remote format in their own clinical trials.

CORRESPONDING AUTHOR: Michele L. Patel, PhD, Stanford University, Menlo Park, CA; michele.patel@stanford.edu

---

Abstract citation ID: kaad011.0740

1: DEVELOPMENT OF RUBY: A STANDALONE DIGITAL INTERVENTION FOR INTERNALIZED WEIGHT BIAS

Christina M. Hopkins, PhD[1], Hailey Miller, PhD RN[2], Dori Steinberg, PhD, RD[3], Gary G. Bennett, PhD[4]

[1]Drexel University WELL Center, philadelphia, PA; [2]Johns Hopkins University, Baltimore, MD; [3]Equip Health, Chapel Hill, NC; [4]Duke University, Durham, NC

Ruby tested the efficacy of a digitally delivered 4-week mindful self-compassion intervention designed to reduce internalized weight bias, compared to wait list control. All recruitment, assessment, and intervention components were delivered remotely in a standalone fashion (i.e., without clinician intervention). The intervention content was delivered via text message. We recruited 120 adults with elevated weight bias internalization who reported a body mass index above 30 kg/m^2. Trial recruitment was conducted primarily via ResearchMatch, an online database of potential research participants, which allowed us to target specific demographics (e.g., race, LGBT, BMI) and time zones (EST). All recruitment channels funneled participants to an automated screening process conducted via REDCap. Primary outcome assessments were conducted at baseline (day 0) and end-of-treatment (day 28); weekly engagement assessments and action plans were distributed at the end of each week. All assessments were hosted on REDCap and were sent via email and/or text message. An automated reminder system was deployed to maximize completion of assessments. The various intervention components of Ruby were centralized on our study website and links were sent to participants on a daily basis to assign intervention tasks, share relevant content, and provide tips, reminders, and encouragement. All text messages were pre-populated and were delivered on a pre-set schedule using an integration between Twilio and REDCap. Intervention content was created and hosted using various online platforms (i.e., YouTube, Soundcloud, Vyond animation software). Overall, participants were able to use and benefit from an entirely remote standalone intervention with relative ease. Ruby was a very low cost intervention that was developed and executed by a team of two individuals, and is thus highly scalable. Trials designed in this fashion would benefit from greater attention to: (1) tailoring based on engagement or disengagement with the intervention content, (2) the pros and cons of personalization, and (3) strategies that would allow for improved measurement of unique user behavior within an entirely remote trial.

Abstract citation ID: kaad011.0741

2: TAKING AN IN PERSON WEIGHT MANAGEMENT STUDY VIRTUAL: LESSONS LEARNED FROM THE PARTNER2LOSE STUDY

Kara L. Gavin, PhD, MPH[1], Ryan Shaw, PhD, RN[2], Laura S. Porter, PhD[3], Whitney Sharp, MPH, RD[4], Samantha Pabich, MD[5], Megan A. Lewis, PhD, FSBM[6], Heather Johnson, MD[7], William Yancy, MD[8], Kristen Gray, PhD[9], Corrine I. Voils, PhD[10]

[1]University of Wisconsin, Madison, WI; [2]Duke School of Nursing; [3]Department of Psychiatry and Behavioral Sciences, Duke University School of Medicine, Durham, NC; [4]University of Wisconsin; [5]Univesrity of Wisconsin; [6]RTI International, Seattle, WA; [7]Baptist Health Boca Raton Regional Hospital; [8]Duke University School of Medicine; [9]VA Puget Sound Health Care System; [10]University of Wisconsin School of Medicine and Public Health, Madison, WI

The Partner2Lose study was a randomized controlled trial comparing the inclusion of domestic partners to a participant-only weight management program. The trial was conducted in 5 cohorts, staggered 6 months apart. The participant intervention was identical in both arms and involved group weight loss sessions with didactic education and a short physical activity portion (months 1-6) followed by maintenance-specific group sessions and individual telephone calls (months 7-18). In the partner-assisted arm, domestic partners attended a portion of the classes and calls with the index participant. The primary outcome was measured weight at 24 months. Recruitment was accomplished via study website where potential participants and partners completed a screening questionnaire. Couples passing the online screening were then scheduled for an enrollment visit. At the beginning of the third cohort, when the COVID-19 pandemic started, the trial transitioned from in-person to fully remote intervention delivery and data collection. For intervention delivery, group sessions transitioned from in-person to virtual using teleconferencing software. For data collection, participants were mailed digital scales and instructed to take a photo of their feet and the number on the scale visible and email it to the study team. During this time, participants were also asked to come for an outdoor in-person weight data collection as a validation measure for the digital scales. The transition to remote delivery resulted in several important lessons learned. The virtual group sessions required more staff time to prepare and familiarize participants with teleconference software. Due to the quick transition to the virtual format the physical activity portion had to be removed from the intervention sessions. Attendance improved in the first six months. Comparison of in-person weights to remote weights showed high agreement. Nonetheless, verification of photos by study staff was time-intensive and raised privacy concerns among some participants. While attendance appeared to improve with remote delivery in the short-term, future analyses will examine the magnitude of improvement, whether it was sustained, and if changes in attendance in remotely delivered sessions were associated with improved weight loss.

Abstract citation ID: kaad011.0742

3: REMOTE DELIVERY OF A DIGITAL INTERVENTION TO IMPROVE PHYSICAL ACTIVITY AND SLEEP BEHAVIORS IN YOUTH WITH PSYCHIATRIC DIAGNOSES (GAMERFIT)

Amanda E. Staiano, PhD, FSBM[1], Robbie Beyl, PhD[2], Sarabeth Broder-Fingert, MD[3], Tara Daly, MS[4], Lindsay Hall, MA[5], Winston Kennedy, PT, DPT, MPH, PhD[6], Laura Kurdziel, PhD[4], Phillip J. Nauta, MBA[7], James Slavet, PhD[8], Christopher Stuetzle, PhD[6], April B. Bowling, MA, ScD[6]

[1]LSU's Pennington Biomedical Research Center, Baton Rouge, LA; [2]Pennington Biomedical Research Center, Baton Rouge, LA; [3]Boston University School of Medicine; [4]Merrimack College; [5]LSU Pennington Biomedical Research Center; [6]Merrimack College, North Andover, MA; [7]Pennington Biomedical Research Center, BATON ROUGE, LA; [8]Marblehead Family Therapy and Wellness, Marblehead, MA

The goal of "GamerFit" is to test the delivery of a theory-based mHealth app that utilizes social support, exergaming, and telehealth coaching to improve physical activity (PA) levels, sleep, and psychiatric symptoms among youth participants (ages 14-17 y) with psychiatric diagnoses. In a fully remote trial, sixty participants are randomized to either the GamerFit app with weekly telehealth coaching sessions (n=30) or to a comparator group using a commercial healthy habits app (Fitbit; n=30). Remote recruitment occurs via clinical referrals through both telehealth and on-site visits; outreach to therapeutic schools and parent support groups; online campaigns; and advocacy group newsletters and listservs. Following an initial webscreen, a virtual screening and consent visit are conducted via a HIPAA-compliant video platform and REDCap software. Adolescents are mailed an accelerometer to wear for 7-days, 24 hours/day to estimate physical activity and sleep, then they and their parents complete a baseline survey via REDCap to report sleep hygiene, lifestyle behaviors, affect, executive function, benefits and barriers to exercise, social isolation and support, and health-related quality of life. Following randomization, adolescents in the GamerFit condition complete daily in-app journal entries to report the context of their physical activity, sleep quality, and affect. Measurements are repeated at end-of-intervention (week 12) and follow-up (week 16), including periodic acceptability surveys. GamerFit participants receive weekly telehealth sessions with an intervention coach, a Fitbit activity tracker device, the GamerFit app on their mobile device, on-demand exercise and health tip videos, exergaming console and games, and follow a 12-week self-directed exergaming curriculum provided by the app. Physical activity (PA) goals increase during the intervention up to 60 minutes/session. The comparator condition receives the same Fitbit device. They also receive instructions on using the Fitbit PA and sleep tracking features, as well as a booklet of healthy habit tips and reminders to charge and review their Fitbit data for the duration of the intervention. Pilot testing indicated several areas to improve the remote delivery of the intervention, including the gamification of the app, additional resources for orienting parents to the intervention, and training for coaches and data collectors for working with youth with psychiatric diagnoses and comorbid neurodevelopmental diagnoses such as autism.

Abstract citation ID: kaad011.0743

SYMPOSIUM 23: FROM CELLS TO CELL PHONES: METHODS FOR ASSESSING PSYCHOSOCIAL OUTCOMES IN CANCER PATIENT-CAREGIVER DYADS

Erin E. Kent, PhD, MS[1], Youngmee Kim, PhD[2], Tess Thompson, PhD, MPH[3], Shelby Langer, PhD, FSBM[4], Maija Reblin, FSBM[5]

[1]University of North Carolina at Chapel Hill, Chapel Hill, NC; [2]University of Miami, Coral Gables, FL; [3]Washington University in St. Louis, St. Louis, MO; [4]Arizona State University, Phoenix, AZ; [5]University of Vermont, Burlington, VT

Cancer affects not only the individuals diagnosed, but also those that provide care and assistance throughout the illness experience. Commonly, family caregivers act as the primary source of support and are also significantly impacted by the experiences of illness and treatment. Conceptualizing cancer as a patient-caregiver dyadic phenomenon provides the opportunity to examine the interpersonal processes impacted by illness. Studies of cancer patient-caregiver dyads both provide insights into the ways cancer interrupts relational functioning and help to identify intervention targets to improve both individual and relationship outcomes. This symposium will provide an overview and findings from current research about cancer patient and caregiver dyadic psychosocial outcomes. First, Dr. Erin Kent will provide an overview about cancer patient and caregiver dyadic psychosocial outcomes in national U.S. data. Next, speakers will present three empirical studies that demonstrate different methods for capturing dyadic information. Dr. Youngmee Kim will present results of an experimental study on neuroendocrine responses to acute stress associated with participant-reported sleep quality in n = 66 colorectal cancer patient-spousal caregiver dyads. Next, Dr. Tess Thompson will present data on associations between unmet social needs (e.g., money, food, housing) and depressive symptoms in n = 71 Black/African American patients with breast cancer and their primary caregivers. Finally, Dr. Shelby Langer will present findings of a study employing ecological momentary assessments for 14 days examining communication quality among n = 353 couples coping with breast, colorectal, and lung cancer. Dr. Maija Reblin will synthesize lessons learned from these studies, with an emphasis on how to integrate findings from methodologies that range from biomarker measurement (eg. “cells”) to ecological momentary assessment (eg. “cell phones”). Together, the presentations in this symposium will provide insights into conceptualizing and measuring dyadic outcomes in behavioral research and discuss how these findings can be translated into impact.

CORRESPONDING AUTHOR: Erin E. Kent, PhD, MS, University of North Carolina at Chapel Hill, Chapel Hill, NC; erin.kent@unc.edu

---

Abstract citation ID: kaad011.0744

1: DYADIC EFFECTS OF CORTISOL STRESS RESPONSE ON DAILY SLEEP EFFICIENCY IN CANCER PATIENTS AND THEIR SPOUSAL CAREGIVERS

Youngmee Kim, PhD[1], Thomas C. Tsai, BS[2], Armando Mendez, PhD[3]

[1]University of Miami, Coral Gables, FL; [2]University of Miami, Miami, FL; [3]University of Miami

Cancer diagnosis per se is an acute stressor while the post-cancer experience is a repeated and chronic stressor. Acute psychophysiological response patterns to a discrete stressor have been proven to be significant indicators of a broad array of long-term health outcomes, including sleep. Cancer-related stress responses are also known to be interdependent between patients and their caregivers. This study aimed to investigate the extent to which neuroendocrine responses to acute stress predict daily sleep health in adult cancer patient-caregiver dyads.

Newly diagnosed colorectal cancer patients (N=66, 55.5 years old, 34.6% female, 6 months post-diagnosis) and their spousal caregivers (53.7 years old) participated in an experimental study where interpersonal and health-related stress was induced. Acute neuroendocrine (cortisol) and self-reported stress were assessed before stress onset (baseline), at the end of stress onset (stress reactivity), and 12 minutes after stress offset (stress recovery). Participants also completed daily sleep diaries over 14 consecutive days from which sleep efficiency (SE) was derived.

Both patients and caregivers displayed significant changes in cortisol and perceived stress in response to the experimental stressor, and reported poor daily SE (≤85%). Multilevel modeling predicting one’s SE by the partner’s SE as well as one’s and partner’s reactivity and recovery of cortisol and perceived stress revealed that patients’ greater SE was associated with their caregivers’ SE (b=.113, p=.006), which tended to be more prominent when the caregiver had greater cortisol recovery and the patient had greater perceived stress reactivity (b≥.074, p≤.08). Caregivers’ greater SE was associated with their patients’ SE (b=.069, p=.047), which was more prominent when the caregiver themselves had greater cortisol recovery (b=.951, p=.025), and tended to be more prominent when their patient had greater perceived stress reactivity and recovery (b≥.036, p≤.10).

Findings highlight the interdependence of sleep health between patients and their spousal caregivers and the significant role of caregivers’ physiological stress recovery in the sleep health of both patients and caregiver themselves. Investigation of psychobehavioral and interpersonal pathways is warranted for the development of effective dyadic interventions for adult cancer patients and their spousal caregivers.

Abstract citation ID: kaad011.0745

2: UNMET SOCIAL NEEDS AND DISTRESS IN BLACK BREAST CANCER PATIENTS AND THEIR INFORMAL CAREGIVERS

Tess Thompson, PhD, MPH[1], Karin Y. Han, BA[1], Krutika Chauhan, Bachelors in Medicine[2], Lindsay Kuroki, MD[3], Katherine Glover-Collins, MD, PhD[4]

[1]Washington University in St. Louis, St. Louis, MO; [2]Washington University in St. Louis; [3]Washington University School of Medicine; [4]Washington University in St Louis, St Louis, MO

Background: Unmet social needs—such as those for food or transportation—have been linked to a range of negative health outcomes in older adults and the general population. Less is known about how these needs manifest themselves in the context of cancer treatment, especially among patients' caregivers. We analyzed baseline data from an ongoing longitudinal study of Black breast cancer patients and their informal caregivers to determine which needs were most prevalent among patients and caregivers, whether the number of unmet needs was correlated between patients and caregivers, and whether unmet needs were associated with depressive symptoms (both for oneself and the other person).

Methods: Data were collected January 2021-August 2022 in separate telephone interviews with newly diagnosed patients and their caregivers. Unmet social needs were assessed with 7 summed items. Depressive symptoms were assessed with the 20-item Center for Epidemiologic Studies Depression Scale (CES-D). We used bivariate tests to determine whether the number of unmet needs was correlated among patients and caregivers and whether the number of unmet needs was correlated with patients' and caregivers' depressive symptoms.

Results: In 71 patient-caregiver pairs, average age was 57.5 (*SD*=10.8) for patients and 49.6 (*SD*=14.0) for caregivers. All patients described themselves as Black/African American women; among caregivers, 72% were female and 92% described their race as Black/African American. About 68% of patients and caregivers did not live together. One-third of patients had at least one unmet social need, and 16% had two or more. The most common patient needs were money for unexpected expenses (34%), money for necessities (10%), transportation (7%), and neighborhood safety (6%). Approximately 22% of caregivers reported at least one unmet social need, most commonly money for unexpected expenses (13%), neighborhood safety (8%), and money for necessities (4%). Average CES-D score was 16.0 (*SD*=11.6) for patients and 11.8 (*SD* = 9.3) for caregivers. Number of unmet social needs was not significantly correlated between patients and caregivers (r =.22, p =.071). Number of patient social needs was positively correlated with patient depressive symptoms (r=.29, p=.014) but not with caregiver depressive symptoms. Caregiver unmet needs were not significantly correlated with depressive symptoms in either patients or caregivers.

Discussion: Unmet needs were common among Black women newly diagnosed with breast cancer and were associated with patients' own depressive symptoms. We did not find significant dyadic correlations. Further work can show how needs change over time and whether there are longitudinal associations between patients' and caregivers' needs. Translating behavioral science into impact may entail screening patients and caregivers for unmet needs and connecting them to community resources.

Abstract citation ID: kaad011.0746

3: COUPLE COMMUNICATION IN CANCER: A TALE OF TWO ASSESSMENT APPROACHES AND THEIR UTILITY IN PREDICTING 12-MONTH PHYSICAL WELL-BEING

Shelby Langer, PhD, FSBM[1], Michael Todd, PhD[1], Joan M. Romano, PhD[2], Laura S. Porter, PhD[3]

[1]Arizona State University, Phoenix, AZ; [2]University of Washington School of Medicine, Seattle, WA; [3]Department of Psychiatry and Behavioral Sciences, Duke University School of Medicine, Durham, NC

When faced with a cancer diagnosis and treatment-related challenges, couples may experience difficulty communicating about cancer-related issues. Communicative behaviors characterized by avoidance, such as holding back (HB) from disclosure or protective buffering (PB), defined as denying or hiding worries or avoiding disagreements, have been associated with increased psychosocial distress. Less is known about effects on physical well-being (PWB). In addition, research in this area has been limited by reliance on global self-report measures of communication, cross-sectional designs, and/or early-stage cancers. We examined the utility of two assessment approaches (ecological momentary assessments [EMAs] and surveys) in predicting long-term change in PWB, using data from a prospective cohort study of 353 couples coping with breast, colorectal or lung cancer. Sample characteristics were M (SD) age = 54.1 (12.5); 63% female patients and 39% female caregivers; 17% minority or >1 race; 3.5% Hispanic; 27% stage II cancer, 28% stage III, and 45% stage IV. At baseline, participants completed survey measures of HB and PB and then abbreviated measures of the same constructs delivered twice daily for 14 days via smartphone. PWB was measured using the Functional Assessment of Cancer Therapy (general version) at baseline and at 12-month follow-up. We first estimated dyadic path analyses with individual-level random effects (from intercept-only mixed models of the EMA measures) predicting 12-month PWB, adjusting for baseline PWB, gender, age, and cancer stage. Models yielded actor effects for both patients and caregivers. Patients and caregivers who held back more or engaged in more PB over the 14-day EMA period had decreases in their own PWB 12 months later, p values < .01. Parallel analyses using the baseline survey measures of communication to predict 12-month PWB yielded an actor effect of enacted PB for patients. Patients who reported higher PB at baseline had decreased PWB at 12 months, p = .002. Partner effects also emerged for patient-enacted HB and PB, such that in couples where patients reported more HB or PB at baseline, the caregivers had decreased PWB at 12 months, p values < .01. Converging evidence suggests that avoidant communication may have long-term intra- and inter-personal consequences. Brief measures of avoidant communication using either approach may be warranted to screen for maladaptive patterns and to identify couples in need of supportive care.

Abstract citation ID: kaad011.0747

SYMPOSIUM 24: IMPLEMENTING MOBILE HEALTH INTERVENTIONS AND OBSERVATIONAL STUDIES USING A “NO-CODE” APP DEVELOPMENT PLATFORM

Sam Liu, PhD[1], Amanda Willms, MSc, BA[1], Kayla Nuss, PhD[2], Denver M. Brown, PhD[3], David E. Conroy, PhD, FSBM[4], Ryan E. Rhodes, PhD, FSBM[1]

[1]University of Victoria, Victoria, BC, Canada; [2]Klein Buendel, Denver, CO; [3]The University of Texas at San Antonio, San Antonio, TX; [4]The Pennsylvania State University, University Park, PA

Mobile health (mHealth) technology holds tremendous potential to deliver behavior health interventions and understand human behavior. However, a challenge facing researchers when conducting mHealth research is the resources (i.e., time, cost, expertise) required to develop and maintain mHealth apps. This challenge can be a barrier to generating relevant knowledge in a timely manner. The recent rise of “no-code” software development platforms may overcome this challenge and enable researchers to decrease the resources required to develop mHealth research apps. Specifically, a no-code mHealth research app development platform can enable researchers with no previous software programming skills to create apps through a graphical user interface. In this symposium, presenters will discuss how the no-code app development platform (Pathverse) was created and used to co-design and implement physical activity mHealth interventions and conduct longitudinal observational studies to understand physical activity behavior. This symposium is unique as it showcases an innovative “no-code” app development tool for researchers. The first presenter will provide an overview of the “no-code” mHealth research platform and discuss the development and usability testing of the platform. The second presenter will discuss how the platform was used to co-design adaptive mHealth physical activity interventions. The third presenter will discuss how the platform was used to implement a daily diary study to examine changes in situational motivation for physical activity based on contextual motivational profile in current wearable activity tracker users over a 14-day period. The final presenter will discuss how the platform was used conduct a longitudinal, feasibility study examining the influence that first year roommates have on one another’s device-measured physical activity behavior during the transition to university, which included weekly surveys to capture dyadic relations. Finally, the discussant will contextualize these studies within the broader field of mHealth and physical activity research and discuss the use of this no-code app development for other behavioral research areas.

CORRESPONDING AUTHOR: Ryan E. Rhodes, PhD, FSBM, University of Victoria, Victoria, BC, Canada; rhodes@uvic.ca

---

Abstract citation ID: kaad011.0748

1: THE DEVELOPMENT OF A “NO-CODE” APP DESIGN PLATFORM FOR MOBILE HEALTH RESEARCH

Sam Liu, PhD[1], Amanda Willms, MSc, BA[1], Henry La, BSc[2], Ryan E. Rhodes, PhD, FSBM[1]

[1]University of Victoria, Victoria, BC, Canada; [2]University of Victoria

Background: Mobile health apps can be useful for researchers to collect data and implement health promotion interventions. However, developing customized mobile health apps for research can be costly and time-consuming. Currently, there is a lack of “no-code” app design platforms designed for researchers with no previous software development knowledge. A no-code app design platform could significantly decrease the barriers to developing mobile health apps for research studies.

Objective: To describe the development process and the lessons learned to build Pathverse, a no-code mHealth app design platform.

Methods: This study consisted of four phases. In phase 1, we used a participatory research framework to work with researchers to gather key platform feature requirements. We completed an exploratory literature search to help determine potential platform requirements. In phase 2, we adopted an agile software framework (Scrum) to develop the platform. We created a minimum viable product at the end of this phase after seven sprint cycles. In phase 3, we gathered user feedback (n=5) through usability and acceptability testing. Finally, we further enhance the platform based on user feedback in phase 4 using a V-model software development process.

Results: Our team worked with researchers and used behavior change technique taxonomy and behavior change models (e.g., the Multi-Process Action Control Framework) to inform the overall platform development process. The initial version of the platform included the following features: design customized multimedia app content (e.g., video, quizzes, goal setting), set content delivery logic (e.g., release content at a certain time of day, lesson release dependent on lesson completion), implement customized participant surveys, provide self-monitoring tools (e.g., step, exercise minute), set personalized goals, and customize app notifications. Usability and acceptability testing revealed that researchers found the platform easy to navigate and that the features were intuitive to use. Potential improvements include theme customization and gamification features.

Conclusions: The Pathverse platform was designed using a participatory research framework. We used behavior change models and the behavior change technique taxonomy to inform the feature development. To our knowledge, this is the first no-code mHealth app design platform for researchers. The agile and hybrid-agile software development process enabled our team to successfully develop the platform on time. We believe this platform can significantly decrease the cost and time required to develop mobile apps for research studies.

Abstract citation ID: kaad011.0749

2: CO-DESIGNING MHEALTH PHYSICAL ACTIVITY ADAPTIVE INTERVENTIONS WITH "NO-CODE" APP DEVELOPMENT PLATFORM

Amanda Willms, MSc, BA[1], Anna Sui, PhD[2], Ryan E. Rhodes, PhD, FSBM[1], Sam Liu, PhD[1]

[1]University of Victoria, Victoria, BC, Canada; [2]University of Victoria

Background: Co-designing mobile health (mHealth) app interventions with participants and grounding the intervention in behavior change theory are critical strategies to promote intervention engagement and effectiveness. However, developing mHealth apps often require significant resources and software programming skills. The recent development of a "no-code" mHealth app builder (Pathverse) enables researchers to design mHealth apps without software programming. It remains unclear whether the no-code app platform can be used to co-design different types of mHealth physical activity (PA) interventions.

Purpose: 1) To describe the co-design process and lessons learned for creating mHealth PA interventions using Pathverse; 2) to explore the cost associated with developing these mHealth apps.

Methods: We used the Integrate, Design, Assess, and Share framework to co-design and develop two types of mHealth PA interventions: i) an 8-week PA intervention for hypertension prevention (Study 1) and ii): a 10-week family-based just-in-time adaptive intervention (JITAI) app for cancer prevention (Study 2). The behavior interventions were grounded in the Multi-Process Action Control Framework. The development process for both apps consisted of three phases. In phase 1, end-users were required to help determine program requirements. In phase 2, our team used the Pathverse platform to develop the apps. In Phase 3, our team conducted usability testing to further refine the app. The cost associated with developing the apps was calculated.

Results: Adults (n=6) aged 40-65 not currently meeting the Canadian PA Guidelines were recruited to develop the hypertension prevention app (Study 1). Meanwhile, parents of children aged 8-12 years old (n=7) who are not currently meeting the Canadian PA Guidelines were recruited to develop the JITAI family-based cancer prevention app (Study 2). The Pathverse platform enabled our team to make iterative changes to the app content, layout, and features with participant feedback (e.g., intervention length, user-interface design, self-monitor tools) It took six months to co-design each app. The cost to develop both apps was about eight to ten times less than traditional research app development methods (i.e., hiring app development teams).

Conclusion: The no-code app development platform has the potential to improve efficiency and reduce the cost required to co-design mHealth research intervention apps. These studies have reinforced the importance of an iterative co-design process between the users and the research team to design mHealth PA interventions. Additional Pathverse features (e.g., gamification, delivery logic) can further enhance customization when designing future mHealth apps.

Abstract citation ID: kaad011.0750

3: CONTEXTUAL AND SITUATIONAL MOTIVATION FOR PHYSICAL ACTIVITY IN WEARABLE ACTIVITY TRACKER USERS: A DAILY DIARY STUDY

Kayla Nuss, PhD[1], Rebecca Coulter, BHkin[2], Sam Liu, PhD[2]

[1]Klein Buendel, Denver, CO; [2]University of Victoria, Victoria, BC, Canada

Background: Wearable activity trackers (WAT) were developed to support physical activity (PA) engagement, but little is known about how WAT users are motivated for PA. We have identified distinct motivational profiles among WAT users; but no study has assessed the relationship between contextual and situational motivation for PA. To evaluate this relationship, intensive daily survey methodology is needed. Understanding the relationship between contextual and situational motivation for PA is critical to improve the effectiveness of WAT.

Objectives: 1)To evaluate the feasibility of collecting day-level situational motivation for PA using a customized mobile app made by a no-code app development platform (Pathverse). 2) To describe two levels of motivation (contextual, and situational) in WAT users using the hierarchical model of motivation. We hypothesized that we would identify distinct motivational profiles and that those profiles would predict differing levels of situational motivation.

Methods: 119 WAT using Canadian adults completed the Behavioral Regulations in Exercise v.3 to assess contextual motivation for PA. Using an event-contingent sampling method, participants responded to survey items from the Situational Motivation Scale prior to physical activity for fourteen days. We used Latent Profile Analysis to derive the motivational profiles and linear mixed models to evaluate profile effect on five subtypes of situational motivation (amotivation, external, introjected, and identified regulation, and intrinsic motivation).

Results: We found the Pathverse app was feasible tool for researchers to conduct daily dairy studies. Quantitative fit statistics indicated that a 3, 5, or 6 profile model best fit the data. After assessing each model, we determined the 3 profile model was the most parsimonious and interpretable. Profile 1 had higher-than-expected levels of autonomous (identified and integrated regulation, and intrinsic motivation). Profile 2 had low levels of autonomous regulatory forms and introjected regulation and higher than expected amotivation and external regulation. Profile 3 was marked by high introjected and autonomous regulatory forms. We detected no interaction effect of profile and days on any type of situational motivation. We determined that Profile 2 (1.66 ±1.26) was significantly higher than Profile 3 (1.15 ± 0.79, p=.02) in situational amotivation for PA. We also determined Profile 1 (5.34 ± 1.75) was significantly higher than Profile 2 (4.62 ± 1.80, p=.02) for situational intrinsic motivation for PA.

Conclusions: Collecting situational motivation for PA was feasible using the Pathverse mobile platform. WAT users vary in their contextual motivational profile for PA and these predict some types of situational motivation. Future research should further investigate PA motivation in WAT users to identify intervention opportunities.

Abstract citation ID: kaad011.0751

4: DYADIC INFLUENCES ON PHYSICAL ACTIVITY BEHAVIOR AMONG FIRST-YEAR COLLEGE ROOMMATES: A FEASIBILITY STUDY

Denver M. Brown, PhD[1], Tyler Prochnow, PhD[2], Sam Liu, PhD[3]

[1]The University of Texas at San Antonio, San Antonio, TX; [2]Texas A&M University; [3]University of Victoria, Victoria, BC, Canada

The first year of attending university represents one of the major life transitions that has been associated with precipitous declines in physical activity participation. Although several studies have investigated theoretical determinants of physical activity during this period, the influence of social connections has received less attention. Roommates, in particular, may have a considerable impact on one another's physical activity behavior. There has been some interest in the interdependence of physical activity behavior across first-year students' social networks, however, there are considerable gaps in this area of inquiry and methodological advances can help to improve our understanding. For example, consumer wearables can be leveraged to capture daily physical activity behavior across an entire semester and therefore overcome the limitations of previous studies that have relied on self-reports collected at the beginning and end of the semester. This study aimed to examine the feasibility of recruiting and retaining a sample of first-year students for longitudinal research examining the influence of roommates on one another's device-measured physical activity behavior during the transition to university. Pairs of first-year roommates who own Apple Watches were recruited to participate in a prospective, longitudinal study at two sites. Participants completed a baseline survey assessing social relations and determinants of physical activity patterns using the Multi-Process Action Control framework. Throughout the term, the Pathverse app was used to capture participants' daily steps and active minutes recorded via their Apple Watch. Weekly surveys were also administered via the Pathverse app to examine roommate relationship quality, stress, and barriers to engaging in physical activity behavior. Longitudinal actor-partner independence modeling will be used to examine socialization effects on physical activity behavior among roommate dyads. Overall, the findings will provide insight into the feasibility of conducting a longitudinal study examining physical activity behavior using consumer wearables among first-year roommates, while also helping to advance our understanding of the influence that roommates have on one another's behavior during this challenging life transition.

Abstract citation ID: kaad011.0752

SYMPOSIUM 25: LEVERAGING SOCIAL SUPPORT IN BEHAVIORAL INTERVENTIONS FOR AFRICAN AMERICAN WOMEN: TRANSLATING THEORY INTO COMMUNITY SETTINGS

Kelly Palmer, PhD, MHS[1], Rodney P. Joseph, PhD[2], Allison Sweeney, PhD[3], Monica L. Baskin, PhD, FSBM[4]

[1]University of Arizona College of Public Health, Tucson, AZ; [2]Arizona State University, Phoenix, AZ; [3]University of South Carolina, Columbia, SC; [4]University of Pittsburgh, Pittsburgh, PA

African American women experience numerous barriers to engaging in regular physical activity, which contribute to disproportionately high rates of cardiovascular diseases. Decades of research have underscored the importance of social-environmental factors for promoting health behavior change, with lack of social support being a frequently cited barrier among African American women. As a result, many behavior change interventions for African American women have targeted social support, with varying degrees of successful implementation. This symposium addresses the need to optimize translation of social support strategies to enhance the impact of behavioral interventions for African American women, with a focus on the importance of community settings, technology, and team-based strategies. The first speaker will present mixed-methods data that highlight beauty salons as an important and underutilized setting for delivering interventions and capitalizing on strong pre-existing social networks among African American women. The second speaker will present a series of empirical studies that showcase novel strategies and lessons learned from targeting social support within culturally-tailored mHealth physical activity interventions for African American women. The third speaker will present findings from a randomized pilot study, which found that a team-based approach combining in-person group sessions with group goal-setting using the FitBit mobile app was a useful strategy for promoting social support and physical activity among inactive African American women. The speaker will describe how these pilot findings were used to develop a conceptual framework for comparing social support and other social-motivational mechanisms in a new community-based randomized controlled trial. Finally, the discussant, will provide her perspective on important future directions for optimizing translation of social support in community settings and improving health outcomes among African American women.

CORRESPONDING AUTHOR: Allison Sweeney, PhD, University of South Carolina, Columbia, SC; sweeneam@mailbox.sc.edu

Abstract citation ID: kaad011.0753

1: THE HAIR SALON SETTING AS A SOURCE OF SOCIAL SUPPORT FOR BLACK WOMEN

Kelly Palmer, PhD, MHS[1], Namoonga Mantina, MS, MBA[2], Abidemi Okechukwu, MBBS, MPH[3], Melissa A. Flores[4]

[1]University of Arizona College of Public Health, Tucson, AZ; [2]University of arizona College of Public Health; [3]University of Arizona College of Public Health; [4]The University of Arizona, Tucson, AZ

The hair salon plays an integral role in the lives of African American women and therefore has been a target setting for obesity related intervention research and programming. Understanding and acknowledging the social environment in which African American women interact is vital to addressing the persistence of health inequities plaguing this community. The purpose of this mixed methods exploratory study was to assess the relationships between salon engagement, stylist characteristics, and social support and to describe perceptions of the salon's social environment. We surveyed a national sample of African American women who receive hair care services in a hair salon from a licensed hair stylist (N=333). The mean age was 45.52 ±10.23 years and 27% of participants reported a diagnosis of hypertension. We asked about the duration of time they had been receiving services from their current hair stylist, how frequently they receive hair care services, stylist characteristics of importance, and if they have ever followed a stylist to a different/new salon. We used the Medical Outcomes Study Emotional/Informational Social Support subscale to assess levels of reported social support. Data suggests salon attendance (duration and frequency), stylist personality, and history of salon relocation are all associated with reported high social support scores. We conducted focus groups with a subsample of participants (N=39) and asked questions about the salon's social environment. A theme of high occurrence was the salon as a source of social support and social interaction. Participants noted how the salon provides opportunities for interactions and exchange of information between all who patron the salon. Participants also talked about the social support that is derived from the salon and the reciprocal nature of relationships. Participants described receiving encouragement and confidence from other clients and stylists. Clients also discussed how social support can transcend beyond the physical boundaries of the salon setting. Oftentimes, salon members (clients and stylists) share in the same social networks and may also, at a minimum, interact via social media. Specific to the client and stylist, participants noted how the social relationship is built over time, through the frequency and regularity of service visits. Clients indicated that stylists play a role in supporting their emotional well-being which poses additional opportunity for interventions that seek to leverage stylists for peer support or as peer coaches. Taken together, the results from both our quantitative and qualitative data suggests established client-stylist relationships and regular interactions in salon settings can enhance social support for African American women which can be leveraged to optimize outcomes of obesity related interventions.

Abstract citation ID: kaad011.0754

2: OPTIMIZING SOCIAL SUPPORT IN CULTURALLY TAILORED MHEALTH PHYSICAL ACTIVITY FOR AFRICAN AMERICAN WOMEN WITH OBESITY: LESSONS LEARNED FROM 3 STUDIES

Rodney P. Joseph, PhD[1], Kadeeja S. Murrell, MS[1]

[1]Arizona State University, Phoenix, AZ

mHealth physical activity (PA) interventions have the potential to leverage social support for the successful promotion of PA. Yet, few studies have examined the utility of mHealth PA interventions to enhance social support for promotion of PA among African American (AA) women. This presentation will: 1) illustrate how our research team has facilitated social support among insufficiently active AA women with obesity in the design of three culturally tailored mHealth PA interventions, 2) provide lessons learned from this research, and 3) discuss future intervention design considerations for researchers using mHealth strategies to enhance social support for PA among AA women. Study 1 was delivered using Facebook and text messages among AA women aged 24-49 years (N=29, *M* BMI =31.5 kg/m^2), Study 2 was delivered using our researcher-developed *Smart Walk* app among women aged 24-49 years (N=60; *M* BMI = 40.6 kg/m^2), and Study 3 was delivered using our Smart Walk app among AA women aged 50-65 years (N=20; *M* BMI = 40 ± 5.6 kg/m^2). All three studies included interactive discussion board forums with standardized weekly prompts to facilitate discussion and social support for PA. Results of these studies showed significant (p 's < .05) increases in moderate-to-vigorous PA (range of 30-84 minutes/week); yet, changes in social support for PA were not observed (p's >.05). Similarly, study discussion board utilization was high at the start of all three interventions, but declined overtime. Qualitative feedback indicated that while participants perceived the discussion board forums as helpful for facilitating social support for PA, they thought the discussion forums could be enhanced by having members of the research team actively interact with participants through formal and informal daily posts. Additionally, results from 2 studies indicated that participants thought social support could be enhanced by the research team providing personalized, one-on-one PA coaching/counselling delivered via telephone or videoconferencing platforms (e.g. FaceTime, Zoom). When taken altogether, results of these studies suggest that when using mHealth strategies to promote PA among insufficiently active AA women with obesity, interventions should include facilitated, interactive, and personalized approaches to facilitate social support. Likewise, when using discussion board forums, researchers should expect to actively engage with participants on a daily basis to foster social support for PA.

Abstract citation ID: kaad011.0755

3: IT'S MORE FUN AS A TEAM: USING TEAM-BASED STRATEGIES IN COMMUNITY SETTINGS TO PROMOTE SOCIAL SUPPORT AMONG INACTIVE AFRICAN AMERICAN WOMEN

Allison Sweeney, PhD[1], Dawn K. Wilson, PhD, FSBM[1], Asia M. Brown, MA[1], Mary Quattlebaum, BA, MA[2], Nicole Zarrett, PhD[1]

[1]University of South Carolina, Columbia, SC; [2]University of South Carolina, Cayce, SC

African American women face unique social-cultural challenges for engaging in regular physical activity, including historical norms related to low physical activity participation among African American women and lack of a partner or exposure to other physically active African American women. Efforts to better understand the best practices for enhancing social support within group settings has important implications for reducing health inequities. This presentation will present findings from the Developing Real Incentives and Volition for Exercise (DRIVE) pilot study (N = 68, 50.72 ±13.66 years; 86.8% with obesity), which compared two group-based approaches for engaging inactive Africa American women in greater physical activity: a Challenge-focused program which used a team-based approach and 2) a Rewards-focused program which used a partner-based approach for building support. Both programs met in-person at a community center once per week for 10 weeks. In the Challenge-focused program, participants set group-based goals, which they tracked throughout the week using the FitBit mobile app, where they could view a leaderboard, send messages, and track their teammates' progress. In the Rewards-focused program, participants set individual-based goals, received support from a partner in the program, and used FitBits to track their personal progress only. The results indicated that the Challenge-focused program was more effective at increasing accelerometry-assessed total daily physical activity, resulting on average in a 17.9-minute increase per day from baseline to 2-months, compared to an 8.55-minute decrease in the Rewards-focused program. Follow-up analyses revealed that in the Challenge-focused program greater engagement with the FitBit mobile app (i.e., sending more messages) predicted greater physical activity at post-intervention. These findings suggest that a team-based approach that integrates in-person sessions and technology may be a promising approach for promoting social support and physical activity among African American women. The speaker will discuss how these findings were used to inform the conceptual framework for the 'Together Everyone Achieves More Physical Activity' (TEAM-PA) trial, a new community-based randomized controlled trial comparing social support and other social-motivational mechanisms for promoting physical activity among inactive African American women.

Abstract citation ID: kaad011.0756

SYMPOSIUM 26: RESEARCH OPS 101: DEFINING THE PROCESSES AND PROCEDURES OF RESEARCH ACROSS DIGITAL HEALTH INDUSTRY AND ACADEMIC SETTINGS

Jennifer Huberty, PhD, FSBM[1], E. Susanne Blazek, PhD[2], Lauren Weiner, PhD[3], Jennifer Green, PhD[4]

[1]Fit Minded LLC, Phoenix, AZ; [2]Lirio, Pine Island, MN; [3]Ksana Health, San Diego, CA; [4]San Diego State University, Tempe, AZ

Rigorous science supported by a robust research function is critical for any startup to differentiate itself by demonstrating validation for the products and services offered, yet many digital health startups have a low level of clinical robustness and do not make claims as measured by regulatory filings, clinical trials, and public data shared online (Day, Shah, Kaganoff, Powelson & Mathews, 2022). Conducting science in industry begins with operationalizing research, the definitions of which depend on the company's values and goals, the claims sought from the research, the internal collaboration between scientists of different disciplines, the external collaborations between industry and academia, and more. This symposium will explore a "behind the scenes" look at science (i.e., research operationalization) in industry in three different settings.

The first presenter will discuss the operations of a rigorous interdisciplinary research function in a digital health startup that relies on the successfully implemented blend of behavioral science and artificial intelligence. The second presenter will talk about the different types of research evidence required to support product labeling claims for regulated digital mental health products, and the operations required to successfully plan and execute such clinical trials. The final presenter will discuss the importance of and share practical recommendations for early research operationalization procedures in an industry-academic collaboration, including why industry and academia need to work together, within the context of a real-world example of a collaboration between a digital health startup and academia.

The discussant will examine broadly the shared challenges and opportunities of operationalizing research in applied, interdisciplinary, and collaborative settings, with an emphasis on the importance the importance of rigor in behavioral science research. The discussion will be organized primarily as an open and engaging conversation among presenters that welcomes questions and comments from the audience.

The goal of this symposium is to identify key processes to institute when in the early phases of operationalizing behavioral science research in digital health, and to recognize relevant research operations considerations in three settings: interdisciplinary research, research on regulated digital mental health products, and collaborative research between industry and academia.

CORRESPONDING AUTHOR: Jennifer Huberty, PhD, FSBM, Fit Minded LLC, Phoenix, AZ; jenhubertyphd@gmail.com

Abstract citation ID: kaad011.0757

1: OPERATIONALIZATION OF CLINICAL RESEARCH AT AN ARTIFICIAL INTELLIGENCE DIGITAL HEALTH STARTUP

E. Susanne Blazek, PhD[1]

[1]Lirio, Pine Island, MN

Although growth in the digital health sector is apparent, the ability to measure impact is not. Recent efforts to comprehensively examine clinical robustness in digital health companies find that many digital health companies have in fact low levels of robustness, as measured by regulatory data, clinical trials registrations, and clinical, economic, and engagement claims (Day, Shah, Kaganoff, Powelson & Mathews, 2022). A strong research function is critical for digital health startups to differentiate themselves by demonstrating validation for the products and services they offer.

The operationalization and operations of clinical research in digital health vary widely by company, product, and life cycle phase. Lirio is a young startup with precision nudging interventions applied within the contexts of self-care, preventative care, chronic care, episodic care, and financial management. An interdisciplinary team of behavioral and artificial intelligence (AI) scientists collaborate through Lirio's Behavioral Reinforcement Learning Lab to improve Lirio's digital health interventions' underlying AI platform, to validate the digital health interventions, and to establish clinical, economic, and engagement outcomes.

In this practical presentation, examples from current AI-behavioral science studies are used to illustrate how Lirio's interdisciplinary research function became operationalized in the spring of 2020, and the steps taken to go from internal validation studies to registered randomized controlled trials, including ethics training, vendor relationships, budgeting, knowledge management, and sharing successes. For example, the joint project to generate a simulated reinforcement learning environment that in some way resembles the human response to personalized content (i.e., stochastic, and not deterministic) highlights many lessons learned from bringing behavioral scientists into AI research, and vice versa.

Finally, challenges and opportunities are discussed within research operations, that is, the orchestration and optimization of people, processes, and tools, to amplify the value and impact of research at scale.

Abstract citation ID: kaad011.0758

2: CONSIDERATIONS FOR RESEARCH TO SUPPORT REGULATED PRODUCTS IN DIGITAL MENTAL HEALTH

Lauren Weiner, PhD[1]

[1]Ksana Health, San Diego, CA

The COVID-19 pandemic expedited the use of digital tools as medical devices to diagnose, treat, and manage various mental health conditions (Kadkia, Patel, & Shah, 2020). These novel tools have potential to improve and complement existing health care services and improve access, particularly for underserved populations. In the United States, the FDA regulates digital treatments that meet the definition of software as a medical device (SaMD), or software programs used to diagnose, mitigate, treat, or prevent a disease. Other products, such as most consumer mental health apps that are intended to help people maintain their general health and wellbeing, do not meet the definition of a medical device and are not regulated (Torous, Stern, & Bourgeois, 2022).

Regulatory authorities require different levels of evidence to support product labeling claims based on the regulatory classification of a product. Thus, there are differences in how studies are designed and executed for regulated versus unregulated digital mental health products. Specifically, studies of regulated digital mental health products focus on demonstrating safety, effectiveness, and in some cases, a certain level of equivalence to another approved product to achieve regulatory approval or clearance. The planning and execution of rigorous studies of regulated products requires investigators to address unique conceptual and operational issues such as digital placebo effects, complex data security and compliance requirements, and extensive documentation of research processes and results.

This presentation will provide an overview of how digital mental health products are classified by regulatory agencies and the different types of research evidence required to support product labeling claims. It will then discuss considerations for the planning and execution of studies to support claims for regulated medical devices, with a particular focus on navigating operational aspects of clinical trials. Finally, it will discuss the broad role of behavioral scientists in carrying out this research in the digital mental health industry.

Abstract citation ID: kaad011.0759

3: FAIL FAST OR SLOW AND STEADY? WHY INDUSTRY AND ACADEMIA NEED TO WORK TOGETHER

Jennifer Green, PhD[1]

[1]San Diego State University, Tempe, AZ

Digital health technologies have been rapidly evolving over the past two decades. The digital health landscape broadly encompasses mobile health, health information technology, wearable devices, telehealth and telemedicine, and personalized medicine. These technologies have the potential to diagnose, treat, and monitor disease, enhance healthcare delivery, improve healthcare access, reduce costs and inefficiencies, and personalize healthcare. The COVID-19 pandemic triggered a shift toward digital health and findings from the 2021 IQVIA report show that over 90,000 new digital health mobile apps hit the market in 2020 alone. Despite the sustained interest and growth, the overall impact and quality of most of these products remains questionable and the majority have no scientific evidence to support their claims.

One solution to close this gap is for more collaborative research between the digital health industry and academia. Generally, industry and academia have distinct ways of operating. Industry often adopts a 'fail fast' mentality that is focused on consumer centric design, rapid iteration and development of product for scale, and driving business outcomes or profit while academia tends to adopt a more traditional strategy with a 'slow and steady' timeline that relies on the application of theory-driven frameworks, complex measurement and study designs, research ethics, and driving health outcomes. Leveraging the strengths of both industry and academia through collaboration can result in innovative digital health solutions that drive public health impact at scale. Even the National Institutes of Health Strategic Plan 2021-2025 calls out the need for collaborative science citing this focus as one of five cross cutting themes within their plan. Yet, guidelines and best practices for facilitating successful collaborations between industry and academia in the digital health space are lacking and challenges remain when research functions and operations in industry are not clearly defined.

This presentation will provide a real-world example of a collaboration between a digital health startup and academia. Specifically, the presentation will discuss 1) early procedures for operationalizing research including the development of a standard of conduct and research management plan, 2) basic processes and approaches to grant writing for federal funding (e.g., NIH K01, SBIR), and 3) challenges, solutions, key strategies, and important considerations to approach when developing a collaboration between industry and academia.

Friday
April 28th, 2023
11:00 AM – 11:50 AM
Paper Sessions
Paper Session 14: Maternal Health
11:02 AM – 11:14 AM

Abstract citation ID: kaad011.0760

AFFECTIVE RESPONSE TO EXERCISE AND AFFECTIVE JUDGMENTS AS PREDICTORS OF PHYSICAL ACTIVITY INTENTION AND BEHAVIOR IN NEW MOTHERS

Ryan E. Rhodes, PhD, FSBM[1], Chris M. Blanchard, PhD[2], Kimberly R. Hartson, PhD[3], Danielle Symons Downs, PhD[4], Darren E. Warburton, PhD[5], Mark R. Beauchamp, PhD[5]

[1]University of Victoria, Victoria, BC, Canada; [2]Dalhousie University, Halifax, NS, Canada; [3]University of Louisville, Louisville, KY; [4]The Pennsylvania State University, University Park, PA; [5]University of British Columbia, Vancouver, BC, Canada

Background: Understanding the predictors of moderate to vigorous physical activity (MVPA) during early postpartum is important to improve promotion efforts. Affect-related constructs are key predictors of MVPA but have limited research in mothers during the postpartum period.

Purpose: To examine two affect-related constructs (affective response to exercise and affective judgments) as predictors of MVPA intention and behavior across three months, among a sample of new mothers.

Method: Participants were 105 mothers (M age = 30.64 yrs; SD = 3.93) who completed measures during postpartum at two-months post birth of their first child. The affective response to exercise (assessed at baseline [2-months postpartum] during a submaximal treadmill test), affective judgments and intention (baseline, 6-weeks after baseline), and MVPA (adapted Godin Leisure-Time Exercise Questionnaire; baseline, 6- and 12-weeks after baseline) were assessed via self-report. Measures of the affective response during and after exercise were calculated through unstandardized residuals, controlling for pre-exercise values.

Results: Path analysis, using ordinary least squares regression, showed that the affective response during exercise was a significant predictor of intention (baseline β = .23, *p* = .02; 6-weeks β = .28, *p* < .01), as well as change in intention from baseline to 6-weeks (β = .20, *p* = .04). By contrast, affective judgments predicted intention at 6-weeks (β = 23, p = .02), but not at baseline or in the change model. Past MVPA did not moderate these findings, although the affective response during exercise also had a significant indirect effect on MVPA through intention at 6-weeks (β =.09; 95% CI .03 to .16) and 12-weeks (β = .08; 95% CI .03 to .15).

Conclusions: Interventions targeting women's affective response during exercise may be important during postpartum, perhaps through self-paced physical activity guidance. Affective judgments may not be predictive of MVPA, in part due to unanticipated changes during early postpartum leading to inaccurate expectations of the physical activity experience.

CORRESPONDING AUTHOR: Ryan E. Rhodes, PhD, FSBM, University of Victoria, Victoria, BC, Canada; rhodes@uvic.ca

11:15 AM – 11:27 AM

Abstract citation ID: kaad011.0761

BARRIERS TO MATERNITY CARE IN CAMEROON: A QUALITATIVE STUDY

Alfonsus Adrian Hadikusumo Harsono, MD[1], Christyenne L. Bond, MPH[2], Comfort Enah, PhD, RN, FAAN[3], Mary Glory N. Ngong, BSc[4], Rahel Mbah, MSc, MPH[5], Pius M. Tih, PhD, MPH[6], Alan Thevenet N Tita, MD, PhD[1], Janet M. Turan, PhD, MPH[7], Henna Budhwani, PhD, MPH[8]

[1]University of Alabama at Birmingham, Birmingham, AL; [2]Florida State University, Trinity, AL; [3]U Mass Lowell, Cumberland Center, ME; [4]Cameroon Baptist Convention Health Services, Bamenda, Nord-Ouest, Cameroon; [5]Cameroon Baptist Convention Health Services, Nqwen, Bamenda, Nord-Ouest, Cameroon; [6]Cameroon Baptist Convention Health Services, Nkwen, Bamenda, Nord-Ouest, Cameroon; [7]University of Alababama at Birmingham School of Public Health, Birmingham, AL; [8]Florida State University, Vestavia Hills, AL

Introduction: The maternal mortality ratio and perinatal mortality rate in Cameroon remain among the highest globally. As part of efforts to improve maternal and perinatal health outcomes, a formative qualitative assessment was conducted to inform the adaptation of an mHealth maternity care support system in Cameroon. Drawing upon a socio-ecological model, we sought to explore the complex interplay of multiple level barriers to maternity care in Cameroon.

Methods: We conducted in-depth interviews (n=46) and focus groups (n=18) with key stakeholders including previously pregnant women who experienced an adverse outcome, currently pregnant women, primary providers, administrators, and representatives of the Ministry of Health recruited by purposive sampling. Thematic coding and analysis via a modified Grounded Theory approach were performed using NVivo12 software.

Results: A total of 64 participants—20 men and 44 women–participated with mean age of 35.31 ± 10.07 years. Barriers to women receiving timely and comprehensive maternity care identified by the participants were categorized into individual, interpersonal, community, health system, and structural levels. At the individual level, barriers included: personal economic hardships, lack of education, and differing religious and cultural beliefs. At the interpersonal level barriers include lack of women's empowerment in a patriarchal society. Barriers at the community level include cultural differences among different populations, stigmatization of modern maternity care, and regional political and security crises. At the health-system level obstacles include critical shortages of medical equipment and skilled personnel, lack of trust of facilities and providers based on previous negative experiences. Finally, at the structural level barriers include inefficient transportation systems, inadequate road infrastructure, and long geographical distances to health facilities.

Conclusions: Stakeholders identified dynamic multilevel factors that serve as barriers to comprehensive maternity care in Cameroon. Relevant policies, interventions, and programs addressing these barriers are necessary to facilitate timely access and utilization of quality maternity care. Such strategies are also vital to achieve reduction of maternal and perinatal morbidity in Cameroon and similar resource-limited settings.

CORRESPONDING AUTHOR: Henna Budhwani, PhD, MPH, Florida State University, Vestavia Hills, AL; hbudhwani@fsu.edu

11:27 AM – 11:39 AM

Abstract citation ID: kaad011.0762

RANDOMIZED TRIAL FOR MOTHERS AT-RISK FOR HBOC TO IMPROVE FAMILY COMMUNICATION OUTCOMES FOLLOWING BRCA GENETIC COUNSELING

Mary Rose Yockel, BA[1], Marcelo Sleiman, BS[1], Beth N. Peshkin, MS, CGC[1], Tiffani DeMarco, MS, CGC[2], Katherine Schneider, MPH, LGC[3], Judy Garber, MD, MPH[3], Claudine Isaacs, MD[1], Kenneth P. Tercyak, PhD[1]

[1]Georgetown University, Washington, DC; [2]Inova Healthcare System, Fairfax, VA; [3]Dana-Farber Cancer Institute, Boston, MA

Background: Women undergo genetic counseling and testing (GCT) for mutations in BRCA genes to determine their susceptibility to hereditary breast and ovarian cancer (HBOC). Disclosing BRCA genetic test results to at-risk family members is essential to cascade genetic testing and HBOC prevention in high-risk kindreds. Standard CGT includes patient education about family communication. However, mothers with children < age 18y often require additional information and support about whether, when, and how to discuss HBOC risk with offspring.

Purpose: This RCT compared alternate forms of patient education about family communication of maternal BRCA genetic test results to children following GCT for HBOC risk.

Methods: Mothers (N=204) completed a baseline assessment prior to HBOC GCT, and were then randomized to either standard care (NCI information guide about family communication) or a tailored decision aid (DA; "My Children, My Test Results"). The DA focused on maternal BRCA genetic test result disclosure to children. Outcomes were assessed 1-month following posttest genetic counseling, including parent-child relationship quality (e.g., openness and problems in communicating).

Results: Mothers receiving the DA were more than twice as likely to discuss their HBOC GCT with their children vs. those in standard care (odds ratio [OR] = 2.33, 95% confidence interval [CI] = 1.06, 5.10; p = .04). These intervention effects were especially pronounced among mothers with preteens (child age < 13y) -- where the likelihood of disclosure to children was nearly four times greater vs. standard care (OR = 3.74, 95% CI = 1.49, 9.41; p = .005). In multivariable adjusted models, DA utilization was uniformly associated with favorable changes in parent-child relationship quality among those who discussed their HBOC GCT with their potentially at-risk children (95% CI difference = 0.30, 9.00; p < .05).

Conclusion: "My Children, My Test Results" successfully improved outcomes of HBOC GCT among families in at least two important ways: 1) higher rates of genetic test result disclosure to minor-age children (including preteens), and; 2) better parent-child relationship functioning. These results set the stage for teaching children about early cancer prevention, including those in high-risk kindreds.

CORRESPONDING AUTHOR: Mary Rose Yockel, BA, Georgetown University, Washington, DC; my585@georgetown.edu

11:39 AM – 11:50 AM

Abstract citation ID: kaad011.0763

UNDERSTANDING THE EXPERIENCES OF MOTHERS' ENGAGING IN PHYSICAL ACTIVITY LIVING IN RURAL COMMUNITIES

Susan J. Andreae, PhD, MPH[1], Thomas Casey, MS[1], Hailey Reeves[1], Jose Martinez, BS[1]

[1]University of Wisconsin-Madison, Madison, WI

Gender gaps in physical activity (PA) exists with women being less active than men. Multiple cultural and psychosocial factors influence women's ability to successfully negotiate barriers to PA and other health promoting behaviors. This exploratory descriptive study's goal was to better understand the daily experiences of mothers in making health promoting decisions for themselves and their families.

Semi-structured interviews were conducted with mothers living in rural communities. Participants were asked to share their experiences in engaging in PA and other health behaviors, focusing on motivators, barriers, and facilitators. Interviews were audio-recorded, transcribed verbatim, and analyzed by two independent investigators using open-coding. Codes were categorized to identify frequencies, patterns, and reoccurring themes.

Of the 17 participants, all were white and high school or college graduates. 83% worked full or part-time, 76% were married, 71% had an income of >$40,000, and had an average of 2 children in the home (SD 1.1, range 1-5). Key emerging themes focused on 1) feeling internal and external pressures to prioritize family's needs over one's own health, 2) family and close social networks exerted both positive and negative influences on health choices, and 3) living in a rural community often resulted in a lack of health opportunities and feelings of being isolated from social networks and health resources.

In order to close the gender gap in PA, interventions should support mothers in navigating their multiple roles and competing demands while engaging in health promoting behaviors such as physical activity.

CORRESPONDING AUTHOR: Susan J. Andreae, PhD, MPH, University of Wisconsin-Madison, Madison, WI; sandreae@wisc.edu

Paper Session 15: Community Context and Health

11:02 AM – 11:14 AM

Abstract citation ID: kaad011.0764

ASSOCIATION BETWEEN COMMUNITY NEEDS INDEX AND NAFLD IN A COMMUNITY-BASED SAMPLE OF MEXICAN-ORIGIN ADULTS IN SOUTHERN ARIZONA

Adriana Maldonado, PhD[1], Edgar A. Villavicencio, MPH[1], Rosi Vogel, BBA, MBA[1], Rogelio Robles-Morales, MD[2], Ana Sylvia Gonzalez, BS[1], David O. Garcia, PhD[1]

[1]University of Arizona, Tucson, AZ; [2]University of Arizona, Rio RIco, AZ

Non-alcoholic fatty liver disease (NAFLD) can result in non-alcoholic steatohepatitis and progress to irreversible cirrhosis and hepatocellular carcinoma. Although factors influencing individuals' risk (e.g., obesity) for NAFLD have been explored for Mexican-origin (MO) adults, factors at the community-level have been understudied. Using data from a community-based sample of 258 MO adults from the border region of Southern Arizona, multi-level analyses were conducted to quantify the contributions of community needs on NAFLD. Participants (Age: M=49 yrs., SD=12.9; BMI: M=29.6, SD=5.3) completed an in-person study visit where demographics and chronic health conditions were obtained. NAFLD status was assessed using FibroScan®, a non-invasive technique that provides a continuous attenuation parameter (CAP) score ranging from 100-400 decibels per meter (dB/m); higher scores indicate higher levels of steatosis. Community need was derived using the Community Needs Index (CNI). CNI is a composite score based on a scale of 1-5 based on income, culture/language, education, housing status, and insurance coverage for every populated zip code in the U.S. Overall, the prevalence of NAFLD (CAP $\geq$ 288 dB/m) was 32.9% (n=85) and included 67.1% women and 32.9% men. CNI scores were positively associated with CAP scores ($p < 0.01$) indicating that with every point increase in CNI, the average CAP score increased by 12.4 dB/m. After controlling for demographics and chronic health conditions, the association between CNI and CAP scores remained statistically significant ($p < 0.01$). The study results highlight the importance of considering both individual and community-level factors, as the interplay of such factors could hinder the successful implementation of NAFLD-risk reduction interventions.

CORRESPONDING AUTHOR: Adriana Maldonado, PhD, University of Arizona, Tucson, AZ; adrianamaldonado@arizona.edu

11:15 AM – 11:27 AM

Abstract citation ID: kaad011.0765

ASSOCIATION OF TECHNOLOGY ACCESS AND PERCEIVED HEALTH IN SOUTHERN ARIZONA: A GEOGRAPHIC INFORMATION SYSTEMS ANALYSIS

Christopher Krupnik, BFA[1], Meghan B. Skiba, PhD, MS, MPH, RDN[2]

[1]University of Arizona, Monroe, MI; [2]University of Arizona College of Nursing, Tucson, AZ

Background: Current evidence suggests that mobile health (mHealth) can have a positive impact on health behaviors and healthcare delivery, enhancing health equity. Southern Arizona (SAZ) is a region of the southwestern US that has a high burden of disease that can be prevented through promotion of modifiable health behaviors. COVID-19 necessitated incorporating technology into healthcare and health behavior interventions, however access to these technologies may restrict benefits.

Objective: Determine relationship between technology access and perceived health in SAZ using geographic information systems (GIS) analysis.

Methods: Publicly available data from the 2016-2020 American Community Survey (ACS) and 2018 Behavioral Risk Factor Surveillance System (BRFSS) were merged by zip codes and normalized. ACS technology access included desktop/laptop, tablet, or smartphone. BRFSS perceived health was the percent of adults reporting very good or excellent health in past 30 days. Two analytical approaches evaluated the relationship between technology access and perceived health: ArcGIS Pro was used for exploratory geospatial analyses using geographically weighted regressions (GWR) with density modeling to visualize relationships and Boolean Map Overlay verified model fit; STATA was used for generalized linear mixed models (GLM). All models were adjusted for BRFSS health behaviors (obesity, high physical activity, high fruit and vegetable intake, smoking, and alcohol).

Results: GIS density models revealed patterns of high and low technology access by zip code. GWR models identified regions in SAZ with greater technology access and greater perceived health. These were more urban areas of SAZ including metro Tucson, suburban Phoenix, and cities on the US/Mexico border. Regions identified with low technology access and low perceived health were generally more rural. GLM models indicated that access to a desktop/laptop or a tablet was significantly positively associated with perceived health while smartphone access had a non-significant positive association with perceived health in SAZ after adjusting for health behaviors.

Conclusions: Greater access to technology predicts higher perceived health at a population level. GIS analysis identified zip codes that would potentially benefit from mHealth. GIS methods applied in this analysis are a valuable tool for researchers in other US regions to visualize data to identify areas of highest need for intervention and infrastructure. These findings can inform policy and intervention design to improve health outcomes locally.

Future Directions: After validation of a social determinants of health (SDOH) score that includes economic, education, infrastructure, social, and health domains from ACS data, the influence of SDOH on these relationships in SAZ will be investigated.

CORRESPONDING AUTHOR: Christopher Krupnik, BFA, University of Arizona, Monroe, MI; cekrupnik@arizona.edu

---

11:27 AM – 11:39 AM

Abstract citation ID: kaad011.0766

CHANGES IN THE NEIGHBORHOOD FOOD AND ACTIVITY ENVIRONMENT AND WEIGHT STATUS AMONG CHILDREN IN A REGIONAL HEALTH SYSTEM

Qianxia Jiang, PhD[1], Bethany Forseth, PhD[2], Lauren Fitzpatrick[3], Helena H. Laroche, MD[4], Sarah Hampl, MD[5], Ann Davis, PhD, MPH, ABPP[2], Chelsea Steel, MPH[3], Jordan A. carlson, PhD[3]

[1]Children's Mercy Hospital Kansas City, Vista, CA; [2]KUMC, Kansas City, MO; [3]Children's Mercy Hospital Kansas City, Kansas City, MO; [4]Children's Mercy Kansas City, Kansas City, MO; [5]UMKC, Kansas City, MO

Background: Most neighborhood food and activity related environment research has been cross-sectional. Little is known about these associations when children move and thus change their neighborhood environments, especially among economically/structurally disadvantaged groups.

Objective: This study examines whether changes in neighborhood healthy food access and walkability are associated with children's weight status among movers and non-movers.

Methods: We utilized the height, weight, and home address data from a large pediatric health system at two time ranges (2012-2014 [Time 1] and 2017-2019 [Time 2]) with nationally available census tract-level food and activity environment data. Children were grouped by their move status, 'movers' had a different address in each time range and 'non-movers' were at the same home address at both time ranges. Mixed-effect models, accounting for nesting of children within census tracts, were conducted to model the association between the changes in the neighborhood environment and changes in children's weight status. BMIz at Time 2 was specified as the dependent variable and change scores for food access and walkability as independent variables, while adjusting for the baseline BMIz, child and neighborhood sociodemographics.

Results: Analyses included 4,493 children (baseline ages 6-15 years; Movers n = 1052, 85% racial and ethnic minority children, 85% with government health insurance, 6% with no insurance; non-movers n = 3,441, 83% racial and ethnic minority children, 80% with government health insurance, 5% with no insurance). Among movers, children who moved from low healthy food access tracts (Time 1) to healthy food access tracts (Time 2) had lower BMIz at Time 2 (B = -.32, 95%CI = [-.59, -.05], p = .018) than did those who moved to a neighborhood without healthy food access status change. Baseline total park acres at census tract level was negatively associated with BMIz score at Time 2 for movers (B = -.0004, 95%CI = [-.0008, -.0007], p = .018). However, we didn't find these significant associations among non-movers. Changes in walkability were not associated with BMIz changes among either group.

Conclusion: The longitudinal association between neighborhood food environment and children's BMI differed between movers and non-movers. Our findings suggest that moving to a neighborhood with better healthy food access (i.e., supermarket and large grocery store) may be important for supporting children's healthy weight. Further research is needed to understand how movers' and non-movers' weight status was affected differently by their neighborhood social environmental conditions. Our findings could inform local health officials to assess and consider the food and activity environment when planning obesity prevention programs.

CORRESPONDING AUTHOR: Qianxia Jiang, PhD, Children's Mercy Hospital Kansas City, Vista, CA; qjiang@cmh.edu

11:39 AM – 11:50 AM

Abstract citation ID: kaad011.0767

URBAN–RURAL DIFFERENCES IN CANCER PATIENTS' USE AND PERCEIVED IMPORTANCE OF SUPPORTIVE CARE SERVICES

Marquita W. Lewis-Thames, PhD, MPH, MS[1], Patricia Fank, PsyD[2], Michelle C. Gates, PhD[3], Kathy Robinson, PhD[4], Kristin Delfino, PhD[5], Zachary Paquin, MD[6], Aaron T. Seaman, PhD[7], Yamilé Molina, MS, MPH, PhD[8]

[1]Northwestern University Feinberg School of Medicine, Charlotte, IL; [2]Rush University, Chicago, IL; [3]University of Kansas School of Medicine, Kansas City, MO; [4]Simmons Cancer Institute, ,Southern Illinois University School of Medicine, Springfield,, IL; [5]Southern Illinois University School of Medicine, Springfield, IL; [6]Spectrum Health, Grand Rapids, MI; [7]Carver College of Medicine,University of Iowa, Iowa City, IA; [8]University of Illinois Chicago, Chicago, IL

Background: Urban–rural cancer disparities are partly rooted in community-level structural inequities that affect access to and utilization of quality cancer care resources. Community-level inequities impact health behaviors, including a patient's cancer information gathering and understanding of their cancer care needs. The current study aims to understand the potential consequences of structural inequities on rural and urban cancer patients' access to and perceived importance of supportive cancer care resources. Thus, we quantified urban-rural differences in 1) patients' secondary support services use (e.g., financial navigation, clinical psychology); and 2) perceived importance of secondary support services. Methods: Between November 2017 and May 2018, we collected primary data from English-speaking adult cancer patients who completed study surveys before outpatient appointments at a cancer center in the Midwestern United States. The current study draws from a larger cross-sectional needs assessment of patients' support needs, service use, and perceptions. Patients were identified from daily electronic clinic lists of a medical or surgical oncologist. Patients received a study packet at their clinic visit, and interested patients consented and completed the questionnaires. Results: Among the sample of 326 patients, 27% of the sample were rural, 22% were 73+ years old, 56% were women, 82% were non-Hispanic White, and 63% had received multiple types of cancer treatment. In adjusted logistic regression models, rural patients were less likely to report using any secondary support services (15% vs. 27%; OR = 0.43, 95%CI [0.22, 0.85], p =0.02) and less likely to perceive secondary support services to be very important than urban counterparts (51% vs. 64%; OR = 0.57, 95%CI [0.33, 0.94], p =0.03). Discussion: Structural inequities have implications on the reduced access to, and importance of, supportive care services observed for rural cancer patients. Fewer rural patients appeared to use secondary support services compared to urban patients, potentially due in part to rural patients' perceived importance of services. Patient education and health promotion efforts are warranted to increase rural patients' access to information about how secondary supportive services may help with the prevention, early detection, and management of needs during survivorship.

CORRESPONDING AUTHOR: Marquita W. Lewis-Thames, PhD, MPH, MS, Northwestern University Feinberg School of Medicine, Charlotte, IL; marquita.lewis-thames@northwestern.edu

Paper Session 16: Cancer and Physical Activity Interventions

11:02 AM – 11:14 AM

Abstract citation ID: kaad011.0768

12-WEEK PHYSICAL ACTIVITY PROMOTION PROGRAM FOR CANCER SURVIVORS: EXAMINING A FULLY REMOTE MULTIMODAL APPROACH

Veronica Garcia, BS, MS[1], Emily Erlenbach, BS, MS[2], Neha P. Gothe, BA, MA, MS, PhD[3]

[1]University of Illinois Urbana-Champaign, Urbana, IL; [2]University of Illinois at Urbana-Champaign, Urbana, IL; [3]University of Illinois at Urbana Champaign, Urbana, IL

Background: Regular physical activity (PA) post-diagnosis offers benefits for cancer survivors (CS), such as reduced fatigue and cancer-related treatment side-effects, and improved health-related quality of life. Nevertheless, in 2020, 35.5% of adult CS reported engaging in no leisure time PA. The Covid-19 pandemic has exacerbated this trend and further affected this populations' PA given their higher-risk status and desire to reduce possible exposure.

Purpose: We examined the feasibility of providing a remote 12-week multimodal PA promotion program for CS which consisted of i) 6 weekly, Zoom-based PA discussions, ii) 12 weekly, Zoom-based exercise sessions, iii) weekly step tracking and goals, iv) PA workbooks, and v) a social media page.

Methods: Inactive adult CS were recruited through CS support groups, social media, and existing databases. N=18 CS (M_{age}=56.17 yrs) received the five program elements to encourage independent PA participation. After 12-weeks CS rated the importance [*most important* (1) to *least important* (5)] and helpfulness [*not very helpful* (1) to *very helpful* (5)] of the various program elements. PA was assessed using a pedometer (7-day step count) at baseline and following the 12-week program.

Results: Paired t-test showed a significant increase in average weekly steps from baseline to 12-weeks (4727 vs. 6305, t = -2.47, p =.033). CS rated weekly step tracking and goals (44.44%) as most important in promoting their PA, followed by the 6-weekly Zoom PA discussions (22.22%), and 12-weekly Zoom-based exercise sessions (16.67%). The PA workbooks and the social media page were rated as the least important. With an average attendance rate of 60%, 83.33% of participants found the Zoom discussions very helpful; 77.78% of participants engaged with the exercise sessions and gave a helpfulness score of 4.17 (±0.99), 72% of participants used the workbook, which was given a helpfulness score of 3.83 (± .86), and 83.33% of participants used the social media page which was the least helpful (3.41 (± .98)). Overall program helpfulness was given a score of 4.56 (± 0.62).

Conclusion: The 12-week multimodal program was successful in increasing stepping in this CS sample. Based on the feedback, step goal setting and tracking as well as the educational PA resources discussed during the Zoom sessions were rated as most important in initiating and maintaining PA. These resources maybe sufficient to empower CS to safely engage in PA and be physically active.

CORRESPONDING AUTHOR: Veronica Garcia, BS, MS, University of Illinois Urbana-Champaign, Urbana, IL; vcg3@illinois.edu

11:15 AM – 11:27 AM

Abstract citation ID: kaad011.0769

CITATION AWARD WINNER

AN MHEALTH PHYSICAL ACTIVITY INTERVENTION FOR ADOLESCENT AND YOUNG ADULT CANCER SURVIVORS: RESULTS OF A PILOT RANDOMIZED TRIAL

Carmina G. Valle, PhD, MPH[1], Janet A. Tooze, PhD[2], Molly A. Diamond, MPH[3], Erin M. Coffman, MA[4], Kristen Polzien, PhD[3], John M. Salsman, PhD, FSBM[2]

[1]University of North Carolina at Chapel Hill, Gillings School of Global Public Health, Lineberger Comprehensive Cancer Center, Chapel Hill, NC; [2]Wake Forest University School of Medicine, Wake Forest Baptist Comprehensive Cancer Center, Winston-Salem, NC; [3]University of North Carolina at Chapel Hill, Lineberger Comprehensive Cancer Center, Chapel Hill, NC; [4]University of North Carolina at Chapel Hill, Gillings School of Global Public Health, Chapel Hill, NC

Background: Despite the demonstrated benefits of regular physical activity for cancer survivors, most adolescent and young adult (AYA) survivors are not meeting national recommendations. Few interventions to date have focused specifically on promoting physical activity in this at-risk population or capitalized on new technologies to deliver them. This randomized controlled trial examined the feasibility of a 3-month theory-based mHealth intervention aimed at increasing moderate-to-vigorous intensity physical activity (MVPA) compared to a delayed intervention condition.

Methods: AYA cancer survivors (n=62), recruited through three comprehensive cancer centers in North Carolina and social media, were randomly assigned to one of two groups: 1) intervention; or 2) delayed intervention control. Intervention participants received an activity tracker with a companion mobile app, an individual videochat session, 15 emailed behavioral lessons with tailored feedback based on objective activity data, a weekly physical activity goal, and access to a Facebook group. The intervention encouraged participants to engage in daily activity tracking and targeted self-efficacy, autonomy, and social support. Control group participants also received an activity tracker at baseline and were advised to maintain their current activity. After 3 months, control participants received the intervention. Participants completed online questionnaires and 7-day accelerometer assessments at baseline, 3 and 6 months to assess weekly accumulated MVPA.

Results: Participants (82.3% female; 80.7% white) were on average 29.8±5.5 years, 4.0±2.8 years postdiagnosis, with BMI 30.4±9.2 kg/m^2. AYA survivors enrolled in the study at an accrual rate of 4 AYA survivors per week, with 66.7% (62 of 93) of eligible individuals agreeing to participate. Retention was 95.2% at 3 months and 83.9% at 6 months. During the intervention, 63.3% wore activity trackers an average of ≥5 days/week, and participants viewed 21% of the lessons. Across both groups, 84.6% of participants would probably/definitely recommend the program to other AYA cancer survivors. When comparing the intervention and control groups at 3 months, mean minutes/week of accelerometer-measured MVPA was 330.4 (SE=29.8) vs. 309.7 (SE=27.1) (p=0.61, ANCOVA), mean sedentary minutes/day was 503.9 (SE=14.3) vs. 504.8 (SE=12.8) (p=0.96, ANCOVA), and 96% of the intervention group met national recommendations vs. 79% in the control group (p=0.11).

Conclusion: A theory-based mHealth intervention focused on daily activity tracking as a self-monitoring strategy was feasible and acceptable among AYA survivors.

CORRESPONDING AUTHOR: Carmina G. Valle, PhD, MPH, University of North Carolina at Chapel Hill, Gillings School of Global Public Health, Lineberger Comprehensive Cancer Center, Chapel Hill, NC; carmina.valle@unc.edu

---

11:27 AM – 11:39 AM

Abstract citation ID: kaad011.0770

RANDOMIZED TRIAL OF AN MHEALTH PHYSICAL ACTIVITY INTERVENTION FOR METASTATIC BREAST CANCER PATIENTS: FIT2THRIVEMB FINDINGS

Payton Solk, MS[1], Jing Song, MS[2], Julia Lee, PhD[1], William Gradishar, MD[1], Ria Desai[3], Julia Starikovsky, MA[1], Hannah Freeman, BA[1], Abby Mishory, BS[4], Melanie E. Wolter, BA[5], Jacqueline Alexander, BS[1], Lillian B. Carden, BA[6], Siobhan M. Phillips, PhD, MPH[1]

[1]Northwestern University Feinberg School of Medicine, Chicago, IL; [2]Department of Preventive Medicine, Division of Biostatistics, Chicago, IA; [3]Northwestern University, Evanston, IL; [4]Northwestern University, Chicago, IL; [5]Northwestern University, Newport Beach, CA; [6]Northwestern Feinberg School of Medicine, Chicago, IL

Background: Due to improved treatments and increased life expectancy, the metastatic breast cancer (MBC) population is growing. MBC patients experience increased morbidity and mortality which may be attenuated with increased physical activity (PA), but research is limited. This study examined the feasibility, acceptability, and preliminary efficacy of the Fit2ThriveMB (F2TMB) mHealth PA intervention for MBC patients.

Methods: Insufficiently active [< 150 min/week moderate and vigorous PA (MVPA)] MBC patients [n=49; *Mage*=54.8 (SD=11.3); 55% on chemotherapy] were randomized 1:1 to F2TMB (F2TMB app, Fitbit, weekly coaching calls) or a Healthy Lifestyle waitlist-control for 12 weeks. F2TMB targeted increased daily steps via an algorithm tailored to an individual's daily symptom rating and step attainment. Participants wore an accelerometer to measure PA at baseline and 12 weeks. Intervention feasibility and acceptability questionnaires and interviews were completed at 12 weeks. Descriptive statistics were calculated for feasibility and acceptability metrics. Transcribed interviews were evaluated using a thematic content analysis approach and consensus review. Intention to treat mixed-effects linear models and Cohen's *d* effect sizes were used to examine intervention effects.

Results: Retention was high (98%; 1 participant died). F2TMB participants (n=24) wore the Fitbit 98.2% of study days, set a PA goal 84.6% of study days and used the app 94.1% of study days; 100% reported overall satisfaction with their study experience. The majority were satisfied with the app design (68%) and content (73%) and found it easy to use (86%). Participants indicated they were, generally, satisfied with the intervention; however, some areas to target for intervention improvement were identified. Compared to controls, we observed F2TMB participants had a small increase in daily steps (+185.8 v. -522.7; *d*=0.44; *p*=0.24) and MVPA minutes (+2.3 v.-1.3;*d*=0.29; *p*=0.33), and a smaller decline in total (-4.6 v. -11.0;*d*=0.24; *p*=0.71) and light (-6.8 v. -9.8;*d*=0.19; *p*=0.85) PA minutes. Lastly, 52% of F2TMB participants (v. 22% of controls) increased average daily steps by ≥500.

Conclusions: Overall, F2TMB was feasible and acceptable. Trends toward increasing steps and MVPA, reducing declines in light and total PA were observed. Future refinement of F2TMB and testing in randomized controlled trials with larger sample sizes is warranted.

This work was supported by the National Institutes of Health K07CA196840 and R21CA239130

CORRESPONDING AUTHOR: Payton Solk, MS, Northwestern University Feinberg School of Medicine, Chicago, IL; payton.solk@northwestern.edu

11:39 AM – 11:50 AM

Abstract citation ID: kaad011.0771

THE EFFECTS OF AEROBIC EXERCISE TRAINING ON MEMORY IN BREAST CANCER SURVIVORS: A PILOT RANDOMIZED TRIAL

Kyle Kershner, MS[1], Ann M. Berger, PhD[2], Julia Edelstein, BS[3], Lindsey L. Page, PhD[4], Diane Ehlers, PhD[5]

[1]Arizona State University, Phoenix, AZ; [2]University of Nebraska Medical Center College of Nursing, Omaha, NE; [3]Boys Town Research Hospital, Omaha, NE; [4]Harvard T.H. Chan School of Public Helath, Brookline, MA; [5]Mayo Clinic, Phoenix, AZ

Introduction: Despite the well-documented benefits of exercise for cancer survivors, evidence of exercise's cognitive benefits remains equivocal. Thus, the purpose of this study was to test the effects of an aerobic exercise intervention, compared to usual care, on cognitive function in women living with breast cancer.

Methods: Thirty breast cancer survivors who completed primary treatment 3-24 months prior to study enrollment were randomized to Aerobic Exercise Training (AET; n=15) or Usual Care (UC; n=15). Those in the AET group engaged in supervised and unsupervised moderate-intensity walking sessions three times weekly for 12 weeks, and UC participants were instructed to maintain normal lifestyle activities and cancer care. Cognition was operationalized as memory function assessed objectively via neurocognitive tasks (Spatial Working Memory [SPWM] reaction time, N-Back 2-back accuracy) and subjectively via questionnaire (Frequency of Forgetting [FOF] scale). Assessments were completed at baseline and repeated at post-intervention. Multivariate Analysis of Covariance (MANCOVA) was used to analyze time and group*time effects on cognitive outcomes, with age and education included as covariates. Univariate pairwise comparisons with Bonferroni correction were also examined.

Results: No baseline differences in covariates, NBack, or FOF scores were observed between groups (AET: *M* age=62.8±8.4 years, 53% college degree; UC: *M* age=66.0±8.3 years, 60% college degree). However, UC performed significantly slower on SPWM compared with AET (t=1.71, p=.049) at baseline. Over time, a significant group*time interaction was observed for the cognitive tasks (F(2,24)=3.35, p=.05). Univariate pairwise comparisons indicated that AET participants increased NBack accuracy from 60.6±4.6% at baseline to 73.4±2.7% at post-intervention (p=.006), while UC participants' NBack accuracy did not change (65.8±4.8% to 69.9±2.8%, p=.36). No group*time differences for the FOF total or FOF subscales were observed.

Conclusion: Breast cancer survivors in the AET group exhibited greater improvements in objectively measured memory function; however, no differences in subjective memory were observed between groups. These mixed findings, along with limited examination of the effect of exercise training on cognitive function in cancer survivorship, indicate a critical need for further research in this area. Randomized clinical exercise trials with large sample sizes are particularly needed.

CORRESPONDING AUTHOR: Kyle Kershner, MS, Arizona State University, Phoenix, AZ; kkershner@asu.edu

---

Paper Session 17: Diabetes

11:02 AM – 11:14 AM

Abstract citation ID: kaad011.0772

DIABETES DISTRESS MODERATES EFFECT OF EHEALTH INTERVENTION ON GLYCEMIC CONTROL IN BLACK ADOLESCENTS WITH TYPE 1 DIABETES

Katherine Knauft, PhD[1], Angela Jacques-Tiura, PhD[1], April I. Idalski Carcone, MSW, PhD[1], Jill Weissberg-Benchell, PhD, CDCES[2], Meredyth A. Evans, PhD[3], Deborah Ellis, PhD[1]

[1]Wayne State University, Detroit, MI; [2]Northwestern University Feinberg School of Medicine, Chicago, IL; [3]Lurie Children's Hospital, Chicago, IL

Due to systemic inequities, Black adolescents with type 1 diabetes (T1D) are more likely to have suboptimal glycemic control, but tailored interventions to improve health outcomes for this population are lacking. Rates of diabetes distress are also elevated in Black adolescents; in turn, diabetes distress is associated with challenges with diabetes management and suboptimal glycemic control. The present study examined the moderating effects of diabetes distress on the efficacy of a family-based eHealth intervention aimed at improving health outcomes among young Black adolescents with T1D. A multi-center randomized clinical trial was conducted with 149 Black adolescents with T1D and their primary caregiver. Up to three intervention sessions aimed at optimizing diabetes-related parenting skills (e.g., daily parental monitoring of adolescent diabetes care) were delivered to 75 caregivers on a tablet computer during diabetes clinic visits over a 12-month period; 74 caregivers received standard medical care. At baseline, adolescents' ages ranged from 10.1-15.9, 86 (57.7%) were female, and mean HbA1c was 11.48% (*SD=2.68)*; 140 (89.9%) caregivers were female. Data were collected at baseline and 6, 12, and 18 months follow-up, and analyzed using a linear mixed effect model with robust standard errors. Examination of fixed effects showed a significant three-way interaction between intervention group, time, and adolescents' baseline diabetes distress, p=.014. Adolescents assigned to the intervention condition showed a .80% (8.9 mmol/mol) reduction in HbA1c at 12 month follow-up, p=.038. Furthermore, adolescents with high diabetes distress who received the intervention showed the largest reduction in HbA1c (.88%; 9.6 mmol/mol) at 12 months, p=.036. In summary, youth with higher rates of diabetes distress benefitted most from closer parental oversight and/or increased parental support related to increased involvement.

CORRESPONDING AUTHOR: Katherine Knauft, PhD, Wayne State University, Detroit, MI; knauft@wayne.edu

11:15 AM – 11:27 AM

Abstract citation ID: kaad011.0773

PATIENT REPORTED OUTCOMES OF PATIENT-DRIVEN VS STANDARDIZED DIABETES SHARED MEDICAL APPOINTMENTS: PRAGMATIC TRIAL RESULTS

Bethany M. Kwan, PhD, MSPH[1], Dennis Gurfinkel, MPH[2], Patrick W. Hosokawa, MS[3], Miriam Dickinson, PhD[4], Russell E. Glasgow, PhD, FSBM[5], Mark Gritz, PhD[1], Jeanette A. Waxmonsky, PhD[6]

[1]University of Colorado School of Medicine, Aurora, CO; [2]University of Colorado, Aurora, CO; [3]University of Colorado - Anschutz, Aurora, CO; [4]University of Colorado Anschutz Medical Campus, Golden, CO; [5]University Colorado Anschutz Medical Campus, Eugene, OR; [6]University of Colorado Anschutz Medical Campus, Centennial, CO

Background: Diabetes shared medical appointments (SMAs) are an evidence-based approach to providing diabetes self-management support and education (DSME) in primary care. However, there are gaps in evidence regarding comparative effectiveness of diabetes SMA features, including curriculum and topic selection, behavioral health provider involvement, peer support, and modality.

Objective: To present the main patient-reported outcome (PRO) measure results of the Invested in Diabetes study, a cluster randomized pragmatic trial of two models of diabetes SMAs using the Targeted Training in Illness Management (TTIM) curriculum.

Methods: 22 primary care practices with integrated behavioral health were randomly assigned at the practice level to deliver either standardized (STD) or patient-driven (PTD) diabetes SMAs. The TTIM curriculum included 6 diabetes and mental health content modules designed to be delivered over six 2-hour sessions in closed cohorts of 8-10 patients with Type 2 diabetes. PTD SMAs were delivered by an multidisciplinary care team including behavioral health clinicians and peer mentors; cohorts selected topic order. STD SMAs were delivered by a health educator only and followed TTIM topics in a set order. Patients completed the 17-item Diabetes Distress Scale (DDS-17), the Summary of Diabetes Self-Care Activities (SDSCA), and other self-reported measures at the first and last session. Originally delivered only in person, several practices pivoted to virtual SMAs (vSMAs) in 3/2020 due to COVID-19. Linear mixed effects models compared differences-in-differences (DiD) effects of condition on changes in PROM scores.

Results: Practices enrolled 1058 patients in diabetes SMAs from 1/2019 to 12/2021. 856 patients had both baseline and follow-up PRO scores and were included in the analysis. Patients in both SMA conditions demonstrated significant improvements in DDS-17 scores overall (delta=-0.23 (SD=0.79); PTD=-0.17 (SD=0.80) vs STD=-0.30 (SD=0.78) and for all subscale scores. Controlling for patient demographic variables, total DDS-17 (DiD=-0.14 (SE=0.06), p=.02) and emotional burden (DiD=-0.23 (SE=0.08), p=.002) and regimen distress (DiD=-0.22 (SE=0.08), p=.008) subscales scores improved significantly more for those in STD than PTD SMAs. Patients in both conditions showed improved SDSCA measures for diet, exercise, blood sugar monitoring, foot checks, and medication taking (all $p < .001$). There were no effects of SMA condition on SDSCA measures or differences for vSMAs vs. in person (all $p > .05$).

Discussion: In contrast with *a priori* hypotheses, a PTD model of diabetes SMAs with behavioral health, peer support, and topic selection was not more effective at improving diabetes distress or self-care behaviors than STD SMAs. Results suggest a STD model may be preferred for some outcomes. Patient experience and implementation factors may explain this finding.

CORRESPONDING AUTHOR: Bethany M. Kwan, PhD, MSPH, University of Colorado School of Medicine, Aurora, CO; Bethany.kwan@cuanschutz.edu

---

11:27 AM – 11:39 AM

Abstract citation ID: kaad011.0774

MERITORIOUS AWARD WINNER

QUALITATIVE STUDY OF A COMPLEX INTERVENTION TO PREVENT FOOT LESIONS IN DIABETIC NEUROPATHY: THE PATRIOT TRIAL

Emily N. DeGeorge, BA[1], Avani Sharma[2], Hannah Holliday[2], Andrew Nicholson, MSPH[3], Sahnah Lim, PhD, MPH[4], Sundar Natarajan, MD, MSc[5]

[1]New York University/VA New York Harbor Healthcare System, New York, NY; [2]New York University/VA New York Harbor Healthcare, New York, NY; [3]NYU Grossman School of Medicine/VA New York Harbor Healthcare, New York, NY; [4]NYU Grossman School of Medicine,, New York, NY; [5]VA New York Harbor Healthcare System/NYU Grossman School of Medicine,, New York, NY

Objectives: Amputation is a devastating complication preceded in >80% of cases by a diabetic foot ulcer (DFU). We developed and tested a novel personalized behavioral intervention (PBI) to lower the risk of DFU in adults with diabetic neuropathy through a randomized clinical trial. To understand participant experience of the PBI and to inform future dissemination, we conducted a qualitative evaluation at the end of study participation among a varied sample of participants.

Methods: The PBI was an integrated, multicomponent intervention based on self-regulatory theory (self-care/self-monitoring), transtheoretical model (diet/physical activity), and prospect theory (medication adherence) delivered by masters-trained counselors using motivational interviewing principles and the teach-back method. PBI involved regular counseling calls, dermal thermometry, daily checklists, and logbooks to enhance self-care and self-monitoring. Semi-structured qualitative interviews were conducted, recorded, transcribed, and analyzed to assess participant experience, receive feedback and elicit suggestions. Using Atlas.ti, the coding team independently reviewed quotation reports and determined recurring themes. Upon generating independent analysis, the team met to reach a consensus on central findings.

Results: We conducted 27 phone interviews using maximum variation sampling based on adherence to protocol. The majority considered that: the program was beneficial, establishing a routine facilitated adherence, the calls were educational, foot temperature monitoring was valuable, personalization and feeling supported/cared for facilitated adherence, and the program improved foot self-care. Variable impressions were most evident when considering time-related factors (study duration/call frequency/length of calls) and PBI (repetition of calls/call content/mailings). Sources of dissatisfaction and barriers include confusion about using tools, feeling caught off guard by calls, disabilities, logbook/checklist formatting issues, and malfunctioning thermometers.

Conclusions: Participants found the PBI beneficial. The results emphasized the development of a routine and attitudes surrounding diabetes and the intervention as facilitators and how both can encourage or discourage compliance with self-care and self-monitoring behaviors. This qualitative evaluation also provides key information to help translate the PBI for dissemination research or clinical implementation.

CORRESPONDING AUTHOR: Emily N. DeGeorge, BA, New York University/VA New York Harbor Healthcare System, New York, NY; end254@nyu.edu

11:39 AM – 11:50 AM

Abstract citation ID: kaad011.0775

TYPOLOGY OF DIABETES-SPECIFIC FAMILY FUNCTIONING: REPLICATION AND PREDICTIVE VALIDITY IN A DIVERSE SAMPLE OF ADULTS WITH T2D

Lindsay S. Mayberry, PhD[1], McKenzie K. Roddy, PhD[1], Shilin Zhao[1], Cynthia A. Berg, PhD, FSBM[2], Lyndsay A. Nelson, PhD[1], Robert A. Greevy, PhD[1]

[1]Vanderbilt University Medical Center, Nashville, TN; [2]University of Utah, Salt Lake Cty, UT

Introduction: Family is the social context in which diabetes self-management occurs. Numerous aspects of family functioning affect self-management and psychosocial well-being for adults with type 2 diabetes (T2D). We previously developed a typology of diabetes-specific family functioning based on dimensions identified as relevant in the extant literature on collaborative coping and social support. We identified four types using a cross-sectional study design – *Collaborative and Helpful*, *Want More Involvement*, *Satisfied with Low Involvement*, and *Critically Involved* – and found type was associated with self-management and psychosocial well-being. Here, we sought to determine if findings would replicate in a more diverse group of adults with T2D and examined predictive validity of the typology over 6 months.

Methods: This was a secondary analysis of an RCT among adults with T2D and A1c ≥ 7.5%. At baseline and 6-months, participants completed typology dimension measures plus validated measures of diabetes management (medication adherence, self-efficacy, A1c value) and well-being (diabetes distress, depressive symptoms). With baseline data from the full sample, we used k-means cluster analysis to ascertain if the number of types and the dimension patterns across types were consistent with our previously developed typology. We then examined associations between baseline type and self-management and well-being cross-sectionally with regression models adjusted for age, race/ethnicity, gender, education, income, diabetes duration, and insulin status. Next, using 6-month data from participants assigned to the control group, we examined if baseline type predicted self-management and well-being in adjusted models.

Results: The baseline sample (N=324 adults with T2D) included 52% male, 38% minoritized race or ethnicity, a mean age of 56.8 (SD=11.0) years, and 37% insulin users. The typology replicated with respect to the number of types and dimension patterns across types: 35% *Collaborative and Helpful*, 30% *Want More Involvement*, 19% *Satisfied with Low Involvement*, and 15% *Critically Involved*. In adjusted models, baseline type was cross-sectionally associated with all outcomes (*ps* < .001) – replicating previous findings – and with 6-month self-efficacy and medication adherence (*ps* < .01), but not with A1c, diabetes distress or depressive symptoms.

Discussion: In a diverse sample of adults with T2D, we replicated the typology of diabetes-specific family functioning and found evidence of predictive validity for self-management cross-sectionally and longitudinally, and for well-being cross-sectionally. This evidence indicates the typology is a useful tool for simplifying the multidimensional construct of diabetes-specific family functioning, creating opportunities to provide tailored support and evaluate which types benefit most from family interventions.

CORRESPONDING AUTHOR: Lindsay S. Mayberry, PhD, Vanderbilt University Medical Center, Nashville, TN; lindsay.mayberry@vumc.org

Paper Session 18: Digital Health from Development to Dissemination

11:02 AM – 11:14 AM

Abstract citation ID: kaad011.0776

A STORY OF AN EVIDENCE-BASED MHEALTH APP FOR HIV CARE FROM CLINICAL RESEARCH TO IMPLEMENTATION TO COMMERCIALIZATION

Karen S. Ingersoll, PhD[1], Rebecca Dillingham, MD, MPH[2]

[1]UVA School of Medicine, Charlottesvle, VA; [2]University of Virginia, Charlottesville, VA

Context: Efficacious digital interventions rarely emerge from the lab to become standard care. In contrast, we will discuss how a theory-based, clinic-deployed HIV care app that improves retention in care (RIC) achieved dissemination.

Methods: Automated texting with patients with HIV made them feel that “someone cared,” and improved treatment adherence. We hypothesized that a theory-based mHealth intervention could help people feel a *warm connection to their HIV clinic*, and improve HIV outcomes. Foundation funding supported development of a secure mobile app drawing from Social Action Theory and the Information-Motivation-Behavior Change Model. The app, *PositiveLinks*, was a clinic-based HIV care app to promote connection between patients and clinic teams. *PositiveLinks v1.0*, included daily self-monitoring “check-ins” of mood, stress, and medication adherence, a “How Am I” display to provide feedback on check-in data, an anonymized Community Message Board, a display of recent lab results, and vetted resources, with a provider portal. A 12-month prospective trial of the app with nonurban PWH found significant improvements in RIC and viral suppression. With support from the Virginia Department of Health, we updated look and feel, added secure messaging with clinic staff, document uploading in *PositiveLinks v2.0*, along with a provider app, staff training via an online learning management system.

Results: Research on *PositiveLinks* 2.0 showed reduced stigma, improved social support, and convenient communication between clinic team members and patients. We distributed the app to Virginia HIV clinics statewide. In 2017, *PositiveLinks v3.0* became usual care in the originating clinic. State and NIH-funded studies of *PositiveLinks* are ongoing in the originating clinic and in a Washington D.C. cohort of 14,000 patients. We are testing the predictive power of big data to alert clinics to intervention needs of patients prospectively. Requests for the app by clinics outside Virginia led the University of Virginia to establish a company, *Warm Health Technology, LLC*, to disseminate a commercial version called *PLCares*. Nine HIV clinics in 6 U.S. states and 2 countries are using *PositiveLinks.*

Conclusions: Basing features on establish health behavior theory, *e*stablishing scientific evidence for *PositiveLinks*, and capitalizing on continuous clinic-based innovation, led to awards and recognition as an evidence-based practice in HIV care by U.S. government agencies (CDC and HRSA). This has created demand for the HIV care app in the U.S. and in other countries, increasing interest by states and other entities that fund HIV care.

CORRESPONDING AUTHOR: Karen S. Ingersoll, PhD, UVA School of Medicine, Charlottesvle, VA; kareningersoll@gmail.com

11:15 AM – 11:27 AM

Abstract citation ID: kaad011.0777

EVALUATION OF A CLINIC-AFFILIATED APP ("JOMPREP") TO IMPROVE HIV PREVENTION CASCADE AMONG MEN WHO HAVE SEX WITH MEN IN MALAYSIA

Roman Shrestha, PhD[1], Iskandar Azwa[2], Wan Mohd Ikhtiaruddin[3], Mohd Akbar[2], Antoine Khati[4], Zhao Ni, PhD[5], Xin Zhou[6], Frederick Altice[6], Adeeba Kamarulzaman[2], Patrick Sullivan[7], Jeffrey Wickersham[6]

[1]University of Connecticut, South Windsor, CT; [2]University of Malaya, Kuala Lumpur, Kuala Lumpur, Malaysia; [3]Centre of Excellence for Research in AIDS (CERiA), Kuala Lumpur, Kuala Lumpur, Malaysia; [4]University of Connecticut, Storrs, CT; [5]Yale University, West Haven, CT; [6]Yale University, New Haven, CT; [7]Emory University, Atlanta, GA

Background: HIV disproportionately affects men who have sex with men (MSM). In Malaysia, where stigma and discrimination toward MSM are high, including in healthcare settings, mHealth platforms have the potential to open new frontiers in HIV prevention. In response, we developed an innovative, clinic-affiliated app, called JomPrEP, that provides a virtual platform to engage in HIV prevention services (e.g., HIV testing, pre-exposure prophylaxis; PrEP). This study evaluated the usability and acceptability of the JomPrEP app for HIV prevention.

Methods: JomPrEP includes several on-demand features, such as scheduling and managing appointments, communicating with clinicians (real-time chat), accessing test results, e-consultation, ordering health products (e.g., PrEP, HIV self-testing kit; HIVST), order tracking, discrete door-to-door delivery, notifications and reminders, reward system, and many others. Fifty HIV-negative, PrEP-naive MSM in Greater Kuala Lumpur, Malaysia, were recruited between March and April 2022. Participants used the JomPrEP app for a month to access HIV prevention services and complete a post-use survey. The use of the app and its features were assessed using self-report and objective measures (e.g., app analytics, app-EMR interface). Usability was evaluated using the system usability scale (SUS).

Results: Participants' mean age was 27.9 (SD=8.1) years. Participants used the JomPrEP app, on average, 8 (SD=5.0) times during 1 month of testing, with each session lasting an average of 28 (SD=38.9) minutes. Of the total participants, 86.0% (43/50) ordered an HIVST kit using the app, of which 44.2% (19/43) ordered an HIVST more than once. Almost all participants (92.0%; 46/50) initiated oral PrEP using the app (same-day PrEP initiation: 63.0%; 29/46). Specifically, 34.8% (16/46) chose PrEP e-consultation via the app (vs. in-person consultation). Regarding PrEP dispensing, 37.0% (17/46) chose to receive their PrEP via mail order (vs. pharmacy pick-up). The app was rated as having high acceptability with a score of 73.8 (SD=10.1) on the SUS.

Conclusion: The JomPrEP app was found to be a highly feasible and acceptable tool for MSM in Malaysia to access HIV prevention services in a fast and convenient manner. A broader, randomized controlled trial is warranted to evaluate its efficacy on HIV prevention outcomes among MSM in Malaysia.

CORRESPONDING AUTHOR: Roman Shrestha, PhD, University of Connecticut, South Windsor, CT; roman.shrestha@uconn.edu

11:27 AM – 11:39 AM

Abstract citation ID: kaad011.0778

GAMERFIT ASD: ADAPTATION OF AN EVIDENCE-BASED EXERGAMING AND TELEHEALTH COACHING INTERVENTION FOR YOUTH WITH AUTISM

April B. Bowling, MA, ScD[1], Daniel P. Hatfield, PhD[2], Amanda E. Staiano, PhD, FSBM[3], Carol Curtin, PhD, LICSW[4], Linda G. Bandini, PhD[5], James Slavet, PhD[6], Phillip J. Nauta, MBA[7], Rachael Sabelli, MSc[8], Christopher Stuetzle, PhD[1], Winston Kennedy, PT, DPT, MPH, PhD[1], Christina Sakai, MD[8], Aviva Must, PhD[9]

[1]Merrimack College, North Andover, MA; [2]Tufts University Friedman School of Nutrition Science and Policy, Boston, MA; [3]LSU's Pennington Biomedical Research Center, Baton Rouge, LA; [4]UMass Chan Medical School/E.K. Shriver Center, Worcester, MA; [5]University of Massachusetts Chan Medical School, Worcester, MA; [6]Marblehead Family Therapy and Wellness, Marblehead, MA; [7]Pennington Biomedical Research Center, BATON ROUGE, LA; [8]Tufts University School of Medicine, Boston, MA; [9]School of Medicine, Boston, MA

Background: Health disparities faced by youth with autism are exacerbated by inadequate physical activity (PA) and sleep; meanwhile, healthy levels of PA and sleep appear to improve mood and function in autistic youth. Adaptive Game Squad (AGS) is an evidence-based exergame and telehealth coaching intervention developed for older teens with diverse neurodevelopmental and psychiatric conditions. We adapted AGS to improve feasibility and engagement for autistic youth ages 10-15 years (GamerFit-ASD), in preparation for a larger, pragmatic trial.

Methods: The 12-week intervention includes a progressive exergaming schedule, Fitbit step-tracking, and weekly health coaching. Adaptation included working with a team of professional health coaches, an interdisciplinary team of experts including clinicians, developmental psychologists, nutrition, exercise and disability health researchers, and an autistic consultant. This team developed telehealth coach training materials, including scripts, and trained four community-based coaches. Adaptation also required evaluating developmentally-appropriate exergames on three gaming platforms (Xbox One™, PS4™, Nintendo Switch™) and selecting for suitability and accessibility prior to beta testing, as well as adapting and creating on-demand exercise and health tip videos for the target population. A 4-week beta test of the intervention that included exit interviews with parent-participant dyads was then implemented with 5 participants.

Results: Engagement in the adapted GamerFit-ASD intervention beta test was higher than that observed in the original AGS intervention. All participants (n=5; ages 10-14 years of age; 3 male, 1 female, 1 non-binary; 4 white, 1 Latinx) attended all planned coaching sessions, averaged 8009 steps per day (exceeding intervention targets), and completed an average of 9 of 12 planned exergame sessions for a weekly average of 50 minutes of exergaming. All participants reported enjoying their coaching sessions, 4 out of 5 reported enjoying the exergames, and 3 out of 5 reported enjoying the on-demand exercise videos. Based on detailed feedback from the beta test, further adaptations to coaching scripts and parent materials were made, including early establishment of preferred terminology and development of an autism-specific health packet. Our decision to utilize the Nintendo Switch™ was confirmed with universal accessibility and reported ease of use and overall satisfaction.

Conclusion: Use of a collaborative development approach by a multidisciplinary team resulted in excellent feasibility and engagement among beta testers, whose feedback was used to refine the final intervention. If shown to be feasible and effective in a larger trial, GamerFit-ASD offers a fully remote, engaging intervention to improve key health behaviors in youth with autism.

CORRESPONDING AUTHOR: April B. Bowling, MA, ScD, Merrimack College, North Andover, MA; bowlinga@merrimack.edu

11:39 AM – 11:50 AM

Abstract citation ID: kaad011.0779

NAVIGATING WELLNESS & WELLMAMA: WEB-BASED TOOLS DESIGNED TO ADDRESS GAPS IN ACCESS TO ACCURATE AND RELIABLE HEALTH INFORMATION

Rabih Dahdouh, MS, BS[1], Laura Tom[1], Nihmot A. Adebayo[2], Magdalena Nava, MPH[1], Eileen Wafford, MSt, MLIS[3], Cassandra Osei, MPH[3], Ivy Leung[3], Will Dunne[3], Kevin Wamala[1], Norma Marshall[1], Joana Salievska[1], Krystal Madkins, MPH[4], Kristi Holmes, PhD[3], Melissa Simon, MPH, MD[1]

[1]Northwestern University Feinberg School of Medicine, Center for Health Equity Transformation, Chicago, IL; [2]UIC / NU / Center for Health Equity Transformation, Chicago, IL; [3]Northwestern University Feinberg School of Medicine, Galter Health Sciences Library, Chicago, IL; [4]Northwestern University Institute for Sexual and Gender Minority Health and Wellbeing, Chicago, IL

Introduction / Background: Preventive screenings can detect some diseases before symptoms occur, and early detection and treatment can curb disease progression and reduce morbidity and mortality from many major chronic diseases.

While there is a deluge of "health information" on the Internet, there remains difficulty in accessing and communicating evidence-based health information to underserved communities. We describe the design and usability testing of the Navigating Wellness and WellMama intervention (G08LM013188) developed in partnership with Chicago Public Libraries (CPL) to augment United States Preventive Services Task Force (USPSTF) information by enhancing access to preventive screening and wellness information for diverse underserved populations in the Chicagoland area. People often experience "information overload" when faced with complex topics, and USPSTF recommendations can be highly technical.

Methods: We used a design thinking approach to develop web-based tools to empower library patrons to access individually tailored health information and utilize preventive health services, while equipping librarians with tools to support this endeavor. Usability testing was conducted with 25 CPL patrons. Participants completed a demographics questionnaire and surveys. Questions focused on ease of understanding content, trustworthiness and the utility of the websites.

We also hosted two co-design sessions where CPL patrons (n=10), participated in an open forum format with questions/prompts about health, wellness, access to care and reliable information. Participants also took park in design thinking exercises aimed at evoking ideas that could improve the web-based tools. These ideas and qualitative feedback are also being integrated into the next iteration prototype.

Results: A majority of participants found both websites to be acceptable overall, with an average rating of 7.3 out of 10, when asked how likely they would be to recommend the website to others (10 being extremely likely). A majority of participants (95%) found the content easy to understand and trustworthy. Participants also felt more informed (95%) and more empowered (88%).

Some found the websites difficult to navigate. A particular feature – the glossary - received feedback to use less jargon in the definitions. Improvement feedback (e.g. less text, more search functions, etc.) are currently being implemented for the next prototype.

Participants were split rating Navigating Wellness as "not at all difficult" (54%) and "a little difficult" (46%) to use; whereas participants evaluated WellMama as "not at all difficult" (70%) and "a little/somewhat difficult" (30%) to use.

Conclusion: Findings suggest that further usability testing is needed to improve future prototypes.

Future measures will include health literacy, trustworthiness, and behavioral measures on seeking preventive health services.

CORRESPONDING AUTHOR: Rabih Dahdouh, MS, BS, Northwestern University Feinberg School of Medicine, Center for Health Equity Transformation, Chicago, IL; rabih.dahdouh@northwestern.edu

Paper Session 19: Sexual Health

11:02 AM – 11:14 AM

Abstract citation ID: kaad011.0780

A BRIEF COGNITIVE RESTRUCTURING INTERVENTION TO REDUCE SEXUAL COERCION: ROLES OF ALCOHOL AND COGNITIVE REAPPRAISAL

Weiqi Chen, BSN[1], Julia Hammett, PhD[1], Kelly Davis, PhD[1]

[1]Arizona State University, Phoenix, AZ

Introduction: Sexual coercion (SC) is a form of sexual misconduct in which nonphysical tactics are used to obtain sex with an unwilling partner. SC is a serious public health concern that is related to harmful psychological and physical health consequences. Thus, there is a need to investigate interventions to prevent SC. Cognitive restructuring (CR) is a promising intervention technique that aims to challenge and modify thoughts to influence behaviors. CR has been found to indirectly reduce nonconsensual sexual intentions. However, the factors that facilitate or impede the effectiveness of CR on sexual intentions are unclear. The current study aims to investigate the effectiveness of a brief CR intervention in reducing SC intentions and whether intervention effectiveness differs as a function of cognitive reappraisal, an emotion regulation skill that has been shown to be a protective factor in intimate partner violence, and alcohol intoxication, a known risk factor for sexual aggression.

Method: One hundred and thirty-eight heterosexual men (*M*age = 21.12, *SD*age = 2.78) completed a baseline assessment consisting of demographic and *a priori* cognitive reappraisal skill measures, and then were randomized into a control (n = 71) or CR condition (n = 69). Subsequently, approximately half of the participants in each condition consumed alcohol until reaching a breath alcohol concentration of .08%, and the rest of the participants consumed a non-alcoholic beverage as a control. After beverage administration, all participants read a sexual aggression scenario, followed by nine questions assessing their intentions to engage in SC behaviors.

Results: Results of linear regression using SPSS showed a significant CR intervention x cognitive reappraisal interaction (B = -0.55, *p* = .017). Simple effects analyses indicated that regardless of beverage condition, receiving the CR intervention significantly reduced SC intentions among men with moderate (*t* = -2.37, *p* = .015) and high (*t* = -2.74, *p* = .013) cognitive reappraisal skills but had no effect among men with low cognitive reappraisal skills (B = 0.92, p = .229). The CR intervention x beverage (B = -0.54, *p* = .227) and the beverage x *a priori* cognitive reappraisal skills (B = -1.57, *p* = .483) interactions were not statistically significant.

Discussion: The current results support the use of CR as an intervention to reduce SC intentions. Specifically, men with moderate and higher levels of cognitive reappraisal skills may benefit more from CR compared to men with lower levels of cognitive reappraisal skills, regardless of alcohol consumption. Continued research is needed to develop interventions effective at reducing SC intentions in men with lower cognitive reappraisal skills.

CORRESPONDING AUTHOR: Weiqi Chen, BSN, Arizona State University, Phoenix, AZ; wchen162@asu.edu

11:15 AM – 11:27 AM

Abstract citation ID: kaad011.0781

A DYADIC STUDY OF PARENT BEHAVIORS AND THEIR ASSOCIATIONS WITH SEXUAL HEALTH AMONG GAY AND BISEXUAL ADOLESCENTS

David M. Huebner, PhD, MPH[1], Andrew P. Barnett, PhD[2]

[1]George Washington University, Washington, DC; [2]Rhode Island Hospital / Alpert Medical School of Brown University, Providence, RI

Adolescent men who have sex with men (AMSM) account for 79% of new HIV infections among teens ages 13-19, yet interventions to reduce their HIV risk are scarce. Parents might be helpful allies in efforts to reduce their sons' HIV risks, yet few studies have examined how parent behaviors influence AMSM sexual health. This study used data from parent-child dyads to test associations between parent behaviors and AMSMs' self-efficacy for using condoms and intentions to get tested for HIV.

61 parent-AMSM dyads were recruited through social media. AMSM were ages 14-22 (*M*=16.8; 46% racial/ethnic minority). 95% of parents were mothers. Parents and sons separately completed measures online. Outcomes were AMSM reports of condom-use self-efficacy (7 items, $\alpha = 0.83$), and intentions to test for HIV in the next 6 months (1 item). Predictors were parents' and sons' independent reports of whether parents had ever engaged in a variety of specific behaviors across 3 domains; these were used to categorize parents within each domain (see Table).

Domain	Categories of Parent Behavior	Parent report %	Son report %
Enabling Condom Access	Did nothing	25	31
	Provided information on where to get condoms	33	39
	Gave son condoms	31	18
	Shopped for condoms with son	11	12
Condom Use Instruction	Did nothing	59	47
	Provided information alone (e.g., pamphlet)	3	10
	Provided information with parent discussion	25	28
	Conducted in-person condom demonstration	13	15
HIV Testing Assistance	Did nothing	93	93
	Scheduled and attended HIV testing appointment with son	7	7

ANOVAs adjusting for child age tested whether each domain of parent behavior was associated with sons' self-efficacy or HIV testing intentions. Separate ANOVAs were conducted for parents' and sons' reports of parent behaviors. For the domain of Enabling Condom Access, both parent and son reports of parent behaviors were associated with son's condom-use self-efficacy (*F*'s = 3.25, 5.53, respectively; *p*'s = 0.029, 0.002), with the overall pattern showing that giving a son condoms or explaining where to get them were more beneficial than doing nothing, and shopping for condoms with their sons was most beneficial. For Condom Use Instruction, neither parent nor son reports of parent behaviors were related to son's self-efficacy (*F*'s = 1.11, 1.62, *ns*). For HIV Testing Assistance, both parent and son reports of parent behaviors were associated with sons' intentions to test for again in the next 6 months (*F*'s = 5.35, 5.75; *p*'s = 0.024, 0.020), with sons expressing greater intentions when parents had assisted in the past.

AMSM whose parents engaged in behaviors supportive of their sexual health reported greater self-efficacy for using condoms and greater intentions to get tested for HIV. These effects were consistent across both parents' and sons' independent reports of parent behaviors, pointing to the robustness of effects. Parents are a promising resource for improving AMSM sexual health.

CORRESPONDING AUTHOR: David M. Huebner, PhD, MPH, George Washington University, Washington, DC; davidhuebner@gwu.edu

11:27 AM – 11:39 AM

Abstract citation ID: kaad011.0782

IMMEDIATE POSTPARTUM CONTRACEPTION PROVISION DURING THE CHOOSE WELL INITIATIVE IN SOUTH CAROLINA: A QUALITATIVE ANALYSIS

Liane M. Ventura, MPH[1], Kate Beatty, PhD, MPH[1], Amal Khoury, PhD, MPH[1], Mike G. Smith, DrPH, MSPH[1], Amy Weber, DBH, MPH[1], Deborah Slawson, PhD, RD, LDN[1]

[1]East Tennessee State University, Johnson City, TN

Reproductive justice hinges on patient-centered contraceptive counseling and access to the full range of contraceptive methods along the reproductive continuum. For post-partum patients, the option for immediate post-partum (IPP) implant and intra-uterine device (IUD) placement in hospitals is concordant with best practice guidelines. The Choose Well initiative in South Carolina (SC) was implemented among delivering hospital partners to address barriers to IPP implant and IUD provision and expand contraceptive provision within the hospital setting. This study explored implementation of Choose Well among hospital partners in SC across 4 years (2018-2021). Ten hospitals were represented out of 44 delivering hospitals in SC. In total, 37 interviews were conducted across 4 years. Interviews were recorded, transcribed, and coded through a validated two-phase coding process. A team-based analysis approach was applied using the RE-AIM evaluation framework. Common themes that emerged included engagement of partner hospital staff through Choose Well supported trainings, an increase in IPP implant and IUD provision along with an increase in contraceptive counseling provision. Several respondents noticed they adopted a patient-centered lens including giving patients the requisite education to make the best decision for themselves regarding contraception. The Obstetrics (OB) Navigator, a newly created position by Choose Well to counsel patients, train nurses and residents, and coordinate administrative aspects of implementation, was perceived as essential to maintain the Choose Well program. Similarly, ongoing training for staff and providers will be an important component to maintain positive changes in service provision. Findings suggest that training opportunities provided by Choose Well as well as the OB Navigator position are key elements to increasing contraceptive access among delivering hospitals. Increased provision of contraceptives is not sufficient for reproductive autonomy, patient-centered contraceptive counseling is a necessary component, which must be maintained through ongoing training opportunities. The OB Navigator is fundamental to carrying out these efforts through providing patient-centered counseling and coordinating IPP provision. These findings have implications for statewide contraceptive access initiatives generally and for the sustainability of Choose Well specifically.

CORRESPONDING AUTHOR: Liane M. Ventura, MPH, East Tennessee State University, Johnson City, TN; ventural@etsu.edu

11:39 AM – 11:50 AM

Abstract citation ID: kaad011.0783

THE RELATIONSHIP OF ACCURACY OF PREP BELIEFS TO PERCEIVED BENEFITS AND BARRIERS TO PREP USE IN WOMEN WHO INJECT DRUGS

Kirsten Paulus, MPH[1], Patrick J. Kelly, MPH[2], Paul A. D'Avanzo, PhD, MS[3], Jesse Brajuha, MPH[1], Emily F. Dauria, PhD, MPH[4], Sarah B. Bass, PhD, MPH, FSBM[1]

[1]Temple University College of Public Health, Philadelphia, PA; [2]Temple University, Providence, RI; [3]HIV Center for Clinical and Behavioral Sciences, Philadelphia, PA; [4]University of Pittsburgh, Pittsburgh, PA

Background: Women who inject drugs (WWID) have significant biological, behavioral, and gender-based barriers to accessing HIV prevention services, including Pre-Exposure Prophylaxis (PrEP) medication. Little is known about how accuracy of beliefs about PrEP impact both perceived barriers and benefits of PrEP use and how they may relate to the decision-making process.

Methods: Surveys were conducted with 100 self-identified female clients of a large syringe services program in Philadelphia. The sample was trichotomized into three groups based on mean PrEP beliefs scores from a ten item statement block using terciles: accurate beliefs (n=37), moderately accurate beliefs (n=34), and inaccurate beliefs (n=29). Oneway ANOVA tests were used to compare groups by perceived benefits and barriers to PrEP use and other variables, including PrEP use intention.

Results: Participants had a mean age of 39 years; 66% reported being White, 74% finished high school, and 80% reported having been homeless within the past 6 months. Those with the most accurate PrEP beliefs reported highest intent to use PrEP and were more likely to agree that benefits of PrEP included preventing HIV and helping them "feel in charge". They also felt more confident in asserting their feelings and needs with their doctor. Participants with inaccurate or moderately inaccurate beliefs reported suffering disproportionately from psychiatric or psychological issues and felt unable to get things done, such as going to see a doctor or taking a pill every day. Those with inaccurate beliefs were also more likely to agree that barriers, such as fear of reprisal from a partner, potential theft, or feeling they "might get HIV anyway", were reasons not to use PrEP. Scores indicate that those with inaccurate beliefs are also more likely to believe they have healthcare access barriers, potentially due to negative lived experiences and lower confidence in being able to self-advocate in the healthcare setting.

Conclusions: Results have the potential to improve accurate communication about HIV risk and PrEP as well as inform intervention development to increase PrEP uptake among WWID. Addressing barriers in those who have inaccurate beliefs about PrEP would be important to increase PrEP use in this at-risk community.

CORRESPONDING AUTHOR: Kirsten Paulus, MPH, Temple University College of Public Health, Philadelphia, PA; Kirsten.Paulus@temple.edu

Paper Session 20: Smoking Cessation

11:02 AM – 11:14 AM

Abstract citation ID: kaad011.0784

A STAGES OF CHANGE ANALYSIS OF MOVEMENT TOWARDS STOPPING SMOKING IN A COHORT OF ADULT SMOKERS ADOPTING JUUL

Saul Shiffman, PhD[1], Nicholas I. Goldenson, PhD[2]

[1]PinneyAssociates, Pittsburgh, PA; [2]Juul Labs, Inc., Washington, DC

Background: Electronic Nicotine Delivery Systems (ENDS) reduce smokers' exposure to harmful chemicals; as a result, smokers who switch completely to ENDS are likely to reduce their health risks. In two prospective longitudinal cohort studies, most adult established smokers who bought a JUUL Starter Kit were not smoking a year later. A remaining question is how JUUL use might influence commitment to quitting smoking among those who continue smoking. We use a Stages of Change (SoC) framework to examine the evolution of smokers' movement towards quitting smoking over 12 months of JUUL use.

Methods: The Adult JUUL Switching and Smoking Trajectories (ADJUSST) study recruited adult (21+) established smokers who had just purchased a JUUL Starter Kit. At baseline and follow-up assessments (at 1, 2, 3, 6, 9, and 12 months), participants reported their smoking status (those who had not smoked in at least 30 days were considered in the *Action* SoC) and intentions to quit within various time frames, which were used to define SoC: planning to quit within 30 days (*Preparation*), 6 months (*Contemplation*), or longer than 6 months, including 'never' (*Precontemplation*). We examined the distribution of SoC over time.

Results: At baseline, 43% of the analytic sample (n=16,418) was in Preparation, 24% in Contemplation, and 33% in Precontemplation. By month 12 (when 90% were still using JUUL), 66% of baseline smokers had progressed in SoC; less than 16% had regressed. Over time, the proportion in the Action SoC (i.e., who had not smoked in 30+ days) increased, progressively displacing earlier stages. By month 12, 59% were in Action and only 8% in Preparation, 12% Contemplation, and 21% in Precontemplation. Smoking abstinence rates at 12 months varied by baseline SoC: 65% for those initially in Preparation, 57% for Contemplation, and 52% for Precontemplation.

Conclusions: Over a 12-month period after smokers purchased JUUL, they almost all progressed in their Stage of Change, i.e., in their movement towards stopping smoking. Even among smokers who were not committed to quitting smoking at baseline, substantial proportions were not smoking 12 months later. This suggests that smokers adopting ENDS undergo a journey of progressive movement towards stopping smoking, with substantial proportions having switched away from smoking to ENDS a year later. Further, adopting and using ENDS over a 1-year period is not associated with erosion of smokers' commitment to stopping smoking.

CORRESPONDING AUTHOR: Saul Shiffman, PhD, PinneyAssociates, Pittsburgh, PA; shiffman@pinneyassociates.com

11:15 AM – 11:27 AM

Abstract citation ID: kaad011.0785

MERITORIOUS AWARD WINNER

A SYSTEMATIC REVIEW OF TOBACCO CESSATION INTERVENTIONS AND E-CIGARETTE USE IN ONCOLOGY PATIENTS AND CAREGIVERS

Trupti Dhumal, MS, BPharm[1], Safalta Khadka, MS, Bpharm[1], Kimberly M. Kelly, MS, PhD, MS, FSBM[1]

[1]West Virginia University, Morgantown, WV

Introduction: Considering the risks and high rates of persistent tobacco use, effective cessation interventions are needed for cancer patients and caregivers. Despite the need, current research lacks a thorough and definitive review of these interventions. The objective of this systematic review is to evaluate tobacco cessation interventions and tobacco product use (e.g., combustible cigarettes, e-cigarette/vaping, chewable tobacco, cigars) among cancer patients and cancer caregivers.

Methods: Randomized control trials assessing tobacco product cessation interventions were assessed. The Food and Drug Administration definition of tobacco product (including e-cigarettes) was used to create search terms. Five electronic databases (PubMed, Scopus, CINAHL, Web of Science, PsycINFO) were searched in accordance with the Preferred Reporting Items for Systematic reviews and Meta-analyses guidelines from inception through August 2022. Studies exclusive to lung, thoracic, and/or head and neck cancers were excluded. The primary outcome was tobacco cessation. Health behavior theories/frameworks used in intervention development were evaluated using the Theory Coding Scheme. The entire process from screening to data extraction was conducted in duplicate.

Results: Of 3303 studies identified, 18 met the inclusion criteria. Types of tobacco cessation interventions consisted of behavioral (n=16) and pharmacological (n=2) treatments. In-person and telephonic counseling were the most common modality for interventions. Six studies mentioned a health behavior model/theory. At least one intervention technique was linked to at least one relevant theory or construct (n=5). E-cigarette use was discussed in three studies. Two studies mentioned the influence of caregiver's smoking on patient's smoking outcomes, but none included caregiver-based intervention approaches. Most studies used biochemical verification to monitor abstinence (n=10). Interventions had high variability in length and frequency, ranging from a single session to interventions given over 24 weeks. No significant effect on cessation rates was observed in most studies (n=14).

Conclusion: Despite the availability of promising interventions, the best method of achieving tobacco cessation in cancer patients and caregivers is unclear. Innovative, well-designed, and evidence-based intervention trials are needed to address this gap.

CORRESPONDING AUTHOR: Trupti Dhumal, MS, BPharm, West Virginia University, Morgantown, WV; tad0041@mix.wvu.edu

---

11:27 AM – 11:39 AM

Abstract citation ID: kaad011.0786

QUITTING SMOKING AFTER A CANCER DIAGNOSIS CORRESPONDS WITH REDUCTIONS IN STIGMA AND ANXIETY: A LONGITUDINAL MEDIATION ANALYSIS

Timothy J. Williamson, PhD, MPH[1], Elyse R. Park, PhD[2], Erica T. Warner, ScD, MPH[2], Autumn W. Rasmussen, BA[3], Jamie S. Ostroff, PhD[4]

[1]Loyola Marymount University, Los Angeles, CA; [2]Harvard Medical School & Massachusetts General Hospital, Boston, MA; [3]Massachusetts General Hospital, Boston, MA; [4]Memorial Sloan Kettering Cancer Center, New York, NY

Background: Cancer-related stigma (e.g., feeling blamed by others or guilt/shame about one's cancer) is associated with adverse health. Cancer patients who smoke report higher levels of stigma than those who formerly smoked or quit smoking, suggesting that smoking behavior is linked with the stigma patients experience. However, it is unknown whether patients who quit smoking following diagnosis would evidence reductions in the stigma they experience. Longitudinal research is needed to test whether patients evidence reductions in stigma following a successful quit attempt.

Purpose and Hypotheses: Using data from a two-arm, RCT of tobacco treatment (intensive vs. standard treatment) for patients recently diagnosed with cancer, this study tested the following hypotheses: 1) Patients who evidence biochemically verified smoking abstinence (7-day point prevalence) at 3-month follow-up will report greater reductions in cancer-related stigma from baseline to 3-month follow-up, compared to those who did not evidence smoking abstinence; and 2) Greater reductions in cancer-related stigma from baseline to 3-month follow-up would significantly mediate the relationship between smoking abstinence and decreases in anxiety and depressive symptoms from baseline to 6-month follow-up.

Method: Participants (n=303; 56.1% female, mean age=58.3) were adult patients recruited from two comprehensive cancer centers who had smoked at least 1 cigarette in the past 30 days, spoke English or Spanish, and were being actively treated for a recent diagnosis of cancer. Participants completed questionnaires at baseline, 3-month follow-up, and 6-month follow-up, including validated measures of cancer-related stigma, depressive symptoms, and anxiety. Biochemically verified smoking abstinence was determined by participants' cotinine levels at 3-month follow-up. Multivariable regressions were conducted to test the hypotheses, controlling for age, sex, cancer stage, intervention arm, and lung cancer diagnosis (Y/N). Missing data was addressed using maximum likelihood.

Results: Smoking cessation (at 3-month follow-up) was significantly associated reductions in cancer-related stigma from baseline to 3 months later ($b = -1.50$, $p < .001$). Reductions in stigma were, in turn, associated with subsequent reductions in anxiety across 6 months ($b = 0.28$, $p < .05$) but not depressive symptoms ($b = 0.20$, $p > .05$). Mediation analyses demonstrated that reductions in stigma across 3 months significantly mediated the relationship between smoking cessation and decreased anxiety across 6 months (indirect effect = -0.42, $p < .05$).

Conclusions: Smoking cessation may be associated with reduction in stigma for patients recently diagnosed with cancer. In addition to well-established benefits for medical and physical health outcomes, quitting smoking post-diagnosis may improve patients' psychosocial well-being.

CORRESPONDING AUTHOR: Timothy J. Williamson, PhD, MPH, Loyola Marymount University, Los Angeles, CA; timothy.williamson@lmu.edu

11:39 AM – 11:50 AM

Abstract citation ID: kaad011.0787

WHEN SHOULD WE PROMPT STRESS MANAGEMENT FOR SMOKERS ATTEMPTING TO QUIT? RESULTS OF THE SENSE2STOP MICRO-RANDOMIZED TRIAL

Bonnie Spring, PhD, FSBM[1], Inbal Nahum-Shani, PhD[2], Sam L. Battalio, MS[3], David E. Conroy, PhD, FSBM[4], Walter Dempsey, PhD[2], Elyse Daly, BA[5], Sara A. Hoffman, PhD[5], Timothy Hnat, PhD[6], Susan A. Murphy, PhD[7], Marianne Menictas, PhD[8], Shahin Samiei, BA[9], Tianchen Qian, PhD[10], Jaime Yap, BA[2], Santosh Kumar, PhD[6]

[1]Northwestern University Feinberg School of Medicine, CHICAGO, IL; [2]University of Michigan, Ann Arbor, MI; [3]Northwestern University, Chicago, IL; [4]The Pennsylvania State University, University Park, PA; [5]Northwestern University Feinberg School of Medicine, Chicago, IL; [6]University of Memphis, Memphis, TN; [7]Harvard University, Cambridge, IL; [8]Harvard University, Cambridge, MA; [9]Univresity of Memphis, Memphis, TN; [10]University of California Irvine, Irvine, CA

Background: Stress predicts subsequent vulnerability for smoking relapse in recently quit smokers. Digital sensing makes it possible to detect stress in real time and prompt stress-management behaviors when they can best prevent smoking relapse. Sense2Stop is the first digital trial using wearable sensors and micro-randomization to optimize a just-in-time adaptive stress management intervention for smoking relapse prevention. The trial examined whether: a) prompting stress management during stress reduces proximal stress, lessening relapse risk, or b) prompting stress management during stress overwhelms the person's propensity to execute stress-management, increasing proximal stress and risk.

Methods: The Sense2Stop micro-randomized trial tested whether delivery (vs. no delivery) of a mobile phone prompt to perform stress management reduced the likelihood of being stressed in the subsequent two hours and whether this effect was moderated by the presence of current stress (vs. no stress). A sample of 75 adult smokers (ages 18-65) wore chest and wrist sensors and used a smartphone to access stress management apps on their mobile phone. Sensor data were transmitted to the smartphone and processed in real time using the cStress AI algorithm that identified minutes as available for randomization (e.g., good data quality, participant not driving) and classified available minutes as probably stressed or probably not stressed. Stressed and non-stressed minutes were micro-randomized to trigger either (a) a mobile phone prompt to perform stress management activities, or (b) no prompt. The primary proximal outcome was participant's probability of experiencing a stress event in the 2-hour window following micro-randomization.

Results: The analytical sample comprised 49 (65%) participants and 4,805 micro-randomizations (excluding 26 people who withdrew, participated solely in beta testing, or had no micro-randomizations). Preliminary results show that when a stress-management prompt was delivered (vs. not delivered) during stress, individuals were 52% more likely (Estimate=*exp* [0.42]=1.52, 95% CI:[0.07, 0.76]) to experience stress during the next 2 hours. We found no evidence that a prompt delivered when individuals were not stressed affected subsequent proximal stress.

Conclusion: Results suggest that, in the context of quitting smoking, prompting people to engage in stress-management activities while stressed may be harmful rather than helpful. Implications for the design of just-in-time adaptive interventions targeting stress-management will be discussed.

CORRESPONDING AUTHOR: Bonnie Spring, PhD, FSBM, Northwestern University Feinberg School of Medicine, CHICAGO, IL; bspring@northwestern.edu

Paper Session 21: Stress and Cardiovascular Health

11:02 AM – 11:14 AM

Abstract citation ID: kaad011.0788

MERITORIOUS AWARD WINNER

BLUNTED DIASTOLIC BLOOD PRESSURE RESPONSES TO STRESS AND LENGTH OF GESTATION IN THE CONTEXT OF PERCEIVED STRESS DURING PREGNANCY

Garrett Byron, BS[1], Anna M. Strahm, PhD[2], Clayton J. Hilmert, PhD[3]

[1]North Dakota State University, FARGO, ND; [2]Sanford Research, Sioux Falls, SD; [3]North Dakota State University, Fargo, ND

While stress has been associated with higher risk of adverse pregnancy outcomes, including shortened length of gestation (e.g., preterm birth), it is not clear how physiological responses to stress may impact pregnancy. This study considered how cardiovascular responses to stress were associated with length of gestation in the context of perceived stress during pregnancy. A total of 67 pregnant women completed the Perceived Stress Scale (PSS) at ≥ 15, 24 to 28, 30 to 32, and 36 to 38 weeks gestation. Diastolic blood pressure (DBP) reactivity (i.e., change from resting baseline) to a Virtual Reality Trier Social Stress Test (Byron et al., under review) was measured at 24 to 28 weeks gestation. After controlling for maternal age, nulliparity, and BMI, average PSS over the course of pregnancy and DBP reactivity to stress interacted to predict length of gestation ($B = 2.174$, $t = 2.288$, $p = .026$). Follow up simple slopes analyses showed that, as anticipated, when perceived stress was relatively high, DBP reactivity was associated with length of gestation ($B = 4.876$, $t = 2.646$, $p = .010$). When perceived stress was relatively low, there was no significant association between DBP reactivity and length of gestation ($p > .60$). Consistent with studies suggesting that blunted stress responses are associated with adverse health-related outcomes (Phillips et al, 2013), in the present study the combination of blunted (i.e., relatively low) DBP reactivity and high PSS was associated with shorter gestations than other combinations of reactivity and stress. Interestingly, when socioeconomic status (SES) was added to the model, the interaction between PSS and DBP reactivity was no longer a significant predictor of length of gestation ($p > .05$). Further analyses revealed that an interaction between DBP reactivity and PSS was significantly associated with SES ($B = .310$, $t = 3.945$, $p < .001$). Specifically, the combination of low DBP reactivity and high PSS was associated with the lowest SES, suggesting that low SES may be contributing to these blunted stress responses (Loeb et al., 2022). This is the first study to report that blunted DBP stress reactivity in a context of high PSS during pregnancy was associated with shorter length of gestation. Identifying women at risk of preterm deliveries may be improved by the simultaneous consideration of the presence of stress during pregnancy and maternal physiological responses to stress.

CORRESPONDING AUTHOR: Anna M. Strahm, PhD, Sanford Research, Sioux Falls, SD; anna.strahm@sanfordhealth.org

11:15 AM – 11:27 AM

Abstract citation ID: kaad011.0789

EMOTIONAL DISTRESS AND CARDIOVASCULAR DISEASE RISK AMONG PARTICIPANTS WITH T2DM IN THE EMOTIONAL DISTRESS GRADE SUBSTUDY

Gladys Crespo-Ramos, PhD[1], Ionut Bebu, PhD[2], Heidi Krause-Steinrauf, MS[2], Claire J. J. Hoogendoorn, PhD[1], Ran Fang, MA[3], Dominic Ehrmann, PhD[4], Caroline A. Presley, MD[5], Aanand D. Naik, MD[6], Aimee Katona, BS, CEP[7], Elizabeth A. Walker, PhD[1], Andrea L. Cherrington, MD[5], Jeffrey S. Gonzalez, PhD[1]

[1]Albert Einstein College of Medicine, Bronx, NY; [2]The Biostatistics Center, Milken Institute of Public Health, George Washington University, Rockville, MD; [3]Yeshiva University, Bronx, NY; [4]Research Institute Diabetes Academy Mergentheim, Bad Mergentheim, Baden-Wurttemberg, Germany; [5]University of Alabama, Birmingham, AL; [6]UTHealth School of Public Health, Dallas, TX; [7]Univeristy of Michigan, Ann Arbor, MI

Abstract: Aims: To examine depressive symptoms and diabetes distress in relation to the predicted risk of future cardiovascular disease (CVD) in adults with type 2 diabetes (T2DM) enrolled in the Glycemia Reduction Approaches in Diabetes Emotional Distress Substudy (GRADE EDS).

Methods: Participants with T2DM of < 10 years duration who were taking metformin monotherapy and achieved a maximum tolerated dose of metformin (1000-2000 mg/day) during a study run-in period, were assessed for trial eligibility and randomly assigned to one of four additional glucose-lowering drugs. The current abstract reports on cross-sectional results from the baseline assessment, prior to initiation of a second glucose-lowering drug. Measures include the Patient Health Questionnaire (PHQ-8) that assesses depressive symptoms, the Diabetes Distress Scale (DDS) that assesses diabetes-related distress, and the Atherosclerotic Cardiovascular Disease (ASCVD) risk algorithm to estimate the 10-year risk of a first ASCVD event. Linear regression models examined the associations of depressive symptoms and diabetes distress with estimated 10-year risk of CVD, adjusting for age, sex, race/ethnicity, education, income, BMI, hypertension, hyperlipidemia, diabetes duration, diabetes-related complications, and HbA1c. Participants with history of CVD events were excluded from analyses.

Results: A total of 1,605 baseline GRADE participants were included: 54% Non-Latino (NL) White, 19% Latino, 18% NL African American/Black, 66% male, mean age 57.5 years (SD=10.3), diabetes duration 4.2(SD=2.8) years, and HbA1c 7.5(SD=0.5%). After incorporating covariates, only depressive symptoms were associated with CVD risk (estimate=0.15 [95% CI: 0.05, 0.26], p=0.005). Higher depressive symptoms remained significantly associated with higher CVD risk when adding diabetes distress to covariates (estimate=0.18 [95% CI: 0.06, 0.30], p=0.002). Diabetes distress was not associated with CVD risk when accounting for covariates.

Conclusions: Depressive symptoms, and particularly cognitive-affective symptoms, seems to be associated with the estimated 10-year risk of CVD. Therefore, depressive symptoms may be a more important intervention target than diabetes distress for reducing 10-year predicted ASCVD risk among adults with T2DM. These findings highlight the need for regular assessment and self-management education for psychosocial stressors in adults with type 2 diabetes.

CORRESPONDING AUTHOR: Gladys Crespo-Ramos, PhD, Albert Einstein College of Medicine, Bronx, NY; gladys.crespo-ramos@einsteinmed.edu

---

11:27 AM – 11:39 AM

Abstract citation ID: kaad011.0790

RELATIONS BETWEEN JOB STRAIN AND CARDIOVASCULAR REACTIVITY IN THE DEVELOPMENT OF CARDIOVASCULAR DISEASE

Claire E. Demming, MS[1], Lisa Shank, PhD, MPH[2], David S. Krantz, PhD, FSBM[2], Laura Aldrich, MA, MS[3], Jennifer L. Lewis[4], Elisabeth Mata, BS in Psychology[5], Abby Diehl, PhD[2], Jeffrey L. Goodie, PhD, ABPP[6]

[1]Uniformed Services University, Riverdale, MD; [2]Uniformed Services University, Bethesda, MD; [3]USUHS, Washington, DC; [4]Uniformed Services University of the Health Sciences (USUHS), Rockville, MD; [5]Uniformed Services University of Health and Science, Bethesda, MD; [6]Uniformed Services University of the Health Sciences, Bethesda, MD

Background: Stress is a shared factor between job strain, cardiovascular reactivity, and cardiovascular disease (CVD). Upwards of 64% of employed American adults in 2020 said that work is a significant source of stress. Job strain is the psychological strain stemming from low decision latitude and an excess of demands. High job strain is associated with higher blood pressure and other risk factors for CVD. Cardiovascular reactivity, the intraindividual variation in the response of the cardiovascular system to a stressful stimulus, is one mechanism that helps to explain the relation between job strain and CVD. Longitudinal relations between job strain and cardiovascular reactivity, and how those relations differ based on sex and race, have not been extensively examined.

Methods: This study is a secondary analysis of data that examined cross-sectional and longitudinal relations between job strain and cardiovascular reactivity in a sample of young adults (N = 5113; M age = 24.8 (SD = 3.6); 54.5% female; 51.6% Black) enrolled in the Coronary Artery Risk Development in Young Adults (CARDIA) Study between year 2 and year 10. It was predicted that over time job strain would differ between men, women, Black, and White participants. We also hypothesized that there would be a positive relationship between blood pressure (BP) reactivity and job strain across eight years given the association between BP reactivity and hypertension in terms of increased stress. Lastly, we hypothesized that blood pressure reactivity would mediate the relation between job strain in Year 2 and Year 10.

Results: Job strain in Year 2 was positively related to job strain in Year 10 ($p < 0.001$) and differences in race and sex were found. Males reported lower job strain levels than females [$F(2, 3404) = 125.95$, $p < .001$], and Black participants reported higher job strain levels than White participants in Year 10 [$F(2, 3404) = 119.16$, $p < .001$] when adjusting for baseline job strain. Blood pressure reactivity to a psychological and physical stress task measured in Year 2 was not significantly correlated with job strain in Year 10 [psychological ($r(3559) = -.03$, $p = .10$); physical ($r(3019) = -.01$, $p = .50$)]. The two mediation models were not statistically significant: blood pressure reactivity did not mediate the relation between job strain at Year 2 (95% CI [-0.001, 0.002]) and at Year 10 (95% CI [-0.001, 0.001]).

Conclusion: This study furthered our understanding of occupational stress and the potential biological correlates of such stress to CVD. Sex and race should be considered when examining occupational stress. In combination with the existing literature, the results of our study indicate additional facets of occupation, demographic variables, and diverse physiological measurements may be important and relevant to the relation between occupational stress and physiological reactions to stressors.

CORRESPONDING AUTHOR: Claire E. Demming, MS, Uniformed Services University, Riverdale, MD; claire.demming@usuhs.edu

11:39 AM – 11:50 AM

Abstract citation ID: kaad011.0791

SCREENING FOR PSYCHOLOGICAL DISTRESS AND INCIDENT CARDIOVASCULAR DISEASE: AN UPDATED META-ANALYSIS

Allison E. Gaffey, PhD[1], Emily C. Gathright, PhD, FAACVPR[2], Lauren M. Fletcher, MLIS[3], Carly M. Goldstein, PhD[4]

[1]Yale School of Medicine, VA Connecticut Healthcare System, Lyme, CT; [2]Brown Medical School, Providence, RI; [3]Brown University, Providence, RI; [4]Brown University & The Miriam Hospital, PROVIDENCE, RI

Introduction: Psychological health is associated with risk for cardiovascular disease (CVD). Increasing attention is being devoted to the importance of measuring both positive and negative psychological constructs to better understand CVD development. With this spotlight and a growing evidence base, improved policy and clinical guidelines necessitate an updated synthesis of the literature. Self-report screening instruments are an efficient method for assessing psychological distress in clinical settings. Importantly, it is unknown whether psychological distress – symptoms of depression, anxiety, posttraumatic stress disorder (PTSD), or stress – which is captured with validated screeners only, is associated with incident CVD.

Methods: We searched MEDLINE, EMBASE, and PsychInfo for investigations that were published in the last 5 years, in which adults without a history of a psychiatric disorder were screened at baseline for depression, anxiety, PTSD, stress, or mental health symptoms more generally, and followed for at least 6 months to determine their risk for incident CVD (i.e., atrial fibrillation, acute coronary syndrome, coronary heart disease, peripheral vascular disease, heart failure, related-mortality, or a composite measure). Hypertension and stroke were excluded from the present search. Meta-analysis was used to synthesize this body of literature to determine if high versus low levels of psychological distress were associated with CVD onset.

Results: Our search produced 3,485 results, which were screened and reduced to 31 studies with 704,799 participants (58% of which were women). Of these studies, 15 had sufficient data for the primary meta-analysis. This analysis revealed that high psychological distress was associated with a 28% greater risk of incident CVD (95% CI, 1.18, 1.39). Moreover, the between- study effects were moderately heterogeneous (Q[14]=28.99, p=0.010, I^2=48%).

Conclusions: Psychological distress screening can improve understanding of an individual's psychosocial risk profile for CVD. The present results are similar in magnitude to previous meta-analyses including medical record diagnoses of psychological disorders. Yet, these findings meaningfully extend that work, demonstrating that screeners sufficiently measure psychological distress in relation to cardiovascular risk. Implementation science investigations are needed to discern the best pathways and practices for leveraging psychological distress screening and management in preventive cardiology and primary care settings. The present work bolsters the justification for psychological care across the CVD prevention and treatment spectrum.

CORRESPONDING AUTHOR: Allison E. Gaffey, PhD, Yale School of Medicine, VA Connecticut Healthcare System, Lyme, CT; allison.gaffey@yale.edu

Paper Session 22: Quality of Life and Multiple Sclerosis

11:02 AM – 11:14 AM

Abstract citation ID: kaad011.0792

A SIGNATURE OF COGNITION IN MULTIPLE SCLEROSIS: A CLOSER LOOK AT ACCELEROMETRY METRICS OF PHYSICAL ACTIVITY & SEDENTARY BEHAVIOR

Heena R. Manglani, PhD[1], Madhura Phansikar, PhD[2], Elizabeth J. Duraney, MS[3], Rosie Canter, BA[4], Jacqueline A. Nicholas, MD[5], Ruchika S. Prakash, PhD[2]

[1]Massachusetts General Hosptial / Havard Medical School, Somerville, MA; [2]The Ohio State University, Columbus, OH; [3]Ohio State University, Columbus, OH; [4]The Ohio State University, Grove City, OH; [5]OhioHealth, Columbus, OH

Multiple sclerosis (MS) affects nearly one million people in the United States of whom 40-65% experience deficits in cognitive function. Physical activity (PA) and sedentary behavior interventions may improve cognition, however, there is no consensus on which activity metrics to target. Despite access to a spectrum of accelerometry measures, PA research has focused on a few metrics (e.g., steps) due to analytic approaches unsuited for collinear measures. We aimed to identify a signature of accelerometry metrics associated with latent factors of processing speed/working memory, visual episodic memory, and verbal episodic memory. Eighty participants with relapsing-remitting MS (M_{age} = 47.3 years, Female = 78.8%) participated in a 6-month behavior monitoring RCT, providing accelerometry (i.e., Actigraph GT3X+) and neuropsychological data at baseline. We computed averages for the following measures: time in sedentary behavior, light PA, and moderate-to-vigorous PA (MVPA), number and duration of short (< 10 min) and long (≥ 30 min) sedentary bouts, number and duration of MVPA bouts, steps, overall PA, energy expenditure, and a measure of MS disease severity. We used partial least squares regression (PLSR) to extract linear combinations of these collinear variables and predict scores on each of the three latent cognitive factors. We assessed the significance of the overall model and respective components while controlling for age, sex, and education in the linear regressions for each cognitive domain. For processing speed/working memory, the overall PLSR model showed a trend toward significance (R^2 = 10.8%, p = .069), with a significant first component (β = .30, p < .001). This domain was positively associated with kilocalories, MVPA time, and steps, and negatively associated with time in long sedentary bouts and MS disease severity. This suggests that increasing energy expended via moderate levels of activity and steps, while also engaging in less prolonged sitting may benefit processing speed/working memory in MS. Our one-component PLSR model for verbal memory was not significant (R^2 = 7.22% and p = .13). In contrast, for visual memory, our two-component PLSR model (R^2 = 12.1%, p = .044) and the first component were significant (β = .25, p = .009). Steps, total PA, kilocalories, and MVPA time were positively related to verbal memory, with no loadings notable in the negative direction. Our results show that for processing speed/working memory, increasing MVPA, steps, and energy expenditure while decreasing continuous sitting may be promising. For visual memory, increasing overall PA (via energy expenditure, MVPA, and steps) may be more beneficial than decreasing sedentary behavior. These nuanced relationships support leveraging the rich spectrum of accelerometry measures to design more focused and potentially effective activity interventions for cognitive gains in MS.

CORRESPONDING AUTHOR: Heena R. Manglani, PhD, Massachusetts General Hosptial / Havard Medical School, Somerville, MA; hmanglani@mgh.harvard.edu

11:15 AM – 11:27 AM

Abstract citation ID: kaad011.0793

CITATION AWARD WINNER

EFFECTS OF COGNITIVE BEHAVIORAL THERAPY, MODAFINIL, OR BOTH THERAPIES ON AMBULATORY MEASURES OF FATIGUE IN MULTIPLE SCLEROSIS

Anna Kratz, PhD[1], Tiffany Braley, MD, MS[1], Dawn M. Ehde, PhD[2], Gloria von Geldern, MD[2], Kevin N. Alschuler, PhD[3], Roderick Little, PhD[1], Ronald D. Chervin, MD, MS[4], Deirdre Conroy, PhD[1], Thomas R. Valentine, PhD[5]

[1]University of Michigan, Ann Arbor, MI; [2]University of Washington, Seattle, WA; [3]University of Washington School of Medicine, Seattle, WA; [4]Michigan Medicine, Ann Arbor, MI; [5]University of Michigan, RALEIGH, NC

Background / Objective: Fatigue affects 90% of people with multiple sclerosis (PwMS) and has well-documented impact on function and quality of life. Cognitive behavioral therapy for fatigue (CBT) and modafinil (a wake-promoting medication) each improve fatigue in PwMS but show variable effects across individuals. Their combination and best choices for patient-centered treatment remain largely untested and were the focus of the present study.

Methods: N=336 PwMS and clinically significant fatigue (Fatigue Severity Score >= 4) were randomized 1:1:1 to receive telephone-delivered CBT for fatigue monotherapy (8 sessions, n=114), modafinil monotherapy (target dose 100-400 mg per day, n=114), or a combination of both therapies (n=108) for 12 weeks. Subjective fatigue intensity and fatigability were assessed at baseline and 12 weeks through 7-days of continuous ecological momentary assessment (EMA) using 11-point numeric ratings scales (NRS), and actigraphy. Effect modifiers of interest were also assessed at baseline. These included depressive symptom severity (Patient Health Questionnaire-8), sleep (Sleep Hygiene Index, Epworth Sleepiness Scale, sleep duration, and presence of obstructive sleep apnea), disability level (Expanded Disability Status Scale score), and MS subtype. Overall treatment effects on ambulatory fatigue outcomes were assessed with multiple linear regression models, and potential effect modifiers with interaction terms.

Results: All 3 treatment arms showed statistically significant reductions in EMA fatigue intensity and fatigability (ratio of fatigue ratings/activity counts). At 12 weeks, CBT, modafinil, and combination therapy were each associated with mean NRS score reductions of 1.41, 1.69, and 2.03, respectively (all $p < 0.001$). Reductions in EMA fatigue intensity and fatigability did not differ by treatment group. Heterogeneity of treatment effects was found only for disability level ($p = 0.014$); subjects with lower disability benefited most from modafinil, whereas participants with higher disability experienced similar reductions in EMA fatigue with all treatments.

Conclusions: Telephone-based CBT for fatigue, modafinil, and combination therapy were all significantly associated with a reduction in fatigue intensity and fatigability in PwMS. Treatment effect may vary by clinical characteristics, including disability level. Patient characteristics and goals of treatment should be considered when selecting interventions, to offer a more personalized approach to fatigue management.

CORRESPONDING AUTHOR: Anna Kratz, PhD, University of Michigan, Ann Arbor, MI; alkratz@med.umich.edu

---

11:27 AM – 11:39 AM

Abstract citation ID: kaad011.0794

EFFICACY OF A DIGITAL HEALTH INTERVENTION ON IMPROVING PHYSICAL ACTIVITY AND WORKING MEMORY IN PEOPLE WITH MULTIPLE SCLEROSIS

Madhura Phansikar, PhD[1], Elizabeth J. Duraney, MS[2], Heena R. Manglani, PhD[3], Anita Shankar, MS[1], Christine Roberts, BA[1], Rebecca Andridge, PhD[2], Jacqueline A. Nicholas, MD[4], Rick Petosa, PhD[1], Ruchika S. Prakash, PhD[1]

[1]The Ohio State University, Columbus, OH; [2]Ohio State University, Columbus, OH; [3]Massachusetts General Hosptial / Havard Medical School, Somerville, MA; [4]OhioHealth, Columbus, OH

Multiple sclerosis, a neurodegenerative condition, can be marked by significant reductions in mobility, decline in cognitive functioning, and an overall reduction in quality of life. Physical activity (PA) interventions, specifically moderate-intensity exercise interventions, have shown efficacy for improving cognition but do not necessarily result in a sustainable change in PA. This necessitates testing the efficacy of interventions for improving unsupervised, lifestyle PA with potential downstream effects for cognitive functioning. We designed a six-month randomized controlled trial to assess the efficacy of a digital health intervention in improving unsupervised, lifestyle PA (i.e., walking) and working memory. Individuals with relapsing-remitting MS, able to walk without assistance, and between 30-59 years (M=47 years, 80% female), were randomized to a step-track or water-track intervention (active control) with the weekly goal to increase walking by 500 steps and water intake by eight oz, respectively. An in-house mobile application provided feedback on weekly goals and psychoeducational materials covering eight themes based on Social Cognitive Theory. The materials were tailored to the groups and delivered once a week for the first month, twice a week for the following three months, and once a month for the last two months A pedometer (Fitbit Alta; step-track group) and a smart water bottle (H20 Pal; water-track group) provided immediate feedback to facilitate self-monitoring. At baseline, mid-intervention, and post-intervention, average steps and water intake was objectively measured using a GT3X+ accelerometer and H20-Pal, respectively. Working memory was computed as a factor score derived from an extensive battery of neuropsychological tests. Linear mixed models showed a significant GroupXTime interaction effect $F(1,147)=5.42$, $p=.021$; the step-track group maintained their step-count *Ms(SE)*=4891(382) vs 4889(382) whereas the water-track group significantly reduced it from baseline to post-intervention *Ms(SE)*=5671(387) vs 4711(387). There was significant improvement in the working memory score $F(2,147)=3.98$, $p=.020$ for all participants but this effect did not differ as a function of group. In conclusion, a theory-driven lifestyle PA intervention, facilitated using technology-assisted behavior-tracking may be effective at maintaining PA but not improving working memory in people with multiple sclerosis. This indicates the need to further examine strategies to increase lifestyle PA and assess dose-response relationships between lifestyle PA and cognitive functioning.

CORRESPONDING AUTHOR: Madhura Phansikar, PhD, The Ohio State University, Columbus, OH; phansikar.1@osu.edu

11:39 AM – 11:50 AM

Abstract citation ID: kaad011.0795

MAKING IT PERSONAL: IDENTIFYING PERSONALISED PATTERNS AND TRIGGERS OF FATIGUE IN MULTIPLE SCLEROSIS USING N-OF-1 DESIGNS

Suzanne McDonald, MA, MSc, MSc, MRes, PhD, CPsychol, AFBPsS[1]

[1]The University of Queensland, Brisbane, Queensland, Australia

Background/aim: Fatigue is one of the most reported but least understood symptom in Multiple Scerlosis (MS) affecting at least 75% of patients. Existing fatigue research in MS typically uses group-based cross-sectional/longitudinal designs, which provides information about the group studied ***on average*** but little about fatigue at the individual-patient level. This study aimed to identify personalised patterns and triggers of fatigue at the individual-patient level using innovative patient-centred N-of-1 methods. N-of-1 methods involve quantitative and prospective measurement of outcomes from the same individual over time to draw conclusions that are specific to that individual. This study also aimed to explore the feasibility and acceptability of using N-of-1 methods from the perspective of people living with MS.

Methods: A series of N-of-1 observational studies was conducted with 10 individuals with MS. Participants used an electronic diary with integrated accelerometer to complete daily measurements about fatigue and potential triggers for a 6- to 12-week period. Each N-of-1 study was patient-centred; the participant's hypotheses about what triggers or exacerbates their fatigue was incorporated into the N-of-1 design. Dynamic regression modelling was used to identify unique relationships between triggers and fatigue. Participants received highly personalised feedback about their data at the end of the study. Participants completed a semi-structured interview to explore topics related to acceptability.

Results: Patterns and triggers of fatigue differed considerably across the 10 participants. The percentage of completed daily questionnaires was high (>90%) across the sample and all participants were retained in the study. Interviews with participants demonstrated participants with MS view N-of-1 methods as acceptable and the results provided them with important insights about fatigue triggers that were valuable for understanding and managing their fatigue.

Conclusion: N-of-1 methods offer a novel and scientifically robust method for identifying personalised patterns and triggers of fatigue in MS. Patient-centred N-of-1 studies have potential to offer valuable insights for both patients and clinicians and inform the selection, optimisation and delivery of highly personalised fatigue interventions.

CORRESPONDING AUTHOR: Suzanne McDonald, MA, MSc, MSc, MRes, PhD, CPsychol, AFBPsS, The University of Queensland, Brisbane, Queensland, Australia; suzanne.mcdonald@uq.edu.au

Paper Session 23: Sedentary Activity and Older Adults

11:02 AM – 11:14 AM

Abstract citation ID: kaad011.0796

DOES HABIT STRENGTH MODERATE AFFECTIVE RESPONSES TO MOVEMENT-RELATED BEHAVIORS AMONG OLDER ADULTS?

Brynn Hudgins, MS[1], Jaclyn P. Maher, PhD[2]

[1]University of North Carolina Greensboro, Clemmons, NC; [2]University of North Carolina Greensboro, Greensboro, NC

Affective responses and habits (i.e., well-learned, automatic cue-behavior pairings) related to physical activity (PA) and sedentary behavior (SB) are linked to future engagement in those behaviors. Evidence suggests that affective responses and habits are interconnected as individuals are more likely to develop habits regarding a particular behavior if they have positive affective experiences while engaging in or following the behavior. However, there is little research investigating whether habits moderate affective responses to movement-related behaviors. Strong habits may result in greater regulatory resources available and less ego depletion that can then be used to further regulate affective experiences following movement-related behaviors. This study used an Ecological Momentary Assessment (EMA) design to determine the role habit strength plays in affective responses to PA and SB. A sample of physically active older adults (n=202, M_{age}=69.9, Range_{age}=60-85, 74.4% White, 24.2% Black/African American) wore ActiGraph and activPAL accelerometers for 14 days to measure PA and SB, respectively. On four consecutive days during the 14-day period, older adults completed an EMA protocol with 10 randomly delivered, smartphone assessments per day. At each EMA prompt, participants reported their positive and negative affect. Accelerometer data in the 60-minutes before each EMA prompt were used to operationalize PA (i.e., time spent engaged in moderate to vigorous PA and step counts) and SB (i.e., time spent sitting). Habit strength for PA and SB were reported in a baseline questionnaire using the Self-Report Behavioral Automaticity Index. Multilevel linear regression models indicated that for older adults with stronger PA habits, the association between momentary step counts in the 60 minutes before the EMA prompt and negative affect at the prompt was more negative compared to older adults with weak PA habits (i.e., within-person association; B= -0.00002, p=0.03). In other words, older adults with stronger PA habits experienced lower levels of negative affect following PA compared to those with weaker habits. SB habits did not moderate affective response to SB. Prior research has established that PA habits are associated with greater levels of PA; however, results from this study suggest that PA habits may also influence affective response to PA. Developing PA habits may have the added benefit of more adaptive affective responses to PA that promote future engagement in the behavior. Conversely more adaptive affective response to PA may facilitate habit formation to promote future behavioral engagement.

CORRESPONDING AUTHOR: Brynn Hudgins, MS, University of North Carolina Greensboro, Clemmons, NC; blhudgins@uncg.edu

11:15 AM – 11:27 AM

Abstract citation ID: kaad011.0797

FACTORS ASSOCIATED WITH PHYSICAL ACTIVITY AFTER HOSPITALIZATION IN PERSONS WITH DEMENTIA

Ashley Kuzmik, DrPH, MPH[1], Marie Boltz, PhD, CRNP[2]

[1]Pennsylvania State University, Paoli, PA; [2]Pennsylvania State University, University Park, PA

Introduction: Low physical activity is common in older adults after hospitalization from an acute illness. Factors associated with physical activity after hospitalization in older persons with dementia have not been well examined.

Purpose: To identify factors that are associated with physical activity after hospitalization in persons with dementia.

Methods: This was a secondary analysis of 455 patients with dementia from a cluster randomized controlled trial testing Family centered Function-focused Care (Fam-FFC). Factors examined included delirium severity, pain, depression, behavioral and psychological symptoms of dementia, gender, race, age, and comorbidities. Multiple linear regressions were conducted to test factors associated with activity levels (sedentary, low, moderate, and vigorous, measured by the MotionWatch 8 (MW8))

Results: Most participants were White (63.7%), female (59.1%), and had a mean age of 81.51 ± 8.36. Within 48 hours of hospital discharge, time in sedentary activity was associated with increased pain (β=.141; *p*=.04). Time in low activity was associated with lower delirium (β=-.156; *p*=.03) and younger age (β=-.139; *p* = .04). Time in moderate activity with associated with gender (male; β=.151; *p*=.02) and race (White; β=-.133; *p*=.04). No significant associations were found with time in vigorous activity.

Discussion: Findings suggest that reducing or managing pain may decrease time spent in sedentary activity after hospitalization in persons with dementia. Additionally, lower delirium and younger age may increase time in low activity. Gender and race should also be recognized as factors that could influence time spent in moderate physical activity among persons with dementia after hospitalization.

CORRESPONDING AUTHOR: Ashley Kuzmik, DrPH, MPH, Pennsylvania State University, Paoli, PA; auk536@psu.edu

11:27 AM – 11:39 AM

Abstract citation ID: kaad011.0798

GARDENING IS ASSOCIATED WITH BETTER CARDIOVASCULAR HEALTH STATUS IN A NATIONALLY REPRESENTATIVE SAMPLE OF OLDER ADULTS

Susan Veldheer, DEd, RD[1], Wen-Jan Tuan, DHA, MS, MPH[1], Kathryn Schmitz, PhD[1], Christopher N. Sciamanna, MD, MPH[1], Martha Wadsworth, PhD[2], Lawrence Sinoway, MD[1], Laila Al-Shaar, PhD[1], Xiang Gao, PhD, MD[3]

[1]Penn State College of Medicine, Hershey, PA; [2]Penn State University, Hershey, PA; [3]University of Fudan, Hershey, PA

Background: Gardening benefits health in older adults, but previous studies have limited generalizability or do not adequately adjust for socio-demographic factors or physical activity (PA).

Objective: We examined health outcomes, fruit and vegetables (F&V) intake, and 10-year mortality risk among gardeners and exercisers compared to non-exercisers.

Design: Cross-sectional data of non-institutionalized US adults in the 2019 Behavioral Risk Factor Surveillance System (BRFSS), a landline and cellular phone survey.

Participants/setting: Adults aged 65+ reporting any PA (n=146,047) were grouped as gardeners, exercisers, or non-exercisers.

Main outcome measures: Outcomes included cardiovascular disease (CVD) risk factors, mental and physical health, F&V intake, and 10-year mortality risk.

Statistical analyses: Summary statistics were calculated and adjusted logistic regression models were conducted to calculate odds ratios (aOR) and 95% confidence intervals (CI), accounting for the complex survey design.

Results: The sample included 10.2% gardeners, 60.0% exercisers, and 30.8% non-exercisers. Gardeners, compared to non-exercisers, had significantly lower odds of reporting all studied health outcomes and higher odds of consuming $\geq$5 F&V/day (CVD aOR 0.60 [95% CI: 0.53-0.68], stroke aOR 0.55 [95% CI: 0.47-0.64], heart attack aOR 0.63 [95% CI: 0.55-0.73], high cholesterol aOR 0.86 [95% CI: 0.79-0.93], high blood pressure aOR 0.74 [95% CI: 0.68-0.81], diabetes aOR 0.51 [95% CI: 0.46-0.56], BMI $\geq$25 aOR 0.74 [95% CI: 0.68-0.80], poor mental health status aOR 0.50 [95% CI: 0.43-0.59], poor physical health status aOR 0.35 [95% CI: 0.31-0.39], $\geq$5 F&V per day aOR 1.56 [95% CI: 1.40-1.57], high 10-year mortality risk aOR 0.39 [95% CI: 0.36-0.42]). Male and female gardeners had significantly lower odds of reporting diabetes even when compared exercisers.

Conclusion: In this nationally representative sample of adults aged 65+, gardening is associated with better CVD health status including lower odds of diabetes. Future longitudinal or interventional studies are warranted to determine if promoting gardening activities can be a CVD risk reduction strategy.

CORRESPONDING AUTHOR: Susan Veldheer, DEd, RD, Penn State College of Medicine, Hershey, PA; sveldheer@psu.edu

11:39 AM – 11:50 AM

Abstract citation ID: kaad011.0799

CITATION AND MERITORIOUS AWARD WINNER

THE IMPACT OF A REMOTE SOCIAL WEIGHT LOSS AND ACTIVITY PROGRAM ON HEALTH-RELATED QUALITY OF LIFE IN OLDER ADULTS WITH CHRONIC PAIN

Justin Robison, BS Kinesiology[1], Amber K. Brooks, MD, MS[2], W. Jack Rejeski, PhD[1], Sherri A. Ford, MA[3], Jason Fanning, PhD[1]

[1]Wake Forest University, Winston Salem, NC; [2]Wake Forest School of Medicine, Winston Salem, NC; [3]Wake Forest University, Kernersville, NC

Background: Chronic pain in aging can lead to deleterious outcomes such as obesity, inactivity, and prolonged sedentary behavior. These negative behaviors work cyclically with pain to drive poor health-related quality of life (HRQOL), a key outcome in aging. The Mobile Intervention to Reduce Chronic Pain and Improve Health (MORPH) behavioral intervention was designed within a social cognitive and self-determinative framework to improve physical activity and reduce sedentary behavior through day-long movement (DLM). Key limitations of prior research included in-person delivery limiting reach, and the absence of individualized coaching to facilitate comprehension/implementation of the DLM program. MORPH-II addressed these limitations through remote delivery and the incorporation of a refined coaching model incorporating pre-health student coaches. Herein, we investigate the impact of MORPH-II on health-related quality of life (HRQOL) in older adults living with chronic pain.

Methods: Low-active, older adults with chronic pain (55-85 years; N=44) were randomized to a low-contact control or remote group-mediated DLM behavioral intervention. Control participants received a Fitbit Inspire and scale and were instructed on how to use these devices to monitor their daily activity. The intervention condition received the Fitbit, scale, and an iPad. Participants engaged in weekly small group meetings led by a professional behavioral coach via Zoom. Intervention participants also received access to a set of mHealth tools to promote movement throughout the day. Lastly, the intervention condition received individual coaching calls from pre-health students to assist with comprehension/implementation of the DLM prescription. HRQOL was assessed via SF-36 at baseline and 12-week follow-up.

Results: ANCOVA models controlling for baseline values revealed a moderate effect (□2=0.07) on the physical functioning subscale favoring the MORPH condition, who demonstrated an 8.83-point increase at follow-up vs control. There was a small effect (□2=0.03) on the energy/fatigue subscale favoring the intervention condition, reflected by a 5.35-point difference at follow-up. There was a moderate effect (□2=0.06) favoring the intervention condition for the emotional well-being subscale, reflected in a 5.23-point difference at follow-up. There were no meaningful effects on the remaining SF-36 subscales.

Conclusions: This unique remote intervention resulted in improvements in three valued domains of HRQOL after only 12 weeks. These results support the value of a unique remote DLM program for supporting HRQOL in older adults with chronic pain. Future work is needed in a larger sample over a longer duration to establish whether DLM affects aspects of HRQOL that were not meaningfully influenced in this brief trial.

Funding: This work was supported by the Wake Forest Wells Fargo Endowment.

CORRESPONDING AUTHOR: Justin Robison, BS Kinesiology, Wake Forest University, Winston Salem, NC; robijt21@wfu.edu

Paper Session 24: Integrative Health and Spirituality

11:02 AM – 11:14 AM

Abstract citation ID: kaad011.0800

MERITORIOUS AWARD WINNER

EFFECTS OF YOGA ON PHYSICAL AND PSYCHOLOGICAL HEALTH: THEORY-BASED MECHANISMS OF AN ANCIENT PRACTICE

Charleen J. Gust, MA[1], Angela D. Bryan, PhD, FSBM[1]

[1]University of Colorado Boulder, Boulder, CO

It is well-recognized that maintaining a regular yogic practice is associated with physical and psychological health benefits including improved mobility, reduced risk for chronic disease, and decreased stress reactivity. However, few studies have explored the possible mediating psychological variables through which the component parts of yoga (i.e., ethics, breath regulation, postures, and meditation) work to produce salutary effects. To address this gap, we used partial data collected as part of an ongoing cluster randomized trial to test the following set of theory-based mechanisms identified from a search of the extant literature: emotion regulation for ethics, self-control for breath regulation, discomfort and distress tolerance for postures, and mindfulness for meditation. Participants (current n = 159; target n = 242) were randomly assigned in clusters to a single, hour-long session of either standard yoga or a postures-only (i.e., no breath work, no meditative component, etc.) variant. Preliminary results primarily revealed main effects of time; there were significant pre- to post-yoga improvements in both conditions on five of eight outcomes tested, including discomfort avoidance [$F(1, 157) = 5.27$, $\eta^2 = .032$, $p < .05$], as well as cognitive reappraisal, self-control, mindfulness, and self-regulation ($ps < .001$). There were also significant time by condition interactions on expressive suppression [$F(1, 157) = 4.86$, $\eta^2 = .030$, $p < .05$] and discomfort intolerance [$F(1, 157) = 4.63$, $\eta^2 = .029$, $p < .05$]; pre- to post-yoga decreases in both were observed for participants assigned to the postures-only variant, while those in the standard condition showed small increases. This pattern of results is surprising given that the postures-only condition was specifically designed to omit any reference to emotion regulation strategies as part of the ethics component. However, when considered together, it is logical that those assigned to the standard condition would report increases in discomfort intolerance if they were more often using expressive suppression (a maladaptive emotion regulation strategy) to manage the discomfort they were experiencing. In sum, findings support acute changes across time in many of the proposed mediators following participation in yoga, but additional data is needed to fully address the question of whether the conditions are associated with unique benefits.

CORRESPONDING AUTHOR: Charleen J. Gust, MA, University of Colorado Boulder, Boulder, CO; charleen.gust@colorado.edu

11:15 AM – 11:27 AM

Abstract citation ID: kaad011.0801

THE EFFECT OF YOCAS©® YOGA ON FATIGUE AND QUALITY OF LIFE IN OLDER (60+) CANCER SURVIVORS

Evelyn Arana-Chicas, DrPH[1], Po-Ju Lin, PhD, MPH[1], Allison Magnuson, DO[1], Lee Kehoe, PhD[1], Sule Yilmaz, PhD[1], Janet C. Ruzich, DO[2], Benjamin T. Esparaz, MD, FACP[3], Marianne K. Melnik, MD[4], AnaPaula Cupertino, PhD[5], Supriya G. Mohile, MD, MS[1], Karen M. Mustian, PhD, MPH[1]

[1]University of Rochester Medical Center, Rochester, NY; [2]Providence Cancer Institute Clackamas Clinic, Clackamas, OR; [3]Cancer Care Specialists of Illinois, Decatur, IL; [4]Cancer Research Consortium of Western Michigan, Grand Rapids, MI; [5]University of Rochester Medical Center, Department of Public Health Sciences and Department of Surgery, Rochester, NY

Introduction: Older cancer survivors consistently express the need for interventions to help reduce fatigue and maintain quality of life (QOL). Yoga is a promising treatment to address fatigue and QOL in older survivors. Research examining the efficacy of yoga for reducing fatigue and improving QOL in older survivors is limited.

Objective: To conduct a secondary analysis to determine the effect of yoga on fatigue and QOL in older survivors.

Methods: Older survivors (age 60+) were randomized to standard care versus standard care + a 4-week yoga intervention—Yoga for Cancer Survivors (YOCAS©®). The yoga intervention consisted of breathing exercises, 18 gentle Hatha and restorative yoga poses, and mindfulness practices. Fatigue and QOL were assessed pre- and post-intervention with the Functional Assessment for Chronic Illness Therapy-Fatigue (FACIT-F). The FACIT-F generates 1) a fatigue score, 2) an overall QOL score, and 3) physical, functional, social, and emotional QOL subdomain scores.

Results: 98 older survivors were enrolled (94% women, mean age 67 [range=60-98], 97% White, and 65% had breast cancer). ANCOVA results revealed that YOCAS©® participants, compared to control participants, demonstrated significantly greater improvements in fatigue (3.63±1.05, *p*< .001) and a statistical trend for improvements in overall QOL (3.75±2.3, *p*< 0.107). Follow-up t-tests revealed that YOCAS©® participants reported significant improvements in fatigue (2.67±0.76, *p*< .001), while control participants did not. YOCAS©® participants reported significant improvements in overall QOL (mean difference=5.14±1.58, *p*< 0.002), while control participants did not. YOCAS©®participants also reported significant improvements in the physical (0.79±0.37, *p*< 0.039) and functional (1.04±0.46, *p*< 0.030) QOL subdomains, and a statistical trend for improvements in the emotional (0.66±0.37, *p*< 0.134) QOL subdomain, while control participants did not. The social QOL subdomain improved (0.06±0.43, *p*< 0.886), but did not reach statistical significance for either group. 87.5% (n=35/40) of YOCAS©® participants found the YOCAS©® intervention useful and would recommend it to other survivors.

Conclusion: YOCAS©® yoga may improve fatigue, overall QOL, and the physical, functional, and emotional QOL subdomains in older survivors. Future phase III RCTs are needed to confirm these results and increase access and uptake in culturally and racially diverse older survivors.

Funding: UG1CA189961, T32CA102618, R01CA181064

CORRESPONDING AUTHOR: Evelyn Arana-Chicas, DrPH, University of Rochester Medical Center, Rochester, NY; Evelyn_Arana@URMC.Rochester.edu

---

11:27 AM – 11:39 AM

Abstract citation ID: kaad011.0802

THE LONG-TERM BENEFITS OF SINGLE 2-HOUR SESSION OF MINDFULNESS ORIENTED RECOVERY ENHANCEMENT (MORE): LESS IS MORE?

Adam W. Hanley, PhD[1], Eric L. Garland, PhD[1]

[1]University of Utah, Salt Lake City, UT

Background: Mindfulness is an effective treatment for chronic pain, but traditional, 8-week, mindfulness-based interventions (MBIs) require a time and resource investment too burdensome for many patients and providers. The solution may be to distill the most potent therapeutic elements of a traditional MBI into a single, 2-hour intervention.

Method: This presentation will review results from a pilot, randomized clinical trial (RCT) examining the effects of a 2-hour version of Mindfulness Oriented Recovery Enhancement (MORE), One MORE, on immediate and distal pain-related outcomes among chronic pain patients (N=25), relative to waitlist controls (WLC).

Results: *Immediate Outcomes*: Repeated measures ANOVA revealed that One MORE immediately decreased clinical symptomology, reducing patients' pain intensity (F=14.25, p=.002, Cohen's d=2.02) and pain unpleasantness (F=26.25, p< .001, Cohen's d=2.74) from before to after the 2 hour session. Pain intensity decreased by 2.06 points (31%) and pain unpleasantness by 3 points (43%).

Distal Outcomes: Linear mixed modeling revealed that over the next two months, participants randomized to One MORE reported significantly less pain (F=20.18, p< .001, Cohen's d=1.83) relative to WLC. Specifically, significant reductions in pain were observed at the 2-week (MORE - WLC = -1.91, *p*=.004), 1-month (MORE - WLC = -2.49, *p*=.003), and 2-month (MORE - WLC = -2.93, *p*< .001) follow-up assessments. Additionally, One MORE participants reported significantly less pain catastrophizing (F=3.49, p=.021, Cohen's d=0.76) and anxiety (F=7.07, p< .001, Cohen's d=1.09) as well as significantly better physical function (F=3.11, p=.034, Cohen's d=0.72) over the next two months.

Conclusion: Results indicate that One MORE immediately improved pain-related outcomes and those effects persisted 2 months after the 2-hour treatment session. Although the durability of these improvements may appear surprising, the observed results are consistent with the recent finding that a 2-hour cognitive-behaviorally based pain-management program improved pain-related outcomes out to 3-months after treatment. By the time of SBM's Annual Meeting, we should have 3-month follow-up data on these participants to further examine the durability of One MORE. Developing brief and effective treatment options for chronic pain has important implications for patient access and engagement as well as provider resource allocation.

CORRESPONDING AUTHOR: Adam W. Hanley, PhD, University of Utah, Salt Lake City, UT; adam.hanley@utah.edu

11:39 AM – 11:50 AM

Abstract citation ID: kaad011.0803

YOGA FOR CHILDREN AND ADOLESCENTS AFFECTED BY CANCER AND BLOOD DISEASE: THE YOGA INSTRUCTORS' PERSPECTIVE

Kelsey Ellis, MSc, BSc[1], Nicole S. Culos-Reed, PhD[2], Fiona Schulte, PhD[3], Lillian Sung, MD, PhD[4], Amanda Wurz, PhD[5]

[1]University of Toronto/University of Calgary, Toronto, ON, Canada; [2]University of Calgary, Calgary, AB, Canada; [3]Division of Psychosocial Oncology, University of Calgary, Calgary, AB, Canada; [4]The Hospital for Sick Children, Toronto, ON, Canada; [5]School of Kinesiology, University of the Fraser Valley, Abbotsford, BC, Canada

Background: Yoga may enhance physical and psychosocial outcomes among young people (i.e., children and adolescents) affected by cancer or blood disease. Yoga instructors are critical to ensure safe and effective delivery of yoga in this cohort, yet little is known about their experiences preparing for and delivering yoga in this unique population. Gathering perspectives from yoga instructors with experience facilitating yoga for this population can inform requisite knowledge and skills to work with this population to support safe and effective yoga delivery.

Purpose: This study sought to understand yoga instructors' lived experiences preparing for and facilitating yoga for young people affected by cancer or blood disease.

Methods: Yoga instructors with experience facilitating yoga for young people affected by cancer or blood disease were recruited through convenience and snowball sampling. Semi-structured interviews were then conducted by the first author, a non-yoga instructor with experience in exercise oncology programs. Data were analyzed via principles of interpretive description and thematic analysis, and reflexive journaling was used to monitor the impact of the first authors' biases on the data.

Results: Fourteen interviews were conducted (Mlength=32 minutes). Most instructors (n=11) reported < 5 years of experience teaching yoga to this population, and had completed a 200 to 500-hour yoga instructor training (n=13) along with further yoga training for adults with cancer (n=10), children without a history of chronic disease (n=8), and young people with cancer (n=3). Five unique themes were identified: (1) "I believe in and see the perceived benefits of yoga on and off the mat"; (2) "I feel equipped to deliver yoga but desire further training"; (3) "what I need to deliver a safe yoga program"; (4) "I must be adaptable to successfully facilitate a yoga program"; and (5) "what I need to ensure yoga is widely available."

Conclusions: This study highlights the varied and comprehensive training yoga instructors accessed to deliver yoga safely and effectively to young people affected by cancer or blood disease. Yoga instructors also revealed the limitations in their training, and highlighted the necessity of developing training to deliver safe and effective programs to this cohort. These findings may support future training opportunities to equip yoga instructors to work safely and effectively with this population.

CORRESPONDING AUTHOR: Kelsey Ellis, MSc, BSc, University of Toronto/University of Calgary, Toronto, ON, Canada; Kelsey.ellis@mail.utoronto.ca

Paper Session 25: Cancer and Social Support

11:02 AM – 11:14 AM

Abstract citation ID: kaad011.0804

AN ENHANCED PATIENT NAVIGATION PROGRAM REDUCES UNMET SUPPORTIVE CARE NEEDS IN HISPANIC WOMEN CANCER SURVIVORS: RESULTS OF AN RCT

Blanca S. Noriega Esquives, MD, PhD[1], Roberto M. Benzo, PhD, MS[2], Patricia I. Moreno, PhD[3], Edgar Munoz, MS[4], Thomas Lad, MD[5], Courtney Hollowell, MD[6], Amelie G. Ramirez, DrPH[4], Frank J. Penedo, PhD, FSBM[7]

[1]University of Miami, Sylvester Comprehensive Cancer Center, Miami, FL; [2]University of Miami, Miami Beach, FL; [3]University of Miami Miller School of Medicine, Miami, FL; [4]University of Texas, San Antonio, TX; [5]Stroger Hospital Cook County MU NCORP, Chicago, IL; [6]Stroger Hospital Cook County Health, Chicago, IL; [7]University of Miami, Miami, FL

Objectives: To evaluate the effect of an enhanced patient navigation (PN) program on reducing unmet supportive care needs in Hispanic/Latino (H/L) cancer survivors.

Methods: 288 H/Ls diagnosed with breast (female, n=128), prostate (n=90), or colorectal (female [n=27], male [n=43]) cancer were randomized 1:1 to the Patient Navigation LIVESTRONG Cancer Navigation Services (PN-LCNS) program or standard PN. To assure equivalence of cancer types across conditions, and sex in colorectal cancer patients, block randomization by cancer site and sex was conducted. Participants assigned to the PN-LCNS program received standard PN services for three months, plus the LIVESTRONG Guidebook, a health journal with a care plan and access to the phone-based LIVESTRONG PN services. Participants in the standard PN condition received only access to traditional clinic-based PN services. All participants completed assessments at baseline, 3-, 9-, and 15-months post-baseline. The Supportive Care Needs Survey was used to assess unmet needs across five domains: psychological, health system and information, physical and daily living, patient care and support, and sexuality ($\alpha = .97$). Intervention effects on overall unmet needs and the five domains were tested by separate multilevel growth models for women and men. Analyses were adjusted for age, cancer type, stage, comorbidities, income, language preference, and nativity.

Results: Among women, factors associated with greater unmet needs at baseline were younger age and breast cancer. Women randomized to PN-LCNS condition, relative to those in standard PN, showed a statistically significant reduction on overall unmet needs and across all domains except sexuality. Moreover, breast cancer survivors showed a significant reduction in unmet needs specific to health system and information concerns relative to female colorectal cancer survivors. Among women, older age was associated with an increase in total unmet needs and across all domains except the psychological domain. Compared to Spanish-speaking women, English-speaking women showed a significant reduction on overall unmet needs, as well as on needs related to patient care and support, physical and daily living, and sexuality. Among men, factors associated with greater unmet needs at baseline were younger age and comorbidities. Prostate cancer survivors reported greater unmet sexual needs at baseline compared to male colorectal cancer survivors. There was not a significant change over time on unmet needs among H/L men.

Conclusions: Enhanced PN reduces supportive care needs among H/L women cancer survivors. Further research should examine potential mediating mechanisms of the PN-LCNS intervention. Interventions to reduce unmet needs among H/L men and that target sexual functioning are needed.

CORRESPONDING AUTHOR: Blanca S. Noriega Esquives, MD, PhD, University of Miami, Sylvester Comprehensive Cancer Center, Miami, FL; bsn24@miami.edu

11:15 AM – 11:27 AM

Abstract citation ID: kaad011.0805

CONCORDANCE OF EXPECTED AND PERCEIVED SOCIAL SUPPORT AMONG CANCER SURVIVORS AND THEIR CARE PARTNERS DURING COVID-19 PANDEMIC

Kristin G. Cloyes, PhD, MN, RN[1], Sarah Nowak, PhD[2], Jia-Wen Guo, PhD, RN[3], Maija Reblin, FSBM[2]

[1]Oregon Health & Science University, Portland, OR; [2]University of Vermont, Burlington, VT; [3]University of Utah, Salt Lake City, UT

Background: As COVID-19 disrupted social support access for cancer survivors and their care partners, many turned to closer social connections—their personal support networks—for needed support.

Purpose: We prospectively examined characteristics of survivors' and care partners' personal support networks and support interactions October 2020-November 2021 for concordance between participants' perceptions of expected and received support.

Methods: Participants were cancer survivors aged 18+, diagnosed ≤ 5 years prior, and their care partners (n=32 dyads; 64 individuals). At baseline they were asked to list 7-20 people in their personal support network and the type(s) of support each person typically gave them (informational, instrumental, emotional, belonging.) In study weeks 1, 5, and 9 participants reported daily, via text or email, whether each member had provided support and which type(s). We defined *concordant support* as the proportion of network members listed as a source of a specific type of support at baseline who provided that support type over time. *Missed opportunities* were the proportion listed as a source that did not provide that support type. *Unexpected support* was the proportion not listed as a source that did provide that support type. *Concordant nonsupport* was the proportion not identified as a source of support who did not provide that support type. We calculated descriptive statistics for each concordance group by support type.

Results: The median personal network size was 8 members (range 2-15) and participants reported a total of 3,350 interactions with members (M=52.34, Median=48, range=15-137). Emotional support had the highest median proportion of concordant support (Mdn=43%; IQR=29-56), and instrumental the highest proportion of concordant nonsupport (Mdn=33%; IQR=16-53). Informational (Mdn=38%; IQR=25-56) and emotional support (Mdn=38%; IQR=17-56) had the highest proportion of missed opportunities. Belonging support had the highest proportion of unexpected support (Mdn=10%; IQR=0-19).

Conclusions: Participants were not very accurate at estimating actual support, although the degree and direction of inaccuracy varied by support type. In particular, missed opportunities and unexpected support may represent potential gaps in understanding network resources. Helping cancer survivors and care partners better understand support resources and patterns within their networks may help them better anticipate and leverage these resources.

CORRESPONDING AUTHOR: Kristin G. Cloyes, PhD, MN, RN, Oregon Health & Science University, Portland, OR; kgcloyes@gmail.com

11:27 AM – 11:39 AM

Abstract citation ID: kaad011.0806

CITATION AWARD WINNER

COUPLES COPING WITH CANCER: ASSOCIATIONS BETWEEN COMMUNICATION PROFILES AND TRAJECTORIES OF PSYCHOSOCIAL ADJUSTMENT

Karena Leo, PhD[1], Laura S. Porter, PhD[2], Shelby Langer, PhD, FSBM[3], Katherine Ramos, PhD[1], Joan M. Romano, PhD[4], Brian R W Baucom, PhD[5]

[1]Duke University, Durham, NC; [2]Department of Psychiatry and Behavioral Sciences, Duke University School of Medicine, Durham, NC; [3]Arizona State University, Phoenix, AZ; [4]University of Washington School of Medicine, Seattle, WA; [5]University of Utah, Salt Lake City, UT

For couples coping with cancer, communication difficulties have been associated with poorer psychological and relationship adjustment. However, much of this research has been limited by cross-sectional designs and reliance on self-reported communication. We used observational coding methods to identify couple communication profiles based on affective expression and communication behavior, and examined associations between these profiles and relationship satisfaction and psychological distress over time.

Participants were 134 patients with breast (46%), colorectal (42%) or lung (12%) cancer and their partners: M(SD) age=53.9 (3.4); 86% Caucasian; 66% female patients and 36% female partners. Couples completed a 15-minute video-recorded cancer-related discussion at baseline and measures of relationship satisfaction (Dyadic Adjustment Scale) and psychological distress (Profile of Mood States) at baseline, 4-, 8-, and 12-months. Conversations were coded to measure communication behavior and affective expression using the Asymmetric Behavior Coding and Relational Affective Coding Systems, respectively. Profiles were identified using K-mean cluster analysis. Associations between profiles and relationship satisfaction and psychological distress were tested using a multi-level model.

Two communication profiles were identified. Group 1 (64% of couples) was characterized by adaptive communication patterns: positive affect (e.g., warmth) and positive approach behavior (e.g., disclosure). Group 2 (36%) was characterized by maladaptive communication patterns: negative affect (e.g., anger), negative behavior (e.g., blame), and positive avoidant behavior (e.g., avoidance to protect one's partner). At baseline, patients in Group 1 reported higher relationship satisfaction compared to their partners and Group 2 patients and partners (B=3.28, p=0.000). Relationship satisfaction declined over time for patients and partners in both groups but continued to be higher for group 1 patients compared with all others (B=-0.40, p=0.005). Patients and partners in Group 1 reported less psychological distress than those in Group 2 (B=-0.29, p=0.008); distress scores did not differ by role (patient vs. partner) or time.

These findings underscore the utility of observational methods in identifying couple-level typologies that are predictive of individual and relational adjustment and could potentially be used to inform couple-based screenings and interventions.

CORRESPONDING AUTHOR: Karena Leo, PhD, Duke University, Durham, NC; karena.leo@duke.edu

11:39 AM – 11:50 AM

Abstract citation ID: kaad011.0807

PERCEIVED ILLNESS CONSEQUENCES AND PSYCHOLOGICAL DISTRESS IN CANCER SURVIVORS: THE MODERATING ROLE OF SOCIAL SUPPORT

Caroline Salafia, MA[1], Kaleigh Ligus, MA[2], Emily Fritzson, MA[3], Keith M. Bellizzi, PhD, MPH[4], Crystal L. Park, PhD[5]

[1]University of Connecticut, Cromwell, CT; [2]UCONN, Storrs, CT; [3]University of Connecticut, Farmington, CT; [4]University of Connecticut, Berlin, CT; [5]University of Connecticut, Storrs, CT

Most cancer survivors experience substantial psychological distress at some point during the cancer journey. One factor associated with psychological distress is the way individuals perceive their illness. Research on illness perception is often informed by the self-regulation model, which suggests individuals develop a model of what the illness is, what it means, its consequences, how long it will last, and whether it can be controlled. Negative perceived illness consequences (PIC) are associated with greater psychological distress (anxiety and depression). Little research has explored factors that may moderate the relationship between negative PIC and psychological distress among cancer survivors.

As part of an ongoing longitudinal study examining resilience in newly diagnosed adult breast, prostate and colorectal cancer survivors, the current study (*n* = 422, 64% female, *Mage* = 59.62, *SD* = 11.42) examined the relationship between PIC (IPQ-R; Moss-Morris et al., 2002) and psychological distress (anxiety and depression; HADS; Zigmond & Snaith, 1983) over a three month period. We hypothesized that social support (MOS), assessed at the same time as PIC, would buffer the effect of negative PIC on both anxiety and depression. Linear multiple regression analyses were conducted to assess the relationship between PIC, social support, and psychological distress.

Linear regression analyses indicated a significant positive relationship between negative PIC and anxiety (B = .330, p < .001) and depression (B = .271, p < .001) indicating as perceived negative cancer consequences increased, so did anxiety and depression. Addition of interaction terms revealed a significant buffering effect for social support on the PIC-anxiety (B = -.01, p < .0001) and PIC-depression relationships (B = -.01, p < .0001). Higher levels of social support buffered effects of negative PIC on anxiety and depression compared to survivors with lower social support.

Results suggest negative PIC predicts subsequent greater anxiety and depression, but social support buffers these relationships. Studies have indicated that social support can reduce psychological distress for cancer survivors, but this study provides insight into *how* social support helps protect specifically against cancer-related PIC. Interventions targeting improved social support in newly diagnosed adult cancer patients may help attenuate psychological distress.

CORRESPONDING AUTHOR: Caroline Salafia, MA, University of Connecticut, Cromwell, CT; cali.salafia@uconn.edu

Friday
April 28th, 2023
1:00 PM – 1:50 PM
Paper Sessions
Paper Session 26: Obesity
1:02 PM – 1:14 PM

Abstract citation ID: kaad011.0808

LIFESTYLE INTERVENTION FOR EMERGING ADULTS: EFFECTS BY RACE AND GENDER IN THE REACH TRIAL

Jessica G. LaRose, PhD, FSBM[1], Autumn Lanoye, PhD[2], Tricia M. Leahey, PhD[3], Joseph Fava, PhD[4], Melanie K. Bean, PhD[5], Kristal Brown, PhD, MSPH[6], Jean M. Reading, PhD[7]

[1]Virginia Commonwealth University School of Medicine, Richmond, VA; [2]Virginia Commonwealth University Massey Cancer Center, Richmond, VA; [3]University of Connecticut, Storrs, CT; [4]Miriam Hospital, Foster, RI; [5]Virginia Commonwealth University, Richmond, VA; [6]Johns Hopkins University School of Medicine, Baltimore, MD; [7]Northwestern University Feinberg School of Medicine, Chicago, IL

Background: Emerging adults (EA) are at high risk for obesity, yet trials designed for EA are lacking. In our recent comparative efficacy trial for EA, all arms promoted statistically and clinically significant reductions in adiposity, with no differences between arms. The goal of this work was to explore whether gender and/or race moderated effects.

Methods: Participants (N=382, 83% female, 21.9±2.2 yrs, BMI=33.5±4.9 kg/m^2, 58% underrepresented race/ethnic identity [UREI]) were randomized to 1 of 3 arms: adapted BWL (aBWL), aBWL+behavioral economics (aBWL+BE), or aBWL+self determination theory (aBWL+SDT). All arms received a 6-month intervention (2 in person sessions+digital platform) adapted for EA. aBWL+BE received modest financial incentives for self-monitoring and weight loss; aBWL+SDT received optional experiential classes; coaching and message framing varied by arm. Analyses (ITT) used linear mixed models. Primary outcome was 6-month weight loss. Secondary outcomes were change in waist, systolic / diastolic blood pressure (SBP/DBP), and odds of >5% weight loss.

Results: Men experienced greater weight loss than women (*p*=.03), but only in aBWL+BE (*p*=.01), trend level in aBWL (*p*=.11), and not significant in aBWL+SDT (*p*=.66). Findings were consistent for secondary outcomes, such that treatment benefit was greater for men but only within the aBWL+BE arm. The one exception was SBP where women experienced greater improvements than men in aBWL+SDT (-3.29 mm Hg [0.74] vs. +0.32 mmHg [1.58], *p*=.04), but not in aBWL (*p*=.93) or aBWL+BE (*p*=.85). Non-Hispanic white (NHW) participants experienced greater weight loss than UREI participants (-5.17% [0.53] vs. -2.68% [0.44], *p*=0.0003), but this was only significant in aBWL+BE (*p*=.004) and aBWL (*p*=.03)—not in aBWL+SDT (*p*=.23). Parallel findings were observed for secondary outcomes, except SBP where benefits did not vary by race. When comparing NHW (n=125) and non-Hispanic Black (NHB, n=109) women only, NHW women experienced greater weight loss overall (*p*=.03), driven by differences in aBWL+BE (*p*=.01), attenuated in aBWL (*p*=.13), with comparable benefit in aBWL+SDT (-4.2%[1.0] vs. -4.4%[1.2], *p*=.92). Parallel findings were observed for secondary outcomes.

Conclusion: EA men received clinically significant benefit in all arms, but fared the best in the behavioral economics arm. Women and UREI participants received the most benefit in the self-determination theory arm, which offers particular promise for young Black women.

CORRESPONDING AUTHOR: Jessica G. LaRose, PhD, FSBM, Virginia Commonwealth University School of Medicine, Richmond, VA; jessica.larose@vcuhealth.org

1:15 PM – 1:27 PM

Abstract citation ID: kaad011.0809

CITATION AWARD WINNER

OUTCOMES OF A 2-YEAR PRAGMATIC EFFECTIVENESS-IMPLEMENTATION HYBRID TRIAL TESTING ONLINE OBESITY TREATMENT IN PRIMARY CARE

Graham Thomas, PhD[1], Carly M. Goldstein, PhD[1], Emily Panza, PhD[2], Rena R. Wing, PhD, FSBM[1]

[1]Brown University & The Miriam Hospital, PROVIDENCE, RI; [2]Brown University & The Miriam Hospital, Providence, RI

BACKGROUND: Fully automated online interventions have potential to fulfill U.S. guidelines for providing multicomponent behavioral weight loss programs in primary care. Research is needed to evaluate strategies for pragmatic implementation in real-world clinical settings, and maintenance interventions to minimize regain.

METHODS: An effectiveness-implementation hybrid design trial tested pragmatic implementation of the automated, online, Rx Weight Loss (RxWL) behavioral obesity treatment in 39 clinics in the Rhode Island Primary Care Physicians Corporation. Nurse care managers (NCM) were randomized to BASIC Implementation with access to RxWL and an online tool indicating patients who enrolled, or to ENHANCED Implementation with additional strategies for enrolling and supporting patients and online tools for tracking their progress. Enrolled patients received 3-months of weekly online lessons, self-monitoring, and automated feedback, and were then randomized to a 9-month maintenance intervention: CONTROL (monthly newsletter), MONTHLY (a lesson and 1 week of self-monitoring each month) or REFRESHER (two 4-week blocks of lessons and self-monitoring). Electronic medical records (EMR) data were used to evaluate weight loss after the initial 3- month program and regain from 3 months to end of maintenance intervention (year 1) and after a year of no treatment (year 2).

RESULTS: NCMs offered RxWL to 1,765 patients (age 18-75; BMI >25), 654 enrolled, and 540 (83%) with EMR data were analyzed. Patients were mostly women (71%), middle-aged (mean±SE 52.8±0.8 years) and Non-Hispanic White (93%). Intent-to-treat analysis using linear mixed-effects models estimated weight loss of 3.6±0.4 kg after the initial 3-month treatment. Weight regain was similar in MONTHLY and REFRESHER, respectively, at 1 year (0.4±0.2 kg; 0.4 + 0.2 kg) and 2 years (1.0 ±0.6 kg; 1.2±0.6 kg); both were superior to CONTROL (1.3±0.2 kg; 3.5±0.6 kg; *p*s< .004). NCMs randomized to ENHANCED enrolled more patients (405 vs 135) but there were no effects of implementation condition on weight loss outcomes (*p*s >.329).

CONCLUSIONS: An automated online program implemented with minimal researcher contact produced clinically significant weight losses in a primary care setting. Continued sessions and self-monitoring significantly improved maintenance regardless of intervention schedule. Training NCMs improved patient enrollment but not weight loss.

CORRESPONDING AUTHOR: Graham Thomas, PhD, Brown University & The Miriam Hospital, PROVIDENCE, RI; john_g_thomas@brown.edu

---

1:27 PM – 1:39 PM

Abstract citation ID: kaad011.0810

THE IMPORTANCE OF SELF-WEIGHING TO AVOID POST-CESSATION WEIGHT GAIN: A SECONDARY ANALYSIS OF THE FIT & QUIT TRIAL

Rebecca Krukowski, PhD, FSBM[1], Mackenzi Oswald, BS[2], Kathryn M. Ross, PhD, MPH[3], Stephanie J. Garcia, MSHRM, MPH[4], Ning Sun, MPH[4], Wupeng Yin, MS[5], Zoran Bursac, PhD[4]

[1]University of Virginia, School of Medicine, Charlottesville, VA; [2]University of Virginia School of Medicine, Charlottesville, VA; [3]University of Florida, Gainesville, FL; [4]Florida International University, Miami, FL; [5]Florida International University, Doral, DC

Objective: Secondary analysis of the Fit & Quit randomized controlled trial focused on post-cessation weight management, to determine if greater frequency of self-weighing is associated with weight change after smoking cessation.

Methods: Participants (N=305; 32.1% men, 43.3% identified as Black) were randomized to 1 of 3 weight intervention conditions (i.e., Stability, Loss, Self-guided), followed by a behavioral smoking cessation intervention with 6 months of varenicline. Follow-up data collection occurred at month 12. Stability and Loss conditions received different types of weekly then monthly feedback on their self-weighing behaviors and weight trajectory. All participants received e-scales at baseline, which were used to capture daily self-weighing data. We specifically examined 4 periods in the study (i.e., weeks 0-8: weight management focus; weeks 9-16: smoking cessation focus, varenicline provided; weeks 17-32: booster sessions for Stability and Loss, varenicline provided; weeks 33-52: no intervention contact). Generalized linear models were used for statistical analysis. Data from 8 participants were excluded from analyses due to someone other than the participant using the e-scale.

Results: Average (mean±SD) frequency of self-weighing was 2.67±1.84 days per week. Self-weighing frequency was highest in weeks 0-8 (4.55±1.99 days per week) and decreased gradually throughout the trial (to 1.87±2.00 days per week by weeks 33-52). The Stability condition consistently had significantly higher self-weighing frequency (3.18±1.72 days per week) compared to the Loss (2.51±1.99 days per week) and the Self-guided conditions (2.22±1.63 days per week), *p*s =0.05. Adjusting for baseline weight and treatment condition, self-weighing at least 3 days per week was associated with not gaining a statistically significant amount of weight (Β±SE= -2.4±1.2, p=0.053), and self-weighing 5 or more times per week was associated with weight loss (Β±SE= -3.6±1.2, p=0.004). This relationship between self-weighing and weight change was consistent throughout the four periods of the study, with largest impact observed during the “booster session” and “no intervention” periods.

Conclusions: Self-weighing may serve as a useful tool for weight gain prevention after smoking cessation, particularly in the months just after quitting smoking. Feedback received about self-weighing behaviors and weight trajectory (like the color-coded feedback that the Stability participants received) might enhance adherence. While personalized feedback is likely cost-prohibitive in large populations, an automated self-weighing feedback system could allow this strategy to become widely disseminated as a population health intervention for post-cessation weight gain prevention.

CORRESPONDING AUTHOR: Rebecca Krukowski, PhD, FSBM, University of Virginia, School of Medicine, Charlottesville, VA; wae4mq@virginia.edu

1:39 PM – 1:50 PM

Abstract citation ID: kaad011.0811

CITATION AND MERITORIOUS AWARD WINNER

THE INTERACTIVE EFFECTS OF SLEEP AND WEIGHT IN PREDICTING ADOLESCENT EXECUTIVE FUNCTIONING

Lindsay M. Stager, MA[1], Aaron M. Fobian, PhD[1]

[1]The University of Alabama at Birmingham, Birmingham, AL

Introduction: Some weight loss interventions use cognitive training to improve executive function as a pathway for weight loss. However, the causal mechanisms in the relationship between elevated weight status and impaired executive functioning are not fully understood. Of note, poor sleep is both related to elevated weight status and impairments in cognitive function.

Methods: Adolescents (M_{age} = 16.32 SD_{age}=1.53; 55.4% female; 55.4% Black) completed 2 sleep conditions in a randomized order: 1 night of adequate sleep (between 8-10 hours; $M_{adequate}$=9 hours 2 minutes) and 1 night of restricted sleep (< 5 hours; $M_{restricted}$=4 hours 26 minutes) confirmed by Actiwatch Spectrum Pros. The morning after each condition, participants completed the NIH Cognitive Toolbox assessing 1) executive function-Dimensional Change Card Sort Test, 2) processing speed-Pattern Comparison Processing Speed Test, and 3) working memory-List Sorting Working Memory Test. ANCOVAs compared cognitive outcomes between those with healthy weight (HW; 5th-84th BMI percentile) and those with overweight and obesity (OWOB; BMI percentile ≥ 85th).

Results: Three separate two-way repeated measures ANOVAs revealed significant interactions between weight and sleep in predicting 1) executive function (F(1,54)=15.25, p< 0.001, η_p^2=0.22), 2) processing speed (F(1,54) = 6.64, p< 0.05, η_p^2=0.11), and 3) working memory (F(1,54)=7.58, p< 0.01, η_p^2=0.12). Following the adequate and sleep restricted conditions, individuals with HW did not demonstrate significant differences in 1) executive function ($M_{adequate}$=44.30, SE=1.97; $M_{restricted}$=45.97, SE=2.06), 2) processing speed ($M_{adequate}$=54.3, SE=4.00; $M_{restricted}$=51.80, SE=3.23), or 3) working memory ($M_{adequate}$=48.83, SE=2.61; $M_{restricted}$=51.63, SE=3.22). However, individuals with OWOB showed significantly improved cognitive performance following adequate sleep as compared with restricted sleep in regard to 1) executive function ($M_{adequate}$=48.39, SE=2.11; $M_{restricted}$=40.15, SE=2.21; p< 0.001), 2) processing speed ($M_{adequate}$=60.00, SE=3.47; $M_{restricted}$=45.19, SE=4.30; p< 0.01), and 3) working memory ($M_{adequate}$=53.77 SE=2.81; $M_{restricted}$=41.62, SE=3.46; p< 0.01).

Discussion: Overall, this study highlights sleep as a mechanistic pathway in the relationship between weight and executive function. This knowledge may allow for increased efficacy of current weight loss interventions utilizing cognitive training strategies while also providing a unique path through which to mitigate negative health outcomes associated with OWOB.

CORRESPONDING AUTHOR: Lindsay M. Stager, MA, The University of Alabama at Birmingham, Birmingham, AL; lmstager@uab.edu

Paper Session 27: Sexual and Gender Minority Health

1:02 PM – 1:14 PM

Abstract citation ID: kaad011.0812

“I WAS THINKING ABOUT MY VOICE QUITE A LOT": VOICE AND PERCEIVED CONTROL IN TRANSGENDER AND GENDER DIVERSE ADULTS

G. Nic Rider, PhD[1], Taymy Caso, PhD[2], Dan Weinstein, MM, MA, CCC-SLP[3], Lisa Butcher, MM, MA, CCC-SLP[3], Jieyi Cai, BA[4], Erin Feddema, MPH[3], Anna Sombrio, MS[5], Ali Stockness, MPH[3], Stephanie Misono, MD, MPH[3]

[1]National Center for Gender Spectrum Health, Institute for Sexual and Gender Health, Department of Family Medicine and Community Health, University of Minnesota Medical School, Minneapolis, MN; [2]Department of Educational Psychology, University of Alberta, Edmonton, AB, Canada; [3]Department of Otolaryngology, University of Minnesota Medical School, Minneapolis, MN; [4]Department of Psychology, University of Minnesota, Minneapolis, MN; [5]Department of Otolaryngology, University of Minnesota Medical School, MInneapolis, MN

Background: Voice concerns are common and can significantly reduce quality of life. Psychological factors, such as perceived control, impact voice outcomes, but whether mechanisms in cisgender people are similar to those in transgender and gender diverse (TGD) people is unknown. This study measured voice and perceived-control scores and their correlation; gender-related voice scale scores; and collected feedback on the scales from TGD adults.

Methods: Cross-sectional data from TGD adults with voice concerns were collected via the online research platform Prolific, including Voice Handicap Index-10 (VHI-10), gender-specific voice measures (e.g., Trans Woman Voice Questionnaire (TWVQ), the trans man version of TWVQ, the Voice-related Experiences of Nonbinary Individuals (VENI) scale), psychological measures (e.g., Perceived Control scale), and open-text comments. Multimethod analyses included descriptive statistics and qualitative synthesis.

Results: 201 participants (mean (M) age 26.18 years, SD 6.86) included 40% who were nonbinary, 25% trans women, 22% trans men, 14% genderfluid, and/or 12% genderqueer. Self-reported race/ethnicity included 71% white, 18% Latinx, 9% Black, and 5% Asian. VHI-10 (M 15.30, SD 7.02) was worse than published norms. Voice-related perceived control (M 2.47, SD 0.58) was slightly lower compared to care-seeking patients with voice disorders. Correlation between VHI-10 and perceived control was -0.42 (95% CI -0.53, -0.30), stronger than in cisgender patients with voice disorders. Gender-specific voice scales included TWVQ (M_{total} 81.21, SD 18.95), trans man version of TWVQ (M_{total} 73.36, SD 20.73), and VENI (M_{total} 39.88, SD 9.46). Many participants expressed appreciation for and validation from the questionnaires; several also emphasized physical and mental effort regarding voice. One participant noted “I'm glad you have questions here that speak to how much effort trans people put into their voice and how mindful we have to be.” Additionally, reasons and strategies to avoid using one’s voice were discussed. For example, a participant said, “I’m constantly misgendered on the phone and it’s horrible…I try to do live chat.”

Conclusions: Generally, participants scored worse than norms or previously published scores on all voice measures and perceived control, reflecting substantial voice-related concerns. Qualitative responses highlighted the importance of measuring and addressing the real-life impact of voice concerns in TGD people.

CORRESPONDING AUTHOR: G. Nic Rider, PhD, National Center for Gender Spectrum Health, Institute for Sexual and Gender Health, Department of Family Medicine and Community Health, University of Minnesota Medical School, Minneapolis, MN; gnrider@umn.edu

1:15 PM – 1:27 PM

Abstract citation ID: kaad011.0813

ACCEPTABILITY OF A CULTURALLY TAILORED ONLINE BEHAVIORAL WEIGHT MANAGEMENT PROGRAM FOR SEXUAL MINORITY WOMEN

Emily Panza, PhD[1], Graham Thomas, PhD[2], Kate M. Guthrie, PhD, FSBM[3], Jacob J. van den Berg, PhD, MS, MPH[4], Robin J. Lewis, PhD[5], Hannah Parent[6], Anabella Magee[6], Halle Fowler, BA[7], Chandler Carr, BA[6], Rena R. Wing, PhD, FSBM[2]

[1]Brown University & The Miriam Hospital, Providence, RI; [2]Brown University & The Miriam Hospital, PROVIDENCE, RI; [3]Brown Medical School/The Miriam Hospital, Providence, RI; [4]Tufts University School of Medicine, Boston, MA; [5]Old Dominion University, NORFOLK, VA; [6]Brown University, Providence, RI; [7]Gallaudet University, Washington, DC

Background: Obesity affects 37-41% of sexual minority women relative to 28% of heterosexual women, yet few evidence-based weight management programs center the experiences of sexual minority women. We developed a 12-week online behavioral weight loss program—*Rx Weight Loss: PRIDE (RxWLP)*—that is culturally tailored for sexual minority women and includes a core weight loss program (CORE) and adjunctive components that address minority stress (MS), negative body image (BI), and social support (SS). Following initial development, sexual minority women completed *RxWLP* and provided qualitative feedback that was used to refine the program. This analysis examined the acceptability of *RxWLP* for sexual minority women of higher body weight.

Methods: Participants were adults (18-70) who were assigned female at birth, identified currently as female and as a sexual minority, had a body mass index (BMI) >25kg/m^2, and were seeking weight management. *RxWLP* was iteratively refined across 3 phases of piloting. During each phase, participants completed *RxWLP* and provided feedback in individual semi-structured qualitative interviews, then *RxWLP* was refined. *RxWLP's* acceptability was assessed using qualitative interviews, which were transcribed and coded by trained research staff. Framework Matrix Analysis was used to analyze qualitative data.

Results: 29 sexual minority women (52% lesbian; 28% racial/ethnic minority; *M* age=41±13; *M* BMI=39±9kg/m^2) were enrolled and 23 (83%) completed qualitative interviews. Qualitative data identified strengths of *RxWLP* including: the structured format, non-judgmental tone, cultural tailoring for sexual minority women, easy-to-use online platform, and content on MS, BI, and SS, which was described as unique and valuable. Participants across iterations requested several improvements to *RxWLP* that were implemented during treatment refinement: increasing content addressing financial barriers, further expanding representation of diverse sexual orientations and gender identities, enhancing SS offerings, making video lessons more engaging, personalizing automated feedback, shortening treatment content (e.g., online lesson length), and adding technical features to improve usability.

Conclusion: *RxWLP,* the first online behavioral weight loss intervention to be tailored for sexual minority women, shows good initial acceptability. Qualitative feedback revealed aspects of this weight loss treatment that sexual minority women valued as well as areas for improvement, data that was used to improve the treatment for future efficacy testing. Findings underscore the need to involve sexual minority women in the development of tailored programs intended to serve them.

CORRESPONDING AUTHOR: Emily Panza, PhD, Brown University & The Miriam Hospital, Providence, RI; emily_panza@brown.edu

1:27 PM – 1:39 PM

Abstract citation ID: kaad011.0814

MERITORIOUS AWARD WINNER

INTERRUPTED DIGITAL INTIMACIES AMONG TGD YOUTH IN THE EARLY U.S. COVID-19 PANDEMIC: MIXED-METHODS LATENT PROFILE ANALYSES

Simone J. Skeen, MA[1], Demetria Cain, PhD, MPH[2], Kripa Mehta, BA[2], Joshua Rusow, PhD, MSW[3], Keith J. Horvath, PhD[4], Cathy J. Reback, PhD[5]

[1]School of Public Health and Tropical Medicine, Tulane University, New Orleans, LA; [2]Hunter College, City University of New York, New York, NY; [3]Brown School of Social Work at Washington University in St. Louis, St. Louis, MO; [4]San Diego State University, San Diego, CA; [5]University of California, Los Angeles, CA

Introduction: Interactive communications technologies (ICTs, e.g. smartphones, social media) afford transgender and gender-diverse (TGD) youth self-determination in selecting affirming sexual partners and disclosing oppressed identities. But among TGD young people, differences in digital intimacy-seeking by race/ethnicity and sexuality, and the impacts of COVID-19, are under-studied. Through a concurrent triangulated approach, combining finite mixture modeling and theoretically grounded content analysis, we examined socio-sexually motivated ICT use among TGD youth at the onset of the U.S. COVID-19 pandemic.

Methods: Baseline data from *TechStep*, an mHealth HIV prevention trial recruiting TGD youth and young adults (YYA; N = 284), was restricted to post–pandemic onset participants (n = 230). Latent profile analyses detected sub-distributions in smartphone (Model 1) and social/sexual networking (Model 2) usage. Bias-adjusted 3-step distal outcomes modeling in Latent GOLD identified cross-sectional associations between socio-demographics, profile membership, and COVID-19-related sexual behavior change. Open-ended responses, describing pandemic life changes, were examined in Dedoose via a content analysis grounded in the *primary-responsive-adaptive* pandemic practices typology.

Results: Within the analytic sample, M_{age} = 21.8, 57.4% white; 46.4% men/masculine spectrum, 38.6% nonbinary+. Fit statistics favored 2-class solutions in Models 1 and 2. An "intrepid" profile (43.4%) in Model 1 was characterized by usage of smartphone apps to find dates (74.7% vs. 14.7% in "reserved" profile) and sex (65.5% vs. 12.9%). An "expansive" profile (16.5%) in Model 2 was characterized by active accounts on Grindr (47.2% vs 13.1% in "circumscribed" profile) and Tinder (89.0% vs. 15.7%). Gay/lesbian sexuality was associated with membership in intrepid and expansive profiles, which were linked to reductions in pandemic-era sexual activity: $\beta = -0.76$, $p < 0.001$ (Model 1); $\beta = -0.75$, $p = 0.002$ (Model 2). In Model 2, associations between expansive socio-sexual networking and reductions in pandemic-era HIV testing access and uptake were evident ($p < 0.01$). In qualitative content analyses, reduced sexual activity was framed as a *responsive* practice, e.g. to social distancing guidelines; an *adaptive* practice, via self-reflective pandemic-era lifestyle change; or attributed to anxiety and depression.

Clinical Implications: Despite the broader turn to ICT-mediated sociality at the pandemic's onset, TGD YYA who relied on ICTs for digital intimacies were most likely to reduce their in-person sexual activity. While the intrepid, expansive use of sexual networking ICTs may underlie HIV/STI acquisition risk, the diminishment of active sexual life should also be understood as a risk marker for the COVID-19-related psychiatric morbidity that has disparately burdened TGD communities.

CORRESPONDING AUTHOR: Simone J. Skeen, MA, School of Public Health and Tropical Medicine, Tulane University, New Orleans, LA; sskeen@tulane.edu

1:39 PM – 1:50 PM

Abstract citation ID: kaad011.0815

CITATION AWARD WINNER

INTERSECTING INTERNALIZED STIGMA, MEDICAL MISTRUST, AND ANTICIPATED HEALTHCARE STIGMA AMONG BLACK SEXUAL MINORITY MEN

Raymond L. Moody, PhD[1], Ryan J. Watson, PhD[2], Lisa A. Eaton, PhD[3]

[1]Columbia University, Brooklyn, NY; [2]UConn, Storrs, CT; [3]University of Connecticut, Storrs, CT

Background: Black sexual minority men (SMM) face multiple physical and mental health disparities in the U.S. Intersecting systems of oppression influence health outcomes for Black SMM, including sexual minority stigma and racial stigma. Research must identify the associations between internalized stigma, medical mistrust, and anticipated healthcare stigma to facilitate healthcare engagement among Black SMM.

Method: Data come from the baseline assessment of *Project Link,* a study of Black SMM living in Atlanta, GA (N = 472). Participants were enrolled between November 2017 and December 2019 via LGBT venues, social media, and word-of-mouth. Participants were eligible if they were: 1) age 18 or older, 2) assigned male at birth, 3) identified as male, 4) identified as Black/African American, 5) reported suboptimal HIV testing, 6) reported HIV negative or unknown serostatus, and 7) engaged in condomless anal sex in the past year. Participants completed an online survey that assessed sociodemographic characteristics, internalized racial stigma and sexual orientation stigma, experienced healthcare racial stigma and sexual orientation stigma, medical mistrust, and anticipated healthcare racial stigma and sexual orientation stigma. Pearson's correlation coefficients were used to test bivariate associations between observed continuous variables. We estimated a structural equation model to examine the direct effects of internalized stigma and experienced healthcare stigma and the indirect effects via medical mistrust on anticipated healthcare stigma. All models were adjusted for age, education, income, primary care provider status, employment, and health insurance status.

Results: In our structural equational model, internalized stigma was positively and significantly associated with medical mistrust ($\beta = 0.37$, $p = .001$) and anticipated healthcare stigma ($\beta = 0.24$, $p = .020$). Experienced healthcare stigma was not significantly associated with medical mistrust ($\beta = 0.02$, $p = .779$) but had a positive and significant association with anticipated healthcare stigma ($\beta = 0.49$, $p < .001$). Experienced healthcare stigma was positively and significantly associated with anticipated healthcare stigma ($\beta = 0.14$, $p = .008$). As a result, we observed a significant positive indirect effect for internalized stigma on anticipated healthcare stigma via medical mistrust ($\beta = 0.05$, $p = .008$).

Discussion: Anticipated healthcare stigma poses a significant barrier to healthcare engagement. Results from the present study suggest internalized stigma is associated with heightened anticipated healthcare stigma directly and by heightening medical mistrust among Black SMM. Our results indicate that experienced healthcare stigma also exacerbates anticipated healthcare stigma. Reductions in internalized stigma may help increase trust and engagement with healthcare providers among Black SMM.

CORRESPONDING AUTHOR: Raymond L. Moody, PhD, Columbia University, Brooklyn, NY; rmoody@gradcenter.cuny.edu

Paper Session 28: Maternal Mental and Physical Health

1:02 PM – 1:14 PM

Abstract citation ID: kaad011.0816

BODY DISSATISFACTION'S ASSOCIATION WITH EXCESS GESTATIONAL WEIGHT GAIN

Cassidy M. Sandoval, MA[1], Kristin E. Heron, PhD[2]

[1]Virginia Consortium Program in Clinical Psychology, Virginia Beach, VA; [2]Old Dominion University, Norfolk, VA

Nearly 50% of pregnant women gain more weight than recommended by the Institute of Medicine. This is a significant concern, as excess gestational weight gain (GWG) is associated with negative maternal and fetal health. Although there are many known factors contributing to excess GWG, body dissatisfaction is an understudied factor that may contribute to GWG. Previous studies of body image's association with GWG revealed complex associations depending on the body image construct measured (e.g., feeling fat, desire to be thinner) yet research has not examined pregnancy-specific aspects of body image. The purpose of this study was to examine whether pregnancy-specific aspects of body dissatisfaction predicted the likelihood of excess GWG. Participants were 133 pregnant women ($M_{age} = 27.86$; 81.2% White; 23.3% first trimester, 33.8% second trimester, 42.9% third trimester) recruited from social media to complete an online survey about health experiences during pregnancy. The Body Image in Pregnancy Scale was used to measure body image across seven domains: physical appearance preoccupation, dissatisfaction with strength-related aspects of one's body, complexion dissatisfaction, sexual attractiveness, prioritization of appearance over function, appearance-related behavioral avoidance, dissatisfaction with body parts. Participants self-reported pre-pregnancy and current weights. The CDC's pregnancy weight gain trackers were used to determine if participants were on target for meeting the GWG recommendations. Logistic regression models were performed to ascertain the effect of each body dissatisfaction facet on the likelihood participants were over target for GWG, controlling for pre-pregnancy BMI. Two facets of body dissatisfaction were positively associated with a greater likelihood of excess GWG. Specifically, a one-unit increase in dissatisfaction with strength-related aspects of one's body and dissatisfaction with pregnancy-related changes to specific body parts multiplied the odds of being over the GWG target by 1.79 and 2.22, respectively. No other facets of pregnancy-related body image were associated with GWG. These findings suggest body dissatisfaction during pregnancy and excess GWG are related, and longitudinal research is needed to better understand these associations throughout pregnancy and postpartum. Findings may inform interventions aiming to limit excess GWG by determining if targeting body dissatisfaction would be helpful in managing GWG and ultimately improving maternal and fetal health.

CORRESPONDING AUTHOR: Cassidy M. Sandoval, MA, Virginia Consortium Program in Clinical Psychology, Virginia Beach, VA; cmile012@odu.edu

1:15 PM – 1:27 PM

Abstract citation ID: kaad011.0817

CORTISOL, EARLY PREGNANCY SLEEP DURATION, AND GESTATIONAL WEIGHT GAIN IN LOW-INCOME HISPANIC PREGNANT INDIVIDUALS

Christine H. Naya, MPH[1], Alicia K. Peterson, PhD[2], Thomas Chavez, MS[3], Sandrah P. Eckel, PhD[4], Genevieve F. Dunton, PhD, MPH, FSBM[3], Carrie V. Breton, ScD[3], Theresa M. Bastain, PhD, MPH[3]

[1]University of Southern California, PASADENA, CA; [2]Kaiser Permanente Nothern California (KPNC), Oakland, CA; [3]University of Southern California, Los Angeles, CA; [4]USC, Los Angeles, CA

BACKGROUND: More than half of U.S. women from health disparities populations gain excessive weight during pregnancy. Excessive gestational weight gain (GWG) increases the risk of adverse maternal and child health outcomes. Sleep duration below or above the recommendation is associated with an increased risk of obesity in non-pregnant populations. Stress-related neuroendocrine systems are posited as possible underlying mechanisms linking sleep health and weight gain. However, evidence in pregnant women is lacking. Our study examined the mediating effect of Hypothalamic-Pituitary-Adrenal (HPA) axis functioning in the association between early-pregnancy sleep duration and total GWG.

METHOD: Participants were 143 pregnant predominantly low-income Hispanic women from the Maternal and Developmental Risks from Environmental and Social Stressors (MADRES) study. Women (mean age=29.1± 6.0 years) reported typical sleep duration (hours) on weeknights during early pregnancy ($\leq$20 weeks gestation). HPA axis functioning was measured in late pregnancy (>20 weeks gestation) by total salivary cortisol secretion during the first 30 minutes of awakening (i.e., the cortisol awakening response [CAR]). Total GWG (kg) was calculated as the difference between the mother's weight within two weeks before giving birth and pre-pregnancy weight. Mediation analysis was conducted to investigate the hypothesis that HPA axis functioning mediates the effect of sleep duration on total GWG. Analyses were conducted using the PROCESS procedure in SPSS.

RESULTS: Participants reported getting an average of 7.45 hours of sleep (SD=1.46) on weeknights during early pregnancy, and the average late-pregnancy CAR was 0.59 nmol/L (SD=1.84). Results indicated that greater weeknight sleep duration (β = 0.70, SE=0.38, $p< 0.05$) and higher CAR (β = 0.61, SE=0.30, $p< 0.05$) were positive predictors of total GWG. However, weeknight sleep duration was not significantly associated with the CAR (β = 0.10, SE=0.12, p=0.40), and there was no statistical evidence of mediation.

CONCLUSIONS: Longer sleep duration and higher awakening cortisol secretion independently predicted total GWG during pregnancy. However, we found no evidence that this measure of HPA axis functioning is the underlying mechanism linking longer sleep duration in early pregnancy to increased GWG. Future research exploring other potential psychological, biological, and behavioral mediational pathways is needed. Furthermore, obstetric care aimed to promote healthy weight gain may benefit from emphasizing the recommended sleep duration and stress management strategies.

CORRESPONDING AUTHOR: Christine H. Naya, MPH, University of Southern California, PASADENA, CA; naya@usc.edu

---

1:27 PM – 1:39 PM

Abstract citation ID: kaad011.0818

ENGAGEMENT IN A BEHAVIORAL ACTIVATION GAMING APP AMONG PREGNANT WOMEN WITH DEPRESSION

Rachel Vanderkruik, PhD, MSc[1], Craig Ferguson[2], Lauren S. Kobylski[1], Rob Lewis[2], Noah Jones[2], Rosalind Picard, ScD, FIEEE[2], Lee S. Cohen, MD, FSBM[1]

[1]Massachusetts General Hospital, Boston, MA; [2]MIT Media Lab, Cambridge, MA

Background: Depression during pregnancy is not uncommon and, if untreated, can cause detrimental outcomes for mother and child. Effective depression treatments exist, such as Behavioral Activation (BA), yet most women do not receive treatment. The use of technology, including mobile apps, is an innovative approach to increase access to services, yet most apps have not been rigorously studied nor are they effective at maintaining engagement. *Guardians: Unite the Realms* is a free and publicly available gaming app grounded in BA principles that leverages mobile game mechanics and in-game rewards to encourage long-term user engagement. We report on user engagement from a pilot test of *Guardians* among pregnant women with elevated depressive symptoms.

Methods: This single arm trial included a baseline assessment and a follow-up visit 10 weeks later; participants were not compensated for participation and did not receive external reminders or motivational support to use the app. As part of the gaming app, participants were encouraged to complete different types of tasks (e.g., fitness, arts) in their daily lives. Engagement with the *Guardians* app was captured with game interaction metric data (e.g., total days played, tasks completed). "Adherence" to the game was defined as having completed at least 8 tasks in the *Guardians* app.

Results: Among study completers (N=10), 7 were "adherent" and 3 were "non-adherent" to the game. The average app-related task completion rate was 71.6% and 15-day retention rate was 9.5%. Of all tasks that participants completed, 43.6% were classified as "easy," 27.5% as "medium" and 13.4% as "hard" in effort level. Participants reported feeling at least "a little better" 76% of the time after completing a task and reported higher improved mood on average after completing "hard" tasks relative to "medium" or "easy" tasks. Participants reported higher improved mood after completing "fitness" tasks followed by "art" tasks.

Conclusions: Retention rates among participants using *Guardians* in this study are greater than average retention levels of most digital mental health interventions. Findings provide insight into perceived mood improvement according to task type and effort level required to complete the task, which could inform how BA could be tailored for a given individual. Findings suggest that *Guardians* may be a scalable digital intervention to engage and support the behavioral activation of women with depression during pregnancy.

CORRESPONDING AUTHOR: Rachel Vanderkruik, PhD, MSc, Massachusetts General Hospital, Boston, MA; rvanderkruik@mgh.harvard.edu

1:39 PM – 1:50 PM

Abstract citation ID: kaad011.0819

RANDOMIZED TRIAL OF A GROUP TELEHEALTH INTERVENTION TO REDUCE PERINATAL DEPRESSIVE SYMPTOMS

Gwen Latendresse, PHD[1], ElLois Bailey, DNP, MS[1], Uma Parameswaran Dorn, PhD[2], Carol Hogue, PhD, MPH[3], Eli Iacob, PhD, MS[2], Ryoko Pentecost Kausler, MS, PhD[4], Kritzia Merced-Morales, PhD[5], Xiaoming Sheng, PhD[1], Sara Simonsen, PhD, MSPH[2], Marcela Smid, MD, MS, MA[1], Nancy J. Thompson, PhD[3], Kristen Weissinger, BA[2], Marcia Williams, MS[1]

[1]University of Utah, Salt Lake City, UT; [2]University of Utah, SAlt Lake City, UT; [3]Emory University, Atlanta, GA; [4]Boise State University, Meridian, ID; [5]VA, Salt Lake City, UT

Introduction: Group telehealth interventions (GTI) may reduce barriers to evidence-based approaches to treating perinatal depression. However, data are limited, particularly for women experiencing symptoms of perinatal depression during a pandemic. Our aim was to evaluate the efficacy of a group videoconference intervention (VCI) using mindfulness-based practices and cognitive behavioral therapy (MBCT) compared to an attention control (AC) group (childbirth and parenting education classes via videoconference), to improve depression symptomatology across the peripartum period.

Methods: We conducted a randomized controlled trial of VCI compared to AC groups. Both groups received 9 weekly one-hour sessions (4-6 per group). We enrolled peripartum (pregnant and up to 6 months postpartum) individuals > 18 years old with mild to moderate symptoms of depression (defined as Edinburgh Postpartum Depression Scale score > 9 and < 20). The outcome measure was the EPDS score measured over 3 timepoints. Multilevel mixed modeling and intent-to-treat analysis compared outcome measures between the VCI and AC groups.

Results: A total of 58 women participated; average age of 30.1 years, primarily pregnant (89.7%), partnered (84.5%), white (77.6%), and attended median 8 sessions (0, 9). There was a clinically significant decrease in EPDS scores at post -4.9 [-6.8, -3.0] $p < 0.001$ and 2month follow-up -3.6 [-5.5, -1.6] $p < 0.001$, but no differences between intervention groups.

Conclusions: Women involved in GTI demonstrated improvements in depressive symptomatology despite the pandemic, though there were no differences between groups. We speculate that belonging to and interacting with other similarly-affected childbearing women may be therapeutic, regardless of content delivered.

CORRESPONDING AUTHOR: Gwen Latendresse, PHD, University of Utah, Salt Lake City, UT; gwen.latendresse@nurs.utah.edu

Paper Session 29: Cancer Survivors

1:02 PM – 1:14 PM

Abstract citation ID: kaad011.0820

ASSOCIATIONS BETWEEN ACCELEROMETRY-DERIVED PHYSICAL ACTIVITY, SEDENTARY BEHAVIOR & MORTALITY IN NHANES CANCER SURVIVORS

Elizabeth A. Salerno, PhD, MPH[1], Pedro F. Saint-Maurice, PhD[2], Fei Wan, PhD[1], Lindsay L. Peterson, MD, MSCR[1], Yikyung Park, ScD[1], Yin Cao, ScD, MPH[1], Ryan P. Duncan, PT, DPT, MSCI[1], Richard Troiano, PhD, MNS[2], Charles E. Matthews, PhD[2]

[1]Washington University School of Medicine in St. Louis, Saint Louis, MO; [2]National Cancer Institute, Rockville, MD

Background: Survival benefits of self-reported leisure-time physical activity during cancer survivorship are well-documented, yet there is limited data on the associations between accelerometer-derived physical activity, sedentary behavior, and mortality in large cohorts of cancer survivors.

Methods: Participants included adults who reported an existing cancer diagnosis in the National Health and Nutrition Examination Survey (NHANES) and wore an accelerometer for up to 7 days in 2003-2006. Participants were then followed for subsequent mortality through 2015. We examined the association of light, moderate-to-vigorous physical activity (MVPA), total physical activity, as well as sedentary behavior, with all-cause mortality. Cox proportional hazards models estimated hazard ratios (HR) and 95% confidence intervals (CI), adjusting for demographic characteristics and health indicators.

Results: A total of 480 participants [M_{age}=68.8±12.4 at time of NHANES assessment] reported a history of cancer. 215 deaths occurred over the follow-up period. For every one-hour increase in light physical activity and MVPA, cancer survivors had 49% [HR=0.51 (CI=0.34-0.76)] and 37% [HR=0.63 (CI=0.40-0.99)] lower hazards of all-cause mortality, respectively. Total physical activity demonstrated similar associations with significantly lower hazards of death [HR=0.68 (CI=0.54-0.85)], as did total physical activity estimations of energy expenditure [HR=0.88 (CI=0.82-0.95)]. Conversely, more sedentary time was not associated with significantly higher hazards [HR=1.08 (0.94-1.23)]. Stratified and post-hoc analyses largely confirm our results, although we cannot completely rule out confounding by health status.

Conclusion: To our knowledge, this is the first study to comprehensively explore the associations between accelerometry-derived estimates of physical activity and sedentary behaviors and all-cause mortality during long-term cancer survivorship. Results suggest that light physical activity may be important for survival, which would allow for a wider range of intensities in the design and implementation of physical activity interventions after cancer. Overall, these findings reinforce the current recommendations for cancer survivors to be more physically active and underscore the continued need for widespread physical activity promotion across the cancer continuum for long-term survival.

CORRESPONDING AUTHOR: Elizabeth A. Salerno, PhD, MPH, Washington University School of Medicine in St. Louis, Saint Louis, MO; e.salerno@wustl.edu

1:15 PM – 1:27 PM

Abstract citation ID: kaad011.0821

BUILDING A THEORY-BASED INTERVENTION TO INCREASE COMMUNICATION ABOUT INHERITED CANCER RISK AMONG OVARIAN CANCER FAMILIES

Jingsong Zhao, MPH[1], Colleen McBride, PhD[1], Rebecca Pentz, PhD[1], James A. Shepperd, PhD[2], Cam Escoffery, PhD[1], Kevin Ward, PhD[3],Yue Guan, PhD[4]

[1]Emory University, Atlanta, GA; [2]Department of Psychology, Gainesville, FL; [3]The Georgia Center for Cancer Statistics, Atlanta, GA; [4]Emory University, Decatur, GA

Privacy protection guidelines require that individuals found to carry genetic mutations contributing to cancer (i.e., probands) are responsible for communicating the potential for shared genetic risk to close family members. Reliance on this information dissemination approach means that fewer than half of at-risk relatives know their inherited risk. Conceptual frameworks such as relational autonomy hold that probands could benefit from having broader options for communication when information is import to multiple family members. We used an innovative citizen science approach, commonly used in the environmental sciences, to engage survivors of ovarian cancer and their close blood relatives to collect quantitative surveys and qualitative interviews within their formal networks (e.g., FORCE-Facing Our Risk of Cancer Empowered) and informal networks (e.g., personal peer support) to guide the development of a communication intervention to foster family risk communication. Fourteen citizen scientists participated as research collaborators and collected 261 surveys and 39 structured interviews over a 3-month period from September 2020 to January 2021. In this session, we report the iterative process of distilling the citizen science findings to inform the three key intervention components we developed to promote family communication: 1) enumeration procedure for identifying potentially at-risk relatives, 2) menu of options for reaching out to relatives, and 3) approaches to build family communication skills. For example, citizen science findings suggested that while survivors preferred personal contact as an outreach approach to engage close relatives, relatives equally endorsed being approached by virtually any source. Both groups agreed that, options should vary by the nature of specific relationships. To this end, we added rationales for the three outreach options (i.e., personal, study team, delayed contact) that we presented to survivors to indicate which relatives might be amenable to alternatives to personal contact. Currently, we are testing in a randomized intervention trial in collaboration with the Georgia Cancer Registry the *Your Family Connects* (YFC) intervention compared with standard outreach.

CORRESPONDING AUTHOR: Jingsong Zhao, MPH, Emory University, Atlanta, GA; jingsong.zhao@emory.edu

---

1:27 PM – 1:39 PM

Abstract citation ID: kaad011.0822

HOW ARE INTERVENTIONS TARGETING POST-TRAUMATIC GROWTH AND POST-TRAUMATIC STRESS IN CANCER SURVIVORS?

Jessica M. Capaldi, MA[1], Julia Shabanian, BS[2], Laurel Finster, MPH[2], Arash Asher, MD[3], Jeffrey Wertheimer, PhD, ABPP-CN[4], Bradley J. Zebrack, PhD, MSW, MPH[5], Celina H. Shirazipour, PhD[2]

[1]Cedars-Sinai Medical Center, Montrose, CA; [2]Cedars-Sinai Medical Center, West Hollywood, CA; [3]Cedars-Sinai Medical Center, Beverly Hills, CA; [4]Cedars-Sinai Medical Center, Los Angeles, CA; [5]University of Michigan - Ann Arbor, Ann Arbor, MI

The detrimental effects of Post-Traumatic Stress Symptoms (PTSS) and Post-Traumatic Stress Disorder (PTSD) and the benefits of Post-Traumatic Growth (PTG) have been well established for cancer survivors. An initial systematic scoping review examined the scope of interventions targeting PTSS/PTSD and PTG among cancer survivors. The review identified 76 articles focusing on interventions including psychotherapy, mindfulness, physical activity, psilocybin-assisted therapy, and spiritual care. The purpose of the current research was to conduct a secondary analysis of the identified articles to examine mechanistic considerations for future intervention design and critical gaps for future research to explore. Following additional data extraction, quantitative analysis (frequency counts), and qualitative meta-synthesis, mechanistic considerations identified for intervention design included: 1) the need for consistent definitions and measurement tools for PTSS/PTSD and PTG in oncology and 2) the addition of theoretical frameworks grounded in trauma-informed care and the stress-growth relationship. Given the variety of promising interventions at the pilot stage representing lower levels of evidence, future research should aim for randomized controlled trials. Critical gaps in existing interventions highlight the need for greater equity in participant recruitment and representation, focusing on diversity in age, race/ethnic groups, gender identity, and sexual orientation. Additionally, further examination of long-term cancer survivorship care through standardized distress monitoring and health care team engagement is required. Finally, the qualitative meta-synthesis identified elements of quality programming, such as shared experiences and safe environments, as potential facilitators of intervention efficacy. Together, these findings provide a theoretically grounded roadmap for future research to optimize interventions aiming to treat and prevent PTSS/PTSD and promote PTG achievement among cancer survivors, especially those at the highest risk for PTSS/PTSD and the greatest potential for PTG.

CORRESPONDING AUTHOR: Jessica M. Capaldi, MA, Cedars-Sinai Medical Center, Montrose, CA; jessica.capaldi@cshs.org

1:39 PM – 1:50 PM

Abstract citation ID: kaad011.0823

MEDIATORS OF PHYSICAL ACTIVITY MAINTENANCE AMONG BREAST CANCER SURVIVORS

Bernardine M. Pinto, PhD, FSBM[1], Shira Dunsiger, PhD[2], Madison M. Kindred, PhD, MS[3], Sheryl Mitchell, DNP, APRN, FNP-BC, ACNP-BC, FAANP[4]

[1]University of South Carolina, Columbia, SC; [2]Brown University, Providence, RI; [3]Augusta University, Augusta, GA; [4]University of South Carolina College of Nursing, Columbia, SC

Physical activity (PA) adoption and maintenance is recommended for breast cancer survivors' recovery. Peer mentoring can be used to promote PA but PA maintenance is a challenge. Our goal was to explore the theoretical constructs that functioned as mediators of the intervention effects on moderate-to vigorous physical activity (MVPA) maintenance among breast cancer survivors, who participated in a 12-month randomized controlled trial. The interventions were based on Social Cognitive Theory and motivational readiness for PA. The trial demonstrated significant group differences in minutes/week of MVPA at 6, 9 and 12 months. 161 inactive breast cancer survivors (mean age=57.3 years, 81.4% White, 97.4% college educated, 62.7% with Stage 0 or 1 cancer, diagnosed 2.6 years prior) participated in a 12-month study. Reach to Recovery volunteers (peer coaches) from the American Cancer Society delivered a uniform intervention (weekly calls to participants) for the first 3-months to encourage PA adoption to meet the national guidelines. During Months 4-9, participants self-monitored MVPA and received feedback reports (Reach Plus) or additionally received a monthly phone call from their coach (Reach Plus Phone) or weekly text/email messages (Reach Plus Message). Assessments of weekly MVPA (self-reported and objectively measured) and theoretical constructs (self-efficacy, social support, PA enjoyment and PA barriers) were obtained at baseline, 3, 6, 9 and 12-months. Using a multiple mediator model implemented with a product of coefficients (bootstrapped standard errors), we examined hypothesized mediators of the intervention effects on weekly MVPA over time. All models controlled for chemotherapy use and adjusted for clustering of participants within coach. Models of accelerometer-assessed MVPA adjusted for wear-time. Our results showed that self-efficacy mediated effects of Reach Plus Message vs. Reach Plus at 6 (*ab*=16.99) and 9M (*ab*=27.45) and social support mediated effects at 6 (*ab*=4.86), 9 (*ab*=14.30) and 12M (*ab*=6.18). Self-efficacy mediated effects of Reach Plus Phone vs. Reach Plus at 6 (*ab*=18.76), 9 (*ab*=28.93) and 12M (*ab*=18.18). Social support mediated effects of Reach Plus Phone vs. Reach Plus Message at 6 (*ab*=-5.50) and 9M (*ab*=-13.20) and PA enjoyment mediated the effects at 12M (ab=-3.63). Results indicate that peer mentoring for PA maintenance should focus on strengthening breast cancer survivors' self-efficacy and obtaining social support.

CORRESPONDING AUTHOR: Bernardine M. Pinto, PhD, FSBM, University of South Carolina, Columbia, SC; Pintob@mailbox.sc.edu

Paper Session 30: Methods and Measurement

1:02 PM – 1:14 PM

Abstract citation ID: kaad011.0824

DESIGN OF EXPERIMENTS WITH SEQUENTIAL RANDOMIZATIONS AT MULTIPLE TIME SCALES: THE HYBRID EXPERIMENTAL DESIGN

Inbal Nahum-Shani, PhD[1]

[1]University of Michigan, Ann Arbor, MI

Behavioral interventions typically include multiple components, where a component is defined as any aspect of the intervention that can be separated out for investigation. In practice, decisions about the delivery of these components are often made at multiple time scales. For example, in a weight loss intervention a decision may be made every several weeks about whether to enhance the intensity of coaching sessions (e.g., based on information about progress in weight loss). Additionally, every day a decision may be made about whether to deliver a motivational message via a mobile device to encourage self-monitoring of dietary intake (e.g., based on information about prior self-monitoring).

Investigators often have scientific questions about how to best guide decisions about intervention components that are made at various timescales. For example, is it better to start with low vs. moderate intensity coaching sessions, when motivational text messages are also being delivered daily? Is a daily text message more effective in promoting daily self-monitoring, when more intense coaching is being delivered? What combination of digital intervention components (e.g., mobile app, text messages, non-monetary digital incentives) should be offered initially, if four weeks later coaching sessions will be added for participants who do not show sufficient weight loss?

The hybrid experimental design (HED) is a new experimental approach that enables researchers to answer scientific questions about the construction of behavioral interventions in which components are delivered and adapted at different timescales. These designs involve sequential randomizations of study participants to intervention components, each at an appropriate timescale (e.g., monthly randomization to different intensities of coaching sessions and daily randomization to different forms of motivational messages). The goal of this paper is twofold. The first is to highlight the flexibility of the HED and its efficiency (i.e., ability to achieve adequate power with a reasonable sample size) by conceptualizing this experimental approach as a special form of a factorial design where different factors are introduced at multiple timescales. The second is to discuss three types of HEDs; each type follows a unique structure depending on the scientific questions motivating the study. Examples of several completed HEDs in various domains of behavioral health will be used for illustration.

CORRESPONDING AUTHOR: Inbal Nahum-Shani, PhD, University of Michigan, Ann Arbor, MI; inbal@umich.edu

1:27 PM – 1:39 PM

Abstract citation ID: kaad011.0826

EXPLORING IMPLEMENTATION STRATEGIES FOR IMPROVING HYPERTENSION SCREENING IN HIV CARE: AN AGENT-BASED MODEL

Karla Galaviz Adriana [1]Vázquez Segura[2], Mohammed K. Ali, MD[3], Douglas Bodner[4], Igho Ofotokun, MD[5], Adrián González-Casanova[6]

[1]Indiana University School of Public Health Bloomington, Bloomington, IN; [2]Institute of Mathematics, Mexico City, Distrito Federal, Mexico; [3]Emory University, Atlanta, GA; [4]Georgia Institute of Technology, Atlanta, GA; [5]Emory University School of Medicine, Atlanta, GA; [6]National University of Mexico, Mexico City, Distrito Federal, Mexico

Background: Although clinical guidelines recommend universal screening of HIV patients for hypertension and subsequent treatment, less than 10% of HIV patients in the US get screened. Investments in implementation strategies that promote adoption of hypertension screening in routine HIV care could shorten this implementation gap.

Objective: Develop an agent-based model that explores the comparative value of investing in diverse implementation strategies to support the adoption of hypertension screening.

Methods: Using a stochastic processes approach (Markov Chains), we built an agent-based model that simulates funding invested in a portfolio of diverse implementation strategies. Nine implementation strategies were compared using the Behavior Change Wheel and these aimed to influence clinician capability, opportunity, and motivation to adopt hypertension screening: education, training, clinical decision support, audit and feedback, leadership engagement, incentives, clinic champions, new funding, and environmental changes. The model begins with one dollar invested in a specific implementation strategy; then, the dollar advances taking up to 1,000 steps, with randomness incorporated into each step. During this process, the dollar invested can either be lost or reach hypertension screening, based on the expected effect of a given implementation strategy on clinician behavior (low, medium, high). We ran 500 replications for each implementation strategy and obtained the average number of times that one dollar reached hypertension screening. The model was built and piloted in Python 3, using the Jupyter Notebook.

Results: The preliminary model results support the hypothesis that funding invested in implementation strategies that improve clinician capability (i.e. clinical decision support), motivation (i.e. audit and feedback, incentives), or opportunity (i.e. new funding, environment change) promotes adoption of hypertension screening. More dollars reached hypertension screening when they were invested in new funding (5.5 times in 500 simulations), environment change (4.4 times), clinical decision support (4.3 times), audit and feedback (3.5 times), and incentives (3.3 times).

Conclusion: This preliminary agent-based model shows potential to identify cost-beneficial implementation strategies to promote adoption of hypertension screening in HIV care. Although our model is preliminary, it has the potential to help researchers and healthcare practitioners identify optimal strategies for implementing evidence-based interventions.

CORRESPONDING AUTHOR: Karla Galaviz, Indiana University School of Public Health Bloomington, Bloomington, IN; kgalaviz@iu.edu

1:39 PM – 1:50 PM

Abstract citation ID: kaad011.0827

TIME-VARYING MODEL OF ENGAGEMENT WITH DIGITAL SELF REPORTING

Michael Sobolev, PhD[1], Aditi Anand, MSI[2], John J. Dziak, PhD[3], Lindsey N. Potter, MPH, PhD[4], Cho Y. Lam, PhD[5], David W. Wetter, PhD[6], Inbal Nahum-Shani, PhD[7]

[1]Cedars-Sinai Medical Center, Glendale, CA; [2]University of Michigan, Southgate, MI; [3]University of Illinois at Chicago, Chicago, IL; [4]Huntsman Cancer Institute at the University of Utah, Salt Lake City, UT; [5]University of Utah, Salt Lake City, UT; [6]Huntsman Cancer Institute/U of Utah, SALT LAKE CITY, UT; [7]University of Michigan, Ann Arbor, MI

Objective: Insufficient engagement is a critical barrier to the utility of digital interventions and mobile health studies. As a result, engagement is increasingly becoming a target of studies and interventions across health domains. The purpose of this study is to investigate the dynamics of engagement in mobile health data collection by exploring how and why response to digital self-report prompts changes over time in smoking cessation studies.

Method: Data from two ecological momentary assessment (EMA) studies of smoking cessation among a diverse population of smokers attempting to quit (N=573) were utilized, with a total of 65,974 digital self-report prompts delivered over several weeks and randomly throughout the day. The data were analyzed with time-varying effect modeling (TVEM) to estimate time-varying response to digital prompts across days in the study, as well as the time-varying effects of response to previous prompt and the average response rate on likelihood of current response.

Results: Response rates are relatively stable over days in the study (Model 0). The results show a significant, positive and stable relationship between response to previous prompt and the likelihood of response to current prompt throughout all days of the study (Model 1). The relationship between average response rate prior to current prompt and the likelihood of responding to the current prompt was also positive, and increasing with time (Model 2). The time-varying effects of response to previous prompt and the average response rate remain significant with the same pattern when included together in the same model (Model 3). Overall, findings were consistent across two different studies and populations of smokers.

Conclusion: Dynamic patterns of engagement in digital self-reporting can inform the design of new strategies to promote engagement, thereby enhancing the utility of digital interventions and mobile health studies. The results of the current study indicate that both average response rate and response to previous prompt are highly predictive of response to the next prompt across days in the study. These insights can be used to guide the development of just-in-time interventions to optimize engagement in mobile health data collection.

CORRESPONDING AUTHOR: Michael Sobolev, PhD, Cedars-Sinai Medical Center, Glendale, CA; michael.sobolev@cornell.edu

Paper Session 31: Substance Use

1:02 PM – 1:14 PM

Abstract citation ID: kaad011.0828

FAMILIES FACE STIGMA TOO: COURTESY AND VICARIOUS STIGMA IN FAMILY MEMBERS OF INDIVIDUALS WITH SUBSTANCE USE DISORDER

Övgü Kaynak, PhD[1], Christopher R. Whipple, PhD[1], Nicole L. Sturges, n/a[1], Erica Saylor, MPH[1], Weston Kensinger, PhD[2]

[1]Penn State Harrisburg, Middletown, PA; [2]Penn State University, Middletown, PA

Introduction: Family members of individuals with substance use disorder (SUD) can provide their loved ones with financial and emotional support and help facilitate engagement in treatment and recovery. However, this support can come at an emotional cost for family members who also experience the stress and stigma associated with their loved one's SUD. As the substance use crisis continues to escalate, it is critical to better understand how it impacts family members, an integral component to a coordinated response to this crisis.

Methods: Twenty semi-structured in-depth interviews were conducted with family members of individuals with SUD (i.e., opioids, stimulants, or other drugs). Interviews were conducted in the context of a statewide substance use disorder stigma reduction campaign in Pennsylvania, Life Unites Us. Qualitative analysis was conducted with NVivo. A deductive coding approach was utilized, with a pre-determined set of key codes developed. Attributes of each participant were added to the software to run matrix queries to determine themes and findings by code for various attributes such as relationship to their loved one and drug of choice.

Results: Family members recounted experiences of courtesy stigma in the form of judgment and blame for their loved one's SUD. This was in addition to vicarious stigma, which manifested in feelings of anger and/or sadness due to witnessing their loved one face public stigma. Parents (as compared to siblings or children) more often reported vicarious stigma. Additionally, family members with loved ones using opioids more often reported vicarious stigma when compared to those using other substances like alcohol or marijuana. Stigma came from other family members, friends, and the community-at-large, including first responders and medical professionals. Burden and stress associated with their loved one's SUD manifested in impacts to their quality of life, emotional health, financial health, and physical well-being. Whereas many family members reported withdrawing socially, they also stressed the importance of finding a support network comprised of those with similar lived experience. Finally, family members discussed ways to reduce SUD stigma, namely promoting community education and encouraging open dialogue about experiences with SUD.

Conclusions: Results suggest that family members are experiencing significant burden and stigma related to their loved one's SUD. Increasing outreach efforts to families and promoting the human dimension of SUD can help reduce stigma for family members and their loved ones.

CORRESPONDING AUTHOR: Övgü Kaynak, PhD, Penn State Harrisburg, Middletown, PA; oik101@psu.edu

1:15 PM – 1:27 PM

Abstract citation ID: kaad011.0829

IDENTIFYING A MODEL OF BYSTANDER INTERVENTION FOR PROBLEMATIC ALCOHOL USE AMONG COLLEGE STUDENTS

Annelise M. Mennicke, PhD[1], Jessamyn L. Bowling, PhD[1], Erika Montanaro, PhD[1], Madi Williams[1], Hannah Carlson[1], Victoria McClare, BS[2], Erin Meehan, MSW[1], Jasmine Temple, MS[1], Bridget Jules, BS[1], Anvi Tirunagari[1], Neha Kissler[1], Phoebe Pruneda, BSW[1], Keshawn Mathews[1], Gabrielle Haley[1], Casey Mesaeh[1], Chris Correia, PhD[3], Sarah McMahon, PhD[4]

[1]University of North Carolina at Charlotte, Charlotte, NC; [2]Yale University, Charlotte, NC; [3]Auburn University, Auburn, AL; [4]Rutgers University, New Brunswick, NJ

Background: Problematic alcohol use (PAU) is a common and serious concern among college students leading to a host of harmful outcomes, including sexual assault, alcohol use disorder, suicidal behaviors, and death. Most college-based PAU interventions target individuals and have limited efficacy, indicating a need for alternative strategies. Given the social nature of college drinking, bystander intervention (BI) is a promising approach to reduce PAU on college campuses, given its success at reducing sexual assault. To utilize BI for PAU, we must first determine the unique steps of BI for PAU and the factors that influence one's decision to intervene.

Purpose: The study aims to identify the steps and influencing factors of BI for PAU among college students.

Methods: Twenty-one focus groups and eight interviews with 78 undergraduate students enrolled full-time at a university in the southeastern US were conducted between November 2021 and April 2022. A semi-structured discussion guide informed by the Situational Model for BI was used to elicit information about how college students conceptualize and notice PAU among their friends and the circumstances in which they do or do not intervene. Qualitative data were inductively and deductively coded and analyzed thematically.

Results: Seven overarching and iterative steps emerged regarding BI for PAU: 1) Having a plan in advance, 2) Noticing signs of PAU, 3) Assuming responsibility to act, 4) Assessing support/feasibility to intervene, 5) Identifying an intervention strategy, (6) Intervening, and (7) Assessing outcomes. Three overarching themes related to barriers and facilitators to intervention, including 1) Personal factors, 2) Interpersonal factors, and 3) Situational factors (including self-intoxication). These steps and influencing factors are presented as the BI for PAU Model (BIPAUM).

Conclusions: Data indicate a unique model for BI for PAU among college students. This model should be empirically tested and can be used to inform intervention and measurement development. To translate the findings into impactful practice, this study's research team is developing and validating a measure of BI for PAU among college students based on the BIPAUM. The team intends to use study findings and the newly developed measure to design and evaluate an innovative BI for PAU program to be implemented at universities.

CORRESPONDING AUTHOR: Annelise M. Mennicke, PhD, University of North Carolina at Charlotte, Charlotte, NC; amennick@uncc.edu

---

1:27 PM – 1:39 PM

Abstract citation ID: kaad011.0830

LIFE UNITES US: A COLLABORATIVE DIGITAL CAMPAIGN TO ADDRESS OPIOID USE DISORDER STIGMA

Övgü Kaynak, PhD[1], Christopher R. Whipple, PhD[1], Nathan Kruis, PhD[2], Erica Saylor, MPH[1], Jordan G. Lewis, PhD[3], Weston Kensinger, PhD[4]

[1]Penn State Harrisburg, Middletown, PA; [2]Penn State Altoona, Altoona, PA; [3]Pennsylvania Department of Drug and Alcohol Programs, HARRISBURG, PA; [4]Penn State University, Middletown, PA

Introduction: As drug overdose deaths in the U.S. continue to rise, targeted treatment, prevention, and education initiatives should also include efforts to decrease stigma. There is a dearth of evidence on opioid use disorder (OUD) stigma reduction strategies, particularly those that include community engagement. The current study reports on the first year of a digital media campaign which uses a collective impact approach to address OUD stigma in Pennsylvania.

Methods: Life Unites Us (LUU) was developed through the collective effort of government, academic, and non-profit institutions with input from those with lived experience. LUU consists of an education and contact-based public media campaign; engagement with community-based organizations (CBOs); and sharing of local and statewide OUD stigma-related statistics. An ongoing survey assessed attitudes related to aspects of OUD stigma. The survey used a quota-based invitation system to produce a representative sample by region and, separately, by age/gender combined categories. Samples were weighted to accurately reflect other demographic characteristics. Digital metrics were monitored to assess campaign reach.

Results: During the first year, the campaign generated 3.9 million impressions with over 101,000 social media engagements and 1.2 million video views. After 12 months, 29% of Pennsylvanians reported exposure to the campaign. When compared to those who did not view the campaign, campaign viewers were significantly less likely to socially exclude individuals with OUD; and were significantly more likely to endorse the efficacy of medications for OUD; obtain naloxone; and support harm reduction strategies. Trends since the launch of the campaign found that, overall, Pennsylvanians indicated increasing willingness to recognize the opioid epidemic as a problem and that OUD is a medical illness; provide naloxone to friends and family; live with and be friends with individuals with OUD; and accept treatment facilities in their communities.

Conclusions: Results will be discussed within the context of the development and implementation of the LUU campaign. In particular, the community outreach work will be highlighted including ongoing CBO engagement and collaboration.

CORRESPONDING AUTHOR: Övgü Kaynak, PhD, Penn State Harrisburg, Middletown, PA; oik101@psu.edu

1:39 PM – 1:50 PM

Abstract citation ID: kaad011.0831

SELF-RELEVANT APPEALS TO ENGAGE IN SELF-MONITORING OF ALCOHOL USE: A MICRORANDOMIZED TRIAL

Stephanie M. Carpenter, PhD[1], Jaime Yap, BA[2], Megan Patrick, PhD[2], Nicole Morrell, MEd[3], John J. Dziak, PhD[4], Daniel Almirall, PhD[2], Carolyn Yoon, PhD[2], Inbal Nahum-Shani, PhD[2]

[1]University of Wisconsin - Madison, Madison, WI; [2]University of Michigan, Ann Arbor, MI; [3]University of Minnesota, St. Paul, MN; [4]University of Illinois at Chicago, Chicago, IL

While self-monitoring can help mitigate alcohol misuse in young adults, engagement with digital self-monitoring is suboptimal. The present study investigates the utility of two types of digital prompts (reminders) to encourage young adults to self-monitor their alcohol use. These prompts leverage information that is self-relevant (i.e., represents and is valuable) to the person. Method: Five hundred ninety-one college students (Mage = 18; 61% = female, 76% = White) were enrolled in an 8-week intervention study involving biweekly digital self-monitoring of their alcohol use. At baseline, participants selected an item they would like to purchase for themselves and their preferred charitable organization. Then, biweekly, participants were microrandomized to a prompt highlighting the opportunity to either (a) win their preferred item (self-interest prompt); or (b) donate to their preferred charity (prosocial prompt). Following self-monitoring completion, participants allocated reward points toward lottery drawings for their preferred item or charity. Results: The self-interest (vs. prosocial) prompt was significantly more effective in promoting proximal self-monitoring at the beginning of the study, Est = exp(.14) = 1.15; 95% confidence interval (CI) [1.01, 1.29], whereas the prosocial (vs. self-interest) prompt was significantly more effective at the end, Est = exp(–.17) = 0.84; 95% CI [0.70, 0.98]. Further, the prosocial (vs. self-interest) prompt was significantly more effective among participants who previously allocated all their reward points to drawings for their preferred item, Est = exp(–.15) = 0.86; 95% CI [.75, .97]. Conclusions: These results suggest that the advantage of prompts that appeal to a person's self-interest (vs. prosocial) motives varies over time and based on what reward options participants prioritized in previous decisions. These results have practical and theoretical implications for engaging young adults, a population at high risk for binge drinking, in digital self-monitoring of alcohol use and potentially other health behaviors. They also highlight the need for more systematic investigations of theoretically grounded engagement strategies in digital intervention settings.

CORRESPONDING AUTHOR: Stephanie M. Carpenter, PhD, University of Wisconsin - Madison, Madison, WI; scarpenter3@wisc.edu

Paper Session 32: COVID-19

1:02 PM – 1:14 PM

Abstract citation ID: kaad011.0832

AN INTEGRATED MIXED-METHODS STUDY EXPLORING COVID-19 RISK PERCEPTIONS AMONG HIGH-RISK RURAL ADULTS WITH MULTIMORBIDITY

Brenna O. Kirk, MPH[1], Ranjita Misra, PhD, CHES, FASHA, FESG[1], Sarah Lipinski, MS[1], Mohini Chatterji, MPH[1]

[1]West Virginia University School of Public Health, Morgantown, WV

Introduction: West Virginia (WV) adults have high burden of chronic conditions (diabetes, obesity, hypertension, COPD, etc.) many of which are known risk factors for severe COVID-19. However, research exploring perceptions of COVID-19-related risks, prevention measures, and information-seeking among adults with multimorbidity in WV (≥3 comorbid chronic conditions) are limited.

Methods: To gain a deeper understanding of COVID-19 risk perceptions among adults with multimorbidity, this integrated mixed-methods study consisted of data from 1360 participants who completed an online COVID-19 survey and a subset of 25 older adults that participated in a qualitative telephone interview (May 2022). Audio-recorded data were analyzed by two coders to identify major themes. All qualitative data were merged with participants' quantitative survey responses and analyzed using a convergent integrated approach in MAXQDA software.

Results: Mean age of participants was 58.2 years, 64% identified as female and the sample had an average of 4.5 chronic conditions. Interview participants were similar in age, gender and multimorbidity (55.9 years, 68% female, and 4.9 chronic conditions). Perceptions focused on three factors: 1) "Long-COVID Dissonance", 2) "Fear vs. Concern", and 3) "Concerns about Vaccines and Mandates". Participants distinguished between "fear" and "concern" – many mentioned their faith/religion as an alternative to "fear", but further mentioned pandemic-related concerns regarding contracting COVID-19, spreading it to others, potential effects of vaccines, and loss of liberty via mandates. Interestingly, 66.7% of those who agreed with a statement that COVID-19 was "not a threat" mentioned personal experience or knowing someone closely who was currently suffering from long-COVID symptoms. Additionally, gender differences were noted in the integrated analyses – men were more likely to have vaccine-related concerns, but no pandemic-related fears. Furthermore, while both genders described concerns over COVID-19 infection, women were more likely to have concerns regarding spreading COVID-19 to others compared to men.

Conclusions: Educational interventions must tailor COVID-19 risk messaging by gender and provide additional information regarding long-COVID consequences to be most effective among high-risk multimorbid rural adults during the transition stage of the COVID-19 pandemic.

CORRESPONDING AUTHOR: Brenna O. Kirk, MPH, West Virginia University School of Public Health, Morgantown, WV; bok0001@mix.wvu.edu

1:15 PM – 1:27 PM

Abstract citation ID: kaad011.0833

INCREASING PHYSICAL ACTIVITY AMONG ADULTS AFFECTED BY COVID-19 RESTRICTIONS: A FEASIBILITY TRIAL OF AN ONLINE INTERVENTION

Wuyou Sui, PhD[1], Heather Hollman, MRSc, DC[1], Emily Magel[1], Ryan E. Rhodes, PhD, FSBM[1]

[1]University of Victoria, Victoria, BC, Canada

Background: In response to COVID-19 social distancing restrictions, many workplaces, businesses, and universities transitioned to a work from home model. Despite reported benefits to productivity and preference from work from home employees, an adverse consequence of this transition has been a reduction in physical activity (PA) and increase in sedentary behaviour. Digitally-delivered health interventions present as a potential solution for maintaining or improving individuals' PA for those who are working primarily from home. This study explored the feasibility of a 6-week web-based intervention, informed by the multi-process action control (M-PAC) framework to promote PA among individuals who reported working primarily from home due to social distancing restrictions.

Methods: Fifty inactive adults were randomized to a 6-week web-intervention (n = 27) or wait-list control (n = 23). Primary feasibility outcomes included recruitment and retention rates, website usage, and usability and satisfaction scores; secondary outcomes of moderate-vigorous PA and M-PAC constructs and tertiary outcomes of mental health and wellbeing were also assessed. The web-based intervention included ten lessons, each aimed at a different construct of the M-PAC, including reflective processes (i.e., instrumental and affective attitudes, perceived capability and perceived opportunity), regulatory processes (i.e., cognitive, behavioural, and emotional regulation), and reflexive processes (i.e., habit and identity).

Results: Overall, feasibility of the intervention was high, with a 96% recruitment rate, 84% retention rate, high satisfaction and usability scores, and comparable website usage to similar eHealth interventions. The intervention group noted a greater percent (26.3%) improvement of participants meeting MVPA guidelines from baseline to end of intervention, compared to the control group (0.0%). Intervention participants also demonstrated small-to-medium effect sizes towards improved MVPA ($\eta_p^2 = 0.030$), regulatory ($\eta_p^2 = 0.078$) and reflexive ($\eta_p^2 = 0.078 - 0.119$) M-PAC constructs, and depression scores ($\eta_p^2 = 0.070$), compared to the control group.

Conclusions: Favourable secondary outcomes suggest theoretical congruence of the M-PAC for this type of intervention. Feasibility outcomes suggest the study extension to a full-scale RCT to better assess the effectiveness of this web-based intervention, particularly as work from home and remote work configurations maintain popularity.

CORRESPONDING AUTHOR: Wuyou Sui, PhD, University of Victoria, Victoria, BC, Canada; wsui@uvic.ca

---

1:27 PM – 1:39 PM

Abstract citation ID: kaad011.0834

PARTNERING WITH SOCIAL MEDIA INFLUENCERS TO INCREASE ACCEPTANCE OF THE COVID-19 VACCINE FOR CHILDREN

Amy Leader, DrPH, MPH[1], Amelia Burke Garcia, PhD, MPH[2], Preethi Selvan, MPH[1], Erin Cutroneo, BS[2], Dasha Afanaseva, MPH[2], Kayla Madden, BA[1], Joshua Banks, MS[1], Angela Sustaita-Ruiz, BA[3]

[1]Thomas Jefferson University, Philadelphia, PA; [2]NORC at the University of Chicago, Bethesda, MD; [3]Brilla Media, LLC, Philadelpiha, PA

Background: While COVID-19 vaccination rates in adults have been less than desired, vaccination rates in children are even lower. In some states, less than one-third of children are vaccinated against COVID-19. Much of the resistance to vaccinating children stems from parental vaccine hesitancy, which has had significant effects on the rates of other childhood vaccines. The public health community has long utilized trusted messengers to deliver important health messages. As more parents receive news and information from social media, we partnered with a diverse group of social media influencers, or everyday people who are influential in their online social networks, to create and test messages specifically for communities of color about COVID-19 childhood vaccines.

Methods: Ten social media influencers who were African American or Hispanic and also mothers created posts in their own words and language about the COVID-19 vaccine for children. Next, influencers recruited their followers to complete baseline survey, view the post, and immediately complete an endpoint survey. We measured changes in knowledge about the COVID-19 vaccine, attitudes towards the pandemic and the vaccine, and intentions to vaccinate their children. We also captured trust in the influencer, perceptions of the post, and follower demographic characteristics. Mean scores or frequencies were calculated for all variables. Changes in survey variables from baseline to endpoint were assessed with repeated measures t-tests.

Results: Ten social media influencers created posts. Five were African American mothers and 5 were Hispanic mothers. The mean age of the influencer was 44. Most had 2 or 3 children. One hundred and forty followers viewed a post from their influencer and completed a survey. Three quarters (74%, n=103) were women and 56% (n=79) were Hispanic. More than half (55%, n=78) had been following their influencer for more than 1 year, but only slightly more than half (57%, n=80) had been vaccinated against COVID-19. We observed significant positive (?) changes from baseline to endpoint in perceiving the pandemic to be serious (p=0.007), the vaccine to be effective (p=0.04) and intentions to vaccinate their children (p< 0.001). All followers had a high level of trust in their influencer.

Discussion: This study builds on a growing body of research that demonstrates how influencers are trusted messengers to deliver health information. In this study, we found that messages shared by influencers were able to change attitudes about the pandemic and the vaccine and increase parental decisions toward vaccination. As public health professionals strive to reach traditionally marginalized communities with vaccine information, influencers may be powerful opinion leaders, especially where mistrust of traditional institutions is high.

CORRESPONDING AUTHOR: Amy Leader, DrPH, MPH, Thomas Jefferson University, Philadelphia, PA; amy.leader@jefferson.edu

1:39 PM – 1:50 PM

Abstract citation ID: kaad011.0835

TREATMENT INTENTION FOR COVID-19: THE EFFECT OF COMBINING MESSAGES ABOUT MONOCLONAL ANTIBODIES AND VACCINES

Mika Hamer, PhD, MPH[1], Jenna E. Reno, PhD[2], Sara Byers, MS Biostatistics[3], Justin Shrader, BA Communication Studies[4], Jenn L. Jones, BA Communication Studies[1], Adit A. Ginde, MD, MPH[4], Bethany M. Kwan, PhD, MSPH[4]

[1]University of Colorado, Aurora, CO; [2]RTI International, Research Triangle Park, NC; [3]University of Colorado, Anschutz Medical Campus, ACCORDS, Aurora, CO; [4]University of Colorado School of Medicine, Aurora, CO

Background: Neutralizing monoclonal antibodies (mAbs) effectively treat COVID-19 in outpatient settings. Combined with vaccines and other therapeutics, mAbs are a critical component of the comprehensive strategy to combat the ongoing COVID-19 pandemic. This study compared the effectiveness of message strategies—messages with information about both mAbs and vaccines vs. mAbs alone—on individual willingness to receive mAbs during a future COVID-19 episode.

Methods: Survey of a demographically representative sample of US adults where half were unvaccinated against COVID-19 per self-report in May 2022, randomized 1:1:1 to mAb messages with or without vaccine information, or to a control condition (no reference to mAbs). We used a proportional odds logistic regression model to evaluate change in intention to receive mAbs during a future COVID-19 infection before and after reading the randomized message. Change in intention was measured by the difference in response to: "Would you be willing to receive monoclonal antibodies for COVID-19 based off what you know today?", where the structured response options were "Yes", "Maybe", "Unsure", or "No".

Findings: Among the 1046 adults surveyed (525 vaccinated, 521 unvaccinated), median age was 45 (standard deviation: 16.4 years), 60.7% were female, and 38.3% were non-White. Self-reported political ideology was approximately evenly distributed across liberal, moderate, and conservative. There was no difference in change in intention to receive mAbs for respondents randomized to mAb-only messages (Odds Ratio [OR]: 0.99; 95% Confidence Interval [CI]: 0.67, 1.49; P=0.99) or mAb+vaccine messages (OR: 0.75; 95% CI: 0.49, 1.13; P=0.17), compared to the control message. Having been vaccinated was associated with a more positive change in intention to receive mAbs after message exposure (OR: 7.00; 95% CI: 4.71, 10.43; P< 0.001) compared to respondents who were unvaccinated. There was no significant interaction between message type and vaccination status on change in mAb treatment intention (mAb only, OR: 0.69, P=0.17; mAb+vaccine, OR: 0.86, P=0.58).

Conclusions: We identified higher receptivity to mAb treatment for COVID-19 among people who were already vaccinated. As COVID-19 becomes endemic in the United States, innovative strategies may be necessary to ensure that individuals who remain unvaccinated and at highest risk for severe disease, access accurate and effective messages about mAbs and other COVID-19 therapeutics.

CORRESPONDING AUTHOR: Mika Hamer, PhD, MPH, University of Colorado, Aurora, CO; mika.hamer@cuanschutz.edu

Paper Session 33: Tobacco Use & Control Among Children and Adults

1:02 PM – 1:14 PM

Abstract citation ID: kaad011.0836

ELIMINATING CHILDREN'S TOBACCO SMOKE EXPOSURE INCREASES LIKELIHOOD OF MATERNAL SMOKERS' BIOVERIFIED ABSTINENCE.

Bradley N. Collins, PhD, FSBM[1], Stephen J. Lepore, PhD, FSBM[1], Brian L. Egleston, PhD[2]

[1]Temple University, College of Public Health, Philadelphia, PA; [2]Fox Chase Cancer Center, Philadelphia, PA

Background: Low-income maternal smokers experience greater tobacco-related morbidity and barriers to quitting than other smokers. Previously, the Babies Living Safe and Smokefree (BLiSS) trial demonstrated efficacy in facilitating low-income maternal smokers' long-term bioverified abstinence. Identifying social and behavioral mechanisms underlying successful cessation intervention outcomes in this population could inform future treatment improvements and reduce tobacco disparities. The purpose of the present study was to conduct a secondary data analysis examining four putative pathways measured at 3-month end of treatment (Time 2) that could account for the observed intervention effect on longitudinal abstinence (3-12 months).

Methods: The BLiSS trial tested the efficacy of a multilevel intervention initiated in community clinics delivering the federally-funded safety net program, the Special Supplemental Nutrition Program for Women, Infants and Children. Prior to enrollment in the trial, WIC nutrition professionals offered the pediatric best practice guidelines-informed tobacco intervention ("Ask, Advise, Refer [AAR]") during mothers' routine WIC clinic visits. Mothers were eligible if they smoked tobacco daily and were caregivers of a child under 5 years old who was exposed to tobacco smoke. After completing informed consent and baseline assessments, participants (N = 396) were randomized to either a multimodal behavioral intervention (AAR+MBI) or attention control (AAR+control). A priori Time 2 mediators included (1) elimination of children's tobacco smoke exposure (TSE), (2) abstinence self-efficacy, (3) perceived support, and (4) urge coping skills. Multivariable random effects logistic regressions estimated mediational effects on longitudinal bioverified abstinence through 12-month follow-up.

Results: Only children's TSE elimination was a significant mediator. AAR+MBI mothers were more likely to demonstrate children's TSE elimination at T2 (OR=2.11, CI 1.30, 3.42), and TSE elimination was significantly associated with longitudinal bioverified abstinence (OR=6.72, CI 2.28, 19.8). Modeling showed a significant total effect of AAR+MBI on abstinence (OR=6.21, 95% CI 1.86, 20.71), a direct effect of AAR+MBI on abstinence (OR=4.80, CI 1.45, 15.94) and an indirect effect through TSE elimination (OR=1.29, CI 1.06, 1.57).

Conclusions: Evidence-based cessation programs for maternal smokers that integrate counseling to promote elimination of children's TSE may enhance their likelihood of long-term abstinence.

CORRESPONDING AUTHOR: Bradley N. Collins, PhD, FSBM, Temple University, College of Public Health, Philadelphia, PA; collinsb@temple.edu

1:15 PM – 1:27 PM

Abstract citation ID: kaad011.0837

REDUCING CHILD TOBACCO SMOKE EXPOSURE BY INCREASING SMOKING URGE COPING SKILLS AND PROTECTIVE BEHAVIORS IN MOTHERS WHO SMOKE

Stephen J. Lepore, PhD, FSBM[1], Bradley N. Collins, PhD, FSBM[1], Brian L. Egleston, PhD[2]

[1]Temple University, College of Public Health, Philadelphia, PA; [2]Fox Chase Cancer Center, Philadelphia, PA

Background: Child tobacco smoke exposure (CTSE) is a public health concern, particularly in low-income and minority communities. Interventions to reduce CTSE have been modestly successful, so further research is needed to identify mechanisms to improve intervention efficacy. This study investigated mediators of an intervention designed to reduce maternal smoking and CTSE, as well as other non-program factors related to CTSE, to inform future intervention development. Methods: We conducted a secondary analysis of data from the Babies Living Safe and Smokefree (BLiSS) trial. BLiSS is an evidence-based multilevel, multimodal behavioral intervention targeting low-income and minority maternal smokers grounded in the Behavioral Ecological Model. Mothers (n = 396, 70.7% African American) were recruited from safety net community clinics that deliver the Special Supplemental Nutrition Program for Women, Infants and Children (WIC). WIC staff delivered a brief practice guideline-based tobacco intervention ("Ask, Advise, Refer" [AAR]) to all mothers during a clinic visit. Eligible and consenting mothers were randomized to a multimodal behavioral smoking intervention (AAR+MBI) or an attention control (AAR+control) group. We estimated direct and indirect natural effects to investigate two putative mediators of the intervention effect on longitudinal CTSE at the 3-month (T2) and 12-month (T3) follow-ups: mothers' smoking urge management coping (e.g., substituted smoking with something else, like food or sugarless candy when I felt an urge to smoke) and behaviors to protect children from TSE (e.g., asked others not to smoke around my child) measured at T2. Results: The total effect of the AAR+MBI intervention on normalized longitudinal CTSE was -.428 (p < .001). Of this, 12.2% (-0.0523/-.428 = 12.2%, p = .031) of the effect could be explained by increases in mothers' urge coping behaviors, and 22.4% (-.0958/-.428 = 22.4%, p = .011) of the effect could be explained by increases in mothers' CTSE protective behaviors. The remaining 65.4% (-.280/-.428 = 65.4%, p = .018) was due to the direct effect of the AAR+MBI intervention on CTSE. Thus, the intervention was associated with lower CTSE directly and indirectly by increasing mothers' urge management coping and CTSE protective behaviors at T2. Concerning non-program factors, a higher level of nicotine dependence in mothers and more smokers in the home at baseline predicted greater CTSE at follow-up (p's < .001). Conclusions: Interventions improving maternal smokers' urge coping skills and CTSE protective behaviors can mitigate CTSE over the long term. Educating mothers about specific behavioral strategies to reduce CTSE is more effective than urge coping skills training. In addition, it is important to target other risk factors, such as nicotine dependence levels and the presence of other smokers in the home, to reduce CTSE risk.

CORRESPONDING AUTHOR: Stephen J. Lepore, PhD, FSBM, Temple University, College of Public Health, Philadelphia, PA; slepore@temple.edu

1:27 PM – 1:39 PM

Abstract citation ID: kaad011.0838

USING A HEALTHCARE SYSTEMS-LEVEL INTERVENTION IN PEDIATRIC PRIMARY CARE TO PREVENT ADOLESCENT TOBACCO PRODUCT USE

Marcelo Sleiman, BS[1], Mary Rose Yockel, BA[1], Darren Mays, PhD[2], Kirsten Hawkins, MD, MPH[1], Joseph M. Macisco, PhD[2], Shoulong Xie, MS[1], George Luta, PhD[1], Tania Lobo, MS[3], Kenneth P. Tercyak, PhD[1]

[1]Georgetown University, Washington, DC; [2]Ohio State University, Columbus, OH; [3]Georgetown University, Washingtin, DC

Background: Multilevel interventions in healthcare settings (e.g., Ask, Advise, Connect; AAC) can reduce adult tobacco use, but their effectiveness in pediatrics is unknown. We implemented an AAC model in adolescent medicine to deter teens' use of tobacco products, and evaluated effectiveness over time.

Methods: At wellness visits, all teen patients (ages 12-17) completed a tablet-based tobacco use assessment (Ask), reporting their lifetime tobacco use (cigarettes, cigars, smokeless, e-cigarettes, or hookah). These data were available within the electronic health record to providers (MDs, RNs) during visits to guide anti-tobacco counseling and the provision of tobacco education resources based on patients' self-reported tobacco use behavior (Advise). Providers then referred patients to an online educational tobacco prevention platform (ASPIRE) for self-paced learning (Connect). An evaluation sample was drawn from clinical population, (N=388, 62% female, 61% white, M age = 15), and surveyed prior to and 1-month following AAC to assess social determinants of health, susceptibility to tobacco use (susceptible, non-susceptible), and tobacco use (users, non-users): website tracking provided an index of intervention engagement.

Results: The prevalence of any form of tobacco use was 14.7% at baseline. Over the study's lifetime, population use of tobacco products decreased by 6.16%, highlighting AAC's effectiveness. In the evaluation sample, non-susceptible tobacco non-users were 1.83x more likely to engage with ASPIRE than all susceptible individuals (odds ratio [OR] = 1.83, 95% confidence interval [CI] = 1.01, 3.12, p < .05). Teens who used 2+ tobacco products were also more likely to engage with ASPIRE than those who used 1 tobacco product (OR = 0.14, 95% CI= 0.03, 0.76, p< .05) or no tobacco products (OR = 0.28, 95% CI= 0.08, 0.99, p< .05). Compared to white teens, racial/ethnic minority teens were >2x as likely to access ASPIRE after multiple prompts (OR = 2.26, 95% CI= 1.19, 4.29, p< .05).

Conclusion: A pediatric AAC model holds promise in deterring the use of multiple tobacco products among young people, including underserved populations who may require additional motivators of behavior change.

CORRESPONDING AUTHOR: Marcelo Sleiman, BS, Georgetown University, Washington, DC; ms4975@georgetown.edu

1:39 PM – 1:50 PM

Abstract citation ID: kaad011.0839

WHAT ARE THE PERCEIVED BENEFITS AND COSTS OF VAPING TOBACCO AMONG SEXUAL AND GENDER MINORITY (SGM) ADOLESCENTS?

Kathryn Pluta, PhD[1], Ramzi G. Salloum, PhD[1], Ryan Theis, PhD, MPH[1], Jenine Pilla, MPH[2], Jennifer LeLaurin, MPH[1], Alexandra M. Fahnlander Laura M. [3]Gonzalez Paz[4], Elaine Hanby, MA[5], Andy S. Tan, PhD, MPH, MBA, MBBS[6]

[1]University of Florida, Gainesville, FL; [2]University of Pennsylvania, LANSDOWNE, PA; [3]College of Medicine, University of Florida, Gainesville, FL; [4]University of Florida, Lithonia, GA; [5]Annenberg School for Communication, Philadelphia, PA; [6]University of Pennsylvania, Philadelphia, PA

Sexual and gender minority (SGM) adolescents are twice as likely to smoke cigarettes than cisgender heterosexual teens, placing them at a higher risk for tobacco-related health problems (e.g., cancer, respiratory illnesses). E-cigarette use (i.e., vaping) is rising exponentially among teens, with a 78% increase from 2017 to 2018. The median age for youth trying smokeless tobacco is 13.4 years old, and research suggests that younger cohorts of SGM youth may be particularly vulnerable for initiating vaping. It is imperative to identify factors associated with vaping among youths to lay the groundwork for interventions that can prevent initiation and facilitate cessation among users. The purpose of this preliminary study is to identify perceived benefits and costs of vaping among SGM and non-SGM youth. The sample consisted of 252 youth (Age: *M*= 15.71, *SD*= 1.17, *range*= 13-18 years; SGM *n*= 180, non-SGM *n*= 72). Participants were recruited via Instagram to complete a survey, which included listing up to five perceived benefits and costs of vaping. The most common benefits of vaping reported across the sample were mental benefits (48.1%), such as improved mood, stress relief, and feeling good. Social benefits (e.g., fitting in, looks cool, social activity) were second most commonly reported (21.7%). SGM youth who had initiated (vs. had not initiated) vaping were the least likely to report perceived social benefits of vaping, $X^2(1) = 8.4$, $p = .004$. This pattern was most evident among 13 to 15-year-old SGM youth, such that those who had not initiated indicated more social benefits (38.4%) compared to those who had initiated (2.3%). Thus, SGM youth may initiate vaping for social reasons, but social reasons may matter less once initiated. Mental benefits of vaping were most frequently reported by 13 to 15-year-old non-SGM (73.2%) and SGM youth (65.9%) who had initiated vaping. SGM youth who had not initiated vaping listed mental benefits the least (21.6%). However, there were no significant differences in the number of mental benefits reported as a function of SGM status, vaping initiation status, or age. The most commonly reported perceived costs of vaping were health problems (37.6%), addiction (19.6%), and getting in trouble (7.4%). There were no significant differences in reporting costs of addiction or health problems as a function of SGM status, vaping initiation status, or age. Overall, these findings suggest that perceived social benefits of vaping may be particularly important for the initiation (but not maintenance) of vaping among SGM youth, whereas perceived mental benefits and costs (i.e., addiction, health problems) may have more uniform effects on youth in general. These results are important for advancing the development of interventions that can more effectively facilitate tobacco cessation among youth who vape, and prevent initiation of vaping among at risk youth.

CORRESPONDING AUTHOR: Kathryn Pluta, PhD, University of Florida, Gainesville, FL; k.bunda@ufl.edu

Paper Session 34: Sleep

1:02 PM – 1:14 PM

Abstract citation ID: kaad011.0840

ASSOCIATIONS OF SLEEP QUALITY, STRESS, DEPRESSION, SLEEPINESS, AND FATIGUE IN BLIND PEOPLE

Soyoung Choi, PhD, RN[1], JooYoung Seo, PhD[2], Tracie Harrison, PhD, RN, FAAN, FGSA[3]

[1]University of Illinois at Urbana-Champaign, Urbana, IL; [2]University of Illinois at Urbana-Champaign, Champaign, IL; [3]University of Arkansas for Medical Sciences, Little Rock, AZ

Introduction: Globally, about 40 million people with blindness, defined as those who cannot perceive light, are experiencing biological and social challenges resulting from the failure to synchronize to the light-dark cycle. They may report an average of two to three physical or psychological disorders with the severity of comorbidities reportedly correlated with vision loss, risking diminished quality of life. There is currently no known scientific evidence for the relationships between sleep quality, psychological status, and fatigue in the blind population. To prioritize the health problems for blind people[1], it is critical to identify the significance of any such correlations.

Purpose: The purpose of this study was twofold: (1) to examine the associations between sleep quality, perceived stress, depressive symptoms, sleepiness, and fatigue levels in blind people; and (2) to identify explanatory factors for the high levels of fatigue in blind people.

Methods: This study was built on the Biobehavioral Model of Altered Dysregulation in Circadian Systems that proposes reciprocal relationships between dysregulation of circadian systems and psychological functioning. The data for this study were collected online by using the Pittsburgh Sleep Quality Index (PSQI), the Perceived Stress Scale (PSS), the Centre for Epidemiological Studies-Depression Inventory (CESD), the Epworth Sleepiness Scale (ESS), and the Fatigue Syndrome Inventory (FSI). All measures demonstrated reliability in the population. The designed online survey was tested with screen reader software to ensure accessibility. The R software was used for t-tests, Pearson correlations, and a multiple regression.

Results: Respondents included 158 people, majority female (71.1%, *n*=111) with a mean of age 48.11 (*SD*=15.67, Range: 18-81). Most respondents reported congenital blindness (70.9%) with an average number of years of vision loss being 40.08 (*SD*=19.89). There was a strong positive correlation between fatigue and stress, r(156)=0.77, $p < .001$; fatigue and depression, r(156)=0.68, $p < .001$; fatigue and sleepiness, r(156)=0.58, $p < .001$. A forward stepwise linear regression model identified following possible predictors of fatigue candidate variables: depression, sleep quality, and sleepiness. At each step, variables were chosen based on *p*-values, and the AIC was used to set a limit on the total number of variables included in the final model (F=58.17, R^2=54.28%, p< .001).

Conclusions: The theoretically based study takes steps toward understanding reasons for fatigue among blind people. Our findings include three major correlates of fatigue that require further study. To reduce the fatigue of blind people, sleep hygiene and depressive symptoms should be assessed and managed.

[1]We have used the identity-first language when describing people with visual impairments guided by the National Federation of the Blind.

CORRESPONDING AUTHOR: Soyoung Choi, PhD, RN, University of Illinois at Urbana-Champaign, Urbana, IL; soyoung@illinois.edu

1:15 PM – 1:27 PM

Abstract citation ID: kaad011.0841

EXAMINING MODERATORS OF DIGITAL INTERVENTIONS FOR SLEEP IMPROVEMENT

Amber Carmen Arroyo, PhD[1], Matthew J. Zawadzki, PhD[2], Martin S. Hagger, PhD[2]

[1]University of California, Merced, Saratoga, CA; [2]University of California, Merced, Merced, CA

Background & Objective: A recent meta-analysis detected a moderate-to-large effect size of digital interventions on sleep outcomes. However, non-trivial unexplained variance in this effect indicated the likelihood of moderator variables. Prior work has identified the measurement of sleep (i.e., self-report or electronic) as a moderator of the effect of digital interventions on sleep outcomes. We aimed to extend this work by examining the dimension of sleep measured and sleep hygiene behaviors as moderator variables, as well as key study characteristics that have not been examined in digital interventions for sleep. The value of this research is the identification of the contextual, measurement, and design characteristics that determine the efficacy of digital interventions on sleep outcomes.

Method: We used the same sample (n = 40, k = 193) from a previous meta-analysis of sleep-promoting digital interventions that used an RCT design and an adult sample. We conducted a series of multi-level meta-regression analyses in which the following candidate moderator variables were regressed on the digital sleep intervention effect size: the dimension of sleep targeted (i.e., quality, duration, continuity, timing, sleepiness), sleep hygiene behaviors, intervention and sample characteristics.

Results: The dimension of sleep measured in a digital intervention significantly moderated the overall sleep digital intervention effect, with studies targeting sleep duration and sleep timing exhibiting significantly smaller average effect sizes than studies that did not target a discrete dimension of sleep. Mode of intervention delivery also significantly moderated the effect, with averaged effect sizes smaller when delivered through an app compared to a website. In addition, focus of intervention was a significant moderator, with interventions focused on improving both sleep and physical activity exhibiting significantly smaller effect sizes compared to interventions focused on sleep improvement alone. We found no effects of sleep hygiene behavior or other intervention and sample characteristics.

Conclusions: Our analysis identified sleep dimension, mode of delivery, and focus of intervention as moderators of the effect of digital interventions on sleep outcomes. Findings emphasize the importance of providing clear justification for the selection of sleep dimension measured to determine intervention efficacy. Moreover, in contrast to proposed 'gateway' effects of combining sleep promotion and physical activity in the same intervention, our results suggest focusing on one behavior at a time might be most efficacious. Findings can enable practitioners to identify which sleep-promoting digital interventions are most efficacious for their patients, and also highlights priority avenues for future research to examine additional moderators.

CORRESPONDING AUTHOR: Amber Carmen Arroyo, PhD, University of California, Merced, Saratoga, CA; aarroyo22@ucmerced.edu

1:27 PM – 1:39 PM

Abstract citation ID: kaad011.0842

SLEEP IMPROVES OVER 5 YEARS OF VERY LOW CARBOHYDRATE NUTRITION THERAPY FOR TYPE 2 DIABETES DELIVERED BY CONTINUOUS REMOTE CARE

Rebecca N. Adams, PhD[1], Shaminie J. Athinarayanan, PhD[2], Brittanie M. Volk, PhD, RD[2], Stephen D. Phinney, MD, PhD[2], Jeff S. Volek, PhD, RD[3], Amy L. McKenzie, PhD[2]

[1]Virta Health, LAFAYETTE, CA; [2]Virta Health, San Francisco, CA; [3]Ohio State University, San Francisco, CA

Background: Sleep disorders are more prevalent among people with type 2 diabetes (T2D), and sleep characteristics are correlated with metabolic markers such as HbA1c and weight. We previously reported 1-year improvements in sleep and metabolic health among people with T2D participating in a very low carbohydrate intervention including nutritional ketosis that was delivered via continuous remote care. Improvements in metabolic health were also observed out to 5 years. Given the relationships between sleep and metabolic health, in this analysis we explored whether sleep characteristics that improved at 1 year were also improved at 5 years.

Methods: Adults with T2D initially enrolled in a 2-year non-randomized, controlled trial were offered to continue for an additional 3 years of prospective follow-up. Of the 194 participants completing 2 years, 169 (87%) of participants consented to the extension and 122 (72.2%) were retained at 5 years. Baseline characteristics of those who extended include: 65% female, mean age= 54 years, mean time since diagnosis = 8 years, mean HbA1c = 7.5%, and mean BMI= 40. Sleep was assessed with the Pittsburgh Sleep Quality Index (PSQI) at baseline, 3 months, 1 year, 2 years, 3.5 years, and 5 years. Among all participants who consented to extend, we explored changes over time in Global Sleep, Sleep Quality, Sleep Disturbances, and Daytime Dysfunction using 4 linear mixed effects models (intent-to-treat analyses) controlling for demographic and medical characteristics. Among participants completing sleep questionnaires at baseline and 5 years (n=105), we also assessed the change in the percentage of "poor sleepers" (i.e., Global Sleep PSQI score >5) from baseline to 5 years using McNemar's test.

Results: All measures of sleep improved from baseline to all time points (ps < 0.01). From baseline to 5 years, sleep score improvements ranged from 19-25%. The percentage of people classified as "poor sleepers" decreased from 63% at baseline to 48% at 5 years (p = 0.01).

Conclusions: Participants in a virtual nutrition therapy intervention focused on nutritional ketosis reported long-term improvements in sleep out to 5 years concurrent with sustained metabolic health improvements. This provides additional evidence that the very low carbohydrate continuous remote care intervention benefits overall health. Additional research is needed to better understand what drove perceptions of sleep improvement.

CORRESPONDING AUTHOR: Rebecca N. Adams, PhD, Virta Health, LAFAYETTE, CA; beccanadams@gmail.com

1:39 PM – 1:50 PM

Abstract citation ID: kaad011.0843

THE MEAN LEVEL, BETWEEN-PERSON DIFFERENCES, AND WITHIN-PERSON VARIABILITY OF OLDER ADULTS' DAILY SLEEP QUALITY AND DURATION

Chih-Hsiang Yang, PhD[1], Sarah Burkart, PhD[1], Bridget Armstrong, PhD[2], Jongwon Lee, MPH[1], Wei-Lin Wang, PhD[3], Elizabeth L. Adams, PhD[1], Christine Pellegrini, PhD, FSBM[1]

[1]University of South Carolina, Columbia, SC; [2]University of South Carolina, Columbis, SC; [3]University of Southern California, South Pasadena, CA

Background: Sleep is critical in healthy aging and represents a protective factor for older adults' cognitive function and mental health. Sleep duration contributes to, but is not synonymous with, sleep quality. Both sleep outcomes not only differ between people but also vary within individuals from day to day. High variations in sleep time have been linked to higher risks of cognitive decline in older adults. The current study applied a novel statistical method to ecological momentary assessment (EMA) data to understand if the between-person and the within-person variations in sleep duration determine the mean levels and the day-to-day variability of sleep quality in older adults.

Methods: Generally healthy older adults from the community (n=84; Mean age= 68.4, 35.7% male) participated in a 14-day EMA study. Each day, they provided logs of their bedtime and wake-up time (for sleep time calculation) and also rated their sleep quality using a smartphone application. A mixed-effects location-scale model (via the open-source MixWILD program) examined whether older adults' mean levels, between-person differences, and within-person variation of daily sleep quality were associated with their between-person and within-person sleep duration.

Results: Participants provided 1,111 days of data across two weeks (13.22 days/person). Their mean sleep duration and mean sleep quality were 8.18 hrs and 68.97 (0-100 scale), respectively. For within-person sleep duration, our model revealed that on days when older adults had longer-than-usual sleep duration, they (1) experienced better sleep quality (Z=2.50, *p*< .05); (2) they were more heterogeneous to (different from) each other in sleep quality scores (Z=3.08, *p*< .01); and (3) their sleep quality were more stable or less variable (Z=-3.43, *p*< .001). For between-person sleep duration, older adults who generally had longer mean sleep duration also had more consistent ratings of sleep quality (Z= 2.36, *p*< .05). Our model controlled for sex, living status, day in study, and overall daily steps to adjust their impact on the sleep outcomes.

Conclusion: Our study results overall support the existing literature that daily sleep duration is positively associated with sleep quality in older adults. Our novel modeling approach provides additional and unique findings that the within-person changes in sleep duration may be more impactful for sustaining better sleep quality more consistency in older adults. More intensive longitudinal studies that capture diverse sleep metrics (e.g., sleep efficiency and fragmentation) can further inform lifestyle interventions targeting day-to-day sleep patterns to optimize sleep quality, mental health, and cognition in older adults.

CORRESPONDING AUTHOR: Chih-Hsiang Yang, PhD, University of South Carolina, Columbia, SC; CY11@mailbox.sc.edu

Paper Session 35: Military and Family Health

1:02 PM – 1:14 PM

Abstract citation ID: kaad011.0844

BASELINE ASSESSMENT OF THE SLEEP QUALITY OF U.S. AIR FORCE TRAINEES

Jordan M. Ellis, PhD[1], Rosemary E. Estevez Burns, PhD[2], Indika Mallawaarachchi, MS[3], Xin-Qun Wang, M.S.[3], Daniel G. Cassidy, PhD[2], John Jones, PhD[4], Andrea E. Krunnfusz, PhD[4], Chase A. Aycock, PsyD[5], G. Wayne W. Talcott, PhD[3]

[1]Wilford Hall Ambulatory Surgical Center, SAN ANTONIO, TX; [2]Wilford Hall Ambulatory Surgical Center, San Antonio, TX; [3]University of Virginia, Charlottesville, VA; [4]United States Air Force, San Antonio, TX; [5]Air Force, San Antonio, TX

Introduction: Military leadership and Congress have expressed increasing interest in efforts to promote the sleep health of U.S. service members due to a high prevalence of sleep disorders and chronic sleep insufficiency amongst service members. Designing and implementing effective population-level sleep interventions early in an Airman's career may help boost academic performance as they learn critical skills for their career field and support lasting sleep habits for a demanding career. The purpose of this study was to describe the sleep of Airmen in their first two week of technical training (i.e. period of training following basic military training in which Airmen learn the core skills of their career field) and to assess their interest in making behavioral changes to improve their sleep quality during their time in the technical training pipeline.

Methods: A survey was administered to 959 Airmen in the first two weeks of technical training prior to piloting a population-level single session sleep intervention. Airmen completed the Self-Assessment of Sleep Survey (SASS-Y) and rated their perceived importance of sleep and readiness to engage in behavior changes to improve their sleep. Gender and racial differences in sleep parameters were also examined.

Results: Airmen (Mean age = 20.80; 84.7% Male; 69.1% White) reported a median total sleep time of 7.1 hours nightly (Q1 = 6.2; Q3 = 7.8), median sleep onset latency (SOL) of 0.4 hours, sleep efficiency (SE) of 87.83%; 41.23% of Airmen rated the quality of their sleep as "poor" or "fair." Wilcoxon rank sum tests indicated non-White Airmen reported significantly higher SOL (*p* = .005) and lower SE (*p* = .001) compared to White Airmen. Out of 10, 75.8% of Airmen reported perceived importance of sleep as ≥ 8; 63.1% reported their readiness to make a change in sleep as ≥ 8; and 44.5% reported they are considering doing something to improve sleep as ≥ 8.

Discussion: The present study is the first of our knowledge to thoroughly examine sleep parameters and sleep quality in early-career Airmen. Results suggest approximately 25% of technical trainees are at risk for the sequela of chronic sleep loss and persistent poor sleep quality to include suboptimal academic and operational performance. Findings suggest most Airmen both find sleep highly important and are ready to make changes to support improved sleep health, highlighting the need for evidence-based resources specifically tailored for this unique population.

CORRESPONDING AUTHOR: Jordan M. Ellis, PhD, Wilford Hall Ambulatory Surgical Center, SAN ANTONIO, TX; jordanellisphd@gmail.com

1:15 PM – 1:27 PM

Abstract citation ID: kaad011.0845

MERITORIOUS AWARD WINNER

DEVELOPMENT OF TEXT MESSAGES FOR THE PREVENTION OF HAZARDOUS DRINKING IN A MILITARY POPULATION

Chase A. Aycock, PsyD[1], Kara P. Wiseman, MPH, PhD[2], Xin-Qun Wang, M.S.[2], G. Wayne W. Talcott, PhD[2], Daniel G. Cassidy, PhD[3], Jordan M. Ellis, PhD[4], Andrea E. Krunnfusz, PhD[5], Indika Mallawaarachchi, MS[2], Rosemary E. Estevez Burns, PhD[3], John Jones, PhD[5], Robert C. Klesges, PhD[6]

[1]Air Force, San Antonio, TX; [2]University of Virginia, Charlottesville, VA; [3]Wilford Hall Ambulatory Surgical Center, San Antonio, TX; [4]Wilford Hall Ambulatory Surgical Center, SAN ANTONIO, TX; [5]United States Air Force, San Antonio, TX; [6]University of Virginia Medical School, Germantown, TN

Alcohol misuse is a significant threat to the readiness and health of military service members. Military personnel consume more alcohol than do demographically similar civilians (33.1% versus 27.1% respectively). Our previously developed group-based brief alcohol intervention (BAI), universally delivered during entry-level Air Force training, led to a significant reduction in punishable drinking-related offenses over the intervention year compared to the previous year (odds ratio=0.56; 95% CI, 0.38–0.81, *p*=0.002). We aim to enhance BAI effectiveness implementing a text message intervention preceding trainees' initial off-base privileges following a three-month period with no access to alcohol. A formative study was used to develop a pool of potential text messages deemed relevant and acceptable by the target population. Participants (N=149, m_{age}=21.5 years, 77.4% male) rated the persuasiveness of 49 text messages on a 5-point Likert-type by indicating their perceived level of discouragement from drinking from 'strongly agree' to 'strongly disagree.' Participants also offered suggested text messages and provided preferences for the frequency and timing of message delivery. Summary statistics were used to rank order messages by level of persuasiveness and compared by race and gender using Wilcoxon tests. Top-rated messages with no statistically significant race or gender differences were coded independently to consensus using the Behavior Change Taxonomy. Most of the messages (65.22%) provided information about the consequences of excessive alcohol consumption, followed by messages that facilitated action planning (8.70%) or boosted motivation and self-efficacy (8.70%). Participants preferred to receive 3-5 messages weekly and suggested Friday, Saturday, and Sunday evenings as the best days/times to receive messages. This study identified messages that are sensitive and unique to the culture of a young adult military population and are anticipated to be influential in promoting healthier alcohol use behavior. Insight into the preferred frequency, timing, and dose of the text messaging prior to implementation of the intervention will likely improve the acceptability and impact of the messaging. Future planned research in this population includes a second formative study to assess persuasiveness of trainee suggested messages, and to use expert coding to refine text-message content using existing literature on mechanisms of change.

CORRESPONDING AUTHOR: Chase A. Aycock, PsyD, Air Force, San Antonio, TX; chase.aycock@gmail.com

1:27 PM – 1:39 PM

Abstract citation ID: kaad011.0846

EXAMINING BEHAVIORAL ACTIVITY PATTERNS AMONG VETERANS WITH CHRONIC PAIN: IMPLICATIONS FOR TAILORING TREATMENT

Brett Ankawi, PhD[1], Elizabeth Galliford, MPH[2], Sara Szollosy, MPH[2], Alicia Heapy, PhD[3]

[1]VA Connecticut, New Haven, CT; [2]VA Connecticut, West Haven, CT; [3]Yale School of Medicine, West Haven, CT

Cognitive-behavioral therapy for chronic pain (CBT-CP) is effective at improving pain intensity and pain-related functioning; however, effect sizes are modest. Previous attempts to improve treatment effects by tailoring CBT-CP to individual patients have achieved mixed results. These tailoring strategies have included shuffling the introduction of CBT-CP skills that were taught to patients or allowing patients to select skills based on their preference rather than altering the content of the skills. One basis for altering skills is to expand beyond the assumptions that patients are avoiding or afraid of pain, as skills developed with this assumption may not benefit patients who have a tendency to push through pain. This may be especially relevant for veterans, who are often encouraged to persist through pain during military training and service. The present study sought to characterize veterans (N = 87) with chronic pain in regards to attitudes and tendencies in activity patterns, as well as assess differences in psychosocial factors between participants who excessively persist in activities despite pain ("persisters") and those who avoid activities due to pain ("avoiders"). This exploratory analysis will inform the development of a psychosocial intervention for chronic pain that is tailored to baseline activity patterns. Based on responses to the Patterns of Activity Measure – Pain, a validated self-report measure that assesses the tendency to engage in avoidant and persistent behavioral patterns, 56.3% of the sample was avoiders, with 43.7% being persisters. Avoiders reported higher pain catastrophizing, t(80) = 2.57, p = 0.01, and kinesiophobia, t(81) = 2.41, p = 0.02, than persisters as measured by the Pain Catastrophizing Scale and Tampa Scale of Kinesiophobia, respectively, while persisters reported higher pain resilience, t(77) = 2.38, p = 0.02, and pain self-efficacy, t(79) = 3.15, p < 0.01 than avoiders, as measured by the Pain Resilience Scale and Pain Self-Efficacy Questionnaire, respectively. No differences were found between groups in pain intensity, anxiety, depression, pain-related interference, or pain duration. Given that 44% of participants self-characterized as persisters, interventions may be improved by including the perspective of both persisters and avoiders rather than assuming avoidant behavior patterns. Although this is a small sample, the differences in self-reported behavior patterns and beliefs suggest that differentially adapting cognitive and behavioral treatment components may help move each group toward moderate but consistent activity patterns. Future studies should utilize qualitative interviews to investigate the thoughts and beliefs that underlie the activity patterns of persisters and avoiders to optimize tailored treatment content for each group.

CORRESPONDING AUTHOR: Brett Ankawi, PhD, VA Connecticut, New Haven, CT; ankawib@gmail.com

1:39 PM – 1:50 PM

Abstract citation ID: kaad011.0847

RELATIONAL DEMAND IN THE CHRONIC PAIN EXPERIENCE OF WOMEN VETERANS: A MIXED METHODS ANALYSIS

Mary A. Driscoll, PhD[1], Eugenia Buta, PhD[2], Kimberly Selander, MA[3], Robert Kerns, PhD, FSBM[4], Sally Haskell, MD[5], Alicia Heapy, PhD[6]

[1]VA Connecticut Healthcare System, Newtown, CT; [2]Yale School of Public Health, New Haven, CT, New Haven, CT; [3]VA Connecticut Healthcare System, West Haven, CT; [4]Yale School of Medicine, New Haven, CT; [5]VA Connecticut Healthcare System; Yale School of Medicine, West Haven, CT; [6]Yale School of Medicine, West Haven, CT

Background: The biopsychosocial model implicates social factors as critical determinants of the chronic pain experience. Despite this, psychological interventions for pain largely ignore them as meaningful targets. Recent research suggests that relational demand, the tendency to prioritize the needs of others over self, is a barrier to pain self-management, particularly among women. The current study sought to a) quantify the momentary association between relational demand and pain relevant outcomes and b) qualitatively elucidate the implications of relational factors in the experience of women Veterans with back pain.

Method: A mixed method design leveraging thrice daily momentary assessments over a two-week period was used to quantify the association between relational demand measured by the validated CARE Scale and pain relevant outcomes (e.g., pain intensity and interference via the Brief Pain Inventory, and positive and negative affect via the Positive and Negative Affect Schedule) among 22 women Veterans with chronic back pain. Specifically, the correlation between pain and relational demand was estimated using a multilevel model for bivariate longitudinal data and repeated for the other variables. Interviews probed perceptions of relational factors in the chronic pain experience.

Results: Relational demand was significantly and moderately correlated with pain intensity ($r = 0.41$), and interference ($r = 0.45$), as well as positive ($r = -0.41$) and negative affect ($r = 0.48$). Interviews supported the emergence of several key emotional/relational themes that were consistent with quantitative findings. *Guilt/shame about the impact of pain on loved ones* was common. Guilt and shame reflected *failure to fulfill internally or externally imposed tangible expectations* and *fears of burdening loved ones emotionally or of taking pain out on them. Pressure to meet the tangible demands of caretaking at the expense of pain self-management* emerged and the need to *compensate for caretaking shortcomings* also emerged.

Conclusions: The importance of identifying and addressing potentially modifiable and previously unaddressed psychosocial factors that maintain and exacerbate pain among women is critical. Findings provide compelling support for the role of relational demand as a pain exacerbator and precipitator of distress in women Veterans. Incorporating strategies to target relational demand into existing behavioral pain interventions may enhance self-management efforts.

CORRESPONDING AUTHOR: Mary A. Driscoll, PhD, VA Connecticut Healthcare System, Newtown, CT; mary.driscoll3@va.gov

Paper Session 36: Education, Training, and Career Development

1:02 PM – 1:14 PM

Abstract citation ID: kaad011.0848

“WE CAN DO THIS”: BENEFITS OF A COLLABORATIVE FOR CAMPUS PEER SUPPORT

Alissa Rams, BA[1], Samantha L. Luu, MPH[1], Patrick Y. Tang, MPH[1], Hannah Barker, MPH[2], Caroline Carpenter, BA[1], Edwin B. Fisher, PhD, FSBM[1]

[1]University of North Carolina at Chapel Hill, Chapel Hill, NC; [2]Johns Hopkins University, San Diego, CA

Central to a broad, community organization approach to peer support at the University of North Carolina at Chapel Hill is a collaborative network of campus groups (departments, schools, student groups, clubs, etc.) representing faculty, staff, and students. Named the Carolina Peer Support Collaborative by its members, it has grown to include 94 members representing 50 groups across campus since its inception in 2020. It has met biweekly over 27 months (as of September 2022) to address developing programs, shared strategies, training opportunities, and emergent concerns on campus and nationally.

Evaluation of the Collaborative included surveys conducted 1 and 2 years after its initiation. Offered to all Collaborative groups, these were completed by representatives of 28 groups in 2021 and 32 in 2022. Reflecting key dimensions of the value provided by the Collaborative, items rated highest included those indicating instrumental support: “Sharing information and tools” (79% responses ≥4 on 5-point scale in 2021, 75% in 2022), “Sharing models, e.g., broad approaches and organizational plans and strategies” (66%, 63%), and “Sharing ideas about approaching major issues (e.g., racism, reaching staff)” (69%, 75%). Complementary to these, emotional support was reflected in “Encouragement and fostering the sense that ‘we can do this” (69%, 75%).

Thematic analysis of open-ended survey responses identified two broad themes: Collaborative Impacts and Collaborative Process. Impacts included both instrumental and emotional support, as participants mentioned opportunities for capacity building and feelings of connection. Participants discussed opportunities to connect with others around new knowledge of resources, assistance for developing programs, and specific support for the BIPOC community. Also reflecting emotional support, Process codes included strengths in the way the Collaborative was conducted (i.e., tone, culture) creating a highly appreciated opportunity to talk freely with colleagues. Participants also described feeling closer to their colleagues and a sense of comfort from participation.

Evaluation indicates that the Collaborative served the overall community through two broad dimensions: instrumental and collaborative emotional support. It helped individuals and groups on campus to gain information for enhancing their activities while also sharing freely, thereby supporting each other. Together, these led to the sense that “we can do this.”

CORRESPONDING AUTHOR: Edwin B. Fisher, PhD, FSBM, University of North Carolina at Chapel Hill, Chapel Hill, NC; edfisher@unc.edu

1:15 PM – 1:27 PM

Abstract citation ID: kaad011.0849

TRAINING IN ETHICAL, LEGAL AND SOCIAL IMPLICATIONS (ELSIS) OF DIGITAL HEALTH: A NEEDS ASSESSMENT AMONG RESEARCHERS AT ALL LEVELS

Stephanie P. Goldstein, PhD[1], Camille Nebeker, EdD, MS[2], Megan Oser, PhD[3], Rebecca J. Bartlett Ellis, PhD, RN, ACNS-BC, FAAN[4]

[1]The Miriam Hospital/Alpert Medical School of Brown University, Cranston, RI; [2]UC San Diego, La Jolla, CA; [3]UCLA, Los Angeles, CA; [4]Indiana University, Indianapolis, IN

Background: Ethical, legal, and social implications (ELSIs) should be considered when researchers and practitioners use digital technologies to collect, process and store personal health data. Emerging evidence highlights the need for digital health ELSI training, yet little is known about the educational topics digital health researchers and/or practitioners would benefit from learning. To identify ELSI educational needs, the former Digital Health Council's Ethics subcommittee carried out a needs assessment among members of the Society of Behavioral Medicine (SBM) during fall 2021.The assessment goals were to: 1) identify areas of ELSI proficiency and need; and, 2) examine interest and expertise in ELSI topics by a- career level; and b- endorsed training history.

Methods: A 14-item Qualtrics survey was disseminated to SBM members from 11/15/2021 to 12/31/2021. The survey was informed by the ReCODE Health Digital Health Checklist tool and included items that mapped to the four domains of data management, access and usability, privacy and risk/benefit assessment. Participants were asked to rate perceived expertise on the four domains, and indicate training history (formal vs. informal). One-way ANOVAs were used to examine differences in interest and expertise by career level and training history.

Results: Participants (N=66) were 74.2% faculty, 12.1% graduate students, 9.1% postdoctoral fellows, and 4.6% staff. Primary disciplines were behavioral medicine/health, with a minority endorsing epidemiology, public health, and informatics. Only 26.5% endorsed having received 'formal' training in ELSI. ELSI topics of interest included practices that support short and long-term participant engagement (81.8%), and dissemination (80.3%) and implementation (77.3%) of digital methods outside of academia. The sample was least experienced in managing 'bystander' data (0.0%), having discussions about ELSIs (1.5%), and reviewing terms of service/privacy when using commercial products (1.5%). There was significantly more interest in reviewing terms of service/privacy policies (F=3.28, p=.03) among postdocs and staff, compared to faculty and students. There was significantly more expertise endorsed by faculty in remote consenting (F=3.19, p=.03) and evaluating risks of harm (F=3.90, p=.01). Those endorsing "formal" ELSI training reported significantly more expertise in engagement (F=5.17, p=.03), implementation (F=3.77, p=.05), and dissemination (F=4.06, p=.05).

Discussion: Results indicated that there is opportunity for formalized ELSI training across the educational spectrum. While results are limited to a sample of SBM members, behavioral researchers, and graduate levels or higher, the findings highlight the importance of continuing to evaluate ELSI training needs to support scientists in conducting ethical digital health research with real-world impact.

CORRESPONDING AUTHOR: Stephanie P. Goldstein, PhD, The Miriam Hospital/Alpert Medical School of Brown University, Cranston, RI; stephanie_goldstein@brown.edu

---

1:27 PM – 1:39 PM

Abstract citation ID: kaad011.0850

TRANSLATING RESEARCH TO ENCOURAGE MORE WOMEN AND MEMBERS OF UNDERREPRESENTED MINORITIES TO APPLY TO COMPETITIVE NIH GRANTS

Miriam H. Eisenberg Colman, PhD[1], Veronica Junghahn, MPH[1], Elizabeth Simoneau[1], Ryan Calabrese, MPH[2], Barbara McMakin, MS[2], Natalie adler[1]

[1]Fors Marsh Group, Arlington, VA; [2]National Institute of Neurological Disorders and Stroke, Bethesda, MD

The National Institutes of Health is committed to encouraging more women and members of underrepresented minorities (URM) to apply for their Outstanding Investigator Award. The National Institute of Neurological Disorders and Stroke (NINDS) R35 is a prestigious grant that provides up to 8 years of funding, giving researchers the flexibility to pursue longitudinal studies and pivot their work as the needed; eligible applicants must have continuous NINDS R01 funding for at least 5 years. The purpose of this study, grounded in the Transtheoretical Model (TTM), was to understand the behavioral motivators for applying for an R35 and translate findings into an intervention to increase the percentage of women and URM applicants to the R35.

On Behalf of the NINDS, Fors Marsh Group (FMG) conducted a literature review, content analysis, and 9 In Depth Interviews (IDIs) with qualified potential R35 applicants (3 White women, 3 URM women, 3 URM men; all mid-career). During these interviews, participants discussed how they learn about and what they look for in funding opportunities and evaluated example social media posts.

Findings showed that words like "innovative, meaningful, and impactful" resonated with our audience, but to describe their research rather than themselves. Participants were motivated by the opportunity the R35 would afford to make meaningful contributions to neuroscience and appreciated that the eight years of funding would free up time, otherwise spent grant writing, for other professional priorities. For URM women, mentoring future URM scientists was a top priority. All participants said it was encouraging and motivating to see URM women reflected in some of the images and that they appreciated NINDS' efforts to diversify its applicant pool. Participants said they typically learn about funding opportunities via email but would apply if they saw information about funding via social media.

Results directly influenced edits and additions to the tested creative materials and intervention plan; both targeted applicants for the upcoming funding cycle and R01 holders who may not be eligible yet. In accordance with TTM, the plan and the timing of materials aimed to improve attitudes toward applying to the R35, increase readiness, and increase the number of applications from women and diverse career stages and scientific perspectives. The research-driven plan had a large impact on attitude and behavior change. Mentions of the R35 online increased 84% from the 2019 FOA to the 2021 FOA. The percent of women applicants also increased 43% from FOA 2020 to FOA 2021.

CORRESPONDING AUTHOR: Miriam H. Eisenberg Colman, PhD, Fors Marsh Group, Arlington, VA; miriam.h.eisenb@gmail.com

1:39 PM – 1:50 PM

Abstract citation ID: kaad011.0851

VIDEO-BASED COMMUNICATION ASSESSMENT FOR WEIGHT MANAGEMENT COUNSELING TRAINING: A MIXED METHODS STUDY

Jamie M. Faro, PhD[1], Angelo E. D'Addario, MA[2], Ann M. King, MA[3], Kathleen M. Mazor, EdD[1], Lori Pbert, PhD, FSBM[1], Rajani S. Sadasivam, PhD, FSBM[1], Alan C. Geller, MPH, RN[4], Elizabeth A. Murphy, MD[1], Judith K. Ockene, PhD, MEd, MA[1]

[1]University of Massachusetts Chan Medical School, Worcester, MA; [2]NBME, Philadelphia, PA; [3]National Board of Medical Examiners, Philadelphia, PA; [4]Harvard School of Public Health, Cambridge, MA

Background: Physician-delivered weight management counseling (WMC) occurs infrequently and physicians report lack of training and poor self-efficacy. The Video-based Communication Assessment (VCA) provides experiential learning through brief vignettes depicting various patient scenarios and capturing learners' spoken communication in response to these vignettes. We describe the design, testing, and acceptability of using the VCA to provide medical residents opportunities to practice and receive feedback on their WMC skills.

Methods: This study was a mixed methods pilot conducted in 3 phases. First, we created five vignettes based on our prior data and expert feedback, then administered the vignettes via the VCA to Internal Medicine residents (n=16) from a University Medical School. Analog patients rated responses and also provided comments. We created individualized feedback reports which residents were able to view on the VCA. Lastly, we conducted debriefing interviews with the residents (n=11) to obtain their feedback on the vignettes and personalized feedback. Interviews were transcribed, and we used thematic analysis to generate and apply codes, followed by identifying themes.

Results: Descriptive statistics were calculated and learning points created for the individualized feedback reports. In VCA debriefing interviews with residents, five themes emerged: 1) Overall the VCA was easy to use, helpful and more engaging than traditional learning and assessment modes, 2) Patient scenarios were similar to those encountered in the clinic, including diversity, health literacy and different stages of change, 3) The knowledge, skills, and reminders from the VCA can be transferred to practice, 4) Feedback reports were helpful, to the point and informative, including the exemplar response of how to best respond to the scenario, and 5) The VCA provide alternatives and practice scenarios to real-life patient situations when they aren't always accessible

Conclusions: We demonstrated the feasibility and acceptability of the VCA, a technology delivered platform, for training WMC in residents. The VCA exposed residents to diverse patient experiences and provided potential opportunities to tailor providers responses to sociological and cultural factors in WMC scenarios. Future work will examine the effect of the VCA on WMC in actual clinical practice.

CORRESPONDING AUTHOR: Jamie M. Faro, PhD, University of Massachusetts Chan Medical School, Worcester, MA; jamie.faro@umassmed.edu

Paper Session 37: Parent Behaviors and Child Outcomes

1:02 PM – 1:14 PM

Abstract citation ID: kaad011.0852

BARRIERS TO OPTIMAL CHILD SLEEP AMONG FAMILIES WITH LOW-INCOME – A MIXED-METHODS STUDY TO INFORM INTERVENTION DEVELOPMENT

Elizabeth L. Adams, PhD[1], Amanda Edgar, MPH[1], Peyton Mosher, BS[1], Bridget Armstrong, PhD[2], Sarah Burkart, PhD[1], R Glenn Weaver, PhD[1], Michael Beets, PhD, MEd, MPH[2], Ron Prinz, PhD[1]

[1]University of South Carolina, Columbia, SC; [2]University of South Carolina, Columbis, SC

Background: Half of low-income children do not get adequate sleep, leading to physical and social-emotional health risk. While parenting interventions can improve child sleep, existing studies rarely include low-income families with preschool-aged children, and most focus on exclusive treatment of sleep disorders. This mixed-methods study gathered formative data on factors that influence sub-optimal child sleep to inform the development of a prevention-focused parenting sleep intervention with this population.

Methods: Parents (n=15; age: 34±8 years; household income: $30,000±17,845/year) who expressed difficulties with their preschool-aged child's sleep completed an online survey and semi-structured phone interview. Survey and interview items assessed barriers/facilitators to optimal child sleep and preferences for future intervention delivery. Interview transcripts were independently coded using inductive analysis. Using a constant-comparison method, themes were generated and mapped onto the Theoretical Domains Framework to contextualize barriers and inform strategies for intervention development.

Results: Parents reported children delayed bedtime for 48.7±44.3 min/night, took 62.3±52.7 min to fall asleep, and woke 2.0±1.1 times/night. Common theoretical domains that emerged as barriers to child sleep included: *environmental context and resources* (e.g., child bed/room sharing; television noise), *behavioral regulation* (e.g., child bedtime resistance and hyperactivity), *social influences* (e.g., competing demands from evening extracurricular activities or work) and *emotion* (parent stress; frustration; fatigue). Sub-optimal child sleep impacted other family member's sleep and emotional well-being. Facilitators to improve child sleep included setting routines, establishing rules/limits, and soothing bedtime activities. Virtual delivery was the preferred intervention modality for 60% of parents who indicated this would reduce barriers and provide flexibility. Parents had mixed preferences for group (47%) vs. individual (53%) sessions. Parents reported feeling motivated to try new intervention strategies, given current frustrations, the potential for tangible results, and knowing others were in a similar situation.

Discussion: Parents experience a variety of barriers to optimal child sleep. Future work will map these barriers on to evidence-based behavior change strategies using the Behavior Change Wheel framework to develop a parenting sleep intervention.

CORRESPONDING AUTHOR: Elizabeth L. Adams, PhD, University of South Carolina, Columbia, SC; elizabeth.adams@vcuhealth.org

1:15 PM – 1:27 PM

Abstract citation ID: kaad011.0853

DINNER PLANNING AND PREPARATION CONSIDERATIONS OF PARENTS WITH CHILDREN ATTENDING CHILDCARE

Alicia A. Dahl, PhD, MS[1], Melanie Mayfield[2], Alejandra Fernandez-Borunda, MPH[3], Shanika J. Butts, MBA, MPH[4], Lilian O. Ademu[5], Elizabeth Racine, DrPH, RD[6]

[1]UNC Charlotte, Matthews, NC; [2]UNC Charlotte, Charlotte, NC; [3]University of North Carolina at Charlotte, Greensboro, NC; [4]University of North Carolina, Charlotte, NC; [5]University of North Carolina at Charlotte, Charlotte, NC; [6]Texas A&M AgriLife Research Center at El Paso, El Paso, TX

Background: During the early stages of childhood, healthy dietary patterns for children are determined by their primary caregivers. However, the demands of working and parenting young children can create challenges in finding time to plan and prepare nutritious family meals. Thus, the objective of this study was to explore the meal-related thought processes, planning, and purchasing behaviors of primary caregivers on weeknights. Methods: This mixed-methods study design used a cross-sectional survey measuring Parental Stress Scale and Child Feeding Practices Questionnaire coupled with qualitative interviews about dinner meal experiences. Descriptive statistics of sample characteristics were conducted using SPSS and an a-priori thematic analysis of interview recordings was completed using NVivo Qualitative software. Each transcript was blindly reviewed and coded by researchers with any discrepancies reviewed and discussed. Inter-rater reliability in the code application was greater than 90%. Results: Primary caregivers (N=33) from three early childhood education centers were enrolled in the study. Parental stress was low (34 out of 90, SD=6.5). The following key themes were identified from the interviews: satisfaction with dinner, feeding behaviors before the COVID-19 pandemic, regretful feeding experiences, meal planning, food purchasing, social support, and general feelings about dinner preparation and cooking. Important considerations for food purchasing included family satisfaction (56%), healthfulness (34%), price (28%), and convenience (12%). The most commonly reported support strategy around dinner was meal planning (70%), food shopping (38%), and time management (25%). Caregiver satisfaction around dinner choices varied, with dissatisfaction often related to fast food consumption (25%), family members disliking meals (20%), caregivers feeling stressed (20%), and hectic workdays (15%). Caregiver confidence was high with regard to purchasing healthy foods (31.3% completely confident vs. 65.6% somewhat confident) but lower for the skill of preparing healthy foods in an appetizing way (12.5% completely confident vs. 87.5% somewhat confident). A quarter of the sample described cooking as stressful and time-consuming (25%). Discussion: This study provided a narrative of how parents of young children in childcare experience, structure, and think about dinner acquisition and preparation. The results of this study highlight potential mealtime barriers and sources of support that could serve as avenues for future interventions aimed at providing nutritious and affordable meals for families. There is a need for additional research and interventions focused on meal planning and preparation, specifically for working parents, that further examine tasks required for providing meals, cognitive effort for meal preparation, and helpful means of support.

CORRESPONDING AUTHOR: Alicia A. Dahl, PhD, MS, UNC Charlotte, Matthews, NC; adahl3@uncc.edu

---

1:27 PM – 1:39 PM

Abstract citation ID: kaad011.0854

THE EFFECTS OF A MUSIC ENRICHMENT PROGRAM ON PARENT-INFANT INTERACTIONS AND CHILD WEIGHT GAIN: A RANDOMIZED CONTROLLED TRIAL.

Kai Ling Kong, PhD[1], Amy Smith, PhD[2]

[1]Children's Mercy Hospital Kansas City, Shawnee, KS; [2]Children's Mercy Hospital Kansas City, Kansas City, MO

Background: General parenting interventions have improved parent-child interactions and child behavior, with emerging evidence that they may also reduce prevalence of pediatric overweight/obesity. Music enrichment programs may serve as an early intervention strategy that enhance the quality of parent-child interactions for later optimal health outcomes.

Objective: The purpose of the current study was to examine the effects of the music enrichment program, Music Together ®, on the quality of parent-infant interactions during feeding and child excessive weight gain. We hypothesized that: 1) parents participating in the intervention would demonstrate greater warmth, lower negative affect, and intrusiveness compared to the control participants, and 2) greater parental warmth, lower negative affect, and intrusiveness would be related to lower weight gain among those in the intervention group compared to the control group.

Methods: Typically developing infants aged 9-to 15-months were randomized into the Music Together® program (music, n = 45) or a play date control group (control, n = 45). Participants attended once per week group meetings for 12 months for the intensive phase and once per month group meetings for an additional 12 months as maintenance. Assessments on parent-infant interactions and child anthropometry were conducted at baseline, month 6, 12, and 24. We used a modified intent-to-treat mixed model regression to test group differences in parent-child interactions and zWFL growth trajectories.

Results: There were significant differential group changes across time for negative affect during feeding (group*month; $p = 0.021$) in that those parents in the music group significantly decreased their negative affect score compared with the control group from baseline to month 12 (music change= -0.279 ± 0.129; control change= +0.254 ± 0.131.; $p = 0.003$). Additionally, we also observed significant differential group changes across time for parent intrusiveness during feeding (group*month; $p = 0.042$) in that those parents in the music group significantly decreased their intrusiveness score compared with the control group from month 6 to month 12 (music change = -0.209 ± 0.121; control change = 0.326 ± 0.141; $p = 0.005$). We did not find significant association between any of the changes in parental negative affect and intrusiveness with child zWFL trajectories.

Conclusion: Our study demonstrated the use of a music program as a means to improve parental negative affect and intrusiveness during parent-child interaction in early childhood. Active engagement in music activities from an early age is valuable because it promotes social interactions and supports emotional and physical health.

CORRESPONDING AUTHOR: Kai Ling Kong, PhD, Children's Mercy Hospital Kansas City, Shawnee, KS; kkong@cmh.edu

1:39 PM – 1:50 PM

Abstract citation ID: kaad011.0855

THE EXPLORATION OF TWO SELF-EFFICACY ORAL HEALTH MEASURES ON ORAL HEALTH BEHAVIORS AMONG UNDERSERVED PARENTS OF YOUNG CHILDREN

Derek J. Hevel, PhD[1], Alexis Jankowski, MA[1], Romano Endrighi, PhD, MSc[1], Michelle M. Henshaw, DDS, MPH[1], William G. Adams, MD[1], Timothy Heeren, PhD[1], Belinda Borrelli, PhD, FSBM[1]

[1]Boston University, Boston, MA

Background: Parental oral health self-efficacy (OHSE) for promoting their child's oral health behaviors is linked to better child oral health. It is unclear how two common OHSE measures compare psychometrically and how each predicts child oral health behaviors. This study reports psychometric properties of each and investigates their predictive use regarding child tooth brushing, diet, and sugar sweetened beverage (SSB) intake. Methods: Parent-child dyads (n=754, $M_{child\ age}$=2.4, 56.2% Black or African American, 59.5% < poverty level) were enrolled in a 2-arm randomized controlled trial. One measure assessed general OHSE (Finlayson et al., 2007) and the other assessed domain-specific OHSE (Albino et al., 2017) with 9-items each. Parents reported child tooth brushing (times/day and number of days/week), diet (frequency of cariogenic foods/day), and SSB intake (frequency and quantity/day). Measures were captured at baseline and 4, 12, and 24 months. Analyses included Cronbach's alpha and correlations to assess psychometrics. Parental OHSE measures were regressed on child tooth brushing, diet, and SSB intake in separate Time-Varying Effect Models to examine age-varying effects while controlling for treatment condition to flexibly assess predictive utility. Results: Across all time points, OHSE measures were internally consistent (α_{range}=.90-.98) and weakly correlated (r_{range}=.26-.32, p < .01). Higher levels of domain-specific OHSE predicted greater tooth brushing from age 3.5 (β=0.38, 95%CI[0.02, 0.75]) to 9.7 years (β=0.53, 95%CI[0.02, 1.04]) with the strongest relation at age 6.5. There was no significant relation between general OHSE and tooth brushing. Greater general OHSE predicted better diet from age 5.9 (β=-0.03, 95%CI[-0.06, -0.001]) to 8.8 years (β=-0.04, 95%CI[-0.09, -0.0001]) with the strongest relation at age 7.6. There was no significant relation between domain-specific OHSE and diet. Greater general OHSE predicted lower SSB intake from age 1.3 (β=-0.14, 95%CI[-0.20, -0.08]) to 5.0 years (β=-0.03, 95%CI[-0.05, -0.0001]) and from age 6.9 (β=-0.02, 95%CI[-0.04, -0.0001]) to 10.1 (β=-0.04, 95%CI[-0.08, -0.0002]) with the strongest relation at age 1.3. Greater domain-specific OHSE predicted lower SSB intake from age 1.3 (β=-0.08, 95%CI[-0.12, -0.03]) to 11.8 (β=-0.04, 95%CI[-0.08, -0.0002]) with the strongest relation at age 1.3. Conclusions: Both OHSE measures are minimally correlated and differentially predicted oral health behaviors during childhood.

CORRESPONDING AUTHOR: Derek J. Hevel, PhD, Boston University, Boston, MA; djhevel@bu.edu

Friday
April 28th, 2023
2:00 PM – 2:50 PM
Panel Discussions

Abstract citation ID: kaad011.0856

PANEL 12: ADVANCING HEALTH EQUITY BY DESIGN: INNOVATIVE APPROACHES FOR ENGAGING UNDERREPRESENTED POPULATIONS IN HEALTH RESEARCH

Amelia S. Knopf, PhD, MPH, RN, FAAN[1], Kathryn Macapagal, PhD[2], Laura Bothwell, PhD, MA[3], Susan Schaeffer, BFA[4], Jonathan Jackson, PhD[5]

[1]Indiana University, Indianapolis, IN; [2]Northwestern University, Chicago, IL; [3]Yale School of Public Health, Madison, CT; [4]The Patients' Academy for Research Advocacy, San Francisco, CA; [5]Massachusetts General Hospital, Boston, MA

Despite three decades of federal investment in diversifying clinical trial enrollment, individuals with intersecting marginalized identities remain underrepresented or inadequately accounted for in health research. The underrepresentation of marginalized individuals—including those who identify as Black or African American, Latinx, American Indian, Alaska Native, Asian American and Pacific Islanders, LGBTQ, and persons with disabilities—in research compounds health inequities. Underrepresentation limits the generalizability of clinical trials to the broader U.S. population, undermines trust in health care and health research, and costs the U.S. hundreds of billions of dollars by its reduction in years in the labor force as well as life expectancy.

A recent report issued by an ad-hoc committee appointed by the National Academies of Science, Engineering, and Medicine (NASEM) estimates improved representation in clinical trials could save billions of dollars if it produces even a modest reduction in health inequities. The report highlights the barriers to and facilitators of representation in clinical trials and concludes with 17 recommendations for improving representation to achieve health equity. The goal of this panel is to highlight and expand upon the report's contents with a strong focus on the recommendations and panelists' related expertise and experience.

Panelists include three of the NASEM ad-hoc committee members, as well as researchers with significant expertise in engaging underrepresented populations in health research. The panelists will: 1) discuss different approaches to engagement (e.g., focused outreach, novel clinical research approaches), 2) describe theoretical frameworks for inclusion, 3) provide actionable recommendations, and 4) identify urgent questions for attendees to consider in their efforts to engage marginalized individuals in research.

CORRESPONDING AUTHOR: Amelia S. Knopf, PhD, MPH, RN, FAAN, Indiana University, Indianapolis, IN; asknopf@iu.edu

Abstract citation ID: kaad011.0857

PANEL 13: DUAL-PURPOSE INTERVENTIONS FOR HEALTH AND CLIMATE CHANGE

Sydney O'Connor, PhD[1], Kimberly M. Kelly, MS, PhD, MS, FSBM[2], Veronica I. Irvin, PhD, MPH[3], Jean C. Bikomeye, MPH[4], Kirsten M. Beyer, PhD, MPH, MS[4], Maricarmen Vizcaino, PhD[5], Christopher Wharton, PhD[5], Michael A. Diefenbach, PhD, FSBM[6], Kara Hall, PHD[7], Callie S. Kalny, MA[8], Brooke M. Bell, PhD[9]

[1]NCI, Rockville, MD; [2]West Virginia University, Morgantown, WV; [3]Oregon State University, Corvallis, OR; [4]Medical College of Wisconsin, Milwaukee, WI; [5]Arizona State University, Phoenix, AZ; [6]Northwell Health, New York, NY; [7]National Cancer Institute, Rockville, MD; [8]School of Communication, Northwestern University, Chicago, IL; [9]Yale University, New Haven, CT

Anthropogenic climate change poses an existential threat to human health. There is a great need to develop equity-focused interventions to mitigate (e.g., through pro-environmental behaviors that reduce or eliminate carbon emissions) and adapt to (e.g., reduce the potential negative health impacts of) the climate crisis. This panel features four presenters from across the US who will describe innovative dual-purpose interventions that have both planetary and human health benefits. Panelists will share the importance of community partnerships, strategies for success, and future research directions.

The first panelist will describe a randomized controlled trial using an online educational and multimodal intervention to reduce household-level food waste in the Southwestern US. Reducing carbon emissions generated from consumer food waste is a key climate change mitigation strategy. In addition, given that fruits and vegetables comprise the largest proportion of household food waste in the US, interventions designed to help families reduce these losses may create opportunities for healthy food consumption and potential chronic disease risk reduction.

The second panelist will describe intervention work to reduce negative health impacts of sun and UV exposure in a rural, medically underserved population in the federally-designated Appalachian region. Leveraging established relationships with community pharmacists, this student pharmacist intervention includes patient counseling and educational tools from the Environmental Protection Agency's Sunwise program.

The third panelist will describe two community engagement projects in the Pacific Northwest - the first partners with Extension Services to help homeowners make treatment decisions regarding their contaminated drinking well water and the second funds community organizations to implement or disseminate scientific findings around children's environmental health focusing on the effects of wildfire smoke and choosing safe spaces for early learning centers.

The fourth panelist will describe a dual-purpose community based intervention that aims to reduce flooding risk and improve water quality in the Great Lakes Region, while also supporting children's mental and physical health outcomes. This work leverages existing relationships with community partners and a natural experiment of transforming school grounds with crumbling asphalt into greener and healthier schoolyards. Researchers are exploring the impact of those environmental modifications on children's play behaviors and socioemotional health. The overall premise of the project is that 'Every climate intervention is a public health intervention'.

This session will provide attendees with an overview of innovative work that seeks to address climate change - an existential threat to human health - in the context of health interventions.

CORRESPONDING AUTHOR: Sydney O'Connor, PhD, NCI, Rockville, MD; sydney.o'connor@nih.gov

---

Abstract citation ID: kaad011.0858

PANEL 14: EMERGING CONCEPTS OF MEANINGFUL ENGAGEMENT IN DIGITAL HEALTH APPS

Jennifer Huberty, PhD, FSBM[1], Emil Chiauzzi, PhD[2], Olga Perski, PhD[3], Lea Martin, PhD[4], Chad Stecher, PhD[5]

[1]Fit Minded LLC, Phoenix, AZ; [2]Woebot Health, Acton, MA; [3]University College London, London, England, UK; [4]Ochsner Health, Pittsburgh, PA; [5]Arizona State University, Phoenix, AZ

Despite the expansion of digital health app use, little is known about the level and types of engagement needed to achieve meaningful clinical outcomes. The assessment of user engagement is typically based on the manner in which dosage is defined with in-person treatment interventions (e.g., psychotherapy) - predictable and consistent time allotments. Quantitative metrics such as duration, frequency, or intensity of exposure are often utilized. App interactions are different, as they are used in an unpredictable, frequent, or brief manner during the course of daily life. This suggests the need for metrics that capture app engagement in a more dynamic manner so that optimal use patterns can be defined and health outcomes can be measured based on how apps truly work. As a means of moving beyond limited quantitative metrics, the concept of "meaningful engagement" has emerged in the app research literature and product development. Meaningful engagement focuses on how users engage with evidence-based treatment mechanisms and content over time. Meaningful engagement may include the user's subjective experience, access to active therapeutic components, goal attainment, and usage trajectories associated with the best outcomes.

To address ways in which digital health researchers can continue to redefine "meaningful engagement", this panel will bring together behavioral medicine researchers working in industry and academia. The panel will offer several perspectives based on their experience with mental health, meditation, medication adherence, smoking cessation, and physical activity applications. Panelists will describe approaches that they have employed to measure engagement with various behavior change tools, relational agents, text messaging, just-in-time adaptive interventions, self-monitoring, and behavioral economics approaches. Panelists will discuss how they are measuring the association of engagement with clinical outcomes, as well as potential new meaningful engagement metrics. Important considerations such as user characteristics, engagement patterns based on shorter vs longer term behavior change, temporal patterns of use, and therapeutic alliance will be discussed. The chair will then facilitate a discussion between panelists and audience members about experiences and lessons learned with measuring and conceptualizing engagement. The session will include time for Q&A with attendees.

CORRESPONDING AUTHOR: Jennifer Huberty, PhD, FSBM, Fit Minded LLC, Phoenix, AZ; jenhubertyphd@gmail.com

Abstract citation ID: kaad011.0859

PRESIDENTIAL PANEL: PANEL 15: ENGAGING COMMUNITY PARTNERS IN BEHAVIORAL MEDICINE RESEARCH FOR HEALTH EQUITY

Lisa G. Rosas, PhD, MPH[1], David O. Garcia, PhD[2], Prajakta Adsul, MBBS, MPH, PhD[3], lorena A. verdugo, BAS[4], Zane C. Stephens[5]

[1]Stanford University, Palo Alto, CA; [2]University of Arizona, Tucson, AZ; [3]University of New Mexico, Albuquerque, NM; [4]El Rio Health, tucson, AZ; [5]Transgender Resource Center of New Mexico, Albuquerque, NM

The overall goal of this panel discussion is to highlight the importance of engaging community partners in behavioral medicine research and to provide practical advice for how to develop and maintain bidirectional research partnerships with the goal of promoting health equity. The introduction will include the rationale for integrating community partners in behavioral medicine research, fundamental community engagement principles, and a description of the diversity of possible partners. Two academic-community partners will describe their process for developing and maintaining partnerships in community-engaged behavioral medicine research. The presentations will include comments from the academic and community partners:

Partnership between Nosotros Comprometidos a Su Salud at the University of Arizona and Ventanillas de Salud programs at Mexican Consulates: The goal of this collaboration is to increase screening and treatment of non-alcoholic fatty liver disease (NAFLD) for Mexican-origin adults in Southern Arizona. Content messaging strategies (e.g., posters) specific to liver health and non-invasive transient elastography (FibroScan®) are utilized onsite at the Mexican Consulates. Participants receive results and a referral is made to a clinical partner for follow-up if severe steatosis or fibrosis is identified. To date, over 400 FibroScans® have been conducted as a result of this partnership. Current efforts are focused on enhancing culturally appropriate screening and treatment strategies (e.g., enrollment into community-based lifestyle interventions) to reduce the burden of this disease.

Partnership between the Transgender Resource Center (TGRC) and the University of New Mexico Comprehensive Cancer Center: The overall goal of this study was to identify the determinants to promoting cervical cancer screening among lesbian, bisexual and queer, and transgender individuals with a cervix. As a first phase of the project, we conducted a state-wide survey of LGBTQIA+ adults in New Mexico that showed statistically significant differences in screening rates by sexual orientation. Informed by these data, the second phase of the study explored perceptions around cervical cancer screening among lesbian, bisexual, and transgender individuals. In both these phases, the study team reflected on the lack of representation of the community being studied with the study team composition. We included community partners in our study when pilot testing the survey, community engagement studios, as well as helping conduct focus groups within the community. In this presentation, we will discuss how the community members supported the research process which included formulating and editing interview questions, recruiting individuals to the study, facilitating focus group discussions, and helping with data interpretation.

CORRESPONDING AUTHOR: Lisa G. Rosas, PhD, MPH, Stanford University, Palo Alto, CA; lgrosas@stanford.edu

---

Abstract citation ID: kaad011.0860

PANEL 16: GAMIFICATION FOR THE WIN? THE WHAT, WHY, HOW, AND FUTURE OF GAMIFYING PHYSICAL ACTIVITY PROMOTION IN THE DIGITAL AGE

Courtney M: Monroe, PhD[1], Arlen C. Moller, PhD[2], Amanda E. Staiano, PhD, FSBM[3], Caio Sousa, PhD[4]

[1]University of South Carolina, Columbia, SC; [2]Illinois Institute of Technology, Chicago, IL; [3]LSU's Pennington Biomedical Research Center, Baton Rouge, LA; [4]Loyola Marymount University, INGLEWOOD, CA

Gamification, or the use of game design elements to motivate and engage users, has rapidly ascended as one of the most recognizable, appealing, and promising ways to maximize the efficacy of digital physical activity (PA) interventions among broad audiences. An emerging body of literature and growing consumer market point to evolving and widely varying applications of gamification for PA promotion. The panel will bring together four digital health behavioral science researchers who have backgrounds in psychology and exercise physiology and are operating at the forefront of gamification PA promotion research. Our first panelist will discuss user-centered formative work focused on insufficiently active African American and Black adults' perspectives regarding competitions/challenges and teammate and coach characteristics, informing a culturally adapted refinement of an existing electronic and mobile health (e/mHealth) gamification-based PA intervention. This discussion will include emerging findings from a recently completed e/mHealth, team-based, cluster randomized controlled trial called *Columbia Moves*. Our second panelist co-designed an asynchronous active video game (AVG) that combines online fantasy sports with wearable activity trackers (*Fantasy Sports for Health*). This discussion will focus on findings from a recently completed systematic review of active video games (AVGs), identifying open questions related to healthy or unhealthy forms of competition. Our third panelist will discuss leveraging social influencers including family members and virtual exergame coaches to sustain youth engagement in gamified PA interventions. Finally, our fourth panelist will discuss the use of narrative as a gamification strategy in AVG, especially for young adults and children. This discussion will also focus on issues associated with using commercially available AVGs for research. Each panelist will identify one exciting finding and one challenge they have faced working in this space. Finally, the session chair will lead a 25-minute discussion, inviting audience input, and facilitating a deeper dive into challenges and knowledge gaps concerning optimization of game design to promote PA and providing guidance on future scientific priorities. By investigating the science of gamification to promote PA in both academia and industry settings, we hope to facilitate the process of *translating science into impact*.

CORRESPONDING AUTHOR: Courtney M. Monroe, PhD, University of South Carolina, Columbia, SC; cmmonroe@mailbox.sc.edu

Abstract citation ID: kaad011.0861

PANEL 17: MAPPING YOUR HEALTH DATA: EXAMPLES OF GEOGRAPHICAL INFORMATION SYSTEMS FOR BEHAVIORAL MEDICINE

Matthew Martin, PhD[1], Daoqin Tong, PhD[1], Sydney Miller, BS, PhDc[2], Candyce Kroenke, ScD, MPH, FSBM[3], Phelene De Vries Stoutt, MS[4], William J. Riley, PhD[5]

[1]Arizona State University, Tempe, AZ; [2]University of Southern California, Birmingham, AL; [3]Kaiser Permanente Northern California, Oakland, CA; [4]Arizona State University, Phoenix, AZ; [5]Arizona State University, Edina, MN

Background: Geographic information system (GIS) technology and methodology have unique and valuable applications for public health and health care professionals.

Applications include an academic organization's use of GIS for medical research, a hospital's improved delivery of healthcare services, and a public health department's use of mapping and spatial statistics for disease surveillance and analysis.

GIS technology allows powerful visualization and processing of data in ways that were not possible in the past. Yet it seems many behavioral medicine professionals have limited exposure to GIS capabilities and its applications.

The purpose of this panel discussion is two-fold. First, we will orient attendees to basic GIS concepts and examine the rationale for using GIS in health applications.

Second, we will describe three examples of GIS-based projects. By the end of this session, participants will be able to identify reasons to incorporate GIS applications in their own work, and potential resources and strategies for doing so.

Aims:

1. Describe core concepts and unique capabilities of GIS technology
2. Examine the rationale for developing GIS health applications
3. Discuss strategies for incorporating GIS data into current and future health projects

CORRESPONDING AUTHOR: Matthew Martin, PhD, Arizona State University, Tempe, AZ; mpmarti6@asu.edu

---

Abstract citation ID: kaad011.0862

PANEL 18: MEET THE FUNDERS: FUNDING OPPORTUNITIES FOR TRANSLATING BEHAVIORAL MEDICINE EVIDENCE INTO IMPACT

Bernardine M. Pinto, PhD, FSBM[1], Melissa M. Habedank, MPH[2], Kisha Coa, MPH, PhD[3], Nigel T. Brockton, PhD[4], Elvan C. Daniels, MD, MPH[5], Sandra A. Mitchell, PhD, CRNP, FAAN[6]

[1]University of South Carolina, Columbia, SC; [2]American Institute for Cancer Research (AICR), Arlington, VA; [3]PCORI, Washington, DC; [4]American Institute for Cancer Research, Arlington, VA; [5]American Cancer Society, Fayetteville, GA; [6]National Cancer Institute, Rockville, MD

Funding organizations and applicants must adapt top shifting priorities according to evolving research that impacts health and healthcare. A panel of funding agency officers will address opportunities at their organization that address the conference theme of "*Translating Science into Impact*." Dr. Pinto will Chair the presentation. Dr. Brockton (American Institute for Cancer Research) will discuss the annual AICR Investigator-Initiated Research Grant Program addressing diet, nutrition and physical activity related to cancer risk and outcomes, particularly the critical focus on communicating innovation to impact tangible progress. PCORI funds comparative effectiveness research that is guided by patients, caregivers, providers and the broader healthcare community and produces high integrity, evidence-based information. Dr. Coa will discuss PCORI research priorities and various PCORI funding announcements (PFAs) including the standing Broad Pragmatic Studies PFA. Dr. Daniels will describe funding opportunities available at the American Cancer Society and funding priorities. Dr. Mitchell will share the latest funding opportunities that relate to the current health outcomes and healthcare delivery and implementation science priorities at the National Cancer Institute. The focus will be on funding mechanisms that are available for research, training, and those for early career and established investigators. Taken together, the panel presentations will offer insights into funding opportunities that address barriers to moving science into real world, strategies to involve communities in identifying areas of high impact and studies that offer innovative approaches to increasing the reach and impact of science. The presentations will be followed by Q&A moderated by Ms. Habedank.

CORRESPONDING AUTHOR: Bernardine M. Pinto, PhD, FSBM, University of South Carolina, Columbia, SC; Pintob@mailbox.sc.edu

Abstract citation ID: kaad011.0863

PANEL 19: LATINOS' ENGAGEMENT IN BEHAVIORAL MEDICINE TRIALS: FOSTERING SUCCESS

Maria Quiñones-Cordero, PhD[1], Kathi L. Heffner, PhD[2], David X. Marquez, PhD, FSBM[3], Ulf G. Bronas, PhD, ATC, FSVM, FAHA[4], Larkin L. Strong, PhD, MPH[5]

[1]URMC School of Nursing, Rochester, NY; [2]University of Rochester Medical Center, Rochester, NY; [3]University of Illinois at Chicago, Chicago, IL; [4]University of Illinois Chicago, Chicago, IL; [5]University of Texas MD Anderson Cancer Center, Houston, TX

The Latino population in the United States (U.S.) continues to steadily grow and age and are expected to constitute 21% of the U.S. older adult population by 2060. Although previous findings supported the argument for a Hispanic Health Paradox - which suggests that Latinos in the U.S. have health outcomes that are comparable, or sometimes better than their non-Hispanic whites, despite lower average income and education – emerging evidence suggests that Latinos' overall health advantages can fade with increasing acculturation and longer duration of U.S residence. This adds urgency to the need to identify health priorities and targeted, culturally-appropriate interventions for the aging Latino community. Successful recruitment of this segment of the population in behavioral intervention trials, however, continues to be challenging. Key barriers to engagement include socio-cultural (e.g., language), and structural factors (e.g., lack of transportation or diverse representation in the research team) that perpetuate underrepresentation and marginalization of Latinos in research. To address these barriers, researchers are challenged to adjust commonly utilized recruitment strategies and procedures, rethink approaches to community engagement, and advocate for institutional investment in community engagement initiatives. This panel discussion draws upon experiences with an array of community engagement activities being conducted by researchers targeting health promotion and mental health among Latinos, as well as institutional infrastructure building to support these activities. The goal of this panel is to open a dialogue on these experiences and the challenges and offer innovative strategies to foster successful engagement of Latinos in behavioral intervention research. Four panelists conducting research with Latinos will discuss multiple and innovative approaches to engaging older Latinos in research, including socio-cultural considerations, employing effective community outreach, and lessons learned. To address how such community engagement initiatives can be implemented and sustained, our fifth panelist will discuss experiences, challenges, and strategies for infrastructure investment by institutions. Together, these presentations will provide attendees with solution-focused strategies for engaging the Latino community in behavioral health research.

CORRESPONDING AUTHOR: Maria Quiñones-Cordero, PhD, URMC School of Nursing, Rochester, NY; maria_quinones@urmc.rochester.edu

---

Abstract citation ID: kaad011.0864

PANEL 20: PERSPECTIVES FROM SBM NUTRITION AMBASSADORS ON SCIENCE COMMUNICATION TO ADVANCE NUTRITION EQUITY POLICIES AND PRACTICES

Elizabeth L. Adams, PhD[1], Melanie K. Bean, PhD[2], Sara M. St. George, PhD[3], Roger Figueroa, PhD, MPH, MSc[4]

[1]University of South Carolina, Columbia, SC; [2]Virginia Commonwealth University, Richmond, VA; [3]University of Miami, Miami, FL; [4]Cornell University, Ithaca, NY

This panel will provide diverse perspectives on nutrition advocacy and science communication from members of the SBM Nutrition Ambassador Program and the SBM Advocacy Council. The speakers will include three SBM Nutrition Ambassadors, each representing unique states and policy work related to child nutrition. The SBM Advocacy Council chair will serve as this panel's moderator. The SBM Health Policy Ambassador Program bridges the science-to-policy gap through building relationships with lawmakers across the United States. Ambassadors connect with key state legislators, engage staffers in evidence-based decision-making, and serve as a liaison to the field of behavioral medicine. During this panel, speakers will discuss their experiences as part of the ambassador programs, including development and dissemination of policy briefs to advocate for science-based nutrition policies, informed by these partnerships. Speakers will also provide insights on their experiences to advance nutrition advocacy efforts and science communication to diverse audiences through Op-Eds and viewpoint articles. The first speaker will discuss a partnership with Virginia Congressman Bobby Scott, and legislation to promote evidence-based nutrition standards and expanded access to school meals, via their recent policy brief—endorsed by 10 organizations—and viewpoint article. The second speaker will discuss a partnership with South Carolina Senator Tim Scott, as well as their policy brief on policies to promote nutrition security across federal child nutrition assistance programs and their Op-Eds on the Child Tax Credit, published in the Richmond Times Dispatch and The State news outlets. The third speaker will discuss a partnership with Florida Congresswoman Frederica Wilson, the process of collaborating on policy briefs, and plans for leading a future policy brief. Collectively, the goal of this panel is to encourage attendees to achieve greater scientific reach and impact via advocacy and science communication with lawmakers and the public. Outcomes of this session include attracting new members to SBM's Health Policy Ambassador Program and inspiring members to engage in science communication to advance health equity. Nutrition Ambassadors will be available for questions and discussion about this work.

Abstract citation ID: kaad011.0865

PANEL 21: PRACTICAL AND ETHICAL CONSIDERATIONS FOR CONDUCTING “SENSITIVE” HEALTH RESEARCH WITH ADOLESCENTS IN DIVERSE SETTINGS

Kimberly M. Nelson, PhD, MPH[1], Jacquelyn Chin, MA[2], Emily F. Dauria, PhD, MPH[3], Eric Layland, PhD[4], Nicholas S. Perry, PhD[5]

[1]Boston University School of Public Health, Boston, MA; [2]University of California, Santa Barbara, Santa Barbara, CA; [3]University of Pittsburgh, School of Public Health, PITTSBURGH, PA; [4]University of Delaware, Newark, DE; [5]University of Denver, Denver, CO

Adolescence (approximately ages 13-18 years) is marked by significant biopsychosocial changes, including increasing independence and sensitivity to emotional and social influences that place youth at higher risk of making detrimental health decisions. Brain plasticity in adolescence also provides a unique opportunity for rapid learning and shaping of health behaviors. Health behaviors developed during this period are shaped by factors across the socio-ecology and influence both short- and long-term health outcomes into adulthood. Mental health concerns (including suicide), alcohol, tobacco and other substance use, sexually transmitted infections (including HIV), and unintended pregnancies either begin or peek during this time. Further, youth of color and other marginalized youth populations (e.g., sexual and gender minority youth) who experience systematic discrimination and resource deprivation face substantial health inequities. Despite the importance of this developmental period, adolescent health is grossly understudied. This is likely due to a myriad of factors, including perceived challenges among researchers of addressing ethics board review requirements for working with youth < 18 years old, recruiting and retaining diverse adolescents, and inquiring and intervening with adolescents about subjects that are traditionally thought of as “sensitive” (e.g., sexual health, dating violence, mental health, substance use, traumatic experiences).

The proposed panel will include five researchers who conduct “sensitive” health research with marginalized adolescents in a variety of settings (i.e., online, community-based organizations, foster care and juvenile legal systems, school settings). Panelists will provide an overview of the importance of engagement with community partners and adolescents in these settings and the methods they use for recruitment, data collection, measurement selection, and intervention development/implementation. Within each of these topics, panelists will present the benefits/challenges of selected methods and ethical considerations specific to working with adolescents. The panel will conclude with time for audience questions and discussion. The overall goal of the panel is to introduce the SBM audience to the unique benefits, challenges, and ethical issues of conducting “sensitive” health research with adolescents and highlight the importance of addressing these factors throughout the research process.

CORRESPONDING AUTHOR: Kimberly M. Nelson, PhD, MPH, Boston University School of Public Health, Boston, MA; knel@bu.edu

Abstract citation ID: kaad011.0866

PANEL 22: SHIFTING THE NARRATIVE: ADDRESSING HEALTHCARE PROVIDER BURNOUT AND SYSTEMS-LEVEL APPROACHES FOR PREVENTION AND RECOVERY

Matthew W. Henninger, EdM[1], Katherine D. Hoerster, PhD, MPH[2], Changiz Mohiyeddini, PhD[3], Rebecca Sripada, PhD[4], Linda Takamine, PhD[5]

[1]University at Buffalo, The State University of New York, San Jose, CA; [2]VA Puget Sound Healthcare System, Seattle, WA; [3]Oakland University William Beaumont School of Medicine, Rochester, MI; [4]University of Michigan, Ann Arbor, MI; [5]Center for Clinical Management Research, VA Ann Arbor Healthcare System, Ann Arbor, MI, Seattle, WA

The chronic, adverse sequelae of burnout among healthcare workers is a well-studied phenomenon that has often been framed as an individual experience driven by one’s perception of workplace stressors. As a result, most burnout-focused interventions have targeted the individual level of influence. Minimal research has emphasized the systems-level drivers of burnout—nor the systems-level solutions. The COVID-19 pandemic has only exacerbated burnout and psychiatric symptom severity. It is crucial to understand and address institutional factors that perpetuate and sustain burnout, and how it in turn affects medical systems and patient outcomes. Thus, the primary objective of this panel is to discuss innovative work examining and addressing healthcare worker burnout. The session will feature brief presentations (5-7 minutes) from behavioral scientists regarding burnout incidence and opportunities for systems-level change. MH will present data examining the effects of mindful self-care engagement and utilization of the electronic health record with physician burnout. KH will share an overview of empirical findings from a national study of mental health symptoms among healthcare workers during the pandemic that she collaborated on, as well as how the team developed and executed a multi-pronged science communication campaign to healthcare leaders to promote systems-level solutions. CM will discuss the impact of moral injury and trauma exposure in the development and maintenance of burnout among healthcare workers. Finally, RS and LT will present ongoing research to build targeted interventions that address individual and organizational factors contributing to burnout among mental health providers. A discussion period for attendees to ask their questions about navigating these complex clinical and research environments will complete the session. This panel comes at a critical juncture, aiming to challenge the cultural, systemic, and interpersonal practices that affect stress, care quality, and provider wellbeing.

CORRESPONDING AUTHOR: Matthew W. Henninger, EdM, University at Buffalo, The State University of New York, San Jose, CA; Matthew.W.Henninger@gmail.com

Friday
April 28th, 2023
3:00 PM – 3:50 PM
Live Research Spotlights
LIVE RESEARCH SPOTLIGHT 6: HEALTH OF MARGINALIZED POPULATIONS
3:02 PM – 3:08 PM

Abstract citation ID: kaad011.0867

A CHATBOT INTERVENTION TO REDUCE PERCEIVED SOCIAL ISOLATION AMONG RURAL-LIVING LGBTQ+ YOUTH: PROOF OF CONCEPT STUDY

César G. Escobar-Viera, PhD, MD[1], Giovanna Porta, MS[2], Jamie Martina, BA[2], Sophia Choukas-Bradley, PhD[1], Bruce Rollman, MD, MPH[2]

[1]University of Pittsburgh, Pittsburgh, PA; [2]University of Pittsburgh Medical Center, Pittsburgh, PA

Purpose: Perceived social isolation is a common predictor of mental health problems. Many rural LGBTQ+ youth turn to social media to connect with others like them and seek support perceived as unavailable in their physical communities, but social media can also be a conduit for discrimination and rejection. We evaluated the outcomes and acceptability of a chatbot-delivered intervention to optimize social media experiences and reduce perceived isolation.

Methods: REALbot is a social media-based chatbot that delivers educational modules focused on optimizing the social media experience of LGBTQ+ youth to reduce perceived isolation. Based on previous and our own research, we created 4 LGBTQ-specific modules; each covered specific topics on healthy social media use (e.g., connecting with true allies) using animated videos, infographics, and fictionalized stories. Via social media ads, we recruited 20 adolescents ages 14-19 years, who identified as LGBTQ+, lived in rural areas, and screened for social isolation. We conducted a non-comparison 7-day pilot study, with a pre- post-test design. After a week, we assessed usability, satisfaction, social media self-efficacy, social isolation, and depressive symptoms. Youth provided feedback on barriers and facilitators for use and suggestions for improvement.

Results: Of 20 youth, 35% identified as cisgender lesbian/gay, 15% cisgender bisexual, and 50% as transgender. Acceptability of Intervention Measure (AIM), M ± SD = 5.3 ± 1.1, Chatbot Usability Questionnaire (CUQ), M ± SD = 3.9 ± 0.7. Social media self-efficacy [M ± SD = 5.3 ± 2.3 (pre), 6.9 ± 1.7 (post), d = 0.77]. 4-item PROMIS for social isolation [M ± SD = 30.2 ± 7.5 (pre), 28.8 ± 9.3 (post), d = -0.36]. PHQ-9 [M ± SD = 14.3 ± 5.3 (pre), 11.6 ± 7.1 (post), d = -0.36]. Youth liked the deployment on social media, found the information helpful, and valued reading about experiences of real LGBTQ+ youth, but they wanted more content about coming out, deployment on several platforms, and access to location-specific, LGBTQ-specific support resources.

Conclusions: REALbot was acceptable, with usability and satisfactions scores that improved post use. While social media self-efficacy showed a large effect size during the pilot, social isolation and depression scores showed small effect sizes.

Implications: Our findings suggest that rural-living LGBTQ+ youth will use a chatbot intervention for optimizing social media experiences, with the potential for reducing perceived social isolation and depressive symptoms.

CORRESPONDING AUTHOR: César G. Escobar-Viera, PhD, MD, University of Pittsburgh, Pittsburgh, PA; escobar-viera@pitt.edu

3:08 PM – 3:14 PM

Abstract citation ID: kaad011.0868

A COMPREHENSIVE BEHAVIORAL WEIGHT LOSS INTERVENTION VS. AN INTERMITTENT FASTING INTERVENTION ON WEIGHT LOSS IN BLACK ADULTS

Karen Yeary, PhD[1], Han Yu, PhD[1], Song Yao, PhD[1], Detric Johnson, MBA[1], Narseary Harris[2], Cassandre Dauphin, BS[1], Frances Saad-Harfouche, MS[1], Elizabeth DiCarlo, MPH[3]

[1]Roswell Park Comprehensive Cancer Center, Buffalo, NY; [2]First Ladies of Western New York (FLOW), Buffalo, NY; [3]Roswell Park Comprehensive Cancer Center, Tonawanda, NY

Introduction: Obesity is a known cancer risk factor and Blacks have the highest rates of obesity compared to all other racial/ethnic groups. Intensive lifestyle interventions that recommend modest reductions in daily caloric intake (i.e. continuous calorie energy reduction (CER)), are recommended by several government agencies to treat obesity. However, these interventions are complex and difficult to adhere to. A burgeoning literature has reported the promise of intermittent fasting (IF) as a weight loss alternative. IF results in the same magnitude of weight loss as CER interventions, holds promise for greater adherence given the lower burden posed to participants, and appears to improve metabolic health (associated with lower cancer risk and prognosis) to a greater extent than can be attributed to weight loss alone. Most IF studies, however, have been conducted with White participants, and have provided participants with standardized meals and/or nutrition counseling that are not readily available in real-world situations. Thus, the effect of IF interventions in diverse populations outside of controlled settings is unknown.

Methods: We are conducting an initial comparative effectiveness blinded cluster randomized controlled trial (RCT) that is comparing a CER intervention (based on the Diabetes Prevention Program) vs. an IF intervention on weight loss in Black adults. Each 6-month intervention is being delivered by trained community health workers. A total of 6 churches (n=10 per church; total n=60) were randomized to either intervention. Staff blinded to treatment condition are collecting anthropometric and survey data at baseline and 6-months.

Results: Four churches (n=29) have completed baseline and follow-up assessments to date. Participants were predominately female (82.6%) with a mean age of 57.9 years. There were significant within group differences, with both IF and CER participants losing 3.2% (4.4) and 2.8% (4.5), respectively, of their body weight from baseline to 6-month follow-up. There were no significant between arm differences.

Conclusion: Consistent with the current literature, IF and CER participants each lost a significant amount of weight. Compared to current IF studies that provided participants with meals and professional support, this is the first study to test an IF intervention in a 'real-world' setting and to examine IF in a minority population. If proven effective in a larger-scale trial, this IF intervention has the potential to serve as a viable, scalable alternative to CER interventions for weight loss and cancer risk reduction in minority populations.

CORRESPONDING AUTHOR: Karen Yeary, PhD, Roswell Park Comprehensive Cancer Center, Buffalo, NY; Karen.Yeary@RoswellPark.org

3:14 PM – 3:20 PM

Abstract citation ID: kaad011.0869

A SYSTEMATIC REVIEW OF CULTURAL ADAPTATIONS OF MINDFULNESS-BASED PROGRAMS

Roman Palitsky, MDiv, PhD[1], Em V. Adams, PhD, CTRS, C-IAYT[2], Gene K. Lee[3], Kieran Householder[4], Julia J. Schildwachter, BA[5], Olivia Canning, BA[6], Rebecca Acabchuk, PhD[7], A. Rani Elwy, PhD, MSc, FSBM[8], Willoughby Britton, PhD[9]

[1]Emory University School of Medicine, Atlanta, GA; [2]Clemson University, Clemson, SC; [3]Brown University, Englewood Cliffs, NJ; [4]Dartmouth University, Hannover, NH; [5]University of Virginia, Charlottesville, VA; [6]University of Southern California, Sudbury, MA; [7]Roundglass, Hebron, CT; [8]Psychiatry and Human Behavior, Alpert Medical School, Brown University, Providence, RI; [9]Brown University, Providence, RI

Background: Mindfulness-based programs (MBPs) are integrated health interventions with demonstrated efficacy in addressing a range of health concerns. However, their implementation is hampered by inadequate cultural relevance and an unmet need for adaptation. Efforts to adapt MBPs are siloed, without common principles and shared guidelines for adaptation. Simply put, adaptations often start from scratch and re-invent components that have been piloted elsewhere.

Objective: Conduct a systematic review of cultural adaptations of MBPs focused on integrating adaptation components across PICO domains (e.g. Population, intervention, comparison and outcome), guided by the framework for reporting adaptations and modifications-enhanced (FRAME) Implementation Science framework. This can create a shared evidence base and contribute to a common framework for future adaptations.

Method: This pre-registered systematic review (PROSPERO # CRD42021237722) searched empirical articles across four databases and two gray literature databases, with search terms focused on identifying cultural adaptations of two established MBPs: Mindfulness-based stress reduction (MBSR) and Mindfulness-based cognitive therapy (MBCT). Included articles were empirical, pertained to cultural adaptations of MBCT or MBSR, and focused on adults; language translation-only adaptations were excluded. Quality of these articles was assessed using standardized tools for qualitative, controlled intervention, one-arm, and mixed-methods studies, to accommodate heterogeneity in study methods. Extracted data included: FRAME characteristics of the adaptation (e.g., adaptation content, context, added and modified components); treatment target; measures used; adherence, attrition, and other feasibility data.

Results: The search yielded 3413 articles, of which 41 were included. Study quality was inconsistent, most studies were feasibility studies, and most adaptations were only tested in a single study. Nevertheless, recurrent shared components were observed, including shortening the MBP, eliminating retreats, changing discussion group format, and adding population-specific content. Adaptations for "workplace" culture were surprisingly common. Structural and systemic adaptations (e.g., referral structures, billing, childcare) were rare.

Conclusion: Some cultural adaptations of MBPs have incorporated community-based research principles, but there is not a shared or systematic approach to adapting MBPs for cultural fit. Nevertheless, there is sufficient commonality among adaptations to identify shared principles, as well as adaptation components that require further testing within and across treatment populations. A set of recommendations and framework for adapting MBPs focused on shared principles across adaptations is presented.

CORRESPONDING AUTHOR: Roman Palitsky, MDiv, PhD, Emory University School of Medicine, Atlanta, GA; roman.palitsky@emory.edu

---

3:20 PM – 3:26 PM

Abstract citation ID: kaad011.0870

CROWDFUNDING CANCER COSTS ONLINE AND LGBTQ+ EQUITY

Echo L. Warner, PhD, MPH[1], Caleb Easterly, BA[2], Austin R. Waters, MSPH[2], Cindy Turner, BA[1], Jia-Wen Guo, PhD, RN[3], Anne C. Kirchhoff, PhD, MPH[4], Stephen A. Rains, PhD[5], Kristin G. Cloyes, PhD, MN, RN[6]

[1]University of Utah; Huntsman Cancer Institute, Salt Lake City, UT; [2]University of North Carolina, Salt Lake City, UT; [3]University of Utah, Salt Lake City, UT; [4]Huntsman Cancer Institute; University of Utah, Salt Lake City, UT; [5]University of Arizona, Tucson, AZ; [6]Oregon Health & Science University, Portland, OR

Background: Lesbian, gay, bisexual, transgender, queer, and other sexual and gender minority (LGBTQ+) individuals live in poverty 2-fold more and carry a greater cancer burden than non-LGBTQ+ individuals. Cancer treatment leaves many cancer patients, including LGTBQ+ patients, at risk of financial burden. Crowdfunding, a type of online fundraising, is increasingly used for cancer-related financial support, but equity in crowdfunding has not been described by LGBTQ+ identity.

Methods: In August 2022, we extracted 99,911 publicly available crowdfunding campaigns from GoFundMe. We then applied two machine coding algorithms to refine the sample for analysis. The first algorithm identified health campaigns that were in English and contained cancer terms (n=33,749). The second algorithm used a list of terms from prior research that were supplemented by an LGBTQ+ study advisory board to stratify the cancer campaigns by LGBTQ+ identity (yes vs. no) of the campaign creator and/or beneficiary. All LGBTQ+ campaigns were confirmed for accuracy by two members of the research team. Outliers in the fifth and ninety-fifth percentile for fundraising goal amount were dropped resulting in a final sample of N=27,193 campaigns for analysis. Summary statistics and independent t-tests were calculated to describe differences in funding goals and amounts by LGBTQ+ identity in Stata 17.

Results: There were n=53 LGBTQ+ campaigns (0.19%). LGBTQ+ cancer campaigns had higher goal amounts (mean=$18,066; SD=$15,056; median=$10,000) than non-LGBTQ+ campaigns (mean=$16,514; SD=$13,817; median=$10,000), though not statistically different (t=-0.82; p=0.41). LGBTQ+ cancer campaigns also raised more money (mean=$9323; SD=$11,376; median=$4802) than non-LGBTQ+ campaigns (mean=$7449; SD=$9727; median=$4425) although not significantly different (t=-1.56; p=0.12). The top 3 reasons for fundraising described in the LGBTQ+ campaigns were 1) medical bills and medical device costs 2) employment and insurance disruptions (e.g., lack of paid leave for a partner, uninsured, lost employment due to health) and 3) living expenses.

Conclusions: Though nonsignificant, funds raised and campaign goals were higher for LGBTQ+ campaigns than non-LGBTQ+ campaigns, potentially demonstrating more financial need. While 7.1% of the US population identifies as LGBTQ+, only 0.19% of the sample self-identified as LGBTQ+ in their campaign description. Potentially suggesting that LGBTQ+ cancer patients may use crowdfunding sites less often than non-LGBTQ+ survivors or may avoid sharing their identity online. Community and hospital-based financial supports may help improve economic equity among cancer patients.

CORRESPONDING AUTHOR: Echo L. Warner, PhD, MPH, University of Utah; Huntsman Cancer Institute, Salt Lake City, UT; echo.warner@nurs.utah.edu

3:26 PM – 3:32 PM

Abstract citation ID: kaad011.0871

ENGAGING SEXUAL AND GENDER MINORITY COLLEGE STUDENTS TO ADDRESS ALCOHOL-RELATED INEQUITIES THROUGH COMPLEX SYSTEMS SCIENCE

Michelle Dougherty, MPH[1], Travis Moore, PhD, MS[2], Christina Mair, PhD, MPH[1], Kar-Hai L. Chu, PhD, MS[1], Jaime E. Sidani, PhD, MPH, CHES[1], Robert W. Coulter, PhD, MPH[1]

[1]University of Pittsburgh School of Public Health, Pittsburgh, PA; [2]Tufts University, Gerald J. and Dorothy R. Friedman School of Nutrition Science and Policy, Boston, MA

Background: Sexual and gender minority (SGM) college students experience inequities in alcohol use and alcohol-related harms (ARH), including poor mental health, injury, and interpersonal violence. There is a lack of evidence supporting the development and implementation of culturally tailored interventions to address ARH in this population. Collaborator-engaged systems science methods are useful for identifying complex drivers and intervention points that are meaningful to lay persons with lived experiences and have yet to be used with SGM college students to understand alcohol-related inequities. The aim of this pilot study was to test the feasibility of a collaborator-engaged systems science approach adapted for an online environment.

Methods: From June to July 2022, we conducted four virtual, longitudinal sessions (1.5 hours each) with eight SGM college students. Using Zoom and MURAL collaborative workspaces, participants identified which ARH was most important to address, brainstormed factors causing and effected by this harm, and co-developed a causal loop diagram linking these factors together. In collaboration with researchers, participants refined the causal loop diagram in Kumu, a systems mapping platform, and identified potential intervention points. Participants provided feedback after the sessions via a self-administered, web-based follow-up survey, which included a validated measure of our method's feasibility, acceptability, and appropriateness; scale ranging from 1 (low) to 5 (high).

Results: Participants identified and prioritized ARHs, choosing alcohol-involved sexual violence (AISV) as the most important ARH to address. They subsequently identified 23 interdependent factors related to AISV across multiple social-ecological levels, ranging from distal factors (e.g., stigma, school education policy) to more proximal factors (e.g., binge drinking behavior). Participants reported that our study methods were highly feasible (M=4.7; 95% CI:4.1,5.0), acceptable (M=4.3; 95% CI:3.8,4.9), and appropriate (M=4.7; 95% CI:4.3,5.0), exceeding our a priori benchmarks for success.

Conclusions: Engaging SGM college students in an online environment with systems science methods is a useful approach for translating participants' views on complex dynamics into a causal loop diagram, which may inform intervention development. Findings from this study may be useful for other studies seeking to use similar methods on a larger scale.

CORRESPONDING AUTHOR: Michelle Dougherty, MPH, University of Pittsburgh School of Public Health, Pittsburgh, PA; mid94@pitt.edu

3:32 PM – 3:38 PM

Abstract citation ID: kaad011.0872

EQUITY IN DIGITAL MENTAL HEALTH SERVICES: RACE AND ETHNIC COMPARISONS OF ENGAGEMENT AND EFFECTIVENESS

Sara J. Sagui-Henson, PhD[1], Camille E. Welcome Chamberlain, MSc[2], Brooke Smith, MS[1], Cynthia M. Castro Sweet, PhD, FSBM[3], Bailey Monick, BA[1], Jessica Jackson, PhD[1], Tiffany Chang, PhD[4], Sharon Lo, PhD[1], Myra Altman, PhD[1]

[1]Modern Health, San Francisco, CA; [2]Modern Health, Honolulu, HI; [3]Modern Health, Chimacum, WA; [4]Modern Health, Sacramento, CA

Background: Digital mental health services are an increasingly common form of care. It is crucial to evaluate these services across diverse racial and ethnic communities to ensure health equity. We examined engagement and outcomes of Black, Indigenous, and People of Color (BIPOC) and White identifying adults using an employer-sponsored digital mental health benefit.

Methods: A sample of 902 adults (42% BIPOC, 62% women, age M=33.9 years) completed a survey on their identities, depression (PHQ-9), anxiety (GAD-7), loneliness (UCLA Loneliness), well-being (WHO-5), and stress (PSS) at baseline and 3-month follow-up. Participants selected topics of focus (e.g., my emotions) and preferences for care (e.g., 1:1 care, digital content). We tracked engagement (therapy and coach sessions, digital content used) during this period. We examined baseline differences in clinical presentation and care preferences, engagement, therapeutic alliance, and pre-post changes in clinical symptoms and psychosocial factors among BIPOC and White adults.

Results: At baseline, there were no race or ethnicity differences in topic of focus (p=.27), rates of depression (p=.98), anxiety (p=.88), loneliness (p=.32), or well-being (p=.33). BIPOC adults were more likely to prefer 1:1 care than White adults (p=.04). BIPOC adults reported higher stress than White adults (p=.04). There were no race or ethnicity differences in usage of therapy sessions, coach sessions, or digital content (ps >.35). BIPOC adults reported slightly higher therapeutic alliance than White adults (p=.04). There were no significant race or ethnicity differences in pre-post changes in any clinical symptom or psychosocial factor (all ps >.12). For example, the likelihood of improving or recovering from depressive (p=.12) or anxiety (p=.36) symptoms did not differ by race or ethnicity.

Conclusion: We found no differences in most baseline symptoms, engagement, or clinical effectiveness between BIPOC and White adults using a digital mental health benefit. There were differences in care preferences, baseline stress, and therapeutic alliance. These findings help demonstrate that the platform is offering equitable experiences and outcomes to people with different race and ethnic identities. Data evaluating equity and inclusion among BIPOC communities allows patients to determine if a digital health service is appropriate for them and helps developers assess if innovations are fostering health equity or widening the digital divide.

CORRESPONDING AUTHOR: Cynthia M. Castro Sweet, PhD, FSBM, Modern Health, Chimacum, WA; cynthia@joinmodernhealth.com

3:38 PM – 3:44 PM

Abstract citation ID: kaad011.0873

JOIN THE WAVE: PARTNERING WITH A COMMUNITY ADVISORY BOARD TO ENHANCE HYDRATION IN A CENTRAL VIRGINIA SCHOOL DISTRICT

Danyel I. Smith, MS[1], Alisa E. Brewer, MSPH[2], Hsin-Ling (Sonya) Hung[3], Jenny Aghomo[4], Barbara Briggs[4], LaTisha Erby[4], Shaniece Gentry[4], Amanda Hurwitt[4], Kevin Starlings[4], Eamonn Sterner[4], Elizabeth Willis[4], Justine L. Blincoe, MSW[5], Tegwyn Brickhouse, DDS, PhD[6], Kristina L. Tatum, PsyD[1], Melanie K. Bean, PhD[1], Jessica G. LaRose, PhD, FSBM[7]

[1]Virginia Commonwealth University, Richmond, VA; [2]Center on Health Disparities, Virginia Commonwealth University, Richmond, SC; [3]Center on Health Disparities, Virginia Commonwealth University, Richmond, VA; [4]Virginia School District, Richmond, VA; [5]Greater Richmond Fit[4]Kids, Richmond, VA; [6]Virginia Commonwealth University School of Dentistry, Richmond, VA; [7]Virginia Commonwealth University School of Medicine, Richmond, VA

Background: Sub-optimal hydration is a barrier to child health. Due to historical injustices and systematic disinvestment, lower-resourced schools encounter significant challenges to hydration efforts, which have been further exacerbated by the COVID-19 pandemic. Recently, a new district-level policy aimed to increase the availability and accessibility of clean drinking water within a Virginia School District. To enhance policy efficacy, we established a community advisory board (CAB) to develop intervention strategies informed by stakeholders' perceived needs and school and community strengths.

Methods: Recruitment flyers were distributed electronically (e.g., listservs). Individuals completed an online interest form, which were reviewed by the research team. CAB members (*N*=8) were selected, reflecting school nutrition personnel, teachers, students, and parents. The CAB met monthly via Zoom (~1.5 hours) for 4 months. Meetings used modified nominal group technique (NGT) to generate consensus on the research question and intervention elements. Members were compensated $100 for each meeting.

Results: CAB members defined hydration as "essential nourishment" and unanimously agreed that hydration was an important and relevant goal for their schools. There was consensus that intervening in elementary school would support early habit formation. Concerns regarding current hydration efforts included: water accessibility, suboptimal implementation of current hydration efforts, inadequate availability in drinking vessels, and inconsistencies in classroom policies. Top rated intervention strategies to promote hydration included: incentives, competitions, water enhancement (e.g., fruit-infused water), integration of hydration into state standards of learning lessons, student-led messaging (e.g., social media), and role modeling (teachers and students). Outcomes of interest were: beverage intake, mood, energy, and classroom engagement. Suggested assessment methods included: student and teacher surveys, bottle counts on stations, and individual habit trackers. Lastly, members noted that partnerships between teachers and students would enhance sustainability.

Conclusions: CAB members provided valuable insight regarding the current school hydration landscape and potential intervention strategies, and outcomes perceived as most important. This formative work will guide the development of a hydration intervention, with an emphasis on capacity building and sustainability.

CORRESPONDING AUTHOR: Danyel I. Smith, MS, Virginia Commonwealth University, Richmond, VA; danyel.smith@vcuhealth.org

3:44 PM – 3:50 PM

Abstract citation ID: kaad011.0874

WEIGHT DISCRIMINATION AND HEALTH RISK BEHAVIOR IN RACIAL, ETHNIC, AND SEXUAL MINORITY ADULTS

Mary A. Gerend, PhD[1], Schemide Zetrenne, BS[1], Angelina R. Sutin, PhD[1], Sylvie Naar, PhD[1], Jon K. Maner, PhD[2]

[1]Florida State University College of Medicine, Tallahassee, FL; [2]Florida State University, Tallahassee, FL

Background: People with obesity remain one of the most highly stigmatized groups in the US and face significant discrimination due to their weight. Weight discrimination is associated with adverse health outcomes, yet little is known about pathways that explain that association, particularly in racial, ethnic, and sexual minorities. Engagement in unhealthy behaviors may serve as one such pathway. This study examined associations between weight discrimination and health risk behaviors in a diverse sample of US adults and assessed whether associations are moderated by gender, race, ethnicity, or sexual orientation.

Methods: Quota sampling was used to oversample Black/African American (36%), Latino (36%), and sexual minority (29%) adults (N=2,632; mean [SD] age: 36.9 [12.5] years; 50% female; mean body mass index [BMI]: 27.9 [8.2] kg/m^2) from a national panel. Participants completed an online survey. Using multiple regression analysis, health risk behaviors (maladaptive eating behaviors, physical inactivity, sitting behavior, smoking, alcohol use, and sleep disturbance) were predicted from reports of weight discrimination while controlling for demographic characteristics, BMI, and depressive symptoms. In a second set of analyses, interactions between weight discrimination and key demographic variables (i.e., gender, race, ethnicity, and sexual minority status) were added to each model.

Results: Reports of weight discrimination were associated with greater emotional eating (b = 0.19, 95% CI: 0.12 to 0.26, $p < .001$), binge eating (OR = 4.07, 95% CI: 3.12 to 5.31, $p < .001$), unhealthy weight control behaviors (b = 0.35, 95% CI: 0.30 to 0.40, $p < .001$), cigarette smoking (OR = 1.56, 95% CI: 1.29 to 1.87, $p < .001$), problematic drinking behavior (b = 0.23, 95% CI: 0.12 to 0.34, $p < .001$), and sleep disturbance (b = 0.15, 95% CI: 0.07 to 0.23, $p < .001$). Gender moderated the association between weight discrimination and binge eating, alcohol use, and physical activity, with stronger effects observed in men than women. No other demographic moderators were observed.

Conclusions: Weight discrimination was associated with health-damaging behaviors and, despite some limited evidence for moderation by gender, these relationships were similar across demographic groups. Engagement in health risk behavior often reflects attempts to cope with stress from weight discrimination and may represent a key pathway through which weight discrimination harms health.

CORRESPONDING AUTHOR: Mary A. Gerend, PhD, Florida State University College of Medicine, Tallahassee, FL; mary.gerend@med.fsu.edu

LIVE RESEARCH SPOTLIGHT 7: DIET, NUTRITION, DISORDERED EATING

3:02 PM – 3:08 PM

Abstract citation ID: kaad011.0875

A RANDOMIZED TRIAL EXAMINING THE EFFECT OF YOGA ON DIETARY LAPSES FOLLOWING BEHAVIORAL WEIGHT LOSS TREATMENT

Jessica L. Unick, PhD[1], Shira Dunsiger, PhD[2], Beth C. Bock, PhD[1], Sally Sherman, PhD[3], Tosca Braun, PhD[4], Stephanie P. Goldstein, PhD[5], Rena R. Wing, PhD, FSBM[6]

[1]The Miriam Hospital & Brown University, Providence, RI; [2]Brown University, Providence, RI; [3]University of Pittsburgh, Pittsburgh, PA; [4]Butler Hospital and Brown University, Providence, RI; [5]The Miriam Hospital/Alpert Medical School of Brown University, Cranston, RI; [6]Brown University & The Miriam Hospital, PROVIDENCE, RI

Background: Dietary lapses (i.e., discrete episodes of dietary non-adherence) hinder weight loss (WL) and lead to abandonment of WL goals. Improvements in self-regulation are thought to reduce dietary lapses and enhance WL. While yoga improves many aspects of self-regulation, it has not been tested as a strategy for reducing dietary lapses, specifically within the context of a weight management program. This study examined the effect of yoga on dietary lapses and non-homeostatic reasons for eating (e.g., stress eating), when delivered as a WL maintenance approach following WL treatment.

Methods: 51 women with overweight or obesity (34.6±3.8 kg/m², 48.7±9.6 years) were randomized to a 12-week Iyengar yoga program (2x/week; YOGA) or contact-matched control (cooking/nutrition classes; CON), following a 12-week behavioral WL program. Participants responded to smartphone surveys (5x/day) over a 10-day period at baseline, 12, (post WL program) and 24 weeks (post yoga/ cooking classes). After controlling for baseline and 3-month values, treatment groups were compared on types of dietary lapses (e.g., eating past the point of feeling full, eating more than usual, unplanned eating, loss of control [LOC] when eating, difficulty stopping eating once initiated, self-reported overeating) and non-homeostatic reasons for eating (eating to feel better, feeling that one deserved to eat, stress eating) at 6 months.

Results: Compliance to smartphone surveys was >90% at all time points. Averaged across groups, baseline to 3-month reductions were observed in all variables except 'eating because I deserved to eat'. At 6 months, relative to CON, YOGA reported a lower odds of eating past full (OR=.39, 95% CI:18-.85) and eating more than usual (OR=.51, 95% CI:29-.92). YOGA also reported less LOC when eating (b=-.25, SE=.08, p< .001), less difficulty stopping eating (b=-.28, SE=.11, p=.01), less self-reported overeating (b=-.48, SE=.11, p< .001), less eating to feel better (b=-.68, SE=.12, p< .001), and less stress-induced eating, compared to CON (b=-.21, SE=.07, p=.002). Treatment groups did not differ on eating because one felt like they deserved to eat or unplanned eating at 6 months.

Conclusion: Study findings indicate that the addition of yoga following behavioral WL treatment can have a favorable effect on dietary lapses and reduce several forms of non-homeostatic eating. These findings shed light onto potential mechanistic pathways through which yoga, a mind-body intervention, may impact WL or WL maintenance, beyond the energy expenditure of the yoga sessions.

CORRESPONDING AUTHOR: Jessica L. Unick, PhD, The Miriam Hospital & Brown University, Providence, RI; junick@lifespan.org

3:08 PM – 3:14 PM

Abstract citation ID: kaad011.0876

COMPARING TIME-RESTRICTED EATING VS. A WHOLE FOOD PLANT-BASED DIET FOR METABOLIC SYNDROME: RESULTS FROM NHANES 2013-2018

Christine E. Jovanovic, MPH, PhD[1], Velarie Y. Ansu Baidoo, PhD[2], Rand T. Akasheh, PhD[3], Faiza Kalam, PhD MS[4]

[1]University of Illinois Chicago, Chicago, IL; [2]Northwestern University Feinberg School of Medicine, chicago, IL; [3]American University of Madaba, Madaba, Jordan, Orland Park, IL; [4]Northwestern University Feinberg School of Medicine, Chicago, IL

Introduction: Metabolic Syndrome (MetS) is associated with elevated cardiovascular disease (CVD) risk. Time restricted eating (TRE) and a whole food plant-based diet (WFPBD) influence MetS and its components (waist circumference, fasting plasma glucose, cholesterol, blood pressure, HDL), but no research has compared these dietary patterns for reducing prevalence of MetS and MetS components, alone or in combination. We explore the association of TRE and WFPBD with MetS and its components, and examine the mediating effect of macronutrients (dietary fiber, protein, carbohydrates) on these relationships.

Methods: Using three cycles of NHANES data (2013 - 2018) and the USDA food patterns equivalent database (FPED), we created variables for duration of fasting (in hours), servings of whole plant-based foods, macronutrients, and MetS outcomes. Following weighting and multiple imputation, we performed logistic regressions for MetS and its components, using hours fasting and/or servings of WFPB foods as independent variables. The mediating role of fiber, protein, and carbohydrate consumption was also modeled. Finally, interaction between hours fasting and servings of WFPBD on MetS and MetS components were explored.

Results: A WFPBD was positively associated with high fiber (OR: 0.96, p< 0.001), and healthy HDL (OR: 0.96, p< 0.001), but not reduced MetS. TRE was associated with lower waist circumference (OR: 0.94, p< 0.001), lower glucose (OR: 0.93, p< 0.001), lower cholesterol (OR: 0.95, p < 0.05), reduced hypertension (OR: 0.91, p< 0.001), and lower MetS (OR: 0.92, p< 0.001). However, TRE was not associated with any differences in macronutrient levels. Together, WFPBD and TRE produced larger improvements in MetS (OR: 0.98, p< 0.05 and OR: 0.91, p< 0.001, respectively). A small but significant interaction between WFPBD and TRE was observed for MetS (OR: 1.01, p< 0.05).

Conclusion: In this nationally representative sample, both a WFPBD and TRE were associated with improved MetS and MetS components. While a WFPBD improved HDL only, TRE improved all MetS components except HDL, as well as reducing risk of MetS. When WFPBD and TRE were both present, improvements in MetS and several MetS components were increased. Thus, greater time fasting had the largest beneficial effect on MetS, while the combination of TRE and WFPBD produced even larger reductions in MetS. Both diet approaches—alone or together—can play an important role in improving MetS and its components, and reducing risk for CVD.

CORRESPONDING AUTHOR: Christine E. Jovanovic, MPH, PhD, University of Illinois Chicago, Chicago, IL; christine.jovanovic@gmail.com

3:14 PM – 3:20 PM

Abstract citation ID: kaad011.0877

DO TOP CHAIN RESTAURANTS MAKE CALORIE INFORMATION AVAILABLE AND ACCESSIBLE ON THEIR WEBSITES?

Michele L. Patel, PhD[1], Madeline Kelsey, BS[2], Annalisa Lim[3], Gary G. Bennett, PhD[4]

[1]Stanford University, Menlo Park, CA; [2]Providence VA Medical Center, and Brown University, Providence, RI; [3]Stanford University, San Diego, CA; [4]Duke University, Durham, NC

Background: As calorie tracking is an effective weight management strategy, easy access to calorie information is vital. Restaurant websites are a well-suited platform for displaying calorie information in a readily-accessible way. When available, this information could facilitate pre-planning of meals prior to the point of purchase as well as aid in tracking food intake after eating a meal. However, it remains unknown how available calorie information is on restaurant websites and in what format it can be accessed.

Methods: We conducted an observational study of the websites of the top 50 U.S. chain restaurants, ranked by 2021 sales as reported by the Nation's Restaurant News trade publication. In 2022, two reviewers independently coded each website; discrepancies were resolved via discussion with a third reviewer. We collected descriptive data on the availability of calorie information on these websites. To determine accessibility of this information, we evaluated whether it was presented in any of the following ways: (1) in a downloadable chart format; (2) in an interactive nutrition calculator; (3) directly accessed via the homepage (with a "calorie" or "nutrition" label in the primary navigational bar, its sub-section, or the footer); or (4) on a mobile-responsive website. We created a 'calorie accessibility metric' ranging from 0-4 points, whereby one point was added for the presence of each of these features. Finally, in a multiple regression analysis, we evaluated whether characteristics of the restaurant (i.e., sales, number of units nationwide, market segment, and cuisine type) were associated with the calorie accessibility metric.

Results: Of the top 50 U.S. restaurants, 100% had calorie information on their websites. Most (82%) had a downloadable chart with calorie information, few (24%) had a nutrition calculator, and all (100%) had a mobile-responsive website. Many sites (82%) had a "nutrition" homepage label, with only 5% appearing in the primary navigational bar, 17% in its sub-section, and 80% in the footer. Fourteen (28%) websites had all four features. No restaurant characteristics were associated with the calorie accessibility metric.

Conclusion: Calorie information was widely available on the websites of top U.S. restaurants. Accessibility varied, and no restaurant characteristics were associated with greater accessibility. With sales at U.S. restaurants continuing to increase over the past decade, the websites of these restaurants are uniquely positioned to provide quick calorie information to customers and aid in weight management. Restaurants can increase calorie accessibility by adding prominent access to this information via the primary navigational bar and presenting the information in multiple formats.

CORRESPONDING AUTHOR: Michele L. Patel, PhD, Stanford University, Menlo Park, CA; michele.patel@stanford.edu

3:20 PM – 3:26 PM

Abstract citation ID: kaad011.0878

NUDGING CONSUMERS TOWARDS HEALTHIER FOOD CHOICES USING RESTAURANT MENU ICONS: A RANDOMIZED CONTROLLED TRIAL

Kelly Cosgrove, MS[1], Christopher Wharton, PhD[2]

[1]Arizona State University, Sedona, AZ; [2]Arizona State University, Phoenix, AZ

Background: Unhealthy dietary habits constitute an important risk factor for non-communicable diseases. Since 2010, more money has been spent on food away from home than on food at home in the United States, making food away from home an important target for health-promotion efforts. Guiding consumer food choices at point-of-sale locations has the potential to result in healthier food choices among consumers, indicating the importance of restaurant menus in dietary behavior change research. However, to date, no study has assessed the differential effects of popular restaurant menu icons on purchase intention. Exploring the impacts of widely used restaurant menu icons on consumer purchase intention will provide valuable information regarding which attributes of food should be highlighted to drive consumers to choose a given product over other competing options.

Methods: In this randomized controlled trial, participants were recruited online using CloudResearch. A total of 1269 participants were randomized to different menu icon conditions as follows: vegan icon (n=261), plant-based icon (n=248), gluten-free icon (n=259), high-protein icon (n=249), and no icon (n=252). Participants were asked to select what they would order off the menus they were shown. The menus in each condition were identical, apart from the icons used to highlight the same two menu items on each menu. The rates of choosing one of the icon-highlighted options were compared among the groups using logistic regression analysis, with $p< 0.05$ indicating statistical significance.

Results: A total of 26.3% of participants chose one of the highlighted menu items when the gluten-free icon was used, 27.0% when no icon was used, 29.5% when the vegan icon was used, 35.1% when the plant-based icon was used, and 38.2% when the high-protein icon was used. The high-protein and plant-based icons resulted in the highest frequency of selecting one of the highlighted options, and the gluten-free icon resulted in the lowest frequency of selecting one of the highlighted options. The high-protein icon was associated with a 67% higher intention to purchase one of the two highlighted menu items (OR (95%CI)=1.67 (1.15-2.44), $p=0.007$). The remaining icon conditions were not found to have a significant effect on purchase intention ($p >0.05$). The results remained consistent after controlling for age, gender, BMI, income, and hunger level.

Conclusions: Highlighting menu items with a high-protein icon resulted in a significantly higher purchase intention. This finding has potential application in food choice environments. According to the findings of this study, protein content may be an important attribute that guides consumer food choices. Therefore, healthier options that are higher in protein can be highlighted with a high-protein icon, which may lead to higher purchase intention.

CORRESPONDING AUTHOR: Kelly Cosgrove, MS, Arizona State University, Sedona, AZ; kelly.cosgrove@asu.edu

3:32 PM – 3:38 PM

Abstract citation ID: kaad011.0879

PRELIMINARY RESULTS OF A PILOT MEDITERRANEAN KETOGENIC NUTRITION ADHERENCE PROGRAM FOR OLDER ADULTS AT RISK FOR DEMENTIA

Julia Sheffler, PhD[1], Bahram Arjmandi, PhD, RDN[2], Zhe He, PhD[2], Dimitris Kiosses, PhD[3], Sylvie Naar, PhD[1]

[1]Florida State University College of Medicine, Tallahassee, FL; [2]Florida State University, Tallahassee, FL; [3]Weill Cornell Medicine, New York, NY

Background: Mediterranean ketogenic nutrition (MKN) may directly target multiple neurobiological mechanisms associated with dementia risk in older individuals, including insulin signaling, lipid and glucose metabolism, and mitochondrial function. Despite its promise, this type of nutrition can be challenging to learn and adhere to in a healthy manner. Our team used the NIH ORBIT model to develop and pilot a program to help older adults with memory concerns develop a deeper understanding of nutrition principles, provide a supportive environment for making a change to MKN, and use motivational interviewing and behavior change techniques (MI-BCT) to enhance adherence.

Methods: Using a two arm, randomized design, we piloted our full MKN program with MI-BCT compared to an MKN education-only program to evaluate potential benefits of incorporating the MI-BCT components. 58 participants were consented, randomized, and completed baseline assessments. Participants were primarily female (17% male) and white (22% Black or other) and had a mean age of 73. Participants were only included if they evidenced subjective memory concerns or objective memory impairment on the Montreal Cognitive Assessment (Score 17≤26). The intervention for both groups involved a 6-week, group program conducted via video conference. Primary outcomes examined included participant recruitment, retention, and satisfaction with the program.

Results: Overall, there was relatively high program completion in both groups, with 79% of participants completing the 6-week program. The recruitment protocol required adjustment, but was successful in reaching the target N. Retention in the program was slightly higher in the MI-BCT group (82%) compared to the MKN education-only group (72%). The mean percent of sessions attended was also higher in the MI-BCT group (91%) versus the comparison (77%). Overall, the majority of participants in both groups rated the program as "excellent" using the client satisfaction questionnaire; however, individual feedback for program improvements were provided through qualitative interviews.

Discussion: This pilot trial demonstrated that the MKN program incorporating MI-BCT may better engage and retain participants than a nutrition education program alone; however, it was notable that many participants were successful in the education-only condition. Further, the majority of participants in both groups were satisfied with the program. These results suggest that a supportive group environment providing detailed nutrition education may be sufficient for many participants to successfully change their diet, yet some individuals may benefit from additional skills and MI-BCTs to enhance adherence.

CORRESPONDING AUTHOR: Julia Sheffler, PhD, Florida State University College of Medicine, Tallahassee, FL; julia.sheffler@med.fsu.edu

---

3:38 PM – 3:44 PM

Abstract citation ID: kaad011.0880

SOCIODEMOGRAPHIC PREDICTORS THAT INFLUENCE COMPLETION OF AN ECOLOGICAL MOMENTARY ASSESSMENT STUDY IN ADULT MEN WHO BINGE EAT

Nanette V. Lopez, PhD, MS/MS[1], Stephen D. Herrmann, PhD, EMBA[2], Natalie M. Papini, MA[1]

[1]Northern Arizona University, Flagstaff, AZ; [2]The University of Kansas Medical Center, Kansas City, KS

Background: Research predominately focuses on the examination of eating disorders (EDs) in women, yet men increasingly report ED symptoms. Binge eating is the most frequently reported ED among men; however, limited research has explored differences in binge eating between Black and non-Hispanic White men. This could be due, in part, to less participation in studies by Black Americans. Thus, men were recruited for participation in an ecological momentary assessment (EMA) study exploring sociodemographic characteristics of men with binge eating across two distinct groups: 1) men who downloaded the EMA app, but did not complete the study, and 2) men who completed the EMA study.

Methods: Relationships among sociodemographics (e.g., race [Black vs non-Hispanic White], socioeconomic status, and completion status (EMA completers=ref) of a single wave 7-day EMA study among men who binge eat and have overweight or obesity were examined. Adult men (n=82; 51.2% black, 48.8% white; Mage = 35.8 ± 10.4 years; MBMI = 32.8 ± 6.7 kg/m2) who binge eat (Binge Eating Scale [BES] score ≥ 17; MBES= 34.2 ± 9.78) were recruited from a health coaching program to complete the study. Data were analyzed using binary logistic regression, adjusting for age and body mass index Z-score.

Results: Logistic regression results indicated that race was a significant predictor of study completion, such that it was more likely that a man completed the EMA study than did not complete the study if they were non-Hispanic White rather than Black (Exp(B)= 4.659, 95% CI=1.247, 17.399). Socioeconomic status was not significant of study completion. In total, the model accounted for 20.5% of the variability in study completion (Nagelkerke R2=.205).

Discussion: EDs in men are frequently underreported and misunderstood. Conducting research among men that adequately represents the racial background of individuals affected by binge eating is important for understanding etiology and creating appropriate treatment strategies. Consistent with research indicating reluctance of participation in studies by Black Americans, the current study indicates Black men were less likely to complete the EMA study than non-Hispanic White men. Future research should explore the role of specific recruitment strategies, study design and incentives/compensation in retaining men in EMA studies.

CORRESPONDING AUTHOR: Nanette V. Lopez, PhD, MS/MS, Northern Arizona University, Flagstaff, AZ; Nanette.Lopez@nau.edu

3:44 PM – 3:50 PM

Abstract citation ID: kaad011.0881

THE INTRADAY RELATION BETWEEN PHYSICAL ACTIVITY AND DIETARY INTAKE AMONG BEHAVIORAL WEIGHT LOSS PARTICIPANTS

Rebecca J. Crochiere, PhD[1], Meghan L. Butryn, PhD, FSBM[2], Fengqing (Zoe) Zhang, PhD[2], Jaclyn P. Maher, PhD[3], Kristine Beaulieu, PhD[4], Zhuoran Huang, BA[2], Cleverina Cong[2], Evan M. Forman, PhD[2]

[1]Williams College, Williamstown, MA; [2]Drexel University, Philadelphia, PA; [3]University of North Carolina Greensboro, Greensboro, NC; [4]University of Leeds, Leeds LS2 9JT, England, UK

Weight control is determined by energy balance, i.e., the difference between energy intake (from calories consumed) and energy expenditure (e.g., from resting metabolic rate and physical activity [PA]). Energy balance tends to be more strongly influenced by energy intake vs. PA. Yet, it is unknown if engaging in PA, a central component of most behavioral weight loss programs, influences same-day energy intake among individuals with overweight/obesity pursuing weight loss, for whom attaining a negative energy balance is key for weight control. This study addressed this gap in the literature by measuring PA and energy intake in an ecologically-valid way among behavioral weight loss participants. Study aims tested: if engaging in PA was associated with same-day energy intake, if biopsychosocial factors moderated these relations, and if energy intake differences on PA days were associated with weight change. Adults (*N*=101) with overweight/obesity in a year-long behavioral weight loss program were prescribed a reduced-calorie diet and PA regimen. For 3 weeks at mid-treatment, PA was measured via a Fitbit Charge and dietary intake via the MyFitnessPal app. PA bouts were defined as ≥30 minutes in which ≥80% were moderate-to-vigorous activity. (We repeated analyses using an "any-intensity" PA bout definition, i.e., ≥60 minutes in which 80% were light, moderate, or, vigorous activity, but results were comparable and thus not reported for brevity.) Multilevel models tested the within-person, intraday relations between PA and energy intake. We examined the relations between PA and energy intake preceding PA (*"pre-PA,"* i.e., entire day prior to PA), acutely following PA (*"acute post-PA,"* i.e., 2 hours post PA), in the remaining time in the day (*"remaining time in day,"* i.e., the time following the *acute post-PA* period), and across entire PA days (*"full-day"*), relative to non-PA matched time periods. Energy intake was higher in the *pre-PA* period (*b*=126.94, *SE*=20.48, *p*< .001) and *acute post-PA* period (*b*=32.18, *SE*=13.47, *p*=.017), but lower in the *remaining time in day* (*b*=-157.05, *SE*=24.56, *p*< .001), relative to non-PA within-person matched time periods. There was no significant difference in *full-day* energy intake on PA vs. non-PA days (*b*=-28.94, *SE*=15.92, *p*=.07). The relation between PA and same-day energy intake was moderated by multiple factors, including BMI (e.g., *b*=-29.01, *SE*=12.51, *p*=.02) and time of day of PA (e.g., late afternoon: *b*=-314.24, *SE*=65.33, *p*< .001). There was little evidence to suggest energy intake differences on PA days, relative to non-PA matched time periods, had a relation with percent weight change from baseline to mid-treatment or across the 3-week assessment period (e.g., *b*=-.01, *SE*=.01, *p*=.27). Findings support that engaging in PA vs. not is associated with different within-person dietary patterns and those relations are moderated by biological and contextual variables.

CORRESPONDING AUTHOR: Rebecca J. Crochiere, PhD, Williams College, Williamstown, MA; rjc4@williams.edu

---

LIVE RESEARCH SPOTLIGHT 8: CANCER

3:02 PM – 3:08 PM

Abstract citation ID: kaad011.0882

CANCER FATALISM AND HEALTH-RELATED QUALITY OF LIFE IN HISPANIC AMERICAN ADULTS

Megan Korhummel, AA-T[1], Alyssa K. Choi, BA[2], Georgia Robins Sadler, BSN, MBA, PhD[3], Vanessa Malcarne, PhD, FSBM[4]

[1]San Diego State University, Santee, CA; [2]SDSU/UC San Diego Joint Doctoral Program in Clinical Psychology, San Diego, CA; [3]UC San Diego School of Medicine, La Jolla, CA; [4]San Diego State University/University of California, San Diego, San Diego, CA

Introduction: Cancer fatalism (CF) is the specific belief that a diagnosis of cancer will lead to death. Past studies have linked higher cancer fatalism to lower rates of cancer screening behaviors in Hispanic Americans (HAs), but limited research has explored sociodemographic correlates of CF or the association between CF and aspects of health-related quality of life (HRQoL) in HAs. This cross-sectional study aimed to describe CF in HA adults, explore variations in CF levels by sociodemographic factors, and examine the relation between CF and HRQoL.

Methods: A community-based sample of 436 HA adults completed surveys including the Powe Fatalism Inventory and WHOQOL-BREF in their preferred language of English or Spanish. One-way ANOVAs were conducted to assess group differences in CF by gender, language, education, marital status, religion, and history of cancer. Correlational analysis was used to examine the association between age and CF. Multiple linear regression models were used to evaluate the association between CF and HRQoL, with age as a covariate and gender, language, and family history of cancer tested as direct effects and as moderators.

Results: CF levels significantly differed by education [F(1,405) = 11.68, *p* = .001] and marital status [F(1,408) = 4.13, *p* = .043]. HA adults with a high school degree or lower and people who were not married had significantly higher levels of CF compared to those who had more than a high school education or were married. Age was positively associated with CF (*r* = .11, *p* = .029). Regression analyses revealed that the interaction between gender and CF was a significant predictor of physical HRQoL (β = .15, *p* = .007). A simple slopes follow-up test showed the association between CF and physical HRQoL was significant only for men (β = -.12, *p* = .002). Language was the only significant predictor of psychological HRQoL (β = -1.10, *p* = .001).

Discussion: HA adults who were older, had lower education levels, or were not married reported stronger beliefs in CF than their counterparts. CF was associated with poorer physical HRQoL, but this relationship was only found for HA men; CF was not associated with variations in psychological HRQoL in HA men or women. Increased understanding of CF in HAs, with attention to potential within-group sociocultural variations, can allow for better care of patients who hold high fatalistic beliefs, as well as improve patient-provider communication.

CORRESPONDING AUTHOR: Megan Korhummel, AA-T, San Diego State University, Santee, CA; megkorhummel@gmail.com

3:08 PM – 3:14 PM

Abstract citation ID: kaad011.0883

DEPRESSION, ANXIETY, HEALTH BEHAVIORS AND THE INCIDENCE OF CANCER: A SUMMARY OF META-ANALYSES BY THE PSY-CA CONSORTIUM

Joost Dekker, PhD, FSBM[1]

[1]Amsterdam University Medical Centers, Amsterdam, Noord-Holland, Netherlands

Background: Depression, anxiety and health behaviors have long been theorized to increase the risk of cancer.

Purpose: To study whether (i) depression and anxiety are associated with cancer incidence; (ii) depression and anxiety interact with or moderate the effects of health behaviors on cancer incidence; and (iii) health behaviors mediate the association between depression, anxiety and cancer incidence.

Method: The Psychosocial Factors and Cancer Incidence (PSY-CA) consortium spans 18 cohorts in the Netherlands, the UK, Norway, and Canada (up to N = 319,613, cancer incidences = 25,803, person-years of follow-up = 3,254,714). We performed a series of pre-planned, two-stage, individual participant data (IPD) meta-analyses on depression and anxiety (diagnoses and symptoms), health behaviors (smoking, alcohol use, overweight, physical activity, sedentary behavior, sleep duration and quality), and cancer incidence (all cancers, smoking-related cancers, alcohol-related cancers, breast, lung, prostate, and colorectal cancer). Two models were tested: a minimally-adjusted model (correcting for sociodemographic covariates) and a maximally-adjusted model (additionally correcting for several health behaviors and relevant cancer-specific confounders).

Results: (i) Depression and anxiety were not associated with the incidence of any cancer, except for lung cancer and smoking-related cancers in the minimally-adjusted models; the associations for lung cancer and smoking-related cancers weakened when adjusting for health-related behaviors in the maximally-adjusted models. (ii) Depression and anxiety did not interact with or moderate the effects of health behaviors on cancer incidence. (iii) The associations between depression/anxiety and the incidence of lung cancer/smoking-related cancers were mediated by smoking, and to a lesser extent by physical inactivity.

Conclusions: Depression and anxiety are not related to the incidence of cancer, nor do they interact with or moderate the effects of health behaviors on cancer incidence. There is one exception: depression and anxiety are associated with the incidence of lung cancer and smoking-related cancers. This association is mediated by smoking and physical inactivity.

CORRESPONDING AUTHOR: Joost Dekker, PhD, FSBM, Amsterdam University Medical Centers, Amsterdam, Noord-Holland, Netherlands; j.dekker@amsterdamumc.nl

3:14 PM – 3:20 PM

Abstract citation ID: kaad011.0884

FEASIBILITY OF A WEB-BASED MANTRAM REPETITION INTERVENTION TO PROMOTE WELL-BEING IN WOMEN WITH BREAST CANCER

Jennifer M. Hulett, PhD, APRN, FNP-BC[1], An-Lin Cheng, PhD[2], Allison Anbari, PhD, RN[1], Jill E. Bormann, PhD, RN, FAAN[3], Jane M. Armer, PhD, RN, CLT, FAAN[1], Brooke Hartman[1], B. Ann Bettencourt, PhD[4], LeeAnne B. Sherwin, PhD, MS, APRN-BC, RN[5], Edie L. Sperling, PT, DPT, OCS, CMPT[6], Carol Reinero, DVM, PhD[1], Hans Rindt, PhD[1], Kathy Schreiber, PhD[1], Emily Albright, MD, FACS[1]

[1]University of Missouri, Columbia, MO; [2]University of Missouri- Kansas City, Kansas CIty, MO; [3]University of San Diego School of Nursing, San Diego, CA; [4]University of Missouri-Columbia, Columbia, MO; [5]University of Missouri, COLUMBIA, MO; [6]Western University of Health Sciences, SUBLIMITY, OR

Background: Mantram repetition is silent repetition of a contemplative word or phrase providing emotional and spiritual support in coping with stress. Silently repeating a mantram reduces stress by suppressing default-mode network brain activity. Mantram repetition was developed as a standardized, evidence-based intervention effectively reducing stress in combat veterans; however, it has yet to be studied in people with breast cancer (BC). For BC survivors, we adapted the 8-weeks, group-based mantram intervention to a 6-week, web-based, individually-delivered format.

Method: A feasibility study was conducted with BC survivors (stages 0-III) having completed initial BC treatment for at least 2 months but < 4 years ago. Mindfulness-meditation practitioners and those on immunosuppressants were excluded. Participants were block randomized to the mantram condition ($n = 12$) or a waitlist ($n = 15$). The primary outcomes were feasibility and acceptability of the web-based protocol and procedures. Exploratory clinical outcomes were assessed at baseline, and 6-weeks post-intervention, and 12-weeks from baseline, including perceived stress, ruminative responses, PROMIS-57 symptoms, spiritual well-being, and an inflammatory cytokines panel (IL-4,-6,-8,-10,-17A, IFN-γ, & TNFα). A subset of participants ($n = 9$) provided serum at baseline and 6-weeks.

Results: Participants were mostly BC stages 0-1 (62%), white (96%), and ages 39 to 80 years. Feasibility and acceptability were established by survey completion rates (96% at baseline, 80% at 6-weeks, and 74% at 12-weeks) and 100% completion of blood draws. Mantram adherence rates were 91% at 6-weeks and 90% at 12-weeks). At 6-weeks, perceived stress decreased by 19% in the mantram group compared to 8% in the waitlist group ($p = .04$); spiritual well-being increased in the mantram group (19%) compared to 4% in the waitlist ($p < .01$). PROMIS-57 measures showed marginal decreases in anxiety, sleep disturbance, and fatigue by 12 weeks, (all $p > .05$). At 6-weeks, decreases across all inflammatory cytokines (30-72%) were observed in the mantram group compared to the waitlist (0-15% decreases; 6-13% increases). Only decreases in IL-17A were significant ($p = .048$) with a 40% decrease in the mantram group (waitlist = 6% increase).

Conclusion: A web-based mantram repetition intervention is feasible and acceptable to BC survivors. Exploratory findings suggest that perceived stress, spiritual well-being, PROMIS symptom measures, and inflammatory immune cytokines are appropriate clinical outcomes to consider for future powered clinical trials.

CORRESPONDING AUTHOR: Jennifer M. Hulett, PhD, APRN, FNP-BC, University of Missouri, Columbia, MO; hulettjm@missouri.edu

3:20 PM – 3:26 PM

Abstract citation ID: kaad011.0885

GENETIC COUNSELING AND TESTING AMONG BLACK MEN WITH PROSTATE CANCER

Jessica N. Rivera Rivera, PhD, MPH[1], Wenyi Fan, MSPH[1], Brent J. Small, PhD[2], Clement K. Gwede, PhD, MPH, RN, FSBM[1], Jong Y. Park, PhD[1], Kosj Yamoah, MD, PhD[1], Heather S. Jim, PhD, FSBM[1], Endrina Salas, MS[1], Kellie Zambrano, BS[1], Yvelise Rodriguez, MS[1], Crystal A. Bryant, MPH[1], Susan T. Vadaparampil, PhD, MPH[1], Brian D. Gonzalez, PhD[1]

[1]Moffitt Cancer Center, Tampa, FL; [2]University South Florida, Tampa, FL

Background: Black men have higher prostate cancer incidence and mortality than other racial groups in the US. About 10% of prostate cancers are attributed to hereditary cancer syndromes. Genetic testing (GT) can inform cancer risk management and promote cascade testing of at-risk family members among those meeting criteria for referral to genetic services. This study used secondary data analysis to evaluate Black prostate cancer survivors' history and interest in genetic counseling (GC) and GT as well as identify factors related to their interest.

Methods: Black prostate cancer survivors self-reported sociodemographic factors as well as personal history and interest in GC/GT. Participants also completed validated measures of cultural values (e.g., fatalism, religious beliefs), quality of life (i.e., physical, psychological, and social functioning), and medical mistrust. *T*-test and Chi-squared test analyses were used to identify factors associated with participants interest in GC/GT from among theoretically derived predictors. Cohen's d effect sizes were calculated for statistically significant correlates.

Results: Among participants (N=254), only 10% (n=25) reported receiving either GC or GT. Of the survivors who met the national guidelines for GC/GT because of their history of regional/metastatic prostate cancer, 8% (n=3/39) and 11% (n=4/37) reported a history of GC and GT, respectively. Of all the survivors who reported receiving GT, only 50% (n=7/14) reported their GT results (n=3 received positive results). Of those reporting no history of GC/GT, 66% indicated they were interested in receiving GC/GT. More severe anxiety (d=0.32) as well as worse social functioning (d=0.32) were associated with interest in GC/GT (p < .05). Other demographic and psychosocial factors were not statistically significantly associated with interest in genetic services (ps > .05).

Conclusion: Findings suggest the presence of individual and structural barriers for genetic testing, as one third of Black prostate cancer survivors reported no interest in GC/GT and few completed GC/GT. Further research is needed to identify the prevalence of GC/GT among high-risk Black prostate cancer survivors and promote and facilitate risk appropriate GC/GT uptake among this population.

CORRESPONDING AUTHOR: Jessica N. Rivera Rivera, PhD, MPH, Moffitt Cancer Center, Tampa, FL; jessica.riverarivera@moffitt.org

3:26 PM – 3:32 PM

Abstract citation ID: kaad011.0886

NATURAL LANGUAGE USE IN CANCER CONVERSATIONS AND ATTACHMENT IN OLDER ADULT COUPLES

Katherine Ramos, PhD[1], Karena Leo, PhD[1], Shelby Langer, PhD, FSBM[2], Joan M. Romano, PhD[3], Michael Todd, PhD[2], Laura S. Porter, PhD[4]

[1]Duke University, Durham, NC; [2]Arizona State University, Phoenix, AZ; [3]University of Washington School of Medicine, Seattle, WA; [4]Department of Psychiatry and Behavioral Sciences, Duke University School of Medicine, Durham, NC

Communication and attachment styles are important predictors of relationship satisfaction in the context of cancer, yet little is known about associations between attachment styles and specific linguistic features of couples' cancer-related conversations. This study examined natural language use via Linguistic Inquiry and Word Count (LIWC) among 132 older adult couples (65+). Aims were to (1) identify linguistic features associated with anxious and avoidant attachment and (2) examine whether linguistic content mediated associations between attachment and dyadic satisfaction. The focus on geriatric oncology dyads is novel and important, as this understudied population may have unique supportive care needs.

Participants were part of a larger study examining dyadic communication in cancer. Patient diagnoses included stage II-IV breast, lung, and colorectal cancers. The sample had a mean age of 70.0 (SD = 5.9). Most patients were female (64%) and most partners male (62%). Participants were Asian (5%), Black (5%), and Caucasian (90%); 2% identified as Hispanic. Participants completed the Adult Attachment Scale and Dyadic Adjustment Scale at baseline; couples then had a 15-minute audiotaped conversation about a cancer-related topic. Aim 1 was addressed using correlational analyses; Aim 2 was addressed using Actor Partner Interdependence Models (APIMs) with linguistic features reflecting sentiment (e.g., positive tone) and affect (e.g., anger, sadness, and positive emotion) as mediators of attachment-relationship satisfaction associations.

Patients and partners higher in anxious or avoidant attachment used fewer words with a positive tone and communicated less sadness (rs = -.20 to -.24). Those higher in anxious attachment also used fewer positive emotion words (r = –.18, p < .05) and more anger words (rs = -.18 to .20). In couples with partners who were higher in anxious attachment, patients used less positive tone (r = .31, p < .05). APIM results indicated that patients' and partners' anxious attachment was negatively associated with their own relationship satisfaction (actor effects; ps < .05). No indirect effects were found in any of the tested models.

This study is the first to identify associations between attachment style and dimensions of natural language use during older couples' cancer-related conversations. These findings provide preliminary data regarding attachment-related linguistic features of conversations about cancer that could help inform couple-based interventions. Attachment style may be an important variable to consider in determining needs for couple-based interventions and tailored approaches based on style. Future longitudinal research examining additional linguistic and behavioral features of attachment style is warranted to further elucidate its correlates and consequences among patients and partners coping with cancer.

CORRESPONDING AUTHOR: Katherine Ramos, PhD, Duke University, Durham, NC; katherine.ramos@duke.edu

3:32 PM – 3:38 PM

Abstract citation ID: kaad011.0887

SEXUAL ACTIVITY AND SUBSTANCE USE AMONG ADOLESCENTS AND YOUNG ADULTS RECEIVING CANCER THERAPY

Kaitlyn M. Fladeboe, PhD[1], Abby R. Rosenberg, MD, MA, MS[1], Laura P. Richardson, MD, MPH[1], Cari McCarty, PhD[1], Sarah Fanizzi, BA[2], Mary Field[3], Joanna Patten, PsyD[4], Gretchen VonHeeder-Phillips, LICSW[4], Xing Wang, PhD[2], Tyler Ketterl, MD, MS[1]

[1]University of Washington, Seattle, WA; [2]Seattle Children's Research Institute, Seattle, WA; [3]Seattle Children's, Seattle, WA; [4]Seattle Children's Hospital, Seattle, WA

Background: Despite clinical implications, prevalence of health risk behaviors (HRB) among adolescents and young adults (AYAs) with cancer is not well understood. We aimed to describe frequency of sexual activity and substance use among AYAs receiving cancer therapy.

Methods: AYAs were consecutively recruited as part of a larger feasibility study for an electronic health assessment tool "Check Yourself Oncology". Eligible AYAs were: 13-29 years-old, receiving cancer directed therapy for an oncologic diagnosis, and fluent in English. Within the tool, AYAs reported sexual activity, including if they were sexually active (yes/no), types of sexual behavior (oral/vaginal/anal sex), and contraceptive use in last sexual encounter (condoms/birth control); and any substance use in the past year, including alcohol, marijuana, tobacco, non-prescribed prescription (Rx) drugs, illegal drugs, synthetic drugs, and inhalants. To describe HRB, we stratified the sample by age [adolescents 13-17 years, young adults (YAs) 18-25 years]. For sexual activity, we calculated the percentage of AYAs who were sexually active and of those, the percentage who endorsed each behavior. For substance use, we calculated the percentage of AYAs who endorsed any degree of use for each substance.

Results: Twenty-five (83%) of 30 eligible AYAs enrolled and 23 (92%) completed the tool (15 adolescents, 8 YAs). Among adolescents, 3 (20%) were sexually active; of these, all (3, 100%) reported having had oral and vaginal sex and 2 (67%) having had anal sex. In their last sexual encounter, 2 (67%) reported using condoms only and 1 (33%) using condoms and birth control. Among YAs, 5 (62%) were sexually active; of these, all reported having had oral sex, 4 (80%) having had vaginal sex, and 2 (40%) having had anal sex. In their last sexual encounter, 1 (13%) reported using condoms only, 2 (25%) using condoms and birth control, and 1 (13%) using birth control only. Among adolescents, 4 (27%) reported using alcohol, 3 (20%) using marijuana, 1 (7%) using tobacco, and 1 (7%) using non-prescribed Rx drugs in the past year. No adolescents reported using illegal or synthetic drugs or inhalants. Among YAs, 4 (50%) reported using alcohol and 3 (38%) using marijuana in the past year. No YAs reported using tobacco; non-prescribed Rx, illegal, or synthetic drugs; or inhalants.

Conclusion: AYAs are sexually active during treatment and engage in multiple forms of sexual contact, including anal sex. AYAs engage in some substance use, including alcohol and marijuana. Rates observed in this small selective sample may underestimate HRB in the broader AYA population and should be replicated by larger studies.

CORRESPONDING AUTHOR: Kaitlyn M. Fladeboe, PhD, University of Washington, Seattle, WA; kaitlyn.fladeboe@seattlechildrens.org

---

3:38 PM – 3:44 PM

Abstract citation ID: kaad011.0888

SEXUAL FUNCTION & SATISFACTION AMONG AYAS WITH CANCER: AN EXAMINATION OF THE ROLE OF AGE, SEX ASSIGNED AT BIRTH, AND PARTNER STATUS

Caroline S. Dorfman, PhD[1], juliann Stalls, PhD[1], Rebecca Shelby, PhD, FSBM[1], Sarah Arthur, MA[2], Coleman Mills, MA[3], Jacklyn Balliot, BSN, RN, OCN[3], David Van Mater, MD[1], Lars Wagner, MD[1], Cheyenne Corbett, PhD[3]

[1]Duke University School of Medicine, Durham, NC; [2]Duke University, Durham, NC; [3]Duke Cancer Institute, Durham, NC

Adolescent and young adult (AYA) oncology patients (aged 15-29) are diagnosed at a critical period in their sexual development. Cancer and associated treatments can significantly affect AYAs' sexual functioning and satisfaction. Understanding sociodemographic variables that may influence AYAs' sexual health is needed to develop targeted sexual health interventions. As part of a larger online survey, AYAs diagnosed with cancer in the last 2 years and receiving services through a designated AYA oncology program completed self-report items related to their sexual health: 1) an item from the Life Impact Checklist asking about the impact of cancer on sexual function/intimate relationships, and 2) the PROMIS Sexual Function and Satisfaction Measures Brief Profiles (PROMIS Sex FS). Descriptive statistics were used to characterize participants' experiences. Logistic or linear regression, as appropriate, examined the impact of age, sex assigned at birth, and partner status on sexual health variables. Sixty-six AYAs (M=24.4 years, SD=4.0) completed the survey. The majority were assigned female at birth (68.2%) and identified as heterosexual (82%). One-third were partnered. Close to half reported that cancer had a negative/very negative impact on their sexual functioning/intimate relationships, with these AYAs being significantly older (M=26.8 vs 22.3 years). The PROMIS Sex FS was added later in the study and completed by 54 AYAs. Average sexual interest scores were low (T=38.5, SD=14.1), and female AYAs endorsed lower interest than males (M=35.4 vs 45.1). Sexual interest was not influenced by age or partner status. Close to 60% of AYAs had been sexually active in the last 30 days, with more males (88%) engaging in sexual activity than females (46%). Sexual satisfaction was low (T=42.6, SD=6.9) among sexually active AYAs and did not differ by age, sex, or partner status. Sexually active females endorsed difficulties with lubrication, discomfort, and orgasm (ability and pleasure). Sexually active males reported few sexual difficulties. Regardless of partner status, AYAs may benefit from assistance with navigating the impact of cancer on sexual health. Support may be particularly relevant for older AYAs and females, who endorsed greater impacts and more sexual problems than their younger or male counterparts. Our results help to elucidate for whom sexual health interventions targeting AYAs may be most beneficial.

CORRESPONDING AUTHOR: Caroline S. Dorfman, PhD, Duke University School of Medicine, Durham, NC; caroline.dorfman@duke.edu

3:44 PM – 3:50 PM

Abstract citation ID: kaad011.0889

THE FORGOTTEN PATIENT: ADDRESSING UNMET NEEDS IN CAREGIVERS OF PATIENTS WITH BRAIN TUMORS

Kelcie D. Willis, MS[1], Lillia D. Thumma, BS[2], Amber Fox, BS[2], Sarah Barrett, BS[3], Karen Lo, BS[3], Ashlee R. Loughan, PhD[3], Morgan P. Reid, MS[4]

[1]Virginia Commonwealth University, New Haven, CT; [2]Virginia Commonwealth University, Richmond, VA; [3]Virginia Commonwealth University School of Medicine, Richmond, VA; [4]Virginia Commonwealth University, Chesterfield, VA

Introduction: Caregivers of patients with malignant gliomas (PwMG) report significant psychological and existential distress, yet they are often left out of supportive psycho-oncology programs. CALM (Managing Cancer and Living Meaningfully), an evidence-based psychotherapy, has shown preliminary benefit in reducing depressive and existential distress symptoms among PwMG. While caregivers are invited to participate alongside the patient, the benefit of CALM for treating caregiver distress has yet to be evaluated. Following the ORBIT model, this Phase 1a qualitative study sought to assess caregivers' interest in CALM and their recommendations to adapt the intervention to their unmet emotional needs.

Methods: Bereaved caregivers (N = 22, M_{age} = 47.2, SD = 14.5, 77% female, 73% White) of PwMG participated in four 90-minute focus groups (n = 4-7). Caregivers first received psycho-education on CALM and then participated in a semi-structured group interview. Sessions were audio-recorded, transcribed, and coded by five independent coders using thematic content analysis and NVivo software.

Results: Two major themes were explored: 1) CALM's relevancy to caregiver unmet needs and 2) suggested adaptations to CALM for caregivers. First, caregivers identified the framework of CALM to parallel their difficulties with *navigating medical care/systems*, *changes in relationships and identity*, *making sense of the diagnosis*, and *balancing hope with despair*. They believed CALM might improve their *communication* and *ability to support their loved one* through this terminal diagnosis. Second, caregivers provided recommendations for the *timing*, *content* (e.g., bereavement, caregiver burden), and *format* (e.g., both independent and joint sessions) of the CALM intervention. Examples of each theme and code(s) will be provided.

Conclusions: Interview themes suggest that CALM is a relevant and potentially impactful intervention for addressing neuro-oncology caregivers' unmet emotional and existential needs. Nevertheless, adjustments to the content, timing, and format of this intervention will need to be considered prior to a future feasibility/acceptability trial. Future studies will synthesize this information with exit interviews of current caregivers who completed CALM (alongside the PwMG) to provide further recommendations for adapting CALM to the specific needs of neuro-oncology caregivers.

CORRESPONDING AUTHOR: Kelcie D. Willis, MS, Virginia Commonwealth University, New Haven, CT; williskd@vcu.edu

LIVE RESEARCH SPOTLIGHT 9: CHILD AND FAMILY HEALTH

3:08 PM – 3:14 PM

Abstract citation ID: kaad011.0890

EXAMINING THE BIDIRECTIONAL ASSOCIATIONS BETWEEN SCREEN TIME, SLEEP DURATION, AND INTERNALIZING SYMPTOMS IN THE ABCD STUDY

Jennifer Zink, PhD[1], Sydney O'Connor, PhD[1], Dara Blachman-Demner, PhD[2], Dana Wolff-Hughes, PhD[1], David Berrigan, PhD, MPH[1]

[1]NCI, Rockville, MD; [2]NIH, Bethesda, MD

Objective: Depression and anxiety are examples of internalizing symptoms, which can also manifest as somatic complaints, such as fatigue. Investigating possible bidirectional associations between modifiable health behaviors and internalizing symptoms early in life could guide future interventions aimed at improving youth well-being. Studies have reported associations separately between internalizing symptoms and screen time or sleep duration. Few longitudinal studies have considered both behaviors simultaneously in relation to internalizing symptoms, and little is known on possible bidirectionality of associations. Here we examine the bidirectional associations between screen time, sleep duration, and internalizing symptoms across one year.

Methods: Data were from 10,828 participants (9.9 years old at baseline, 47.8% female gender identity) enrolled in the Adolescent Brain Cognitive Development (ABCD) study, a multi-site longitudinal study of United States youth. At baseline (2017/2018) and one-year follow-up (2018/2019), children self-reported screen time (hours/day) for weekdays and weekend days. Responses were separately dichotomized as > 2 vs. ≤ 2 hours/day (meeting behavioral recommendations). Caregiver-reported child sleep duration was dichotomized as < 9 vs. 9-11 hours/night (meeting behavioral recommendations). Caregivers also reported the child's internalizing symptoms via the child behavior checklist (CBCL). The withdrawn/depressed, anxious/depressed, and somatic symptom CBCL subscale t-scores were separately dichotomized as ≥ 65 (borderline clinical levels of symptoms and above) vs. < 65. Gender-stratified multilevel logistic regressions estimated the longitudinal/bidirectional associations between screen time, sleep duration, and each internalizing symptom subscale.

Results: In females, more weekend screen time was associated with increased risk of withdrawn/depressed symptoms (OR 1.6, 95%CI 1.1-2.2) one year later. In females, longer sleep duration was protective against withdrawn/depressed symptoms (OR 0.6, 95%CI 0.5-0.8) and somatic complaints (OR 0.8, 95%CI 0.6-0.9) one year later. No other significant associations were observed.

Conclusion: In children, the longitudinal associations between weekend (but not weekday) screen time, sleep duration, and internalizing symptoms may be unidirectional, among females only, and specific to withdrawn/depressed and somatic symptoms. These gender- and symptom-specific findings warrant further attention prior to behavioral intervention development.

CORRESPONDING AUTHOR: Jennifer Zink, PhD, NCI, Rockville, MD; jennifer.zink@nih.gov

3:14 PM – 3:20 PM

Abstract citation ID: kaad011.0891

EXPLORING INTEREST IN GAME TECHNOLOGY FOR HEALTHCARE TRANSITION EDUCATION IN PATIENTS WITH CONGENITAL HEART DISEASE

Rebecca K. Delaney, PhD[1], Ian M. Lindsay, MD[2], Kirstin Tanner, BS[1], Angela Fagerlin, PhD[1]

[1]University of Utah School of Medicine, Salt Lake City, UT; [2]University of Utah Health, Salt Lake City, UT

Background: Adolescents and young adults (AYAs) diagnosed with congenital heart disease (CHD) require lifelong CHD care; yet up to 62% experience gaps in care during the vulnerable transition from pediatric to adult healthcare. Limited participation in their own care and incomplete understanding of their CHD diagnosis are key barriers to transition. Innovative interventions need to be developed to address these barriers among this generation of "digital natives" to better translate science to impact in this clinical setting.

Objective: To understand the level of interest among pediatric patients with CHD in game technology as a strategy for learning CHD management skills.

Methods: A cross-sectional survey was distributed to pediatric patients at a routine CHD clinic appointment. Demographic information was collected. Survey items asked about preferences for different strategies for gaining CHD care management skills (e.g., video game, pamphlet, or short videos (like TikTok)) and game features. Surveys from Got Transition® were adapted to assess patient knowledge of their CHD (e.g., "I know about medicines or supplements that could interfere with my heart medications") and transition readiness skills (e.g., " I can name and/or describe my heart condition"). Descriptives and frequencies were computed to evaluate interest in video games.

Results: A total of 62 participants completed the surveys. Mean age was 15 years (range 12-18; SD=1.7), 44% identified as female and 88% identified as Non-Hispanic White. To supplement standard clinic conversations, participants were most interested in learning from TikTok style videos and video games.

Of those interested in video games (n=42), the mean age was 15 years (12-18 years; SD=1.8), 43% were female, and 87% were Non-Hispanic White. Top features that would enhance their interest in a game included personalization (86%; i.e., making their own avatar), 'leveling up' (81%; i.e., unlocking advanced stages), and conflict (81%; i.e., facing a challenge/obstacle to win the game). The transition readiness skills they were most interested in learning were: explaining their CHD (53%), carrying important health information (53%), and contacting their health insurance company (65%). They reported lacking knowledge the most in: knowing their vital signs (73%), medicines that interfere with heart medications (60%), and contacting their cardiologist before traveling (56%).

Conclusion: AYAs with CHD were interested in Tiktok style videos and gamification methods to learn CHD management skills. Integrating short videos into games should be explored as an innovative approach to teaching disease management skills to AYAs. Additional research, such as qualitative studies, should be conducted to gain an in-depth understanding of the needs of all key stakeholders (e.g., parents and physicians) to inform future intervention development.

CORRESPONDING AUTHOR: Rebecca K. Delaney, PhD, University of Utah School of Medicine, Salt Lake City, UT; rebecca.delaney@hsc.utah.edu

---

3:20 PM – 3:26 PM

Abstract citation ID: kaad011.0892

FROM FOCUS GROUPS TO WARNING LABELS: TRANSLATING PARENTS' INFANT SLEEP ATTITUDES TO IMPROVE PRODUCT SAFETY INFORMATION

Rachel N. Ingersoll, MPH[1], Miriam H. Eisenberg Colman, PhD[1], Rhea R. Manohar, MS[1]

[1]Fors Marsh Group, Arlington, VA

Background: Letting infants sleep in seated infant products (e.g., bouncer, rocker, swing, car seat carrier) increases risk of infant injury and death, yet many parents continue these behaviors. The Health Belief model suggests that understanding parents' perceived threat and benefits to using these products is critical for improving adherence. On behalf of the Consumer Product Safety Commission (CPSC), we conducted audience-centered research to better understand these factors with the goal of using our findings to improve warning labels and parent adherence and, hopefully, reduce infant injury and death.

Methods: Fors Marsh Group (FMG) conducted four focus groups with parents (total n=24; 83% female, 86% non-Hispanic, 75% White) of infants ages 0 to 11 months, from January 31 to February 3, 2022. Due to COVID-19-related safety precautions, participation was split into two sections: (1) in-person individual interactions with each of four seated infant products and (2) the virtual focus groups less than 24 hours later using the Zoom platform. Parents discussed their perceptions of these products, interacted with products, and reviewed warning labels. Trained moderators used a structured discussion guide to lead the groups and transcripts were coded via thematic analysis.

Results: Infant sleep safety is important to parents, but they also see immediate benefits to these products such as easier and prolonged naps and night sleep. Parents said that although they seek out product information, they rarely read warning labels carefully. Results also showed that warning labels did not provide clear guidance to parents concerning the degree of supervision needed if an infant sleeps in these products and a parent's ability to prevent injury or death.

Conclusions: Findings directly informed recommendations to the CPSC to make the most critical warnings more visible and attention-grabbing (bold, incorporate colors, move to the top, include a warning icon) and go beyond warning labels to also communicate safety information through videos, images, and other easier-to understand modes. FMG also recommended that any communication and behavior change efforts take a compassionate approach in helping parents understand not only what behaviors to avoid, but also strategies to help prolong infant sleep more safely. These data-driven changes could improve not only parent knowledge, but also reduce infant injury and death.

CORRESPONDING AUTHOR: Rachel N. Ingersoll, MPH, Fors Marsh Group, Arlington, VA; ringersoll@gwmail.gwu.edu

3:26 PM – 3:32 PM

Abstract citation ID: kaad011.0893

MICRO-TEMPORAL DYNAMICS OF PRESCHOOLERS' SCREEN USE AND BEHAVIOR PROBLEMS

Bridget Armstrong, PhD[1], Hannah Parker[2], Sarah Burkart, PhD[2], Michal Smith, MS[2], Layton Reesor-Oyer, PhD[2], Olivia Finnegan[2], Meghan Bastyr[2], Lauren E. von Klinggraeff, MPH[1], Roddrick Dugger[1], Elizabeth L. Adams, PhD[2], Michael Beets, PhD, MEd, MPH[1], R Glenn Weaver, PhD[2]

[1]University of South Carolina, Columbia, SC; [2]University of South Carolina, Columbia, SC

Background: Excessive screen time is linked with behavior problems among preschoolers; however, the directionality of this relationship is unclear. Most studies measure 'typical' or 'average' screen use, obscuring our ability to examine micro-temporal dynamics: effects that unfold over a short amount of time (i.e., minutes, hours). Using micro-temporal data, we can detect if one behavior (i.e., screen time) more strongly predicts future behavior (i.e., behavior problems) compared to the reverse. Answering these types of questions can reveal potential mechanisms underlying the relationship between behavior problems and screen use. Therefore, this study aimed to answer this question of directionality: *In a span of a few hours, does screen use predict subsequent behavior problems or do behavior problems predict subsequent screen use?*

Methods: We collected Ecological Momentary Assessment (EMA) data from 94 parents of preschoolers (child age M = 4.4 years; SD = 0.8). For 14 days, parents were texted 4 EMA surveys at random times between 7:30am and 8:30pm (#completed EMA/person M = 48.6; SD=6.9). Parents rated their child's problematic behavior (5-point Likert scale) and child's screen use (i.e., TV, videogames, computer) over the past 2 hours. We used Dynamic Structural Equation Models (DSEM) in Mplus (v. 8.2) to examine the autoregressive and cross-lagged effects of behavior problems and screen use over time.

Results: Within-person standardized results revealed that screen use did not predict subsequent behavior problems at the next EMA time point (b = 0.03; 95%CI -0.01 to 0.06). However, increased behavior problems predicted less subsequent screen time (b = -0.07; 95%CI -0.11 to -0.02). The model explained 4% and 5% of the within-person variability in screen time and behavior problems, respectively.

Conclusions: Screen use does not appear to have a significant impact on later parent reported behavior problems, at least in the near term (i.e., within several hours). However, increases in behavior problems are followed by *less* screen time later that day, though the magnitude of this effect is small. This may reflect parent's restriction of screen time as a response cost behavior management strategy. Links between behavior problems and screen use may also be subject to additional dynamics that unfold over different time scales (i.e., days/weeks). Understanding these dynamics can then inform Just in Time Interventions (JITI) that aim to reduce screen use.

CORRESPONDING AUTHOR: Bridget Armstrong, PhD, University of South Carolina, Columbia, SC; BA12@mailbox.sc.edu

3:32 PM – 3:38 PM

Abstract citation ID: kaad011.0894

PREDICTORS OF ENGAGEMENT WITH A PARENT-TARGETED TEXT MESSAGE INTERVENTION TO REDUCE EARLY CHILDHOOD CARIES IN AT RISK CHILDREN

Romano Endrighi, PhD, MSc[1], Michelle M. Henshaw, DDS, MPH[1], Timothy Heeren, PhD[1], William G. Adams, MD[1], Derek J. Hevel, PhD[1], Belinda Borrelli, PhD, FSBM[1]

[1]Boston University, Boston, MA

Background: Text message-based (TM) interventions are effective for health behavior change and have shown promise in oral health. Yet, little is known about characteristics promoting high engagement in TM programs that target oral health behavior. Our aim was to examine predictors of engagement with a social cognitive theory (SCT)-based TM intervention designed to reduce childhood caries. Methods: Participants who had a child ($<$ 7 yrs. old) were randomized to receive interactive oral health TMs (OHT) or child wellness TMs for 4 months (twice a day for 4 weeks, then once a day for 12 weeks). For the current analysis, we investigated the OHT group (n=377; M age=33 yrs., 55% Black, 66% below poverty). An objective engagement score was computed for each participant as the ratio between TMs responded to and TMs requiring response, and dichotomized to response rate ($\geq$ 75% vs. $<$ 75%). We examined three broad categories of putative predictors of engagement: sociodemographic factors (parent and child age, race/ethnicity, income, education, reside in public housing, marital and employment status), oral health-related factors (child dental caries, parent perceived child's oral health, child tooth brushing behavior, child dental visits, and child oral health quality of life), and SCT constructs (parent motivation and confidence to implement child oral health behaviors, parent oral health self-efficacy, child brushing outcome expectancies [OEs] and OEs regarding parents' role in preventing cavities in children). In exploratory univariate analysis, we used stepwise logistic regression to select variables associated with engagement with a significance level $\leq$ .15. These variables were then entered into a multivariate logistic model to examine predictors of engagement ($p \leq .05$). Results: Of the 36,375 TMs requiring a response participants received over 4-months, 24,716 were responded to (68%) indicating overall high engagement. Univariate analysis showed that parents' older age, White (vs. Hispanic) race/ethnicity, residing in public housing, full-time employment, presence of caries, perceived fair/poor (vs. excellent) child oral health, brushing OEs (belief that children's teeth should be brushed twice a day with fluoride toothpaste), and parental role OEs (belief that parents can do a lot to prevent cavities in their child) were associated with engagement ($\geq$ 75% response rate). The multivariate model identified older age (OR=1.05, 95%CI=1.01, 1.08), perceived fair/poor child oral health (OR=3.03, 95%CI=1.11, 8.22), and parental role OEs (OR=1.92, 95%CI=1.08, 3.43) as significant predictors of high engagement with the text message intervention. Conclusions: Parental perception and expectancies beliefs appear to be key cognitive constructs for engagement, which suggests that these constructs may be viable targets to promote high parental engagement with child oral health programs.

CORRESPONDING AUTHOR: Romano Endrighi, PhD, MSc, Boston University, Boston, MA; endrighi@bu.edu

3:38 PM – 3:44 PM

Abstract citation ID: kaad011.0895

SLEEP, STRESS, AND CHILDCARE IN NEW PARENTS: CHANGES DURING THE FIRST 8-MONTHS

Chelsea Kracht, PhD[1], Chris M. Blanchard, PhD[2], Danielle Symons Downs, PhD[3], Mark R. Beauchamp, PhD[4], Ryan E. Rhodes, PhD, FSBM[5]

[1]Pennington Biomedical Research Center, Baton Rouge, LA; [2]Dalhousie University, Halifax, NS, Canada; [3]The Pennsylvania State University, University Park, PA; [4]University of British Columbia, Vancouver, BC, Canada; [5]University of Victoria, Victoria, BC, Canada

Objective: To describe changes in sleep and stress in new parents during the first 8-months postpartum by sex and childcare responsibilities.

Methods: This secondary data analysis comprised a randomized control trial conducted in 2014-2018 amongst parent dyads expecting their first child. Parents completed questionnaires related to overnight sleep duration, perceived stress, and proportion of childcare responsibilities at 2-months, 4-months, 6-months, and 8-months postpartum. Sleep duration was classified as meeting the guidelines (7-9 hours/night). McNemar's test, repeated measures Analysis of Variance, and linear regression was used to examine changes in sleep and stress across time, and differences between sexes and childcare responsibilities.

Results: Among 181 individual parents with complete data across all time points (31.7±4.2 years, 51.3% women, 83.3% White), most reported 6.42±1.0 hours of sleep. Some (40%) met the sleep guideline at 2-months, though majority had short sleep (59%) with only one participant reporting long sleep (1%). Sleep guideline attainment improved across 4-months (55.2%), 6-months (54.7%) and 8-months (51.9%) compared to 2-months (p's< 0.05). Both sexes reported more sleep at 4-months compared to 2-months (p's< 0.05), but not at 8-months compared to 2-months (p's >0.05). Women reported less sleep compared to men at 6-months (-0.42±0.16 hours, p=0.01). Women's sleep was shorter at other time points, but it was not statistically significant from men. Most women reported performing most (75-100%) or all (100%) of childcare across all time points (>87% for categories combined), while men reported performing little (1-25%) or some (26-50%) of childcare (>67% for categories combined). Parents who performed fewer childcare responsibilities reported more sleep and less stress compared to those doing more childcare responsibilities at 6-months and 8-months. There was a significant interaction between childcare responsibilities and sex at 4-months for both sleep and stress, though no significant differences were found in stratified models (p's >0.05).

Conclusion: In this sample, sleep improved at points in the postpartum period, but was still inadequate in most parents. Additional childcare responsibilities were related to less sleep and more stress. Opportunities to share childcare responsibilities may promote additional sleep and less stress in the first year of parenthood.

CORRESPONDING AUTHOR: Chelsea Kracht, PhD, Pennington Biomedical Research Center, Baton Rouge, LA; chelsea.kracht@pbrc.edu

LIVE RESEARCH SPOTLIGHT 10: DIABETES

3:02 PM – 3:08 PM

Abstract citation ID: kaad011.0896

"IF YOU'RE GETTING ON ME LIKE THAT, IT'S LOVE": SUPPORT AMONG BLACK AND WHITE INDIVIDUALS WITH TYPE 2 DIABETES

Jeanean B. Naqvi, PhD[1], Vicki S. Helgeson, PhD[2]

[1]UC San Diego, San Diego, CA; [2]Carnegie Mellon University, Pittsburgh, PA

Family members and friends play an important supportive role in the management of chronic illnesses like diabetes, which often require substantial lifestyle changes. Some studies suggest that there may be racial differences in the kinds of support people receive, though little research has examined this idea within a chronic illness context. The current study examines differences between Black and White individuals with type 2 diabetes in their receipt of and reactions towards support behaviors that are traditionally considered intrusive, including unsolicited support and overprotective support. We conducted semi-structured interviews with individuals from the Greater Pittsburgh area in Pennsylvania (N = 32). After conducting thematic analysis, we found that participants' discussions of the support they received centered around five themes: (1) unsolicited emotional support was perceived positively, but reactions towards unsolicited instrumental and informational support were more variable; (2) when it came to overprotective support, participants generally found close others doing things for them to be helpful, whereas participants' feelings about restrictions varied by race; (3) in terms of the directiveness of the support, participants generally expressed negative feelings when close others told them what to do, even if they found it helpful; (4) if support was perceived as inhibiting autonomy, it was generally undesired—but for Black participants, knowing that the support was provided out of love and care made it more acceptable; and (5) support behaviors were conveyed with a specific tone, which allowed participants to infer the reasons for the support being provided and may impact feelings towards support. This study provides an initial step in grounding social support theory in the experiences of marginalized populations and will inform further development of a culturally sensitive measure of social support for individuals with chronic illness.

CORRESPONDING AUTHOR: Jeanean B. Naqvi, PhD, UC San Diego, San Diego, CA; jeaneanbnaqvi@gmail.com

3:08 PM – 3:14 PM

Abstract citation ID: kaad011.0897

ARE THERE SUBTYPES OF INSULIN RESTRICTION AMONG INDIVIDUALS WITH DIABETES? A SYSTEMATIC REVIEW

Aislinn B. Beam, MA[1], Deborah J. Wiebe, PhD, MPH[1]

[1]University of California, Merced, Merced, CA

Insulin restriction – which occurs when individuals take less insulin than recommended - is a dangerous, yet poorly understood behavior for individuals managing diabetes. Although often examined as a disordered eating behavior among those with type 1 diabetes (T1D), insulin restriction can occur for many reasons among those with either T1D or type 2 diabetes (T2D). A systematic review of self-reported insulin restriction was conducted to discern how this behavior has been conceptualized and measured, and to examine whether there are subtypes of insulin restriction that may benefit from different interventions. Out of 576 initial articles, 46 unique articles met inclusion/exclusion criteria. These articles commonly used cross-sectional designs and included varied samples of those with T1D and/or T2D, with or without established eating disorders. Twenty articles measured general insulin restriction (IR), 22 articles measured insulin restriction for weight control (IRWC), and four articles measured both variables. In studies measuring IRWC, insulin restriction was consistently conceptualized as a form of disordered eating and was studied almost exclusively among individuals with T1D, even though those with T2D identified weight gain a concern with insulin. In studies measuring IR, restriction was most often conceptualized as an aspect of diabetes (mis)management in those with T1D and/or T2D. Eight studies showed a mismatch, using general IR measures to explore specific reasons for insulin restriction (e.g., as disordered eating), which may create inconsistencies in the literature. IR was more prevalent than IRWC, but these variables were equally common among men and women and across the lifespan. Both IR and IRWC were related to higher A1c, indicating less optimal management of diabetes. Although there was variability in the findings, disordered eating symptoms and negative emotions were the most consistent predictors of both IR and IRWC, while a variety of self-management behaviors and processes have been examined and associated only with IR. Two studies that examined IR and IRWC in the same samples suggested these are different constructs: IR and IRWC were unrelated to each other, had different prevalence rates, had different associations with the tested predictor variables, and only IRWC was associated with A1c. Findings revealed large gaps in the research base, the need for consistent measurement, and for more sophisticated conceptual models and research designs to understand this risk behavior for individuals with diabetes.

CORRESPONDING AUTHOR: Aislinn B. Beam, MA, University of California, Merced, Merced, CA; abeam@ucmerced.edu

---

3:14 PM – 3:20 PM

Abstract citation ID: kaad011.0898

ASSESSING THE EXPERIENCES OF EMERGING ADULTS WITH TYPE 1 DIABETES IN RURAL AREAS AND ACCEPTABILITY OF 3 BEHAVIORAL INTERVENTIONS

April I. Idalski Carcone, MSW, PhD[1], Ozichukwu I. Ukandu[1], Dariane I. Vesey[1], Nadia T. Niha[1], Madeleine E. Reardon, BA[2], Deborah Ellis, PhD[1], Bree Holtz, PhD[3], Michael Parks, RN, CDCES[4]

[1]Wayne State University, Detroit, MI; [2]Wayne State University, Shelby Twp., MI; [3]Michigan State University, East Lansing, MI; [4]UP Health System – Marquette, Marquette, MI

Emerging adults (EAs, age 18-25) with type 1 diabetes (T1D) have more challenges with diabetes management (DM) and glycemic control compared to other age groups. EAs with T1D living in rural communities face unique diabetes care challenges due to limited access to specialty care and ancillary support services. Despite this, few interventions focus on improving DM in rural-dwelling EAs with T1D. The goal of this study was to understand the DM experiences of EAs with T1D living in a rural area of the Midwest and assess the acceptability of three eHealth interventions to improve DM previously developed for urban-dwelling EAs. The interventions were the *Motivation Enhancement System* (two Motivational Interviewing-framed eCounseling sessions to increase intrinsic motivation and self-efficacy for DM), *text message reminders* (twice daily reminders to complete diabetes care tasks), and a *Question Prompt List (tailored list of diabetes care questions to guide clinical care discussions at diabetes clinic visits).* Nine EAs [18.8 (± 2.7) years, 56% male, 89% White, duration of diabetes 8.6 (± 4.3) years] were identified by clinical staff through convenience sampling and participated in focus group interviews. Conventional content analysis of transcribed interview data identified two main themes about EAs' diabetes management experiences while living in a rural area – social context and clinical care context – EAs also offered feedback on the interventions. Within the social context theme, EAs reported experiences with diabetes-related stigma (negative perceptions about people with diabetes/diabetes care, "Are you sure you're allowed to have that cupcake?"), feelings of self-consciousness (hyperawareness or feeling "on stage"), relatability (discovering unexpected connections with others who "have gone through it" too), and diabetes-related support from friends who prompt them to check blood sugar when behavior/mood changes and positive emotional support from other members of the community (teachers and martial arts community). Clinical care context themes included challenges with continuity of care, location, accessibility of diabetes care providers, and affordability of medical supplies. Overall, rural-dwelling EAs found the interventions acceptable. Positive aspects of the interventions were their applicability (intervention content was a good fit, consistent with their own experiences), accessibility (ability to reach people of varying skills, lack of jargon), and personalization (ability to tailor content to preferences). Suggestions for improving their fit with the needs of rural EAs included a more peer testimonials, a more casual, engaging tone, and guidance tailored to different diabetes care routines, e.g., tips for getting the most out of diabetes technology. Next steps are to refine the interventions and test their efficacy in EAs with T1D living in rural communities.

CORRESPONDING AUTHOR: April I. Idalski Carcone, MSW, PhD, Wayne State University, Detroit, MI; acarcone@med.wayne.edu

3:20 PM – 3:26 PM

Abstract citation ID: kaad011.0899

EMOTIONAL DISTRESS, SELF-MANAGEMENT, AND GLYCEMIC CONTROL AMONG GRADE TRIAL PARTICIPANTS WITH EARLY TYPE 2 DIABETES

Jeffrey S. Gonzalez, PhD[1], Heidi Krause-Steinrauf, MS[2], Ionut Bebu, PhD[2], Gladys Crespo-Ramos, PhD[1], Claire J. J. Hoogendoorn, PhD[1], Aanand D. Naik, MD[3], Andrea Waltje, RN, MS, CCRP[4], Elizabeth A. Walker, PhD[1], Dominic Ehrmann, PhD[5], Janet Brown-Friday, RN, MSN, MPH[6], Andrea L. Cherrington, MD[7]

[1]Albert Einstein College of Medicine, Bronx, NY; [2]The Biostatistics Center, Milken Institute of Public Health, George Washington University, Rockville, MD; [3]UTHealth School of Public Health, Dallas, TX; [4]University of Michigan, Ann Arbor, MI; [5]Research Institute Diabetes Academy Mergentheim, Bad Mergentheim, Baden-Wurttemberg, Germany; [6]Einstein College of Medicine, Bronx, NY; [7]University of Alabama, Birmingham, AL

Objective: We examined depressive symptoms and diabetes distress in relation to metformin adherence, overall self-management, and glycemic control among adults with early type 2 diabetes (T2DM) enrolled in the Glycemia Reduction Approaches in Diabetes Emotional Distress Substudy (GRADE EDS).

Methods: Participants with T2DM of < 10 years duration who were taking metformin monotherapy and achieved a maximum tolerated dose of metformin (1000-2000 mg/day) during a study run-in period, were assessed for trial eligibility and randomly assigned to one of four additional glucose-lowering drugs. The current abstract reports on cross-sectional results from the baseline assessment, prior to initiation of a second glucose-lowering drug. Linear regression models examined the associations of depressive symptoms and diabetes distress with adherence to metformin, overall diabetes self-management (all measured using validated questionnaires), and HbA1c, adjusting for demographic and health-related covariates.

Results: Baseline data from a total of 1,739 GRADE EDS participants from 26 clinical centers were included: 56% Non-Hispanic White, 18% Non-Hispanic Black, 17% Hispanic, 68% male, mean (sd) age=58.0 (10.3) years, diabetes duration=4.2 (2.8) years, and HbA1c=7.51% (0.48). The prevalence of clinically significant depression was 8.7% whereas the prevalence of significant diabetes distress was 25%. Multivariable models showed that depressive symptoms and diabetes distress were robustly associated with lower levels of metformin adherence and overall self-management. Results showed mostly consistent evidence for the independence of depressive symptoms and diabetes distress when modeled together and suggested that effects for depression were explained by somatic rather than cognitive-affective symptoms. There were no significant relationships of total depressive symptom severity or diabetes distress with HbA1c.

Conclusions: Depressive symptoms and diabetes distress were each independently associated with lower metformin adherence and overall diabetes self-management among participants in the GRADE EDS. Somatic symptoms of depression, including problems with sleep, appetite, fatigue, and concentration, may be an especially important aspect of depressive symptoms in T2DM care. These findings highlight the need for routine assessment of depressive symptoms and diabetes distress as part of comprehensive diabetes care and provide directions for future research.

CORRESPONDING AUTHOR: Jeffrey S. Gonzalez, PhD, Albert Einstein College of Medicine, Bronx, NY; jeffrey.gonzalez@yu.edu

3:26 PM – 3:32 PM

Abstract citation ID: kaad011.0900

FEASIBILITY AND ACCEPTABILITY OF AN INTEGRATED TAILORED ADHERENCE AND DIABETES SELF-MANAGEMENT PROGRAM FOR AFRICAN AMERICANS

Meng-Jung Wen, MS, BPharm[1], Martha A. Maurer, MSSW, MPH, PhD[2], Luke Schwerer[3], Nassim Sarkarati, MPH[3], Ejura Y. Salihu, MSc, MA[4], Jenna Nordin[5], Phanary Xiong[5], Ugboaku M. Egbujor[3], Sharon D. Williams[6], Olayinka O. Shiyanbola, PhD, BPharm[1]

[1]Division of Social and Administrative Sciences, School of Pharmacy, University of Wisconsin–Madison, Madison, WI; [2]Sonderegger Research Center, School of Pharmacy, University of Wisconsin-Madison, Madison, WI; [3]School of Pharmacy, University of Wisconsin- Madison, Madison, WI; [4]Division of Social and Administrative Sciences, School of Pharmacy, University of Wisconsin–Madison, MADISON, WI; [5]School of Pharmacy, University of Wisconsin-Madison, Madison, WI; [6]Center for Community Engagement and Health Partnership, University of Wisconsin–Madison, Milwaukee, WI

Background: Medication nonadherence disproportionately affects African Americans with diabetes which leads to negative health outcomes. However, few diabetes self-management education programs target barriers to African Americans' medication nonadherence including psychosocial and behavioral factors. We worked with stakeholders to design a 6-month program (Peers EXCEL) which incorporates a culturally tailored intervention for African Americans with a widely disseminated evidence-based diabetes self-management program (Healthy Living with Diabetes). This study aimed to evaluate the feasibility and acceptability of Peers EXCEL as well as signal of effects for hemoglobin A1C (A1C), medication adherence and psychosocial outcomes.

Methods: We conducted a single group, pre/post study design with African Americans with type 2 diabetes. The intervention consisted of group education and race-congruent peer-based phone support matching African Americans who were adherent to taking their diabetes medicines (ambassadors) with African Americans who were nonadherent (buddies). Feasibility was examined through recruitment, retention rates, intervention adherence. We used semi-structured interviews to investigate program acceptability for buddies. A1C, medication adherence and other psychosocial factors were measured at baseline, after completion of the 8-week intervention, and at 6-month follow-up. Wilcoxon signed rank tests evaluated for mean score differences in outcomes and effect sizes.

Results: Eight buddies and 3 ambassadors with diabetes with a mean age of 54 years (SD =8.6) and who were mostly female completed the intervention. We exceeded our recruitment and retention goals of 80% for ambassadors, and achieved (100%). For buddies, the recruitment rate (80%) was met but we did not meet the retention goal (75%). Buddies (79%) and ambassadors (100%) both had high intervention adherence rates of group sessions and phone calls. Although there were no statistically significant differences in mean A1C and medication adherence, a clinically meaningful decrease (-0.73) in mean A1C was found at the 6-month follow up compared to baseline. Buddy's medication nonadherence (-0.9%), self-efficacy (+35%), diabetes empowerment (+34%) and depression (-44%) showed signal of changes. Themes showed that buddies perceived this culturally tailored intervention supported self-management and goal-setting, and motivated communication with providers.

Conclusions: This culturally tailored diabetes self-management intervention which incorporates peer support seemed feasible and acceptable for African Americans in addressing psychosocial and behavioral barriers to medication adherence. The results provide support for a fully powered randomized trial to test the efficacy of the intervention.

CORRESPONDING AUTHOR: Meng-Jung Wen, MS, BPharm, Division of Social and Administrative Sciences, School of Pharmacy, University of Wisconsin–Madison, Madison, WI; mwen8@wisc.edu

3:32 PM – 3:38 PM

Abstract citation ID: kaad011.0901

GOAL CHANGE AND SOCIAL SUPPORT AND LINKS TO GOAL SUCCESS FOR YOUNG ADULTS ACROSS THE PILOT FAMS-T1D INTERVENTION FOR DIABETES

Cynthia A. Berg, PhD, FSBM[1], Jessica Mansfield, MS[1], Silas B. Boggess, BS[2], Julia Martin[1], Torri Peck, BS[1], Benjamin C. Creer[3], Deborah J. Wiebe, PhD, MPH[4], Lindsay S. Mayberry, PhD[5]

[1]University of Utah, Salt Lake Cty, UT; [2]University of Utah, salt lake city, UT; [3]University of Utah, Salt Lake City, UT; [4]University of California, Merced, Merced, CA; [5]Vanderbilt University Medical Center, Nashville, TN

Objectives: Young Adults (YA) with type 1 diabetes (T1D) have high HbA1c and distress compared to other ages, due to self-regulation problems and changes in social support as parents are less involved. We established the feasibility of the FAMS-T1D (**F**amily/friend **A**ctivation to **M**otivate **S**elf-care) intervention that targets self-regulation (coaching for goal setting and monitoring, text support) and social regulation (coaching to optimize social support and texts to a support person). We examine 1) the goals that YA set, 2) whether YA can effectively modify their goals and maintain goal success, and 3) how involvement of others relates to goal success and changes in A1c, distress and self-efficacy across 3-months.

Methods: Young adults with T1D (N=30, *M* age=21.6 years, 57% female) were coached to set a SMART (specific, measurable, actionable, realistic, and time-bound) goal. Monthly health coaching notes from the 3-month feasibility trial were qualitatively coded regarding the types of goals set (food or blood glucose monitoring, with additions of insulin and exercise), the complexity of goals (e.g., focused on one goal type or a mix), and changes in goals across time. We conducted thematic analysis of the coaching notes to identify themes with qualitative codes linked to daily text message responses from YA as to whether they met the goal (i.e., goal success) and changes in HbA1c, distress, and self-efficacy.

Results: Individuals most frequently set goals regarding food (79%) either in isolation or in combination with managing blood glucose, insulin, or exercise. Across three months, 90% of YA changed their monthly goals, with most increasing goal complexity by adding a component (60%, adding insulin or BG to a food goal). Goal success was high (78% of days YA met goal) with increased complexity of goals not associated with reduced goal success. Greater goal success was associated with increases in self-efficacy. Themes arose concerning self-regulation failures (low motivation, not remembering to engage in goal action), the role of changes to routines as a significant barrier to goal success, supportive and unsupportive involvement of others, and the expansion of social support across network members. Lower goal success occurred when YA mentioned more self-regulation failures and unsupportive involvement from others. Expansion of the social network was associated with greater reductions in diabetes distress. Consistent with the aims of FAMS-T1D, individuals reported fewer instances of unsupportive involvement across the three months.

Conclusions: Young adults can increase complexity of diabetes goals across time with goal coaching and maintaining goal success. Self-regulation failures and unsupportive involvement of others are barriers to goal success. Optimizing social support through reducing unsupportive involvement may reduce diabetes distress experienced by emerging adults.

CORRESPONDING AUTHOR: Cynthia A. Berg, PhD, FSBM, University of Utah, Salt Lake Cty, UT; cynthia.berg@psych.utah.edu

---

3:38 PM – 3:44 PM

Abstract citation ID: kaad011.0902

IMPORTANCE OF SUBJECTIVE SES AND NEIGHBORHOOD DISADVANTAGE FOR ADOLESCENTS WITH TYPE 1 DIABETES

Tayler Mackie, BS[1], Sarah S. Jaser, PhD[2]

[1]TTUHSC Paul L. Foster School of Medicine, El Paso, TX; [2]Vanderbilt University Medical Center, Nashville, TN

Objective / Hypothesis: As the prevalence of type 1 diabetes (T1D) continues to rise, adolescents from low-income and underrepresented groups are at greater risk for lower glycemic control and poorer long-term health outcomes. Rather than focus on a single socioeconomic variable, such as income or insurance status, we examined associations between multiple indicators of socioeconomic status (SES) with diabetes outcomes. We hypothesized that adolescents from higher deprivation neighborhoods and those with lower perceived SES would have poorer glycemic control (A1c, time in range), greater problems with diabetes management, and higher diabetes distress than those from lower deprivation neighborhoods.

Approach: Using baseline data from an ongoing multisite, randomized trial of a positive psychology intervention for adolescents with T1D (n=198, Mage = 15.4 ± 1.4, 58% female, 60% White, non-Hispanic), we examined participant responses to the Self-Care Inventory as a measure of diabetes management, and The Problem Area in Diabetes Scale, a measure of diabetes distress. A1c and time in range were extracted from participants' medical records. Participant addresses were used to calculate the Area Deprivation Index (ADI) by the summation of Singh's 17 census variables (including education level, income disparity, home value, household density). Subjective SES was assessed by asking how "well off" participants rated themselves (0-100). Data were analyzed using Pearson correlations and multivariable regression analysis.

Results: Adjusting for adolescent age, sex, and race/ethnicity, ADI was a significant predictor of A1c levels ($\beta = .27$, $p < .01$), but not time in range nor self-care or distress. Subjective SES was significantly associated with A1c ($\beta = -.41$, $p < .001$), time in range ($\beta = .32$, $p < .001$), self-care ($\beta = .25$, $p = .001$), and diabetes distress ($\beta = -.21$, $p < .01$).

Conclusions: Our findings from a diverse group of adolescents with T1D suggest that higher levels of neighborhood disadvantage may make it more difficult for adolescents to meet glycemic targets. Furthermore, subjective SES was more strongly associated with glycemic control, diabetes management, and diabetes distress than ADI, implying that patients' perceived status may be more relevant to positive diabetes outcomes. Including subjective SES on screening tools may identify adolescents who would benefit from additional psychosocial support to potentially improve health outcomes in teens with T1D.

CORRESPONDING AUTHOR: Tayler Mackie, BS, TTUHSC Paul L. Foster School of Medicine, El Paso, TX; taymacki@ttuhsc.edu

3:44 PM – 3:50 PM

Abstract citation ID: kaad011.0903

TIME-VARYING PSYCHOSOCIAL PREDICTORS OF BLOOD GLUCOSE AMONG ADOLESCENTS WITH TYPE 1 DIABETES: A DSEM APPROACH

Fiona Horner, BA[1], Vicki S. Helgeson, PhD[1]

[1]Carnegie Mellon University, Pittsburgh, PA

Type 1 diabetes is a complex chronic illness, the daily management of which centers on keeping one's blood glucose levels in a healthy range by carefully balancing diet, exercise, and insulin administration. While prior work has identified a number of psychosocial factors that influence blood glucose stability (e.g., affect, stress, interpersonal relationships), this work has largely examined these links either at the between-person level or using sparse glucometer (i.e., finger prick) data. However, among people with diabetes, recent advances in diabetes technology have greatly increased the usage of continuous glucose monitors (CGMs), wearable devices that measure blood glucose every few minutes. The availability of these highly sensitive data offers researchers a novel opportunity to examine the effect of time-varying psychosocial influences on within-person blood glucose changes. Using an ecological momentary assessment (EMA) design, the present study explored cross-lagged links of mood, diabetes self-care, and interaction quality (i.e., enjoyment, communality, dominance, and unmitigated communion) to blood glucose levels and variability among adolescents with type 1 diabetes. Participants (N = 103, 50.5% male, 47.5% female, 1.9% non-binary, mean age = 15.8) completed a four-day EMA period during which they reported on psychosocial variables at eight randomly timed points per day. Multiple dimensions of CGM data were summarized over the two hours preceding each EMA survey: blood glucose mean, standard deviation, and three binary variables indicating if the participant met guidelines for time in range (TIR), time above range (TAR) and time below range (TBR). Dynamic structural equation modeling with latent mean centering was used to parse the data into within- and between-person components while accounting for the unequal intervals between assessment points. Results showed higher reports of diabetes self-care generally predicted better blood glucose outcomes (M, TIR, TAR) at the next time point, but predicted reduced likelihood of meeting TBR guidelines. There were no effects of mood on blood glucose. Dominant behavior during an interaction predicted greater odds of meeting TIR goals, but no links emerged for communality, unmitigated communion, or interaction enjoyment. Findings are among the first to explore the effects of time-varying psychosocial variables on CGM data and point to the role of dominance and diabetes self-care in influencing fine-grained blood glucose outcomes throughout the day.

CORRESPONDING AUTHOR: Fiona Horner, BA, Carnegie Mellon University, Pittsburgh, PA; fhorner@andrew.cmu.edu

Friday
April 28th, 2023
5:00 PM – 5:50 PM
Poster Session D

Abstract citation ID: kaad011.0904

POSTER SESSION D: DIFFERENCES IN PROVIDER HEPATITIS C VIRUS SCREENING RECOMMENDATIONS BY PATIENT RISK STATUS

Alfu Laily[1], Monica L. Kasting[1], Robert Duncan[2], Kaitlyn Gabhart[2], Lauren Nephew[3], Shannon M. Christy, PhD[4], Susan T. Vadaparampil, PhD, MPH[4], Anna Giuliano[4]

[1]Purdue University, Lafayette, IN; [2]Purdue University, West Lafayette, IN; [3]Indiana University School of Medicine, Indianapolis, IN; [4]Moffitt Cancer Center, Tampa, FL

Introduction: Hepatitis C Virus (HCV) is attributable to 50% of liver cancer in the United States. Universal one-time HCV screening is recommended for all adults ages 18-79. HCV infection is also linked to substance use, therefore negative perceptions can be associated with HCV screening. Patient-level perceived stigma has been identified as a barrier to HCV screening and this is exacerbated by provider-reported discomfort in asking about patient risk behaviors. This study compares providers' HCV screening recommendation quality between high-risk and average-risk patients to determine if providers are universally recommending HCV screening, regardless of risk behaviors

Methods: This cross-sectional survey of providers in Indiana assessed provider characteristics, practice characteristics, HCV screening recommendation practices (strength, presentation, frequency, timeliness), self-efficacy for recommending HCV screening, and barriers to screening. T-test and Chi-square compared recommendation practices for high-risk and average-risk patients. Logistic regression analyses examined factors associated with HCV recommendation strength for high- and average-risk patients.

Results: In the final sample (n=284), mean age was 47.3 years. Most providers were physicians (69.7%, n=198), in private practice (55.3%, n=145), and 46.6% (n=122) practiced in a suburban area. High-risk patients received higher proportion of HCV recommendations that were routine (61.9% v. 55.6% for average risk), frequent (37.7% v. 28%), strong (70.4% v. 42.4%), and timely (74.2% v. 54.9%) (ps< 0.001). In logistic regression analyses for average-risk patients, providers were more likely to give a strong recommendation if the majority of patients in their clinic were of a race other than White or Black (aOR= 4.60; 95%CI=1.78-11.9) and were less likely if they have higher barriers (aOR=0.38; 95%CI=0.23-0.64). Those with higher self-efficacy (aOR=1.96; 95%CI=1.04-3.70) and internal medicine compared to family medicine (aOR=0.46; 95% CI=0.23-0.94) were associated with lower odds of giving a strong recommendation to high-risk patients.

Conclusions: These data suggest providers are not universally recommending HCV screening for all adults. The findings should be translated into provider-level interventions to improve HCV screening recommendations regardless of patient risk status to have optimal impact on HCV-related morbidity and mortality.

CORRESPONDING AUTHOR: Alfu Laily, Purdue University, Lafayette, IN; alaily@purdue.edu

Abstract citation ID: kaad011.0905

POSTER SESSION D: RUNNING HIGH: ACUTE EFFECTS OF LEGAL-MARKET CANNABIS USE ON THE SUBJECTIVE EXPERIENCE OF EXERCISE IN A NATURALISTIC SETTING

Laurel P. Gibson, MA[1], Samantha Shellman[1], Angela D. Bryan, PhD, FSBM[1]

[1]University of Colorado Boulder, Boulder, CO

The rapidly evolving legal landscape surrounding cannabis in the United States has led to increased attention on the public health implications of cannabis use, including its influence on exercise engagement. Interestingly, the use of cannabis with various forms of exercise (e.g., running) has received increased media attention in recent years, contradicting the popular stereotype that cannabis use is associated with sedentary behavior. Although cross-sectional evidence suggests a positive association between cannabis use and exercise engagement, to date, the *acute* effects of cannabis on exercise remain unclear. The present within-subjects crossover study compared participants' experiences of running after *ad libitum* use of legal market cannabis (*cannabis run*) to running without cannabis (*non-cannabis run*). Participants (N = 49) were between the ages of 21 and 49 (M = 30.82, SD = 6.21) and were majority male (61.5%) and Non-Hispanic White (81.6%). Participants ran an average of 3.88 miles (SD = 2.28) during their cannabis and non-cannabis runs. Although participants ran an average of 31 seconds/mile slower during their cannabis run, this difference was not statistically significant. The most common cannabis form used during the cannabis run was cannabis flower (69.4%), followed by cannabis edibles (22.4%) and cannabis concentrates (8.2%). Participants reported experiencing (1) greater feelings of positive affect ($p < .001$), tranquility (p = .003), enjoyment (p = .004), and dissociation (p = .001), (2) more runner's high symptoms ($p < .001$), and (3) less negative affect ($p < .03$) during their cannabis (vs. non-cannabis) run. Participants also reported lower pain levels after their cannabis (vs. non-cannabis) run (p = .03). Perceived exertion did not differ between runs (p = .33). Cannabis form, cannabinoid content, and feelings of "high" were largely unrelated to participants' subjective exercise experience. Findings suggest that among individuals who use cannabis in conjunction with exercise, its use may be associated with a reduction in key barriers to regular exercise, such as pain and a lack of enjoyment. Research using varied methodologies (e.g., laboratory studies, placebo-controlled studies), a range of exercise modalities, and diverse populations is needed to identify the potential positive and negative consequences of cannabis use with exercise and establish the generalizability of these findings to other populations and settings.

CORRESPONDING AUTHOR: Laurel P. Gibson, MA, University of Colorado Boulder, Boulder, CO; laurel.gibson@colorado.edu

---

Abstract citation ID: kaad011.0906

POSTER SESSION D: SOCIAL DETERMINANTS OF HEALTH ARE ASSOCIATED WITH CANCER SURVIVORS' ENROLLMENT INTO A LARGE EXERCISE AND DIET STUDY

Jhalak Dholakia, MD[1], Michelle Y. Martin, PhD[2], Margaret Liang, MD, MS[3], Laura Q. Rogers, MD, MPH[4], Lingling Wang[1], Nataliya V. Ivankova, PhD, MPH[1], Dorothy Pekmezi, PhD[4], Yu-Mei M. Schoenberger-Godwin, PhD, MPH[1], Robert A. Oster, PhD[4], Wendy Demark-Wahnefried, PhD, RD[4], Maria Pisu, PhD[1]

[1]University of Alabama Birmingham, Birmingham, AL; [2]The University of Tennessee Health Science Center, Memphis, TN; [3]Cedars Sinai Medical Center, Los Angeles, CA; [4]University of Alabama at Birmingham, Birmingham, AL

Background: Regular exercise, healthy diet, and an optimal body weight are important to the health of cancer survivors. The AMPLIFY (AiM Plan and act on LIFestYles) web-based interventions are currently being tested for efficacy to improve these behaviors and weight-related outcomes. Individuals experiencing social determinants of health (SDOH), e.g., low access to healthy foods, poor walkability, and high overall area deprivation (i.e., socioeconomic & housing quality) may be at risk of worse health outcomes, most in need of these interventions, and facing the highest barriers to participation. Our objective was to explore potential associations between SDOH and AMPLIFY study eligibility criteria and study enrollment.

Methods: AMPLIFY eligibility data for all screened survivors were linked to the USDA ERS Food Access Research Atlas (ERS FARA), EPA Walkability Index (least to most walkable Census blocks), and National Area Deprivation Index (ADI). Poor food access (PFA) was defined as ERS FARA low income/low access to healthy food at 1 mile in urban areas and 10 miles in rural areas. Primary outcomes were AMPLIFY eligibility (based on high body mass index [BMI], low physical activity, and lack of physical limitations) and enrollment; secondary outcomes were select specific eligibility criteria: BMI, cups of fruit/vegetable consumed (FVC), and minutes of weekly exercise. Potential associations of all outcomes with SDOH were assessed with Chi-squared tests, Fisher's exact t-tests, and one-way ANOVA.

Results: 1332 individuals were screened for AMPLIFY participation. The mean age was 62 years (SD=14y); mean BMI=30 kg/m^2 (SD=8 kg/m^2). Most survivors had a history of breast (45%), prostate (23%), and gynecologic (12%) cancers. Most were female (68%), white (65%), resided in metropolitan areas (71%), and had commercial/private insurance (61.0%). Approximately 22% received Medicare. There was no association of PFA or ADI with eligibility (p=0.43, p=0.91 respectively), but individuals with PFA or worse ADI were less likely to enroll (p=0.04, p=0.01 respectively). Walkability was not significantly associated with the primary outcomes. Worse ADI was also associated with higher BMI ($p< 0.0001$), lower FVC (p=0.01), and fewer minutes of exercise/week ($p< 0.0001$).

Conclusions: In this sample of cancer survivors, SDOH was not associated with overall eligibility, but those with worse SDOH were less likely to enroll in AMPLIFY. Worse SDOH was also associated with higher BMI and suboptimal health behaviors. Lifestyle modification studies among cancer survivors may therefore miss those at highest risk with the greatest need for intervention. A better understanding of the reasons why survivors with worse SDOH do not enroll is central to addressing health disparities in survivorship research.

CORRESPONDING AUTHOR: Jhalak Dholakia, MD, University of Alabama Birmingham, Birmingham, AL; jjdholakia@uabmc.edu

Abstract citation ID: kaad011.0907

MERITORIOUS AWARD WINNER

POSTER SESSION D: SPIRITUALITY AND UNCERTAINTY PREDICT CARDIOVASCULAR FUNCTIONING IN FAMILY CAREGIVERS OF PATIENTS WITH CANCER

Devi Priya Patcha[1], Youngmee Kim, PhD[2], Thomas C. Tsai, BS[3], Elizabeth Cruz, AA[3]

[1]University of Miami, Jacksonville, FL; [2]University of Miami, Coral Gables, FL; [3]University of Miami, Miami, FL

Family caregivers of cancer patients are at increased risk for premature cardiovascular morbidities, which may be attributable to the heightened existential distress caused by the cancer in the family. The ability to rely on a sense of meaning and connectedness to a higher power (i.e., spirituality) is known to confer better psychological well-being, whereas experiences of uncertainty is associated with poorer psychological health. The extent to which such associations extend to caregiver's cardiovascular functioning remains unknown, which this study aimed to examine.

Family caregivers (N=118, 55.1 years old, 67.8% female) of newly diagnosed colorectal cancer patients self-reported their levels of spirituality (FACIT-Sp) and uncertainty about their patients' cancer (Mischel Uncertainty in Illness Scale). Caregivers also underwent an experimental session where a relationship- and health-related stress was induced. Cardiovascular functioning, including high-frequency heart rate variability (HF-HRV), heart rate (HR), systolic blood pressure (SBP), and diastolic blood pressure (DBP), was measured at baseline, after stress onset (cardiovascular reactivity), and 12 minutes after stress offset (cardiovascular recovery). Age, gender, BMI, and diagnosis of hypertension were covariates.

Caregivers reported moderate to high levels of spirituality and uncertainty, and normative levels of cardiovascular markers at baseline. Caregivers also exhibited significant cardiovascular reactivity and recovery ($p \leq .001$). General linear modeling showed that higher spirituality was associated with greater HF-HRV at baseline ($b = .22$, $p = .014$) and marginally associated with greater HF-HRV reactivity ($b = .11$, $p = .058$). Greater uncertainty, on the other hand, was associated with blunted SBP and HR reactivity ($b \geq -2.10$, $p \leq .039$) and prolonged HR recovery ($b = -4.19$, $p = .030$).

Findings illustrate the protective and deleterious roles of spirituality and uncertainty, respectively, in caregivers' cardiovascular functioning. Findings also hint at the benefits of finding meaning when facing existential distress for the caregivers' cardiovascular health. Meaning-focused and acceptance interventions may be beneficial for the cardiovascular functioning of family cancer caregivers. Future investigations are needed to examine the long-term impact of spirituality and uncertainty on cardiovascular health among this vulnerable population.

CORRESPONDING AUTHOR: Devi Priya Patcha, University of Miami, Jacksonville, FL; dxp2244@miami.edu

---

Abstract citation ID: kaad011.0908

POSTER SESSION D: PHYSICAL ACTIVITY BELIEFS AND PRACTICES AMONG ONCOLOGY PROVIDERS AT MYACTIVITY TRIAL SITES

Megan Agnew, MPH[1], Amye Tevaryweek, MD[2], Ryan Spencer, MD, MS, FACOG[1], Emma Barber, MD[3], Ronald Gangnon, PhD[1], Payton Solk, MS[3], Hannah Freeman, BA[3], Laura Muller, PT[1], Abby Mishory, BS[4], William Gradishar, MD[3], Bonnie Spring, PhD, FSBM[5], Siobhan M. Phillips, PhD, MPH[3], Lisa A. Cadmus-Bertram, PhD[1]

[1]University of Wisconsin-Madison, Madison, WI; [2]Mayo Clinic, LaCrosse, WI; [3]Northwestern University Feinberg School of Medicine, Chicago, IL; [4]Northwestern University, Chicago, IL; [5]Northwestern University Feinberg School of Medicine, CHICAGO, IL

Purpose: To assess physical activity (PA) beliefs and practices among breast and gynecologic oncology providers.

Methods: Online questionnaires were sent to providers (n=84) at two healthcare systems participating in MyActivity, a PA promotion trial for post-treatment breast and endometrial cancer survivors. The intervention consists of personalized messages to survivors and providers based on Fitbit data integrated with the electronic health record (EHR).

Results: Among the providers who completed the baseline questionnaire (n=67), 78% were in medical oncology (vs. surgery, radiation, or other), 59% worked with breast (vs. gynecologic) patients, and 54% held an MD (vs. PA, NP, or RN). 91% of providers agreed or strongly agreed that there is strong evidence supporting the benefits of PA for cancer survivors, but only 45% agreed or strongly agreed that they had sufficient training to properly advise patients. The most frequent barriers were lack of resources (82% agree or strongly agree), lack of time (70%), patient resistance (67%), and lack of training (58%). Of those clinicians who completed the 12-month questionnaire and had a least one patient on the MyActivity trial (n=29), 59% of providers reported using the information from the MyActivity study personalized messages to initiate a conversation about PA and 48% used the information to add to their understanding of the patient's lifestyle. The most frequently reported barriers at the twelve-month follow up were similar to baseline, lack of resources (83% agree or strongly agree) and lack of time (83%), followed by lack of training (69%) and patient resistance (66%). At the twelve-month follow up, more providers reported assessing PA in patients undergoing cancer treatment always or most of the time compared to baseline (68% v. 60%) and advising PA always or most of the time (47% v 40%). More providers also reported assessing PA in patients post-treatment compared to baseline (81% v. 72%) and providing PA advice always or most of the time (52% v. 50%).

Conclusions: Despite the known benefits of PA during and after cancer treatment, most providers lack the time and resources to counsel patients on PA. Enrolling patients in EHR-integrated lifestyle programs, such as MyActivity, may be one potential avenue to facilitate and increase providers' engagement with their patients' PA.

CORRESPONDING AUTHOR: Megan Agnew, MPH, University of Wisconsin-Madison, Madison, WI; maagnew@wisc.edu

Abstract citation ID: kaad011.0909

POSTER SESSION D: THE PLOT THICKENS. NARRATIVE FEATURES OF COUPLE CONVERSATIONS ABOUT CANCER.

Amy J. Purvis, MSN, ACNP-BC[1], Laura S. Porter, PhD[2], Shelby Langer, PhD, FSBM[1]

[1]Arizona State University, Phoenix, AZ; [2]Department of Psychiatry and Behavioral Sciences, Duke University School of Medicine, Durham, NC

Cancer challenges both patients and their significant others. The ability to communicate openly about cancer-related concerns is thought to facilitate cognitive processing of the cancer experience and, in turn, lead to better adjustment. Research on storytelling reveals normative patterns in narrative construction: (1) staging to convey key elements at the start, involving greater use of nouns/ prepositions/ articles; (2) plot progression which increases across the narrative, involving more action words; and (3) cognitive tension which rises, peaks, and then declines, reflecting conflict resolution or goal attainment through use of cognitive process words. These patterns have yet to be examined in the context of cancer discussions. We examined the narrative arc of 98 patients with colorectal cancer and their spouses/partners as gleaned from recorded couple conversations. Sample characteristics were M (SD) age = 52 (11); 36% female patients and 66% female partners; 16% minority race; 6% Hispanic; 20% stage II cancer, 36% stage III, and 44% stage IV. Couples conversed for 15 minutes, prompted by a list of cancer-related issues. Recordings were transcribed and then decomposed, separating patient and partner words, then processed using the Linguistic Inquiry and Word Count program (2022). A 2 (role) x 5 (segment) ANOVA was performed on staging, plot progression, and cognitive tension scores. For staging, there were no main effects of segment or role but an interaction, $p = .031$. Staging started high and then declined for patients; it was lower to start for partners and relatively stable thereafter. For plot progression, there was a main effect of segment, $p = .021$. Plot progression rose from segment 1 to 2 and returned to near baseline by segment 5. For cognitive tension, there were main effects of segment and role. Instead of rising and then falling like the standard pattern, cognitive tension started high, decreased across segments, $p = .022$, and was higher overall for patients versus partners, $p = .005$. Results reveal some departures from norms and some role differences. Cognitive tension started high versus building as typically seen, perhaps reflective of difficult and highly relevant topic choices. Patients set the conversational stage; their higher levels of cognitive tension may indicate greater need for processing. The fact that cognitive tension decreased across segments for both dyad members suggests that the conversation may have therapeutic value.

CORRESPONDING AUTHOR: Amy J. Purvis, MSN, ACNP-BC, Arizona State University, Phoenix, AZ; apurvis@asu.edu

---

Abstract citation ID: kaad011.0910

POSTER SESSION D: PRELIMINARY OUTCOMES OF A MINDFULNESS-BASED MOBILE INTERVENTION FOR ADOLESCENT AND YOUNG ADULTS SURVIVORS OF CHILDHOOD CANCER

Gary Kwok, PhD[1], Archana Sharma, DO[1], Ivelisse Mandato, BS[1], Katie Devine, PhD, MPH[1]

[1]Rutgers Cancer Institute of New Jersey, New Brunswick, NJ

Background: Adolescent and Young adult (AYA) survivors of childhood cancer are increasingly recognized as a vulnerable group with unique emotional, social, and practical needs due to the intersection of cancer survivorship and normal developmental processes. AYA survivors are at increased risk for poor mental health; 20-25% of AYA cancer survivors report impaired mental health and many more experience subclinical levels of distress. Mindfulness meditation has shown early efficacy in improving psychological distress among cancer patients. However, the overall science of app-based mindfulness-based intervention is still in its early stages. The goal of this study was to evaluate the preliminary outcomes of a commercially available mindfulness-based mobile app intervention "TenPercentHappier" among AYA survivors of childhood cancer.

Methods: We conducted a single-arm pilot intervention with 24 AYA survivors of childhood cancer (ages 18-29), recruited from a comprehensive cancer center in New Jersey. Changes in outcomes (e.g., stress, mindfulness, sleep disturbance, physical and mental health outcomes) were assessed using dependent t-tests and Cohen's d effect sizes pre/post the 8-week intervention. Feasibility (e.g., study enrollment and retention rates) and acceptability (e.g., usability ratings and engagement) were also examined.

Results: Twenty-four (22% of the total pool, 53% of those contacted) consented and enrolled in the study. Retention post-intervention was 88% (n=21). Preliminary outcomes demonstrated promising results: mindfulness (d=1.0), cognitive reappraisal (d=0.58), perceived stress (d=1.02), mental health (d=0.93), and sleep disturbance (d=0.68) all improved. Furthermore, results suggested that highly engaged participants (app usage >20 days) showed greater change scores in outcomes than those with low engagement (e.g., mindfulness: d=1.17, stress: d=0.41, mental health: d =0.90; sleep: d=1.01). On a 5-point scale, average ratings of engagement (4.0), functionality (4.8), and perceived impact (4.3) were high. Qualitative feedback indicated high satisfaction but participants suggested adding groups or individual peer support to the meditation mobile app.

Conclusion: Preliminary results suggest positive changes in quality of life outcomes, warranting a larger efficacy and effectiveness trial. AYA survivors can be difficult to reach, but a mindfulness app was feasible and acceptable to this group. In particular, the robust retention rate and high satisfaction ratings indicate that the meditation mobile app was well-received.

CORRESPONDING AUTHOR: Gary Kwok, PhD, Rutgers Cancer Institute of New Jersey, New Brunswick, NJ; gkk28@cinj.rutgers.edu

Abstract citation ID: kaad011.0911

POSTER SESSION D: RELATIONSHIPS BETWEEN PSYCHOLOGICAL DISTRESS AND PAIN-RELATED OUTCOMES ACROSS CANCER TYPES

Allison K. Diachina, BA[1], Grace H. Amaden, BS[1], Shannon N. Miller, BPH[1], Joseph G. Winger, PhD[2], Sarah A. Kelleher, PhD[1], Tamara J. Somers, PhD[2]

[1]Duke University Medical Center, Durham, NC; [2]Department of Psychiatry and Behavioral Sciences, Duke University School of Medicine, Durham, NC

Introduction: Patients with cancer often experience significant pain. Psychological distress is also common in cancer patients and can negatively impact pain and patient's ability to manage pain. Understanding the relationship between psychological distress and pain severity, pain interference, and self-efficacy for pain management among patients with various cancer types may provide information on targeting behavioral interventions for pain and distress. We conducted a secondary analysis of baseline data from a large behavioral intervention trial to examine psychological distress, pain, and pain self-efficacy in a group of mixed cancer patients (i.e., breast, lung, colorectal). First, we described overall levels of these outcomes and then examined differences by cancer type. Then, we examined the relationship between psychological distress and pain severity, pain interference, and pain self-efficacy in the overall group and by cancer type.

Methods: Participants were adults (N = 169) diagnosed with breast (n = 86), lung (n = 42), or colorectal (n = 41) cancer in the previous two years and endorsing pain severity of $\geq$ 3/10. Distress and pain-related outcomes were assessed using the Patient Care Monitor, Brief Pain Inventory, and Chronic Pain Self-Efficacy Scale. Correlational and moderation analyses were conducted to examine the relationships between distress and pain-related outcomes.

Results: Participants were Caucasian (68%), female (73%), and on average 56 (SD = 10.35) years old. Participants reported moderate pain severity (M = 3.94, SD = 2.21), pain interference (M = 3.98, SD = 2.32), psychological distress (M = 2.89, SD = 2.33), and pain self-efficacy (M = 54.61, SD = 20.01). All patients reported similar levels of pain, distress, and pain self-efficacy; no significant differences were found between cancer types. Overall, psychological distress was related to pain severity (r = .27, *p* < .001) and pain interference (r = .45, *p* < .001), but not pain self-efficacy (r = -.03, *p* = .66). Cancer type did not significantly moderate (interaction term p-values > 0.10) the relationships between psychological distress and these pain-related outcomes.

Conclusion: Moderate pain-related outcomes were reported across all cancer types, and increased distress was related to increased pain severity and interference across cancer types. Findings suggest that interventions targeting improvements in psychological distress and pain are likely to provide some benefit to patients with various cancer types.

CORRESPONDING AUTHOR: Allison K. Diachina, BA, Duke University Medical Center, Durham, NC; allison.diachina@duke.edu

---

Abstract citation ID: kaad011.0912

POSTER SESSION D: ATTEMPTED WEIGHT LOSS AND WEIGHT CHANGE AMONG BLACK US CANCER SURVIVORS

Jamila L. Kwarteng, PhD, MS[1], Dulcie Kermah, EdD, MPH[2], Elizabeth Heitman, PhD[3], Marino Bruce, PhD, MSRC, MDiv[4]

[1]Medical College of Wisconsin, Milwaukee, WI; [2]Charles R. Drew University of Medicine and Science, Los Angeles, CA; [3]UT Southwestern Medical Center, Dallas, TX; [4]University of Houston, Houston, TX

Background: African American cancer survivors die disproportionately of cardiovascular disease (CVD) and the elevated mortality risk may be linked to excess weight. Few studies have explored this association and the purpose of this study is to examine attempted weight loss, adherence to dietary guidelines and weight change among a nationally representative sample of African American cancer survivors. Our hypothesis is African American cancer survivors who attempted weight loss would lose weight over a 12 month period.

Methods: Our data were drawn from the National Health and Nutrition Examination Survey (NHANES) 2005-2006 through 2015-2016. Weight change-- defined as weight loss, weight gain, or weight maintenance in the past year-- was the outcome of interest. The primary independent variable was a dichotomous variable indicating whether or not respondents attempted to lose weight over the past twelve months. The covariates included age, sex, highest level of education, poverty-to-income ratio, and marital status.

Results: Among 448 Non-Hispanic Black adults with cancer, the mean age was 61. Just over half the sample were female (55.1%). A third of the sample had some college and less than a third had less than a high school diploma. Nearly have of the sample were below the poverty level (47.2%). Over half of the sample was widowed, divorced, or single (51.8%).

A total of 87% (n=391) had attempted weight loss in the past year, and 68 experienced weight change (weight loss or weight gain). Results from a multilinear regression indicate that the efforts of those who attempted weight loss in the past year were significantly associated with weight change (β=6.8, p< 0.0001), however, stratified analysis provide evidence of sex-specific patterns. Female cancer survivors who attempted to lose weight gained 10.3 pounds over 12 months (β=10.3, p< 0.001) while the corresponding coefficient in the male model was not statistically significant (β=2.3, p=0.201).

Conclusion: The surprising results from these analyses suggest that additional studies are needed gain insight into the association between sex, gender, attempted weight loss, and weight change among African American cancer survivors. Future analyses are warranted to examine differences in attempted weight loss by gender and is association with weight change.

CORRESPONDING AUTHOR: Jamila L. Kwarteng, PhD, MS, Medical College of Wisconsin, Milwaukee, WI; jkwarteng@mcw.edu

Abstract citation ID: kaad011.0913

POSTER SESSION D: ENERGY FROM REIKI TREATMENTS TRANSLATES TO REDUCE FATIGUE IN BREAST AND PROSTATE CANCER PATIENTS ON HORMONE THERAPY

Jeremy McGuire, PhD[1], Jen Reschke, MS[2], Umang Gada, MS[1], Javier Bautista, MS[2], Chunkit Fung, MD[2], Nikesha J. Gilmore, PhD[2], Michelle C. Janelsins, PhD, MPH[1], Joseph A. Roscoe, PhD[2], Luke J. Peppone, PhD, MPH[1]

[1]University of Rochester Medical Center, Rochester, NY; [2]University of Rochester, Rochester, NY

Background: Patients receiving hormonal therapy experience significant cancer related fatigue (CRF). Reiki is a technique where therapy is delivered to the patient with either no or very light physical touch whereas traditional massage therapy uses pressure and movement by the therapist to manipulate soft tissue. Both Reiki and traditional massage therapy have been shown by others to be effective in combating chronic fatigue syndrome. This study is the first to compare the ability of massage and Reiki to alleviate CRF in cancer patients receiving hormone therapy.

Methods: Eighty-seven breast(n=56) and prostate cancer (n=31) patients receiving hormone therapy and experiencing self-reported fatigue ≥4/10 were included in this randomized controlled trial (RCT). Patients were randomized into one of three treatment arms for 4-weeks: Arm 1 received two massage treatments, Arm 2 received two Reiki treatments and Arm 3 received four Reiki treatments. Each treatment session was approximately 75 minutes. Fatigue was assessed using Brief Fatigue Inventory (BFI). Questionnaires assessing BFI were completed for 2 weeks pretreatment and continued during the 4 weeks for treatment. The primary outcome measure for this study was CRF assessed by the BFI.

Results: There was a significant difference in results when comparing the two cancer types so we conducted stratified analyses by cancer type. When comparing baseline to end of treatment most severe fatigue was improved for both 2 and 4 weeks of Reiki compared to 2 weeks of massage, with 30% and 27% improvement respectively (p=0.0700 and p=0.0886). Prostate cancer patients had a 1.6-fold improvement in severe fatigue with 2 weeks of Reiki compared to 2 weeks of massage (p=0.111).

Conclusions: In this RCT Reiki was more effective than massage in reduction of most severe fatigue for both breast and prostate cancer patients. Reiki and massage were both effective in reducing CRF so even this modest improvement with Reiki is extremely encouraging. While these findings will need to be confirmed with a larger phase III randomized clinical trial these promising results may present a non-pharmacologic therapeutic for CRF.

Funding: NIH2020T32CA, NIH2020UG1CA

CORRESPONDING AUTHOR: Jeremy McGuire, PhD, University of Rochester Medical Center, Rochester, NY; Jeremy_Mcguire@URMC.Rochester.edu

---

Abstract citation ID: kaad011.0914

POSTER SESSION D: ONGOING GAPS IN PROSTATE CANCER CARE FOR GAY AND BISEXUAL COUPLES LEAD TO DISENGAGEMENT AND ISOLATION

Joseph Daniels, PhD[1], Marvin Langston, PhD, MPH[2]

[1]Edson College of Nursing and Health Innovation, Arizona State University, Phoenix, AZ; [2]Stanford University, Stanford, CA

Gay and bisexual (GB) men's experiences with prostate cancer diagnosis, treatment, and ensuing impacts on relationship dynamics are poorly understood. Therefore, we examined the potential dynamic relationship between clinical and couple engagement following a PCa diagnosis. Focus group discussions covered diagnosis and medical decision-making; care provider characteristics; emotional, physical, and sexual impact of PCa diagnosis and treatment; support and resources appraisal; and partner involvement and communication. GB men in relationships with men were recruited nationally, and after completing consent procedures, they were invited to one of two focus group discussions conducted on video-conference. Each focus group discussion was 1.5 hours and transcripts were analyzed using a thematic approach. There were twelve participants, and three major themes were identified: sexuality and identity increasingly become important in provider communication for treatment choice; treatment uncertainty and regret compounds difficult relationships with providers; and miscommunication and a lack of partner PCa education leads to going it alone at times. GB couple experiences with PCa during and after treatment choice and recovery outlined common health system gaps that hinder the benefits of relationships. The lack of GB-tailored PCa care, services, and education did perpetuate degrees of medical mistrust. Strikingly, each partner in the relationship experienced times of being alone by choice or strategically, or to give space to the other, which was often not explicitly discussed between them and seemingly resulted in de-engagement in care and the relationship. We show that PCa care systems are not designed to be welcoming to GB couples and their needs in post-treatment, limiting couple engagement. This design has downstream effects such that partners of GB men with PCa do not gather the education and experiential learning at the same time through clinic visits and conversations with providers, leading them to be disengaged, limiting communication that results in periods of partner isolation. This disengagement may possibly blunt the notable survival benefits of partnership following PCa diagnosis as seen for married heterosexual men.

CORRESPONDING AUTHOR: Joseph Daniels, PhD, Edson College of Nursing and Health Innovation, Arizona State University, Phoenix, AZ; Joseph.A.Daniels@asu.edu

Abstract citation ID: kaad011.0915

POSTER SESSION D: SOCIODEMOGRAPHIC VARIATIONS IN COLORECTAL CANCER SCREENING MODALITY WITHIN THE US.

Kristin Maki, PhD[1], Hayley Thompson, PhD[1], Robert Volk, PhD[2]

[1]Wayne State University - Karmanos Cancer Institute, Detroit, MI; [2]MD Anderson Cancer Center, Houston, TX

Background: Colorectal cancer (CRC) remains a leading cause of cancer-related mortality, though screening can help reduce mortality. Yet there are significant disparities in CRC screening uptake and adherence across factors such as race/ethnicity, age, rurality, and insurance status.

CRC screening methods include fecal tests and visualization tests including flexible sigmoidoscopy and colonoscopy. Due to the availability of home-based sampling, ease of use, and patient preference, fecal tests have been suggested as a way of reducing disparities in CRC testing and mortality. However, prior work has shown that colonoscopy remains the most used test. Our objective was to assess whether there are sociodemographic variations between individuals who used a fecal immunochemical test (FIT) compared to those who had either a flexible sigmoidoscopy or colonoscopy (FS/C).

Method: We used public data from the 2019 National Health Interview Survey. Our focus was on adults, aged 40 and above who reported being screened for CRC with FIT or FS/C within the past year (fecal occult blood testing [FOBT] was not assessed in this survey). We excluded respondents who had a prior CRC diagnosis. We conducted a multivariable logistic regression analysis in RStudio with the survey package to account for the sample's design.

Results: Within our sample of respondents who had been screened for CRC within the past year, most (65%) reported having FS/C. Our results show a higher likelihood of females using FIT in the past year compared to males (OR = 2.16, 95% CI: 1.37-3.42), those in the Western region of the US compared to the Northeast (OR = 3.68, 95%CI: 1.79-7.58), those with no insurance compared to private insurance (OR = 5.60, 95%CI: 1.16-27.14), and those with good health compared to excellent health (OR = 2.79, 95%CI: 1.06-7.34), fair health compared to excellent health (OR = 3.41, 95%CI: 1.13-10.32), and poor health compared to excellent health (OR = 5.40, 95%CI: 1.74-16.78). There was a lower likelihood of using FIT among respondents who had not completed high school compared to those with 4-year college or more (OR = 0.33, 95%CI: 0.13-0.88), and whose highest level of education was high school compared to 4-year college or more (OR = 0.38, 95%CI: 0.36-1.06).

Conclusions: Despite FIT's potential in mitigating CRC screening disparities, our results did not show significant differences in use among groups that may benefit from its accessibility. Thus, continued focus on equitable access to all screening methods is needed to allow individuals to choose the method they most prefer.

CORRESPONDING AUTHOR: Kristin Maki, PhD, Wayne State University - Karmanos Cancer Institute, Detroit, MI; kmaki@wayne.edu

---

Abstract citation ID: kaad011.0916

POSTER SESSION D: FACILITATORS AND BARRIERS TO PA AMONG BLACK AND AFRICAN AMERICAN CANCER SURVIVORS

Jingle Xu, MSN, MS[1], Deirdre F. Lea, MS, HRM, SHRM-CP[2], John L. Milner, MS, CHSP[2], Paulette Duggins, BS[2], Carmina G. Valle, PhD, MPH[3], Tammy Triglianos, DNP, ANP-BC, AOCNP[4], Stephanie B. Wheeler, PhD, MPH[5], Ashley L. Bryant, PHD, RN, OCN, FAAN[1], Rachel Hirschey, PhD, RN[1]

[1]School of Nursing, University of North Carolina at Chapel Hill, Chapel Hill, NC; [2]SHARE Community Advisory Board, Chapel Hill, NC; [3]University of North Carolina at Chapel Hill, Gillings School of Global Public Health, Lineberger Comprehensive Cancer Center, Chapel Hill, NC; [4]Division of Oncology, University of North Carolina at Chapel Hill, Chapel Hill, NC; [5]Department of Health Policy and Management, University of North Carolina at Chapel Hill, Chapel Hill, NC

Background: Black and African American (AA) individuals are disproportionately impacted by cancer, as compared to their White counterparts. Physical Activity (PA) is recommended to improve survival and quality of life among cancer survivors. However, few cancer survivors engage in regular PA; further, Black/AA survivors are less likely to engage in PA as compared to White survivors. In addition, Black/AA cancer survivors have been underrepresented in PA interventions. Focused interventions that address PA facilitators and barriers identified by Black/AA cancer survivors are needed to promote PA as a means to improve the duration and quality of life for this population.

Purpose: To identify PA barriers and facilitators among Black/AA cancer survivors, thus informing future intervention development.

Methods: A community advisory board comprised of Black/AA cancer survivors and patient advocates guided this research. One-to-one in-depth qualitative interviews (n=19) were completed via telephone using a semi-structured interview guide. Interview data were transcribed verbatim and directed content analysis was applied to identify PA barriers and facilitators during and after cancer treatment.

Results: Barriers to PA during cancer treatment were related to physical and psychological suffering from cancer and/or treatments. After cancer treatments, besides the physical and psychological barriers, social and environmental constraints (e.g. lack of access needed for PA, poor weather, competing priorities) were also reported. Facilitators applied both during and after cancer treatments were faith, family support, and gaining support from other survivors. Facilitators during treatment included recognizing how it helped improve one's mood and setting small, flexible PA goals. Facilitators to PA after treatment included leveraging it to take control of one's health and striving to achieve PA goals.

Implications: This research was conducted with a community advisory board, increasing the relevance, quality, and richness of findings. Findings indicate that PA interventions for Black/AA cancer survivors should address structural barriers, including the role of faith, drawing on family support, highlighting the psychological benefits of PA, and using goal setting. These findings will lead to the development of interventions needed to increase PA and cancer health outcomes among Black/AA cancer survivors.

CORRESPONDING AUTHOR: Jingle Xu, MSN, MS, School of Nursing, University of North Carolina at Chapel Hill, Chapel Hill, NC; jinglexu@email.unc.edu

Abstract citation ID: kaad011.0917

POSTER SESSION D: ASSOCIATIONS BETWEEN PATIENT-REPORTED OUTCOMES AND EXERCISE BARRIERS IN BREAST CANCER SURVIVORS

Hunter Scott, BS[1], Nashira I. Brown, PhD, MS[2], Erica A. Schleicher, MS[3], Robert A. Oster, PhD[3], Edward McAuley, PhD[4], Kerry S. Courneya, PhD[5], Philip M. Anton, PhD[6], Diane Ehlers, PhD[7], Siobhan M. Phillips, PhD, MPH[8], Heather R. Bowles, PhD[9], Laura Q. Rogers, MD, MPH[3]

[1]Heersink School of Medicine, University of Alabama--Birmingham, Birmingham, AL; [2]Moffitt Cancer Center, Center Point, AL; [3]University of Alabama at Birmingham, Birmingham, AL; [4]University of Illinois at Urbana-Champaign, Urbana, IL; [5]University of Alberta, Edmonton, AB, Canada; [6]Southern Illinois University Carbondale School of Human Sciences, Carbondale, IL; [7]Mayo Clinic, Phoenix, AZ; [8]Northwestern University Feinberg School of Medicine, Chicago, IL; [9]National Cancer Institute, Rockville, MD

Despite physical activity (PA) as a beneficial, cost-effective intervention for improving cancer survivor health and well-being, most breast cancer survivors (BCS) do not meet PA recommendations. To improve health professional exercise counseling, associations between patient reported outcomes (PROs) (fatigue, mood, sleep quality) and exercise barriers were investigated. Post-treatment, physically inactive BCS ($N = 320$) completed a baseline survey for a randomized PA trial and secondary analyses were performed. Potential covariates along with exercise barriers interference score, Hospital Anxiety and Depression Scale (HADS), Fatigue Symptom Inventory, and Pittsburgh Sleep Quality Index (PSQI) were assessed. The average age of the participants was 55 ± 8 years; 81% of participants identified as White, 15% as African American, and 4% as other. Most participants were married (66%) and had a two-year college degree or higher (72%). Mean number of comorbidities was 2.2 ± 1.8 and body mass index (BMI) was 31.1 ± 7.34. Most women reported their cancer as Stage I (39%) or Stage II (38%), while some reported Ductal Carcinoma in Situ (13%) or Stage III (10%). Mean months since diagnosis was 53 ± 54. Half of participants reported current hormonal therapy; prior radiation or chemotherapy was reported by 66% and 62%, respectively. Multiple linear regression analyses included our three PROs (fatigue, HADS, and PSQI), and number of comorbidities as a covariate, since the latter was significantly associated with the PROs. Age, race, income, marital status, cancer stage, treatment history, months since diagnosis, and BMI were not included as covariates in our analyses since they were not significantly correlated with our PROs. Only HADS ($B = .463$, $p < .001$) and number of comorbidities ($B = .992$, $p = .01$) were independently associated with total exercise barriers interference score, explaining 8.8% of the variance ($R^2 = .088$, $F(2,317) = 15.286$, $p < .001$). Based on a post hoc analysis, the most frequent barriers for BCS above the HADS cutpoint for clinically important anxiety or depression included procrastination, routine, and self-discipline. These results indicate greater anxiety and depression levels, and comorbidities, may be independently associated with exercise barriers. Further research is needed to better understand these relationships. Health professionals should consider mood and comorbidities when evaluating BCS for exercise barriers and tailoring PA counseling.

CORRESPONDING AUTHOR: Laura Q. Rogers, MD, MPH, University of Alabama at Birmingham, Birmingham, AL; lqrogers@uabmc.edu

---

Abstract citation ID: kaad011.0918

POSTER SESSION D: MACHISMO AND FATALISM MODERATE THE EFFECT OF PAIN INTERFERENCE ON ANXIETY AND DEPRESSION IN HISPANIC PROSTATE CANCER PATIENTS

Carlos A. Silvera, BA[1], Patricia B. Pedreira, MS[2], Dolores Perdomo, PhD[3], Aaron Heller, PhD[4], Michael H. Antoni, PhD, FSBM[5], Frank J. Penedo, PhD, FSBM[2]

[1]Sylvester Comprehensive Cancer Center & Leonard M. Miller School of Medicine, Hialeah, FL; [2]University of Miami, Miami, FL; [3]Miller School of Medicine, Miami, FL; [4]University of Miami, Coral Gables, FL; [5]Sylvester Comprehensive Cancer Center, Coral Gables, FL

Background: Hispanic prostate cancer (PC) survivors often experience treatment-related (i.e., surgery, radiation) pain that may impact emotional well-being. Whether cultural factors such as machismo and fatalism influence how pain interference is related to anxiety and depression has not been explored. Men that endorse machismo values may minimize pain interference to avoid seeming weak, whereas those with a fatalistic disposition may perceive having little control over their pain and its effects. The study aimed to examine whether the associations between pain interference and anxiety and depression vary as a function of levels of machismo and fatalism in Hispanic men treated for localized prostate cancer.

Methods: Hispanic men (N=178; Mage = 65 ± 7.8 years) who completed treatment for localized PC were enrolled in a randomized controlled behavioral trial and assessed at baseline. Machismo was assessed using items from the Machismo and Caballerismo Scale. The Multiphasic Assessment of Cultural Constructs-Short Form measured fatalism, while PROMIS computerized adaptive tests assessed pain interference, depression, and anxiety. Moderation analyses were conducted using linear regression and the SPSS PROCESS macro. Covariates included were partner status, income, age, treatment type, time since treatment, and comorbidities.

Results: Pearson's correlations indicated positive associations between pain interference and anxiety (r=. 44, p< .001) and depression (r= .43, p< .001), fatalism and machismo (r=.48, p< .001), and anxiety and depression (r=.79, p< .001). Regression analyses adjusting for relevant covariates showed that machismo moderated the relations between pain interference and anxiety (b=.06, R2=.25, p=.02) and depression (b= .07, R2= .25, p=. 01). Similarly, fatalism moderated the relations between pain interference and anxiety (b= .17, R2=. 29, p< .001) and depression (b=.14, R2=.27, p=.002). Simple slope analyses indicated that (1) pain interference was positively related with anxiety when machismo was high (b= .66, SE= .12) and with depression when machismo was high (b= .64, SE= .11) and (2) pain interference was positively related with anxiety when fatalism was high (b= .84, SE= .13) and with depression when fatalism was high (b= .76, SE= .13). The associations described were not significant when machismo or fatalism were low.

Conclusions: Among Hispanic men who received active treatment for PC, machismo and fatalism moderated the associations between pain interference and anxiety and depression. PC pain management should consider Hispanic cultural beliefs as they may compromise emotional well-being.

CORRESPONDING AUTHOR: Carlos A. Silvera, BA, Sylvester Comprehensive Cancer Center & Leonard M. Miller School of Medicine, Hialeah, FL; cas519@med.miami.edu

Abstract citation ID: kaad011.0919

POSTER SESSION D: A QUALITATIVE STUDY OF BLACK MEN'S PROSTATE CANCER ATTITUDES, BELIEFS, BARRIERS TO CARE, AND ACCESS TO HEALTH INFORMATION

Jackelyn B. Payne, MPH, MA[1], Rose Martillotti, BA[2], Kathryn O. Mock, BA[1], Jenna Francois, BS[1], Anne Moyer, PhD[1], Linda Bily, MA, CSA, OPN-CG[3], Giuseppina Caravella, MPH, MS, CHES[3], Jaclyn Grimaldi, MA, CHES[3], Yuri T. Jadotte, MD, PhD, MPH[4], Linda Mermelstein, MD, MPH[3], Jedan P. Phillips, MD[5], Kathleen H. Scarbrough, MD, MPH[6], Barbara D. Nemesure, PhD[4]

[1]Stony Brook University, Stony Brook, NY; [2]Stony Brook University, Setauket, NY; [3]Stony Brook University Cancer Center, Stony Brook, NY; [4]Renaissance School of Medicine at Stony Brook University, Stony Brook, NY; [5]Renaissance School of Medicine at Stony Brook University, East Patchogue, NY; [6]Renaissance School of Medicine at Stony Brook University, East Setauket, NY

Background: Over 3 million men in the U.S. live with prostate cancer, and 1 in 8 will be diagnosed in their lifetime. However, racial-ethnic disparities permeate our healthcare system, particularly for Black men. Compared to White men, Black men are more likely to be diagnosed with late-stage cancer and twice as likely to die from prostate cancer. Interventions designed to address the complex causes of these disparities must be informed by the opinions and perspectives of the target population to be effective. The authors conducted a qualitative study with Black men to determine where and how they received health information regarding prostate cancer, to assess beliefs, attitudes, and barriers to prostate cancer care for Black men, and to understand how these beliefs and attitudes affected the participants' behavior.

Method: 3 semi-structured focus groups were virtually conducted by Black male physicians via Zoom with 18 Black men over the age of 40. Participants were recruited from underserved communities within the catchment area of an academic research hospital in the Northeastern U.S. Participants discussed their thoughts and beliefs about prostate cancer and screening, opinions about sources of health information, and community outreach. All focus groups were recorded and transcribed. NVIVO software (version 12 PLUS) was used for coding and identifying themes.

Results: Most participants were concerned about prostate cancer and felt at risk, often due to family history. Participants wanted more information about screening to share with their communities but expressed a desire for reputable sources and a preference for in-person discussions rather than seeking information from the internet or social media. Some preferred providers and sources of information to be similar to them (i.e., Black men), but most did not have a preference as long as they were treated with respect. Some participants did report knowing of fellow community members experiencing negative and biased healthcare interactions. Of note, an emergent theme regarding the desire for increased outreach efforts and community involvement from the institution resonated with many participants.

Discussion: Participants desired access to reputable information about prostate cancer and screening. Speaking for members of their underserved, predominantly Black communities, they felt that prostate cancer is something many people are aware of and fear. Of note, participants expressed a strong desire for further engagement between their community and the researchers, suggesting that stronger ties and trust between the two could facilitate future initiatives. Health care professionals can use these data to design practical educational tools about prostate cancer screening and inform program development tailored to the needs of this community.

CORRESPONDING AUTHOR: Jackelyn B. Payne, MPH, MA, Stony Brook University, Stony Brook, NY; jackelyn.payne@stonybrook.edu

---

Abstract citation ID: kaad011.0920

POSTER SESSION D: SUPPORTING CONTINUED EXERCISE ONCOLOGY PROGRAM PARTICIPATION WITH THE ALBERTA CANCER EXERCISE MAINTENANCE PROGRAM

Manuel Ester, MSc[1], Chad Wagoner, PhD[1], Tanya Williamson[1], Maximilian Eisele, MSc[1], Nicole S. Culos-Reed, PhD[1]

[1]University of Calgary, Calgary, AB, Canada

Introduction: Despite the well-documented physical & psychosocial benefits of exercise in oncology, implementation of sustainable exercise oncology programs remains limited. Following completion of the Alberta Cancer Exercise (ACE) hybrid implementation-effectiveness study, fee-based ACE-maintenance (ACE-M) classes are offered in Southern Alberta. ACE-M aims to increase accessibility and support sustainability of exercise oncology programming.

Methods: After completing the initial 12-week ACE study, participants can continue as long as desired with ACE-M, which provides a 12-week progressive multi-modal exercise program with twice weekly 60-minute supervised, group-based classes. Before each 12-week term, participants complete a current medical condition questionnaire. Any changes in health status from the previous ACE term prompts screening by a clinical exercise physiologist prior to participation. ACE-M is designed to sustain both individual-level exercise behavior change, enhancing participant opportunity and motivation to stay active; and systems-level implementation, with class fees to cover delivery costs. Fee-based ACE-M classes are offered in-person (since 2017) and online (since 2020). To describe the ACE-M population, descriptive statistics were calculated for class registration over time, delivery mode, and cancer type.

Results: Since 2017, 447 participants have registered for ACE-M across 22 program terms in Southern Alberta, with 213 registering for in-person classes, 135 registering for online classes, and 99 registering for both online and in-person classes. In total, participants registered for an average of 4±4 terms (range 1-19), while 304 (68.0%) have registered for more than one term. Common cancer types among ACE-M participants include breast (161, 36.0%), blood/bone (33, 7.4%), and digestive (18, 4.0%) cancer. In the latest term (Spring 2022), 130 participants (9 in-person, 121 online) were active across 11 classes (2 in-person, 9 online).

Implications: ACE-M provides sustainable access to evidence-based exercise oncology programming via a fee-based structure that covers costs for online and in-person classes delivered by qualified exercise professionals. Work is ongoing to streamline recruitment and screening into ACE-M, ensure continued program safety and effectiveness, and assess exercise maintenance and associated benefits among participants.

CORRESPONDING AUTHOR: Manuel Ester, MSc, University of Calgary, Calgary, AB, Canada; manuel.ester@ucalgary.ca

Abstract citation ID: kaad011.0921

POSTER SESSION D: INTEGRATING HEALTH-RELATED QUALITY OF LIFE ASSESSMENT INTO CLINICAL CARE FOR ADOLESCENTS AND YOUNG ADULTS WITH CANCER

Maria C. Swartz, PhD, MPH, RD, LD[1], Elizabeth Siembida, PhD, MPH[2], Goldy C. George, PhD[1], John M. Salsman, PhD, FSBM[3], Bryce B. Reeve, PhD, MA[4], John A. Livingston, MD[1], Michelle A.T. Hildebrandt, PhD[1], Susan K. Peterson, PhD, MPH[1], Michael Roth, MD[1]

[1]UT MD Anderson Cancer Center, Houston, TX; [2]Northwell Health, Manhasset, NY; [3]Wake Forest University School of Medicine, Wake Forest Baptist Comprehensive Cancer Center, Winston-Salem, NC; [4]Duke University, Durham, NC

Background: Adolescents and young adults (AYAs) with cancer experience poorer physical and mental health-related quality of life (HRQOL) and lower survival compared with their healthy peers. Systematically assessing HRQOL using patient-reported outcome (PRO) measures is essential to guiding care, but few HRQOL data exist during and after treatment among AYAs with cancer. Moreover, emerging studies suggest that an evaluation of HRQOL across age groups is needed, given AYAs' varied developmental stages and needs. We evaluated the HRQOL of AYAs who completed a PRO measure during or after treatment as part of their clinical care.

Method: Prior to their in-person or telehealth visits at an AYA outpatient clinic between January 2018 and November 2021, AYAs (diagnosed age 15-39 years) completed Patient-Reported Outcomes Measurement Information System® (PROMIS®) short forms for 10 HRQOL domains, which included: Global Physical and Mental Health, Physical Function, Anxiety, Depression, Fatigue, Sleep Disturbance, Social Roles, Pain Interference, and Cognitive Function. We used the generalized linear models to analyze associations between HRQOL, age group (adolescents, age 15-17 years; emerging adults, ages 18-25; young adults, age 26-39), gender, insurance type, and race/ethnicity while controlling for clinical factors (i.e., treatment status, treatment type, and cancer diagnosis).

Results: The sample (N=949) was 52.8% female, 51.9% non-Hispanic White, 12.8% adolescents, 43.4% emerging adults, and 43.8% young adults, with 49.8% reporting three or more mild to severe symptoms. AYAs on active cancer treatment reported worse outcomes in global physical health (β=-2.40, p=.001), physical function (β=-4.29, p< .001), anxiety (β=2.51, p=.003), fatigue (β=3.68, p< .001), sleep disturbance (β=1.62, p=.049), social roles (β=-4.31, p< .001), and pain interference (β=4.06, p< .001) domains than those not in active treatment. Emerging and young adults, as compared to adolescents, and those using Medicaid compared to those using preferred provider organization insurance reported worse HRQOL in all 10 domains (p< 0.05). Across all age groups, females were more likely than males to have worse outcomes in global mental health (β=-2.35, p=.003), anxiety (β=3.87, p< .001), depression (β=2.52, p< .001), fatigue (β=3.22, p< .001), and cognitive function (β=-2.2, p=.003).

Conclusion: Female AYAs, emerging and young adults, and AYAs using Medicaid may be at higher risk for worse HRQOL. Further investigation is needed to better understand the drivers for poorer HRQOL. Systematic use of PROs as part of AYAs' clinical care may facilitate early and targeted referrals to mitigate lower HRQOL within these and possibly other high-risk groups.

CORRESPONDING AUTHOR: Maria C. Swartz, PhD, MPH, RD, LD, UT MD Anderson Cancer Center, Houston, TX; mchang1@mdanderson.org

Abstract citation ID: kaad011.0922

POSTER SESSION D: EXPLORING ADHERENCE TO NUTRITION AND PHYSICAL ACTIVITY GUIDELINES AND THE GUT MICROBIOME IN COLORECTAL CANCER SURVIVORS

Than S. Kyaw, BA[1], Vaibhav Upadhyay, MD, PhD[2], Irina Tolstykh, MS[3], Dalila Stanfield, BA[2], Katherine Van Loon, MD, MPH[3], Angela Laffan, NP, MSN[3], Daryll Gempis, BA[2], Stacey A. Kenfield, ScD[3], June M. Chan, ScD[4], Sorbarikor Piawah, MD, MPH[2], Chloe E. Atreya, MD, PhD[2], Kimmie Ng, MD, MPH[5], Alan Venook, MD[3], Katherine Pollard, PhD[2], Wesley Kidder, MD, MPH[2], Peter J. Turnbaugh, PhD[2], Erin L. Van Blarigan, ScD[3]

[1]School of Medicine, San Francisco, CA; [2]University of California, San Francisco, San Francisco, CA; [3]UCSF, San Francisco, CA; [4]UCSF, san francisco, CA; [5]Dana-Farber Cancer Institute, Boston, MA

Background: The gut microbiome may mediate associations between health behaviors and colorectal cancer (CRC) survival.

Objectives: We conducted a pilot study to determine the feasibility of remotely collecting stool samples from CRC survivors. Secondarily, we explored associations between the American Cancer Society (ACS) Nutrition and Physical Activity Guidelines score and its components and the gut microbiomes of CRC survivors.

Methods: Between October 2019 and February 2020, we invited 163 CRC survivors participating in the Lifestyle and Outcomes after Gastrointestinal Cancer (LOGIC) study to donate one stool sample. LOGIC is an on-going prospective cohort study among gastrointestinal cancer survivors at the University of California, San Francisco (UCSF); participants complete surveys up to every 6 months for 5 years. Health behaviors, including body size, diet, and physical activity, are assessed using validated surveys, including up to 3 food frequency questionnaires. Individuals who consented to stool donation were mailed a stool kit to collect the sample at home and return it via mail. Stool samples were analyzed using 16S rRNA sequences and metagenomics. Permutational multivariate analysis of variance was used to explore associations between the ACS guideline score, its components (BMI, moderate-to-vigorous physical activity, servings and variety of fruits and vegetables, proportion of grains that are whole, and intake of red and processed meats), sociodemographic factors (e.g, age, gender, race/ethnicity), clinical variables (e.g., cancer site, time since treatment), and the microbiome.

Results: Of 163 CRC survivors sent one invitation via e-mail, 38 (23%) people consented to stool donation. Due to kit availability, stool kits were sent to 36 participants. Of these, 30 were returned and 28 had analyzable samples. These 28 participants had a mean (SD) age of 52.7 (10.9) years at CRC diagnosis and were 6.2 (6.5) years past diagnosis at the time of stool collection; 57% were men; 43% were women; 79% identified as White; 14% identified as Hispanic or Latino; 64% had colon cancer; and 36% had rectal cancer. The overall ACS score was not statistically significantly correlated with differences in the gut microbiome. However, the variety of fruits and vegetables consumed and alcohol intake were statistically significantly correlated with variation in the microbial community structure, diversity, and abundances at various taxonomic levels in our study sample.

Conclusions: Strategies to increase the proportion of potential participants who consent to donate stool are needed. Following consent, we successfully collected analyzable samples from 78% of people sent a stool kit. Our exploratory analyses suggest that the variety of fruits and vegetables consumed and alcohol intake may each explain large variations in the gut microbiome among long-term CRC survivors.

CORRESPONDING AUTHOR: Erin L. Van Blarigan, ScD, UCSF, San Francisco, CA; erin.vanblarigan@ucsf.edu

Abstract citation ID: kaad011.0923

POSTER SESSION D: COMPARISON OF THE STRINGENCY OF INDOOR TANNING BILLS THAT PASSED AND FAILED IN STATE LEGISLATURES OVER THE LAST 30 YEARS

David B. Buller, PhD, FSBM[1], Julia Berteletti, MSW[1], Anna Mitarotondo, N/S[2], Carolyn H. Heckman, PhD, FSBM[3]

[1]Klein Buendel, Inc., Golden, CO; [2]Rutgers Cancer Institute of New Jersey, Jersey City, NJ; [3]Rutgers Cancer Institute of NJ, Belle Mead, NJ

Approximately 5 million cases of skin cancer are diagnosed among Americans at a cost exceeding $8 billion annually. Indoor tanning (IT) is a risk factor for skin cancer. Restricting IT facilities, especially access by minors, has been the subject of state laws. More stringent restrictions on youth access (e.g., bans by age vs. parental consent laws) appear to be associated with reduced IT by youth. This analysis characterizes the state IT policy landscape.

We coded 102 state IT law documents and compared passed laws to failed bills (proposed but not voted on or proposed but voted down), using a validated coding tool that assessed the presence of age bans, parental consent/accompaniment, warnings, operator requirements, and enforcement. Component codes were scaled on 10-point stringency measures (0=no regulation, 10=very strong regulation). Component and total summed scores were calculated, with higher scores indicating more stringent IT restrictions.

Between 1991 and 2022, 46 states and the District of Columbia passed a law on IT, with 23 (48.9%) banning access to IT facilities by minors under age 18. By contrast, 55 bills on IT failed to pass in 31 states since 2008 (range = 0-14 bills proposed per year nationally; range=1-7 bills failed per state; 16 proposed only; 39 voted down), with 32 (58.1%) banning minor access. Those without complete age bans had a total stringency score (sum of all component scores) of mean (M)=17.75 (standard deviation [SD]=6.05) out of 50 compared to M=11.74 (SD=6.59) for failed bills. Passed laws without age bans had component scores of M=2.83 (SD=3.63) out of 10 on age bans, M=4.08 (SD=2.32) on parental consent, M=3.00 (SD=2.21) on warnings, M=4.33 (SD=2.75) on operator requirements, and M=3.50 (SD=2.06) on enforcement. Failed bills without age bans had component scores of M=3.04 (SD=3.30) out of 10 on age bans, M=3.39 (SD=2.04) on parental consent, M=1.13 (SD=2.07) on warnings, M=1.83 (SD=1.80) on operator requirements, and M=2.35 (SD=1.67) on enforcement.

Nearly all states have passed laws restricting IT facilities. Nearly half have banned minors from accessing IT facilities. However, stringency of remaining laws is weak, overall, which may explain why recent research found low compliance of IT facilities with regulations and continued IT among minors. Also, 3 in 5 states had a bill on IT fail, many with minor bans. Failed bills without minor bans were less stringent than similar passed laws, on nearly all components. Failure may have presented advocates opportunities to improve stringency of subsequent bills and time to garner more support for IT restrictions. In fact, less stringent bills may have failed because they had less support from outside constituencies (e.g., medical societies; public health advocates) and among legislators. To gain insight into this public health legislation process, we are interviewing key informants from states with recent policy activity.

CORRESPONDING AUTHOR: David B. Buller, PhD, FSBM, Klein Buendel, Inc., Golden, CO; dbuller@kleinbuendel.com

---

Abstract citation ID: kaad011.0924

POSTER SESSION D: THE IMPACT OF GENETIC COUNSELING AND SCREENING ON WORRY AND DISTRESS IN A HIGH RISK PANCREATIC CANCER POPULATION

Emma Jennings, BS[1], Carly D. Miron, BA[2], Kristin Szuhany, PhD[1], Shenin Dettwyler, MS, CGC[3], Jessica Everett, MS, CGC[4], Gabrielle Astacio, BA[1], Jennifer Faiz, BA[1], Naomi Simon, MD, MSc[4], Diane Simeone, MD[4]

[1]NYU Langone Health, New York, NY; [2]Hunter College, City University of New York and The Graduate Center, City University of New York, Brooklyn, NY; [3]NYU Langone Health – The Pancreatic Cancer Center, New York, NY; [4]NYU Grossman School of Medicine, New York, NY

Introduction: Pancreatic ductal adenocarcinoma (PDAC) is associated with high mortality, with an estimated 5-year survival rate of 11%. While PDAC screening for high-risk patients can result in earlier detection and improved prognosis, less is known about its psychological impact on worry and beliefs about cancer risk. We hypothesized that a single multidisciplinary PDAC high risk clinic visit including genetic counseling and risk assessment would result in reduced cancer-related worry and distress, as well as reduced perception of cancer risk.

Methods: A biobehavioral survey was integrated into clinical flow for patients presenting to a specialty high-risk pancreatic cancer center clinic at NYU Langone Health between January and August 2022. Participants were referred to this clinic based on family history of PDAC and/or a known pathogenic germline variant (PGV) in a gene with increased pancreatic cancer risk. Patients completed surveys before and after their clinic visit, which included a risk assessment survey obtained by a genetic counselor. Participants consented to use their survey data for research and self-reported: 1) worry about developing cancer and its impact on function, as measured by the Cancer Worry Scale (8 items, range: 0-20); 2) average distress (range: 0-10; elevated ≥4); 3) estimated likelihood of having a PGV (range: 0-100); and 4) estimated likelihood of lifetime cancer risks (range: 0-100). Paired *t*-tests compared pre- and post-visit measures.

Results: Of the 166 participants, 62% were female, and the average age was 60 yrs (SD = 12). Overall, 41.6% had a family history meeting Familial Pancreatic Cancer criteria (FPC; ≥2 relatives with PDAC on the same side of the family, including ≥1 first-degree relative); 25.9% had a known PGV and a relative with PDAC; 5.4% had a PGV with PDAC risk without family history; and 27.1% had a non-FPC family history of PDAC. The following variables were significantly lower post-visit compared to pre-visit: cancer worry [t(165)=5.7; $p<$ .001], distress [t(165)=4; $p<$ .001], patient-estimated PGV likelihood [t(165)=4; $p<$ .001], and patient-estimated lifetime cancer risks [t(165)=3.6; $p<$ .001]. McNemar's test found that a significantly lower proportion had elevated distress levels post-visit compared to pre-visit (post=19.3%, pre=29.5%, p=.012).

Conclusion: Results confirmed our hypotheses that cancer-related worry, distress, perception of PGV likelihood, and perception of lifetime cancer likelihood were reduced after a single appointment for a population at high risk to develop PDAC. While the proportion of distressed patients decreased from pre to post visit, distress remained higher than that in the general population which hovers around 7%. Limitations include the use of self-reported measures. More research is needed to understand the long-term impact that genetic counselling and PDAC screening has on psychological health.

CORRESPONDING AUTHOR: Emma Jennings, BS, NYU Langone Health, New York, NY; emmajennings@me.com

Abstract citation ID: kaad011.0925

POSTER SESSION D: EMOTIONAL BURDEN OF FINANCIAL STRAIN AMONG ADULTS WITH CANCER DURING THE COVID-19 PANDEMIC ERA

Seowoo Kim, BS[1], Kenneth Xu, BA[2], Laura M. Perry, PhD[3], Brenna Mossman, MA[2], Tristen Peyser, MS[2], Sarah Alonzi, BS[4], James Moran, PhD[5], Addison Dunn[2], Navya Murugesan[2], Dulcé Rivera[2], Dana Zapolin[2], Michael Hoerger, PhD, MSCR, MBA[2]

[1]Tulane University, Metairie, LA; [2]Tulane University, New Orleans, LA; [3]Northwestern University Feinberg School of Medicine, Chicago, IL; [4]University of California, Los Angeles, New Orleans, LA; [5]University of Florida, New Orleans, LA

Objective: There is little research about financial toxicity of cancer treatment and the negative emotional functioning associated with it. This study aimed to examine the impact of financial toxicity on key indicators of emotional functioning such as depression, anxiety, COVID-19 anxiety, and mood among individuals with a history of cancer during the first year of the pandemic.

Method: This secondary analysis used data collected as part of an internet-based randomized control trial (NCT04625439) to evaluate an intervention to improve self-efficacy for symptom management among individuals with a history of cancer. Participants (N=372) completed a survey between December 2020 and January 2021 that included validated measures of financial toxicity, depression, anxiety, COVID-19 anxiety, and mood. Descriptive statistics summarized the sociodemographic and health characteristics of the sample. Linear and logistic regression analyses examined the relationship between financial toxicity and emotional functioning.

Results: The sample was 72.3% female (N=269), 91.3% Non-Hispanic White (N=340) with a mean age of 58.4 (SD= 13.56). 33.1% (N=123) of the sample reported moderate or severe level of financial toxicity. Among individuals with moderate or severe level of financial toxicity, 12.2% (N=15) showed clinically significant depression and 26.0% (N=32) showed clinically significant anxiety. In regression analyses, participants with a history of cancer experiencing greater financial toxicity showed worse depression ($p< .001$), anxiety ($p< .001$), COVID-19 anxiety ($p=.013$), and mood ($p< .001$), while accounting for key sociodemographic and health covariates.

Conclusion: The findings demonstrated that cancer patients experiencing treatment-related financial toxicity face an increased risk of emotional distress, especially during the COVID-19 pandemic. Implementation of financial toxicity interventions such as discussing the financial aspect of care with financial counselors, financial navigators, and social workers may help to reduce emotional distress in patients.

CORRESPONDING AUTHOR: Seowoo Kim, BS, Tulane University, Metairie, LA; skim24@tulane.edu

---

Abstract citation ID: kaad011.0926

POSTER SESSION D: UNDERSTANDING COLORECTAL CANCER SURVIVORSHIP AMONG PEOPLE WITH INTELLECTUAL AND/OR DEVELOPMENTAL DISABILITIES

Julie Armin, PhD[1], Heather J. Williamson, DrPH, FAAIDD[2], Haleigh Scott, PhD[3], Janet Rothers, PhD[4], Leslie Dennis, PhD, MS[1], Carolyn Camplain, JD[5], Emile Saad, BS[1], Esha Mathur[4]

[1]The University of Arizona, Tucson, AZ; [2]Northern Arizona University, Flagstaff, AZ; [3]Ascend Diagnostic & Support Services, Sacramento, CA; [4]University of Arizona, Tucson, AZ; [5]Northern Arizona University, Newport News, VA

Background: People with intellectual and developmental disabilities (IDD), including those dually eligible for Medicare and Medicaid, experience health inequities due to inadequate access to health care services. IDD is characterized by limitations in adaptive functioning, loosely defined as skills of daily living, and intellectual functioning limitations present before the age of 22. Little is known about cancer outcomes among people with IDD in the US. In this phase of the study, our goal was to determine if there were differences in early stage diagnosis and 5 year survival rates between individuals with and without IDD diagnosed with colorectal cancer (CRC).

Methods: We used the linked SEER (Surveillance, Epidemiology and End Results) and Medicare data to conduct these analyses. Adults 66 years and older who were enrolled in Medicare and who received a primary diagnosis of CRC between 2000-2017 as captured in the SEER registry were included in this study. Subjects with IDD were identified using ICD-9 and ICD-10 codes in the Medicare data set. Relationships between IDD status and outcomes (stage at diagnosis and 5-year survival) were assessed using logistic regression models that adjusted for age, marital status and the Elixhauser comorbidity Index.

Results: SEER registries used for this analysis included 364,553 cases of CRC among individuals 66 and older between 2000 and 2017. Among these, we identified 1117 individuals with IDD. Among all CRC patients, 41.9% (152,583) were reported to have been diagnosed with CRC at an early stage (in situ: 4.2%; localized: 37.7%), and 58.1% (211,970) were diagnosed at late stage (regional: 34.1%; distant: 17.2%; unstaged: 6.8%). Among CRC patients diagnosed in the years 2000 to 2013, 45.6% (132,102/289,416) survived at least 5 years post diagnosis. CRC patients with IDD were more likely to have been diagnosed at early stages compared to those without IDD (44.2% vs. 41.8%; $P=0.001$), yet were less likely to survive 5 years following diagnosis (38.0% vs. 45.7%; $P=0.002$).

Conclusions/Next Steps: To our knowledge, this is the first study to examine relationships between IDD status and cancer outcomes using SEER-Medicare data. The team is currently conducting policy surveillance in two participating SEER states, as well as in-depth interviews of policy-makers and service providers in these states, to better understand the influences on cancer outcomes.

CORRESPONDING AUTHOR: Julie Armin, PhD, The University of Arizona, Tucson, AZ; jarmin@arizona.edu

Abstract citation ID: kaad011.0927

POSTER SESSION D: PSYCHOLOGICAL PREDICTORS OF TIME TO FIRST EMERGENCY DEPARTMENT VISIT IN THOSE WITH ADVANCED NSCLC

Tessa R. Blevins, MS[1], Guy N. Brock, PhD[1], Rachel Smith, MPH[1], John Myers, MS[1], Barbara L. Andersen, PhD[1]

[1]The Ohio State University, Columbus, OH

Background: Patients with lung cancer are more likely to be admitted to the emergency department (ED) than patients with other types of cancer. These patients are also more likely to demonstrate higher psychological burden than patients with other cancers. Previous studies in patients with cancer have described health-related factors associated with ED admissions (e.g., previous ED admissions, demographics, physical symptoms), with mixed evidence relating to psychological predictors. Further, psychological predictors of ED visits have seldom been studied in a population of patients with advanced lung cancer. The aim of this study is to assess the relationship between psychological responses (e.g., depression symptoms, anxiety symptoms, cancer-related stress) and time to first emergency department visits in a sample of patients with advanced lung cancer.

Methods: Patients with advanced non-small cell lung cancer (N=155) previously accrued for a cohort study (Clinicaltrials.gov Identifier: NCT03199651) completed measures of depressive (Patient Health Questionnaire-9), anxiety (Generalized Anxiety Disorder-7), and cancer-related stress (Impact of Events Scale-Revised) symptoms at baseline. Linear regressions assessing the association between psychological responses and time in days to first ED visit, adjusting for employment status, education, pain, and functional status will be presented.

Results: Time from diagnosis to first ED visit ranged from 0-937 days, with the median time being 82 days. Average depressive, anxiety, and cancer-related stress scores were 7.29 (SD=5.74), 5.82 (SD= 5.65), and 17.83 (SD=15.85), respectively. Linear regression analyses demonstrated significant associations between time to first ED visit and depression (R^2=0.08, *p*=.044), anxiety (R^2=0.08, *p*=.048), and cancer-related stress (R^2=.10, *p*=.030) after controlling for employment, education, pain, and functional status.

Discussion: Baseline psychological responses may contribute to days in which a patient with NSCLC first visits the emergency department after diagnosis. Screening for mental health upon diagnosis and subsequent intervention may be critical to prevent the use of emergency department resources after the diagnosis of advanced NSCLC.

CORRESPONDING AUTHOR: Tessa R. Blevins, MS, The Ohio State University, Columbus, OH; t.blevins326@gmail.com

---

Abstract citation ID: kaad011.0928

POSTER SESSION D: ADHERENCE TO DIETARY CANCER PREVENTION GUIDELINES DIFFERS IN IMPROVEMENT LEVEL FOLLOWING BEHAVIORAL NUTRITION INTERVENTION

Abigail M. De La Merced, BS[1], Marny M. Ehmann, BA[2], Evan M. Forman, PhD[2], Brandy-Joe Milliron, PhD[3], Nicole L. Simone, MD[4], Meghan L. Butryn, PhD, FSBM[2]

[1]Drexel University, Camarillo, CA; [2]Drexel University, Philadelphia, PA; [3]Department of Nutrition Sciences, Drexel University, Philadelphia, PA; [4]Thomas Jefferson University, Philadelphia, PA

Previous research has demonstrated that a high-quality diet is associated with reduced risk of cancer, but most adults have low adherence to dietary guidelines. The current study was designed to understand how baseline adherence and amount of improvement after a nutritional/behavioral intervention differs for each of the four dietary guidelines for cancer prevention, as follows: eat sufficient fruits, vegetables, and wholegrains; limit processed foods; limit red and processed meats; limit sugar-sweetened beverages (SSBs). Adults (N=62) with low adherence to dietary recommendations for cancer prevention participated in a 20-week intervention, consisting of workshop sessions, individual coach calls, and weekly text messages. Dietary intake was measured using the Automated Self-Administered 24-hour Dietary Assessment Tool (ASA-24; cohort 1) and Diet History Questionnaire (DHQ III; cohort 2) at pre- and post-intervention. Each participant received dietary adherence scores of 0 (i.e., failure to meet recommendations), 0.5 (i.e., partially meeting recommendations), or 1 (i.e., fully meeting recommendations) using previously established daily intake cutoff values. Adherence scores significantly differed at baseline (F (3, 183) = 12.65, p < .001) with the order of least to most adherent as follows: SSBs (M= .26±.32), fruits, vegetables, and whole grains (M= .41±.26), processed foods (M= .51±.27), and meat (M= .55±.29). All guideline adherence scores improved from pre- to post-intervention, with the order of least to most mean improvement as follows: fruits, vegetables, and whole grains (M= .02±.27), meat (M= .15±.32), SSBs (M= .15±.39), and processed foods (M= .21±.25). A repeated measures ANOVA with a Huynh-Feldt correction revealed significant differences in the amount of improvement among guideline adherence scores (F (2.54, 136.92) = 3.93, p = .01), such that improvement in limiting processed foods was significantly greater than improvement in eating sufficient fruits, vegetables, and wholegrains (p=.002). No other guideline improvement scores significantly differed from one another post-treatment (ps > .06). Future research should examine whether individuals are more inherently motivated to remove unhealthy foods from their diet rather than add in healthier alternatives, and investigate strategies to increase fruit, vegetable, and grain intake in behavioral and nutritional interventions.

CORRESPONDING AUTHOR: Abigail M. De La Merced, BS, Drexel University, Camarillo, CA; abbydelam@gmail.com

Abstract citation ID: kaad011.0929

CITATION AWARD WINNER

POSTER SESSION D: IMPLEMENTATION OF A MULTI-COMPONENT INTERVENTION TO IMPROVE COLORECTAL CANCER SCREENING IN MULTI-ETHNIC COMMUNITIES

Narissa J. Nonzee, PhD[1], Angel Lara, BA[1], Alejandro Fernandez, MS, CCRP[1], Sophia Yeung, MHA, CTTS[1], Charleen Mikail, MPH, CHES[2], Scott Kim, MD[2], Kim Tran, NP, PhD[3], Paul Gregerson, MD, MBA[3], Paul Round, DO[3], Cherry Lee, SPHR[4], Pei-Chi Wu, MD[4], Nancy Chen[5], Stephen Denq, MD[5], Kimlin T. Ashing, PhD[1]

[1]City of Hope, Duarte, CA; [2]ChapCare, Pasadena, CA; [3]JWCH Institute, Commerce, CA; [4]Herald Christian Health Center, El Monte, CA; [5]TzuChi Health Center, Alhambra, CA

Background: Colorectal cancer (CRC) can be deadly but is also highly preventable with screening. Nationally, CRC screening is underutilized by racial and ethnic minorities and in safety-net systems, especially during the COVID-19 pandemic. Therefore, as a COVID-19 pandemic back-to-screening initiative, we aimed to reach a large under-screened population and implement evidence-based interventions to improve CRC screening in Federally Qualified Health Centers (FQHCs).

Methods: This project was a partnership between City of Hope, an NCI-designated Cancer Center, and four FQHCs in Los Angeles County. Between November 2021 and May 2022, we implemented a pragmatic, multi-component intervention that included dissemination of in-language patient education and resources, a multi-ethnic multimedia campaign, and provider/staff and community training. Using data derived from electronic health records, we compared clinic-level CRC screening rates among age-eligible patients before (June 2021) and after the intervention implementation period (June 2022). Training participants were surveyed, and intervention reach was also assessed.

Results: Our population reach assessment showed that our multi-ethnic multimedia campaign reached over 35.4 million impressions across newspapers, radio, social media, and television. Our provider/staff and community training additionally reached over 150 medical providers; >80% of the 100 participants surveyed felt confident that they could get their patients to complete their CRC screening test and follow-up care. For our clinic-based intervention, our baseline sample included 11,259 age-eligible patients across all sites. Overall CRC screening rates increased from 45% to 52% before vs. after the intervention implementation period. The site with the highest baseline CRC screening rate (>62%) maintained consistent rates over the observation period, whereas the three sites with lower baseline rates showed greater pre-post improvements (on average 15 percentage-point increase).

Conclusion: Our intervention was feasibly implemented across multiple health centers and had a broad reach to multi-ethnic populations at risk for CRC screening underutilization. A modest increase in colorectal cancer screening rates was achieved after implementation of our multi-component intervention, despite clinic staffing challenges and lingering impacts of the COVID-19 pandemic. Future intervention implementation may be improved with greater FQHC staff training and support.

CORRESPONDING AUTHOR: Narissa J. Nonzee, PhD, City of Hope, Duarte, CA; nnonzee@coh.org

---

Abstract citation ID: kaad011.0930

POSTER SESSION D: SUPPORTING HEALTH DISTRICTS: AN ANALYSIS OF PRIORITIES PRESENTED TO AN NCI-DESIGNATED CANCER CENTER

Savannah H. Reitzel, MPH[1], Bianca Owens, MS[2], Robert Winn, MD[3], Katherine Y. Tossas, PhD[4]

[1]Department of Health Behavior and Policy, Virginia Commonwealth University, Midlothian, VA; [2]Department of Psychology, Virginia Commonwealth University, Richmond, VA; [3]Massey Cancer Center, Richmond, VA; [4]Department of Health Behavior and Policy, Virginia Commonwealth University, Richmond, VA

Background: In Virginia (VA), 35 Health Districts serve as the local public health authority, carrying delegated responsibilities of the State Health Commissioner for Community Health. They are tasked with the oversight and management of many public health programs, including those related to cancer prevention and control. As such, they are natural partners to NCI-designated cancer centers such as Virginia Commonwealth University Massey Cancer Center (VCU MCC) in their efforts to expand access to cancer prevention and education through a health equity lens. We sought to assess the health district's strengths, needs, and interests related to cancer to identify community-informed short-, mid-, and long-term partnerships to maximize cancer impact.

Methods: Within the VCU MCC catchment area, 66 counties comprise 21 health districts with 14 unique health district directors (HHD). We conducted unstructured virtual interviews from October 2021 to March 2022 with the 14 HHDs representing the 66 counties VCU MCC designates as their primary catchment area. We used thematic analysis to identify strengths, needs, and interest-centered themes.

Results: ***Strength-centered*** themes included: a) established cancer screening programs, b) quality of health clinics, and c) the community's focus on resilience building and understanding of the social determinants of health. ***Needs-centered*** themes included: a) increasing access to and availability of health care via low-cost services and insurance enrollment, b) increasing health care personnel, c) the acquisition and dissemination of cancer information, and d) health concerns about their aging population. ***Interest-Centered*** themes included: a) understanding types of cancer screenings and treatment options, b) understanding cancer risks (i.e., occupational, environmental, and behavioral), and c) building community-academic partnerships.

Implications for Future Practice: Findings point to specific priorities that will shape VCU MCC's strategy to foster partnerships that support, enhance, and augment existing health districts' agendas to jointly maximize health impact. Efforts are on their way to host an HHD summit to facilitate the development of collaborative learning communities to share best practices.

CORRESPONDING AUTHOR: Savannah H. Reitzel, MPH, Department of Health Behavior and Policy, Virginia Commonwealth University, Midlothian, VA; reitzelsh@vcu.edu

Abstract citation ID: kaad011.0931

POSTER SESSION D: PSYCHOLOGICAL RESILIENCE ASSOCIATED WITH FUNCTIONAL CONNECTIVITY IN PEDIATRIC CONCUSSION AND ORTHOPEDIC INJURY RECOVERY

Olivier Brown[1], Zhuo Fang, PhD[2], Katherine Healey, MS[3], Roger Zemek, PhD, MD[4], Andra Smith, PhD[2], Andree-Anne Ledoux, PhD[4]

[1]CHEO RI, Ottawa, ON, Canada; [2]University of Ottawa, Ottawa, ON, Canada; [3]Carleton University, Ottawa, ON, Canada; [4]Children's Hospital of Eastern Ontario, Ottawa, ON, Canada

Purpose: Investigate the associations between dynamic changes in psychological resilience and resting-state network functional connectivity (FC) in samples of children with concussion and orthopedic injuries.

Methods: Children reporting to a local emergency department for concussion or orthopedic injury were recruited into a randomized control trial (RCT). This substudy of the RCT included all patients receiving the Connor Davidson Resilience 10 scale and MRI scanning was completed at two timepoints: 72 hours and 4-weeks post-injury. Correlational analyses were used to detect significant associations between a resilience change score and changes in FC with three networks: default-mode network (DMN), central executive network (CEN), and salience network (SN). Additional analyses determined whether there were significant associations between resilience and FC at both timepoints. We also examined whether associations were moderated by group.

Results: Sixty-nine children with a concussion (median age = 12.81 [IQR: 11.79 - 14.36]; 46% female) and thirty children with an orthopedic injury (median age = 12.27 [IQR: 11.19 - 13.94]; 40% female) were included in the analyses. In the orthopedic injury group, a significant association was identified between resilience change scores and FC change scores of the DMN. Group was a significant moderator of this association. Specifically, this association was greater in the concussion group at 72hrs and greater in the orthopedic injury group at 4-weeks. Group was also a significant moderator of an association between 72hrs resilience and 72hrs FC of the SN. This association was greater in the concussion group. In the concussion group, a significant association was identified between 72hrs resilience and 72hrs FC of the CEN. In the orthopedic injury group, a significant association was identified between 72hrs resilience and 72hrs FC of the SN. No significant associations were detected between 4-week resilience and 4-week FC.

Conclusions: Our findings suggest that resilience might be associated with resting-state functional connectivity of major networks in children with an acute concussion or orthopedic injury. Additional research is required to explore psychological resilience as a protective factor of FC throughout pediatric injury recovery.

CORRESPONDING AUTHOR: Olivier Brown, CHEO RI, Ottawa, ON, Canada; obrow055@uottawa.ca

---

Abstract citation ID: kaad011.0932

POSTER SESSION D: TYPOLOGIES OF FAMILY AND ASSOCIATION WITH FOOD AVAILABILITY IN LATINX HOUSEHOLDS WITH MIDDLE SCHOOL-AGED ADOLESCENTS

Ana P. Campos, PhD[1], Stephanie L. Ayers, PhD[1], Anaid Gonzalvez, MSW[1], Beatriz Vega Luna[1], Flavio Marsiglia, PhD[1], Elizabeth Biggs[1], Sonia Vega López, PhD[1]

[1]Arizona State University, Phoenix, AZ

Objective: To identify different typologies of families accounting for parental agency, adolescent-parental involvement, and frequency of family health conversations to subsequently assess associations with fruit, vegetable and sugar-containing foods availability in Latinx households with middle school-aged adolescents.

Methods: One parent with a corresponding middle school-aged adolescent per household enrolled in a nutrition-enhanced school-based parenting intervention in a U.S. Southwestern metropolitan area. During a baseline home visit, research assistants used a culturally-adapted version of the home food inventory to count the number of different types of fruits, vegetables, and sugar-containing foods available in the home. First, we transformed Likert scale items into binary responses around parental agency (i.e., feeling in control of parental roles), adolescent-parental involvement on family activities, and frequency of family health conversations; and ran latent class analysis. Then, we computed Poisson regression models to assess associations with the latent classes. Control variables were household size and food insecurity.

Results: Three different typologies were identified across the 107 households: Class 1, low parental agency, low adolescent-parental involvement, and low frequency of family health conversations; Class 2 as high parental agency and adolescent-parental involvement but lower frequency of family health conversations; and, Class 3 as high frequency of family health conversations but lower parental agency and adolescent-parental involvement. Compared to Class 1, Class 2 was positively associated with a higher number of types of fruits available (Adjusted Incidence Rate Ratio [AIRR] 1.19, 95% confidence interval [CI] 1.01-1.41). No other classes were associated with vegetables or sugar-containing foods availability. Compared to food secure households, low and very low food insecurity households were negatively associated with the number of vegetables available (AIRR 0.87, 95% CI 0.76-0.99; 0.78, 95% CI 0.62-0.98).

Conclusions: Results suggest that families where the parent reported high parental agency and high adolescent-parental involvement may have higher number of types of fruits available. Food insecurity remains a concern among Latinx households and future research needs to investigate other parental characteristics to better understand attributes associated with increased availability of healthy foods in diverse Latinx families.

Funding: National Institute on Minority Health and Health Disparities award 2U54 MD002316-13.

CORRESPONDING AUTHOR: Ana P. Campos, PhD, Arizona State University, Phoenix, AZ; Paola.Campos@asu.edu

Abstract citation ID: kaad011.0933

POSTER SESSION D: THE EFFECTS OF PATIENT OUTREACH ON PEDIATRIC CLINIC VISITS AND TEEN MENTAL HEALTH DURING COVID-19

Yashodha Narayanan, BS[1], Rebecca Feinstein, MPH, LCSW, PhD[2]

[1]University of Illinois College of Medicine, Dunlap, IL; [2]University of Illinois - Chicago, Chicago, IL

Background: The Covid-19 pandemic has taken a comprehensive toll on healthcare, and pediatric care has not been immune to its impact. Pediatric primary care appointments and emergency room visits have decreased across the United States, corresponding with a decline in well-child immunization rates below pre-pandemic rates and forgone health care for chronic pediatric conditions. The decrease in clinical care also presents major barriers to accessing mental health screening and referrals for treatment generally, which is particularly salient with the increased incidence of adolescent depression, anxiety, and suicidal ideation, as evidenced by the Surgeon General's 2021 Advisory. This study examines the utilization of telephone outreach to increase health care utilization among adolescents living in urban, distressed communities.

Methods: Between August 2020-August 2021, 5905 outreach phone calls were made to parents/guardians of adolescents who have received care at an urban outpatient pediatric primary care and specialty clinic. A script was used to inform them that clinics are open and safe, help them make any needed appointments, and tell them about a teen depression screening and prevention study. Families requesting appointments were called back by clinic staff to schedule the visit. Those interested in the depression prevention study were called back by study staff to conduct a depression screening and assess study eligibility.

Results: Of 5906 families called, 66% received the information intended to be conveyed via telephone outreach; 34% requested help setting up medical care or a referral for a mental health screening. Of the 503 parents that requested clinic appointments, 178 (25%) attended primary care appointments and 63 (13%) attended specialty care appointments. This data yields a 19% no-show rate for the primary care appointments and an 11% no-show rate for the specialty care appointments, compared to pre-pandemic no-show rate of 30%. Of the 323 families who requested to be contacted about the depression prevention program, 110 (34%) received a depression screening and 52 eligible adolescents were referred to participate in the study.

Discussion: This study examined the effectiveness of outreach calling to engage families of adolescents during the Covid-19 pandemic. In addition to the expected fears of exposure and lack of safe transportation, additional barriers to accessing care emerged. Some parents reported lacking access to tools required for telemedicine appointments, such as a webcam-enabled device and a stable internet connection. Others tried and failed to make appointments because clinic call-lines were always busy. Finally, the widespread job loss brought on by the pandemic also left numerous families on health insurance. Still, outreach calling enabled families to access needed primary and specialty care appointments and mental health screenings.

CORRESPONDING AUTHOR: Yashodha Narayanan, BS, University of Illinois College of Medicine, Dunlap, IL; ynaray3@uic.edu

---

Abstract citation ID: kaad011.0934

POSTER SESSION D: ADOLESCENT AND CAREGIVER PERCEPTIONS OF THE FAMILY MEAL ENVIRONMENT AND ITS ROLE IN OVEREATING BEHAVIOR

Nathan Hacker, BS[1], Tori Humiston, MS[2], Bridget Clark, MS[3], Caroline Cummings, PhD[4], Amy Hughes Lansing, PhD[1]

[1]University of Vermont, Burlington, VT; [2]University of Vermont, South Burlington, VT; [3]University of Vermont, burlington, VT; [4]Texas Tech University, Lubbock, TX

Introduction: Research indicates characteristics of the family meal environment have numerous beneficial effects for adolescents and their caregivers. This association may occur through supportive family meal environments, where parents model and reinforce health-promoting behaviors and decrease health-risk behaviors. Despite this, less research has explored the adverse effects that the family meal environment has on adolescent perceptions of family meals and overeating behaviors. This study examined the link between adolescent and caregiver reports of overeating behaviors, nutritional quality, and social and emotional quality of family meals.

Methods: A community sample of adolescents (n=31 age=11-17 years) and their primary caregivers completed measures of their perceptions of the home meal environment (nutritional quality, social and emotional quality of family meals) and overeating behavior (frequency of loss of control while eating, cravings for eating, and automaticity of eating). Measures were administered once at baseline and at multiple timepoints across a 7-day period via daily diary.

Results: Bivariate associations indicate that increased report of caregiver loss of control while eating and craving was significantly associated with decreased adolescent perception of the nutritional quality of family meals (r=-.44, p=.01; r=-.50, p>.05, respectively). Further, among adolescents, decreased social and emotional quality of family mealtime was associated with increased craving and automaticity of eating (r=-.34, p=.04; r=-.34, p=.04, respectively). Additionally, caregivers reported a significant association between decreased social and emotional quality of mealtime and increased loss of control while eating and cravings (r=-.41, p=.02; r=-.44, p=.01, respectively).

Conclusion: These findings indicate that caregiver eating behaviors and characteristics of the family meal environment may impact adolescent overeating behaviors and perceptions of nutritional quality of meals. These findings are particularly salient among adolescents, as behaviors learned and exhibited during this developmental period often persist throughout development and may lead to increased risk of morbidity and mortality. Future research should continue to examine the family meal environment as a point of intervention to address overeating behaviors among families to decrease generational overeating behaviors.

CORRESPONDING AUTHOR: Nathan Hacker, BS, University of Vermont, Burlington, VT; nathan.hacker@uvm.edu

Abstract citation ID: kaad011.0935

POSTER SESSION D: A SYSTEMATIC REVIEW OF SLEEP AND AMBIENT TEMPERATURE ASSOCIATIONS IN A WARMING CLIMATE

Paquito Bernard, PhD[1], Guillaume Chevance, PhD[2], Kelton Minor, PhDc[3], Emmanuel Campi, Msc[4]

[1]Université du Québec à Montréal, Montreal, PQ, Canada; [2]Barcelona Institute for Global Health, Barcelona, Catalonia, Spain; [3]University of Copenhagen, Copenhagen, Hovedstaden, Denmark; [4]University of Barcelona, Barcelona, Catalonia, Spain

Introduction: There is accumulating evidence that climate change is increasing health risks and notably heat-related illnesses and mortality. One proposed pathway of the association between ambient temperature and health outcomes is disrupted sleep. Indeed, shorter sleep duration, poor sleep quality and sleep disorders are prospectively associated with the development of chronic diseases and mental disorders.

Objectives: This systematic review aims at identifying and summarizing the literature on ambient heat and rising ambient temperature on the one hand and sleep outcomes on the other. We aim to synthesize the available evidence and research gaps on this topic to inform researchers seeking to explore new facets of the temperature-sleep association.

Methods: Methods for collecting and summarizing data met the standards of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines. Studies were included if they met the following criteria: (*i*) reporting associations between objective indicators of ambient temperature and valid sleep outcomes measured in ecological, real-life, environments; (*ii*) including adults and children above 4-year; and (*iii*) being peer-reviewed. Eligible measures of sleep included: self-reported (subjective) sleep questionnaires; device-measured sleep parameters (e.g., accelerometer). Eligible measures for temperature was narrowed to objective records via weather stations or local temperature sensors. Studies were identified by searching PubMed, Scopus, JSTOR, GreenFILE, GeoRef and PsycARTICLES. A narrative synthesis of the literature was performed.

Results: Twenty two articles were included. Most studies were correlational (16 articles,80%). Ambient temperature was mostly measured via weather stations (16 articles,75%) and in some cases using temperature sensors placed in participants' bedrooms (7 articles). Two studies investigated whether warming nighttime temperatures due to climate change would increase the incidence of insufficient sleep in the future. This systematic review shows that higher outdoor or indoor ambient temperatures, expressed whether as aggregated daily estimates or nighttime temperature, are negatively associated with various sleep outcomes worldwide. The association being stronger in the warmest months of the year, among vulnerable populations, notably in elderly, and in the warmest areas of the world. This result is robust across various sleep indicators. Projection studies estimate that, with ongoing climate change, the number of nights with insufficient sleep should significantly increase worldwide by the end of the century.

Conclusions: Beyond observational studies, there is an urgent need for interventional studies aiming at fostering heat adaptation at different levels, from individual interventions to environmental modifications.

CORRESPONDING AUTHOR: Paquito Bernard, PhD, Université du Québec à Montréal, Montreal, PQ, Canada; bernard.paquito@uqam.ca

---

Abstract citation ID: kaad011.0936

POSTER SESSION D: TRAINING YOUTH TO BE CERTIFIED COMMUNITY HEALTH WORKS TO HELP REDUCE ETHNIC/RACIAL HEALTH DISPARITIES IN CONNECTICUT

Amanda M. Marin-Chollom, PhD[1], Jayme Hannay, PhD, MPH[2], Valerie Cammarota, MPH[3]

[1]Central Connecticut State University, South Salem, NY; [2]YWCA New Britain, Longmeadow, MA; [3]YWCA New Britain, New Britain, CT

Background: The Community Health Worker (CHW) field is expected to grow 13% between 2019 and 2029, (much faster than for other occupations). The need for trusted, CHWs who can engage residents in informal settings to improve health disparities has become more apparent because of the Covid-19 pandemic. In the state of Connecticut individuals as young as 16 years old can become certified CHWs. The goal of this project was to train and educate youth to be CHWs to help reduce racial and ethnic disparities in COVID vaccine uptake in New Britain, CT by decreasing mistrust in the community and correcting misinformation.

Method: The YWCA New Britain, CT partnered with The Southwestern Area Health Education Center to deliver a 90 -hour CHW training to students from New Britain High School, and the YWCA provided the internship hours. Upon completion of the course and an internship students were able to 1) serve as a liaison among individuals, communities and health and social service systems; 2) provide culturally appropriate health education and information on a variety of topics including physical activity, nutrition, diabetes, hypertension, trauma, health equity and social determinants of health; 3) provide coaching and social support; 4) advocate for individuals and communities; 5) implement individual and community assessments; 6) conduct outreach to individuals, communities, service providers and groups, and 7) know the basics of evaluation and research.

Results: In 16 months (May 2021 – August 2022), through community engagement between the YWCA New Britain, CT and New Britain High School, 12 students ages 15-17 and 3 adult learners have been trained and educated to become CHWs. With these CHWs, 6 events have been held that 1,340 local residents have attended. These events range from expert panel sessions to health fairs. In addition to print media, efforts were made through a student-led social media TikTok campaign, with 36 campaign videos posted logging 24,343 views from the public. In partnership with the local Health Department, students hosted 2 'Trusted Messenger' webinars, training a total of 109 community leaders as vaccine ambassadors. Students made a total of 17 professional partnerships with community-based organizations, attending mobile vaccine sites in the effort to broaden outreach to address health disparities in target communities. As a direct result of these partnerships and the teens' ability to speak to residents personally, 453 people were vaccinated (438 of whom were people of color).

Conclusions: Empowering youth to be agents of change for their community by training them as CHWs in underserved areas, such as New Britain, CT has the potential to health reduce ethnic/racial health disparities. Further a CHW certification provides them with tangible work experience that can potentially help with social mobility.

CORRESPONDING AUTHOR: Amanda M. Marin-Chollom, PhD, Central Connecticut State University, South Salem, NY; amarin-chollom@ccsu.edu

Abstract citation ID: kaad011.0937

POSTER SESSION D: THE IMPACT BLACK BARBERS HAVE IN COMMUNITY ENGAGEMENT FOR LUNG CANCER RESEARCH

Miguel Negrete, MPH[1], Adeolu Ademiluyi, MSc[1], Evegenia Karayeva, MPH[1], Curtis Eskridge[2], Bobby Price[3], Matthew Huggins[4], George Eskridge[5], Sage J. Kim, PhD[1]

[1]UIC School of Public Health, Chicago, IL; [2]Cut It Out Curt, Chicago, IL; [3]Principle Barbers, Chicago, IL; [4]Beauti PRO, Chicago, IL; [5]George's Barbershop, Chicago, IL

Despite significant advancements in screening and treatments and declining smoking rates in black, brown, and white communities, racial inequities in lung cancer incidence and mortality persist. The fact that lung cancer incidence and mortality rates are higher for blacks than whites, even though their smoking rates do not differ, suggests that factors beyond individual behavioral risk contribute to racial disparities in lung cancer. In particular, social and physical disorder, crime, and instability affect the health of individuals living in these highly stressful environments. More research is needed to understand the underlying mechanism for persisting higher rates of lung cancer among black men. However, recruitment strategies to engage black men remain challenging. Due to medical and system mistrust, black men are less likely to participate in research. Lack of representation makes studies less generalizable and limits the opportunity to understand the underlying factors contributing to the high lung cancer rates.

We collaborated with local barbershops to address mistrust and improve research participation. We worked closely with four barbershops serving predominantly black communities in Chicago: South Shore, Englewood, Austin, and North Lawndale. We effectively reached our recruitment goal through a community-based participatory approach and activating existing community social networks. Barbers representing these barbershops guided our research via a community advisory board and in the recruitment process in their barbershops. Through this process, we successfully collected hair samples (measuring stress) and implemented survey questionnaires (measuring neighborhood stressors).

Our recruitment strategy provides the strengths and lessons learned for recruiting black men into lung cancer investigations, such as how it is vital to include barbers in various research project components and how essential it is to develop strong partnerships to overcome unforeseen challenges. Barbershops have been a staple to the black communities for decades. Specifically, black barbers are seen as leaders in their communities. We successfully collaborated with four black barbershops in different under-resourced communities in Chicago to engage black men. Our next step is to analyze the data and determine if community stressors impact stress in high-risk black men.

CORRESPONDING AUTHOR: Miguel Negrete, MPH, UIC School of Public Health, Chicago, IL; mnegre2@uic.edu

---

Abstract citation ID: kaad011.0938

POSTER SESSION D: EXPLORING ASIAN AMERICANS' DECISION-MAKING IN THE CONTEXT OF ORGAN DONATION

Diana Litsas, MPH[1], Gerard P. Alolod, MA, MPhil[1], Anyun Chatterjee, MPH[1], Ryan Blunt, MPH[2], Laura A. Siminoff, PhD[3]

[1]Temple University, Philadelphia, PA; [2]College of Public Health, Temple University, Philadelphia, PA; [3]Temple University, Phiadelphia, PA

Background: Asian Americans (AAs) comprise over 8.5% of the transplant waitlist, yet have the lowest donation rates among US racial and ethnic groups. Studies examining the gap between AA transplantation needs and donation rates have suggested that AA decision-making about organ donation diverges from the Western premise of individualized autonomy. The aim of this study was to understand how AA donation decision-making is influenced by individual and familial attitudes and beliefs. The study's null hypothesis was that surrogate family decision-making about whether to authorize the donation of a deceased patient's organs would defer to the patient's wishes.

Methods: A national sample of adult AAs were recruited via Qualtrics online platform. Think-aloud semi-structured interviews featured 4 hypothetical medical scenarios presenting increasing complexity, ranging from a toothache to organ donation authorization for a relative who had suddenly died in hospital. The qualitative analytic technique applied grounded theory.

Results: The 40 participants ranged from 18 to 77 years old, with a mean age of 49.8, similar to previously reported mean ages of familial decision-makers for organ donation. The biggest proportion in the sample were Chinese, Filipino, and Indian, mirroring the largest AA communities in the US. The majority of participants reported willingness to be an organ donor (65%), citing altruism and personal or relatives' exposure to the benefits of transplantation. Notably, 25% and 10% of respondents were unwilling or unsure about donation, citing concern about burial practices, relative's influence, and belief that donation is a Western practice. When asked if they would authorize organ donation for a relative with unknown donor preferences, the majority reported deferral to the hypothetical patient's spouse or to the oldest family member.

Clinical Relevance: This study gains further depth into the factors and thought processes behind AAs' decision-making in the context of organ donation, underscoring the need to take account of individuals' cultural backgrounds and beliefs, as the typical Western perspective may not be applicable to all Americans.

CORRESPONDING AUTHOR: Diana Litsas, MPH, Temple University, Philadelphia, PA; diana.litsas@temple.edu

Abstract citation ID: kaad011.0939

POSTER SESSION D: EXPLORING STAKEHOLDERS' PERSPECTIVES ON A NOVEL CULTURALLY TAILORED DIABETES SELF-MANAGEMENT PROGRAM FOR AFRICAN AMERICANS

Meng-Jung Wen, MS, BPharm[1], Martha A. Maurer, MSSW, MPH, PhD[2], Luke Schwerer[3], Nassim Sarkarati, MPH[3], Ugboaku M. Egbujor[3], Jenna Nordin[4], Sharon D. Williams[5], Yao Liu, MD, MS[6], Olayinka O. Shiyanbola, PhD, BPharm[1]

[1]Division of Social and Administrative Sciences, School of Pharmacy, University of Wisconsin–Madison, Madison, WI; [2]Sonderegger Research Center, School of Pharmacy, University of Wisconsin-Madison, Madison, WI; [3]School of Pharmacy, University of Wisconsin- Madison, Madison, WI; [4]School of Pharmacy, University of Wisconsin-Madison, Madison, WI; [5]Center for Community Engagement and Health Partnership, University of Wisconsin–Madison, Milwaukee, WI; [6]Department of Ophthalmology & Visual Sciences, School of Medicine and Public Health, University of Wisconsin, Madison, WI

Background: There is an urgent need for culturally tailored diabetes self-management education programs to improve health outcomes in African Americans given the disproportionate prevalence of diabetes and medication non-adherence. We proposed a novel program, Peers EXCEL, that integrates culturally tailored content for African Americans with an existing community-based diabetes self-management education program, Healthy Living with Diabetes, to address key barriers to medication adherence and enhance self-management skills development. To strengthen participation and promote sustainability, this study aimed to leverage stakeholder engagement in guiding and enriching the development of a diabetes self-management education program for African Americans.

Methods: Semi-structured individual interviews were conducted virtually with healthcare professionals in Wisconsin and with organizational leaders from around the state serving African American communities and/or providing diabetes education. Transcripts were analyzed using both directed content analysis guided by the Consolidated Framework for Implementation Research (CFIR) and inductive content analysis.

Results: Thirteen interviews were conducted with seven healthcare professionals and six organizational leaders serving African American communities and/or providing diabetes education. Six overarching themes were identified: (1) partnering with local organizations, (2) creating a supportive and trusting environment, (3) building relationships, (4) empowering peers (5) logistical barriers to program implementation and (6) challenges to program acceptance.

Conclusion: Stakeholders delineated how the new culturally tailored diabetes self-management education program aligned with the needs of African American patients by addressing medication nonadherence, as well as by empowering patients with self-management skills. The program was viewed as complementary to the existing healthcare system in overcoming issues related to mistrust of healthcare and misbeliefs about diabetes. Engaging key stakeholders, including healthcare providers and African American communities, was viewed as an important strategy to increase program awareness and overcome anticipated challenges with participant recruitment. Perceived challenges and corresponding strategies to address barriers to participation were identified to inform program implementation and sustainability.

CORRESPONDING AUTHOR: Meng-Jung Wen, MS, BPharm, Division of Social and Administrative Sciences, School of Pharmacy, University of Wisconsin–Madison, Madison, WI; mwen8@wisc.edu

---

Abstract citation ID: kaad011.0940

POSTER SESSION D: ASSOCIATION OF TIME PERSPECTIVE, DIETARY BEHAVIOR, PHYSICAL ACTIVITY AND GLYCEMIC CONTROL IN PATIENTS WITH TYPE 2 DIABETES

Meihua Ji[1], Pina Jin[1], Xiaojing Wang[2], Aihua Li[2], Huan Dong[2]

[1]School of Nursing, Capital Medical University, Beijing, Beijing, China; [2]Beijing Luhe Hospital, capital Medical University, Beijing, Beijing, China

Background: Dietary behavior and physical activity are crucial elements in the self-management of patients with type 2 diabetes (T2DM). They are essential to glycemic control and the prevention of diabetic complications in these patients. However, it is challenging for patients with diabetes to make sustainable behavior changes and achieve long-term optimal glycemic control.

Objective: Time perspective is an emerging area for understanding health behaviors. Based on the Temporal Self-Regulation Theory, this study aimed to investigate the relationships among time perspective, intention, self-regulatory, health behaviors, and health outcomes in patients with T2DM. The mediating and moderating roles of related concepts between time perspective and health behaviors were also explored.

Design: A cross-sectional study.

Methods: A total of 190 patients with T2DM were enrolled in the current study by following convenient sampling between November 2021 and January 2022. Data were collected via self-reported questionnaires and retrieval of clinical information from the medical record. Correlational analysis, hierarchical linear regression, and structural equation modeling were used to analyze the data and understand the relationships among study variables.

Results: A future-oriented time perspective was associated with better dietary behavior ($r=0.191$, $p< 0.01$) and physical activity ($r=0.246$, $p< 0.01$), but it was not significantly related to HbA1c. The hierarchical regression analysis demonstrated that the key concepts of the Temporal Self-Regulation Theory significantly predicted dietary (adjusted $R^2=0.245$, $p < 0.001$) and physical activity ($R^2=0.304$, $p < 0.001$) behavior. Based on the theory and path analysis, there was an indirect effect of future time perspective on dietary behavior through self-regulatory capacity (indirect effect=0.131, 95% CI: [0.053, 0.228], $p < 0.01$) and intention (indirect effect=0.102, 95% CI: [0.042, 0.178], $p < 0.01$). Meanwhile, there was a significant indirect effect of future time perspective on physical activity via self-regulatory capacity (indirect effect=0.296, 95%CI: [0.140, 0.481], $p < 0.01$). However, self-regulation capacity was not significantly moderating the relationship between intention and the outcome variables ($p > 0.05$) in this sample.

Conclusion: These findings revealed that a future-orientated time perspective is important for sustaining dietary behavior and physical activity among patients with T2DM. As a theoretical framework, the Temporal Self-Regulation Theory offers references for researchers and clinicians to take into consideration of patients' time perspective, and their intention and self-regulation capacity when developing interventional programs to improve patients' self-management behaviors, especially dietary behavior and physical activity.

CORRESPONDING AUTHOR: Meihua Ji, School of Nursing, Capital Medical University, Beijing, Beijing, China; mjshouyi@ccmu.edu.cn

Abstract citation ID: kaad011.0941

POSTER SESSION D: EXPLORING CONNECTIONS BETWEEN MATERNAL DIABETES DISTRESS AND CHILD EMERGENCY DEPARTMENT VISITS AMONG ADOLESCENT T1D PATIENTS

Sydney Garretson, BA[1], Jill Simmons, MD[2], Sarah S. Jaser, PhD[1]

[1]Vanderbilt University Medical Center, Nashville, TN; [2]Vanderbilt University Medical Center, Brentwood, TN

Introduction: Research on youth with type 1 diabetes (T1D) highlights maternal depressive symptoms as a risk factor for diabetes outcomes; children of depressed mothers are more likely to have emergency department (ED) visits, greater healthcare utilization, and higher cost of diabetes care. Diabetes distress (DD), the emotional burden related to diabetes management, is more prevalent than depression in parents of T1D youth, yet the connection between maternal DD and child ED visits has not been explored.

Methods: Mothers of adolescent children (age 11-17) with T1D who enrolled in a behavioral clinical trial completed measures of distress prior to enrollment. The PHQ-9 measured depressive symptoms and the Parent/Teen Relationship Distress subscale of the Parental Diabetes Distress Scale measured the impact that mothers' feelings about diabetes have on the parent-teen relationship. To be eligible for the trial, mothers reported at least mild depressive symptoms and/or clinically significant DD.

Adolescents' medical charts were reviewed for A1c values and diabetes-related emergency department visits, including symptoms associated with DKA and hyperglycemia, in the 12 months before their mothers enrolled in the study.

Results: Our sample consisted of 152 mothers (M_{age} = 42yrs., 89% Non-Hispanic White, 80% Married/Partnered, 56% college graduates, mean adolescent A1c = 9.0%). 24 children had ED visits within a year of study enrollment.

Mothers of adolescents with ED visits reported significantly greater DD than those without ED visits (M_{ed} = 2.85 and M_{noed} = 2.07, p < .001, ***d*** = 1.01) and significantly greater A1c (M_{ed} = 10.9%; M_{noed} = 8.7%; p < .001, ***d*** = 1.92). Child age, parent age, and mothers' PHQ-9 scores were not significantly associated with ED visits. Mothers who were college graduates were less likely to have child ED visits than those without college degrees.

Conclusion: Our findings highlight the relationship between child ED visits, higher child A1c, and elevated maternal diabetes distress. While ED visits may increase maternal DD, distressed mothers may also exhibit ineffective parenting behaviors and struggle to help their child manage diabetes, increasing risk of ED visits. Longitudinal research with a larger, more diverse population is needed to better understand the direction of effects between ED visits and maternal DD. Screening for maternal DD may identify T1D children at risk of hospitalization and inform interventions to alleviate this distress.

CORRESPONDING AUTHOR: Sydney Garretson, BA, Vanderbilt University Medical Center, Nashville, TN; sydney.garretson@vumc.org

---

Abstract citation ID: kaad011.0942

POSTER SESSION D: ADOLESCENTS' VIEW ON CAREGIVER INVOLVEMENT IN DIABETES MANAGEMENT: LINKING CHILD BEHAVIOR AND QUALITY OF PARENTAL INVOLVEMENT

Nkemjika Okonkwo, BA[1], Sarah S. Jaser, PhD[1]

[1]Vanderbilt University Medical Center, Nashville, TN

Introduction: Previous research on families of children with T1D indicates that collaborative parent–child partnerships foster better diabetes management, glycemic control, and quality of life as children mature. Also, child behavioral problems negatively influence parenting behaviors, which in turn affects the overall quality and amount of parental involvement. However, few studies explore the connection between child behavior problems in relation to parental involvement in diabetes management from the perspective of the child. We sought to examine whether adolescents' internalizing or externalizing problems were more strongly associated with child-reported level of parental involvement in diabetes management.

Methods: 151 children with T1D and their female caregivers enrolled in a randomized behavioral intervention. At baseline, caregivers completed the Child Behavior Checklist (CBCL) and adolescents completed Youth Self-Report (YSR), assessing externalizing (e.g., aggressive, and defiant behavior) and internalizing (e.g., anxious/depressed behaviors). Adolescents also completed the Collaborative Parent Involvement Scale (CPI), assessing adolescents' perception of their parent's involvement in their diabetes management. Adolescents' A1c values were extracted at baseline from medical records.

Results: Both externalizing (r=-.30, p=< 0.001) and internalizing (r=-.42, p=< 0.001) problems were significantly associated with higher CPI scores. However, after adjusting for adolescent age and A1c, we found that child internalizing behaviors (but not externalizing behaviors) were a significant predictor of lower collaborative parental involvement (B = -.37, p < .001). Additionally, consistent with previous findings, higher collaborative parent involvement was significantly associated with lower A1c (r=-.27, p=< 0.001).

Conclusion: Effective parental involvement helps adolescents with T1D develop the autonomy required for independence in their diabetes management. Our findings suggest that adolescents with behavioral problems may not perceive quality parental assistance, especially those with symptoms of anxiety/depression. This study highlights the importance for assessing the quality of collaborative parent involvement from the perspective of the child in order to promote interventions that can help foster a more collaborative environment and strengthen the parent-child partnership.

CORRESPONDING AUTHOR: Nkemjika Okonkwo, BA, Vanderbilt University Medical Center, Nashville, TN; nkemjika.m.okonkwo.1@vumc.org

Abstract citation ID: kaad011.0943

POSTER SESSION D: DIFFERENTIAL ITEM FUNCTIONING OF THE SCOFF IN RELATION TO FOOD-SECURITY STATUS IN U.S. COLLEGE STUDENTS

Brianne Richson, MA[1], Vivienne Hazzard, PhD, MPH, RD[2], Kara Christensen, PhD[3], Kelsey Hagan, PhD[4]

[1]Department of Psychology, University of Kansas, San Diego, CA; [2]University of Minnesota School of Public Health, Minneapolis, MN; [3]University of Nevada, Las Vegas, Las Vegas, NV; [4]Columbia University Irving Medical Center, New York, NY

Background: Although food insecurity is a risk factor for eating disorders (EDs), certain behaviors related to food insecurity (e.g., fasting due to financial constraints, concern about food) may be mistaken as ED behaviors during assessment. When screening for EDs, it is thus important to be confident that measures assess intended ED pathology to reduce the pathologizing of food insecurity and to facilitate the mobilization of appropriate resources upon screening. The purpose of this study is to test whether the items on the SCOFF – a common, brief ED screener – performed differently as a function of food-security status.

Methods: This study used the 2020/2021 Healthy Minds Study data (*N*=122,269), which is comprised of college students throughout the United States. The two-item Hunger Vital Sign assessed past-year food insecurity. The SCOFF assessed current ED pathology. Differential item functioning (DIF) analyses tested whether SCOFF item performance (i.e., probability of endorsement) differed as a function of food-security status. Uniform DIF (assuming constant difference in item-endorsement probability) and non-uniform DIF (assuming variable difference in item-endorsement probability across ED pathology levels) examined SCOFF item performance in individuals with food insecurity (*n*=33,772) and individuals without food insecurity (*n*=88,497). Likelihood ratio chi-square tests assessed statistically significant differences in each item's functioning between the two groups, and differences in McFadden pseudo R^2 values between the two groups assessed clinically significant differences in functioning.

Results: Results indicated statistically significant uniform (*p*'s < .001) and non-uniform DIF (*p*'s ≤ .02) for all five SCOFF items between individuals with food insecurity and individuals without food insecurity. However, no instances of DIF were clinically significant (pseudo ΔR^2's ≤ .008) between the two groups.

Conclusions: Items on the SCOFF do not appear to perform meaningfully differently as a function of food-insecurity status in college students. Overall, results suggest that the SCOFF can be appropriately interpreted in the same manner in college students with food insecurity as in college students without food insecurity. In general, future research should continue to examine ED measures' potential item performance differences in the context of food insecurity.

CORRESPONDING AUTHOR: Brianne Richson, MA, Department of Psychology, University of Kansas, San Diego, CA; bri.n.richson@gmail.com

---

Abstract citation ID: kaad011.0944

POSTER SESSION D: NUTRITION KNOWLEDGE AND EATING BEHAVIORS OF WORLD TRADE CENTER RESPONDERS WITH PTSD PARTICIPATING IN A NUTRITION INTERVENTION

CHRISA ARCAN, PhD, MHS, MBA, RDN[1]

[1]Virginia Commonwealth University, RICHMOND, VA

Purpose: The Mediterranean dietary pattern (MedDiet) has been shown to lower systemic inflammation and risk of metabolic syndrome. Responders to the 9/11 World Trade Center (WTC) disaster suffer from high levels of post-traumatic stress disorder (PTSD) and other chronic conditions such as obesity, increased systemic inflammation, and cardiovascular disease. This study examines the participants' reported knowledge, home food availability, and dietary intake.

Methods: Longitudinal analysis of participants' reported nutrition knowledge, home food availability and dietary intake. Data were taken from the WTC-HP Nutrition, a 10-week pilot randomized controlled trial, among WTC responders (age 45-65 years) with PTSD who had overweight or obesity; overall study goals were to improve weight status, systemic inflammation, and symptoms of PTSD. The Participants (N=62; males: 87%) were randomly assigned to intervention (MedDiet n=31) or control (usual nutrition counseling n=31) conditions. Participants completed an online survey assessing multiple psychosocial factors at baseline, post-intervention and 3-month follow up. For continuous outcomes, between-group comparisons were conducted using nonparametric Wilcoxon rank sum tests, and pre-post within-group comparisons were conducted using Wilcoxon signed rank tests.

Results: Both groups experienced a significant increase in the median MedDiet score ($p < 0.0001$). Compared to the control group, the intervention group had significant improvements in waist circumference ($p < 0.0001$). From baseline to post intervention, both groups reported increase in availability of healthy foods (e.g. fruit, vegetables) ($p < 0.0001$) and healthy snacks at home ($p < 0.0001$), while they reported a decrease in the availability of unhealthy foods and snacks (e.g. soda, potato chips) ($p < 0.0001$). At baseline about one third of the participants were knowledgeable about the recommended intake of trans fats or saturated fats and only 6% about fruits and vegetables. The largest improvement from baseline to post-intervention was knowledge about unsaturated fat consumption (14% to 20%). Only 20% and 15% responded correctly on the MyPlate recommendations for starchy foods and fruits and vegetables, respectively.

Conclusion: The WTC-HP Nutrition study involved a high-dose remote communication/education coupled with personal counseling targeting nutrition-related personal, behavioral, and home environmental factors. Both groups showed improvements in their MedDiet score and home availability of healthy foods/snacks. The intervention group had significantly higher reduction in waist circumference. A larger study is needed to confirm the findings and examine potential moderating factors.

CORRESPONDING AUTHOR: CHRISA ARCAN, PhD, MHS, MBA, RDN, Virginia Commonwealth University, RICHMOND, VA; HRISANTI.ARCAN@VCUHEALTH.ORG

Abstract citation ID: kaad011.0945

POSTER SESSION D: SEX AND ETHNIC/RACIAL DIFFERENCES IN MALADAPTIVE EATING AND ADAPTIVE EATING AMONG COLLEGE STUDENTS: REACH PILOT STUDY

Cynthia Yoon, PhD, RD[1], Dan Mai[1], Kush Kinariwala[1], Craig A. Johnston, PhD[1], Tracey A. Ledoux, PhD, RD, FAND[1], Randi Betts, EdD[1]

[1]University of Houston, Houston, TX

Background: During college, young adults establish their own independent eating behaviors (i.e., maladaptive eating and adaptive eating). The risk of engagement in maladaptive eating is greater among female and ethnic/racial minority college students than males and Whites. However, little is known about sex and ethnic/racial difference on adaptive eating among college students.

Purpose: To examine sex and ethnic/racial differences in maladaptive eating and adaptive eating among a sample of college students.

Methods: The study sample included 798 college students (M_{age}=20.7±2.0 yrs, 54.6% female, 45.4% male, 14.5% non-Hispanic Whites, 13.7% African Americans, 27.8% Hispanics, and 36.7% Asian Americans, and 7.3% others) enrolled in the Research on Eating, Activity, and Community Health pilot study. Participants self-reported sex, ethnic/racial identity. Maladaptive eating (e.g., weight and shape concerns, unhealthy weight control behaviors, anxiety relate eating behaviors, and binge eating) was assessed from validated Questionnaire on Eating and Weight Patterns-5; adaptive eating was assessed from the validated Intuitive Eating Scale-2. Modified Poisson regressions were used to examine the associations of sex and ethnicity/race with maladaptive eating. Linear regressions were used to examine the associations of sex and ethnicity/race with adaptive eating.

Results: Sex and ethnic/racial differences were reported in maladaptive eating and adaptive eating.

Female college students had 1.25 times the risk of weight and shape concerns (95% CI = 1.07-1.45), 1.39 times the risk of unhealthy weight control behaviors (95% CI = 1.21-1.59), 1.58 times the risk of anxiety related eating behaviors (95% CI = 1.27-1.97) and 1.89 times the risk of binge eating (95% CI = 1.48-2.40) than male college students after adjustment for sociodemographic variables and BMI. Adaptive eating did not differ between female and male college students.

Compared to non-Hispanic Whites, African American, Hispanic, Asian American college students each had elevated risk of maladaptive eating, including anxiety related eating behaviors (RR range = 1.87-2.18), chronic dieting (RR range = 1.25-1.45) and weight and shape concerns (RR=1.41-1.75).

African Americans additionally had higher adaptive eating (i.e., intuitive eating) scores than non-Hispanic Whites (β: 1.14, 95% CI: 0.14, 2.14).

Conclusion: Among college students, maladaptive and adaptive eating differ by sex and ethnicity/race. Sex and ethnic/racial differences in eating behaviors illustrate the need to identify sex- and ethnic/racial-specific factors related to maladaptive and adaptive eating to narrow disparities and achieve equity in eating behaviors among college populations.

CORRESPONDING AUTHOR: Cynthia Yoon, PhD, RD, University of Houston, Houston, TX; cyyoon@central.uh.edu

---

Abstract citation ID: kaad011.0946

POSTER SESSION D: ASSOCIATIONS OF COLLEGE-GOING GENERATION STATUS WITH MALADAPTIVE AND ADAPTIVE EATING: REACH PILOT STUDY

Cynthia Yoon, PhD, RD[1], Kush Kinariwala[1], Dan Mai[1], Craig A. Johnston, PhD[1], Tracey A. Ledoux, PhD, RD, FAND[1], Randi Betts, EdD[1]

[1]University of Houston, Houston, TX

Background: Transition to college coincides with a critical developmental period during which young adults establish their own eating habits (i.e., maladaptive eating, adaptive eating). It is well established that college students engage in maladaptive eating (e.g, binge eating, unhealthy weight control behaviors) and struggle from adopting adaptive eating (e.g., intuitive eating). Less well has been established of the extent to which eating behaviors differ by college-going generation status (i.e., continuing-generation and first-generation college students).

Purpose: To examine college-going generation status difference in maladaptive eating and adaptive eating.

Methods: Data were available for 789 college students (39.7% first-generation college students, 60.3% continuing-generation college students, 54.8% female, 45.2% male, M_{age} 20.7±2.0 yrs) in the Research on Eating, Activity, and Community Health pilot study. Survey data were collected in year 2022 and included self-reported college-going generation status, maladaptive eating (e.g., unhealthy weight control behaviors, behaviors related to eating and food anxiety) assessed from validated Questionnaire on Eating and Weight Patterns-5, and adaptive eating (i.e., intuitive eating and mindful eating) assessed from validated Intuitive Eating Scale-2 and Mindful Eating Questionnaire. Modified Poisson regressions were used to examine associations of college-going generation status and maladaptive eating. Linear regressions were used to examine associations between college-going generation status and adaptive eating.

Results: Approximately 82% of first-generation and 77% of continuing-generation college students self-reported endorsement of one or more maladaptive eating behaviors. First-generation college students had 1.30 times the risk of purging type of unhealthy weight control behaviors (95% CI=0.73-2.31) and 1.22 times the risk of anxiety related eating behaviors (95% CI=0.97-1.55) compared to continuing-generation college students.

First-generation college students additionally had 0.56 point lower score of intuitive eating (95% CI = -1.11, -0.01) and 0.23 point lower score of mindful eating (95% CI= -0.52, 0.06), where lower score indicates less intuitive and mindful eating.

Associations of college-going generation status with maladaptive eating and adaptive eating attenuated after adjustment for sociodemographic characteristics and BMI.

Conclusion: The greater risk of maladaptive eating and lower score of adaptive eating among first-generation college students compared to continuing-generation college students warrants greater awareness on college-going generation status disparities in eating behaviors. Public health efforts should be given to prevent maladaptive eating and to support adopting adaptive eating among first-generation college students.

CORRESPONDING AUTHOR: Cynthia Yoon, PhD, RD, University of Houston, Houston, TX; cyyoon@central.uh.edu

Abstract citation ID: kaad011.0947

POSTER SESSION D: DIFFERENCES BETWEEN MINDFUL EATING AND BINGE EATING SEVERITY AMONG ASIAN AND WHITE YOUNG ADULT WOMEN

Bo Ra Kim, MSN, RN[1], Gayle M. Timmerman, PhD, RN, CNS, FNAP, FAAN[2]

[1]University of Texas at Austin, AUSTIN, TX; [2]University of Texas at Austin, Austin, TX

Differences between Mindful Eating and Binge Eating Severity among Asian and White Young Adult Women

Bo Ra Kim, MSN, RN, Doctoral student; Gayle M Timmerman, PhD, RN, CNS, FNAP, FAAN, Professor, School of Nursing, The University of Texas at Austin

Background: Binge-eating behavior commonly occurs in the general public, especially in women. It is associated with psychological, as well as physical problems (e.g.,obesity). Mindful eating is both negatively associated with binge-eating behavior and used as a treatment. Yet, little is known about the racial differences in mindful eating and binge eating severity. The purpose of this secondary analysis was to compare differences between binge eating severity and mindful eating among Asian and White participants.

Methods: A convenience sample was recruited using e-mail to targeted university groups and posts on Facebook. Inclusion criteria were 18-29 year old women, living in the US, using $\geq$ 1 social media networking site, and not pregnant or breastfeeding. Participants completed on-line questionnaires [Background Information, Mindful Eating Scale (MES), and Binge Eating Scale (BES)]. MES consists of six subscales: Acceptance, Non-reactivity, Unstructured Eating, Distractibility, Routine, and Awareness. BES describe behavioral manifestations and feeling/cognitions of binge eating.

Results: There were significant differences between Asian (n=38) and White (n=119) participants for mean age [21.9 (SD=2.86) vs 23.5 (SD = 2.93); respectively] and mean BMI [21.5(SD=2.66) vs 23.0(SD=3.59); respectively]. Comparing the binge eating severity level of Asian and White participants, 73.7% vs 25.2% were mild (BES score ≤ 17), 15.8% vs 49.6% were moderate (BES score 18–26), and 10.5% vs 25.2% were severe (BES score ≥ 27), respectively. There was a significant difference between the Asian and White participants in the total BES score (t= 4.66, p< .001) and MES score (t= -4.39, p< .001). For MES subscales, there were significant differences in Acceptance (t=-2.92, p=.005), Non-Reactivity (t=-4.24, p< .001), Distractibility (t=-5.55, p< .001), and Routine (t=-2.97, p=.003) with Asian participants had higher MES scores.

Conclusions: In this sample, Asian participants had lower binge eating severity and higher mindful eating scores compared to White participants. Asian participants were less judgmental about eating experiences (Acceptance), more tolerant of physical cues (Non-Reactivity), less distracted while eating (Distractibility), and consistent in their eating routines (Routine). Further examination of the mindful eating and binge eating severity among the Asian population is warranted.

Funded by the Ed and Molly Smith Centennial Fellowship in Nursing.

CORRESPONDING AUTHOR: Bo Ra Kim, MSN, RN, University of Texas at Austin, AUSTIN, TX; lookviolet@utexas.edu

---

Abstract citation ID: kaad011.0948

POSTER SESSION D: EXTENDING PARTNER INVESTMENT IN HEALTH TO THE UNDERSTANDING OF DIETARY BEHAVIOR

Jessica L. Hopkins, MC[1], Stephanie A. Callan, MS, MA[2], Slaton Z. Freeman, BA[1], Krista W. Ranby, PhD[1]

[1]University of Colorado Denver, Denver, CO; [2]University of Colorado Denver, New Haven, CT

Intimate relationships are inextricably connected to individual health behaviors and outcomes. Despite well-documented associations between the role of close others in managing health, there are few existing measures that are appropriate for a prevention context. To address this gap, the Partner Investment in Health scale (PI-H) was developed to capture individual's investment in their partner's health and their beliefs about their partner's investment in their own health. The present study adapted the 24 PI-H items to a specific behavioral domain, having a healthy diet, to test whether the factor structure is replicated. For example, "I am invested in my partner's health" was adapted to, "I am invested in my partner having a healthy diet." Similarly, "My partner contributes to me being healthy" was adapted to, "My partner contributes to me having a healthy diet." Responses on all items on the Partner Investment in Diet scale (PI-D) ranged from 1 (*strongly disagree*) to 6 (*strongly agree*). Partner investment in health, partner investment in diet, and self and partner diet behavior were measured. Participants in a committed romantic relationship (N=261) were recruited to complete an online survey. They ranged in age from 20-69 years (M=37.20, *SD*=10.68), the majority were heterosexual (n=229; 87.7%), and most participants were cohabitating with their partner (n=218; 83.5%). An exploratory factor analysis produced a two-factor structure underlying the 24 items of the PI-D scale. Factors represented 1) self-investment in partner (SIP; α=.97, M=4.71, *SD*=.96) and 2) the respondent's perception of partner investment in self (PIS; α=.96, M=4.34, *SD*=1.18), which was a replication of the factor structure found with the PI-H scale. The two factors making up the PI-D were moderately correlated (*r* =.572, *p*< .001), and PI-D scores were correlated with PI-H scores (*r*=.776, *p*< .001). We also explored correlations between partner investment in diet (PI-D) and self and partner diet ratings (*r*=.413, .458, *ps*< .001). These findings suggest that partner investment in diet may be useful for understanding dietary behavior. As such, these results have important implications for couples-based health research and intervention development. In sum, the present study provides researchers and clinicians with a reliable tool to measure the influence of partner investment on having a healthy diet, which may improve the efficacy of couples-based health promotion efforts.

CORRESPONDING AUTHOR: Jessica L. Hopkins, MC, University of Colorado Denver, Denver, CO; jessica.2.hopkins@ucdenver.edu

Abstract citation ID: kaad011.0949

POSTER SESSION D: IMPACT OF STRUCTURAL & ENVIRONMENTAL FACTORS ON SCHOOL LUNCH PROGRAM PARTICIPATION AMONG MINNESOTA SECONDARY SCHOOL STUDENTS

Gerit Wagner, MPH, RDN, LD[1], Lenora Goodman, MPH, RDN[2], Jamie S. Stang, PhD, MPH, RDN[2], Katherine R. Arlinghaus, PhD, RD[2]

[1]University of Minnesota School of Public Health, Shawnee, KS; [2]University of Minnesota School of Public Health, Minneapolis, MN

Background: School lunch can fight food insecurity and chronic disease, yet only 58% of students eat school lunch. COVID-19 pandemic-related federal waivers allowed schools to provide all students free lunch for the 2021 fall semester. This context provided an opportunity to examine predictors of school lunch participation that can inform policy discussions on universal free school meals.

Objective: This study aimed to characterize the school lunch environment during the Fall 2021 semester in Minnesota secondary schools and to identify structural and environmental factors associated with school lunch program participation.

Methods: Minnesota middle and high school foodservice authorities (FSAs) were recruited from a public list of FSAs to complete a survey about the Fall 2021 semester. The survey assessed school and lunchroom characteristics (school/district population, school type, free/reduced meals eligibility rate), lunchroom policies and structures (open campus policies, lunch period length, first lunch period start time, foodservice production system type), and Smarter Lunchrooms techniques. Variables were entered into a generalized estimating equation (GEE) regression model to assess the relation between structural and environmental factors and lunch participation rates.

Results: Fifty-nine foodservice authorities representing 121 secondary schools completed the survey. Mean meal participation rate was 53% for high schools, 63% for middle schools, and 65% for Jr./Sr. high schools. Common policies and structures included closed-campus lunches (72%), conventional-style production systems (73%), first lunch beginning after 11am (73%), and lunch periods $\geq$20 minutes long (68%). Each additional student in the school was associated with a 0.01 percentage point decrease in lunch participation ($p=0.046$). Compared to a conventional food service production system, a non-conventional system was associated with a 15% lower participation rate ($p=0.007$). Serving lunch before 11am was associated with a 9% decrease in participation ($p=0.004$). Smarter Lunchroom techniques did not significantly impact participation.

Conclusions: Even with free meals, there is room to increase meal participation. While structural factors are challenging to modify, food production system type and timing of lunch appear to be key targets to improve participation rates. These findings are important to consider in policy discussions about school meal programs and infrastructure.

CORRESPONDING AUTHOR: Gerit Wagner, MPH, RDN, LD, University of Minnesota School of Public Health, Shawnee, KS; Wagn1111@umn.edu

---

Abstract citation ID: kaad011.0950

POSTER SESSION D: REPORTED MENTAL HEALTH, DIET, AND PHYSICAL ACTIVITY IN ADOLESCENT AND YOUNG ADULT CANCER SURVIVORS

Acadia W. Buro, PhD, CPH[1], Marilyn Stern, PhD[2], Tiffany L. Carson, PhD, MPH, FSBM[1]

[1]Moffitt Cancer Center, Tampa, FL; [2]University of South Florida, Tampa, FL

Background: Adolescent and young adult (AYA) cancer survivors have an increased risk of developing obesity-related chronic diseases, including cardiovascular disease and diabetes. This population also faces age-dependent transitions and stressors, including work, school, and relationship challenges, compared to the general population. This study examined associations between perceived stress, anxiety, and depression and reported health behaviors in AYA cancer survivors.

Methods: This cross-sectional study examined survey data from 225 AYA cancer survivors aged 18-39 years. Participants completed a self-administered REDCap® survey, including the Perceived Stress Scale 10, PROMIS® Anxiety and Depression measures, Eating Beliefs Questionnaire (EBQ-18; assessing beliefs that may play a role in binge eating), National Health and Nutrition Examination Survey Dietary Screener Questionnaire, Godin-Shephard Leisure-Time Physical Activity Questionnaire, and general demographic and diagnosis-related questions. Descriptive statistics, bivariate analyses, and stepwise regression with backward elimination were performed.

Results: Participants were mean 31.3 ± 5.7 years old and 4.7 years post-diagnosis; 77% were women. Most participants reported white (71.1%) or Black or African American (20.9%) race and non-Hispanic ethnicity (84%). There were 92.5% of participants who reported elevated stress and 6% whose EBQ-18 scores suggested binge eating pathology. Adjusting for covariates, perceived stress, anxiety, and depression were associated with increased added sugar intake ($p< 0.001$) and eating beliefs ($p< 0.001$); perceived stress and depression were associated with reduced vegetable intake ($p< 0.05$); and depression was associated with reduced fruit intake ($p< 0.001$). Perceived stress and anxiety were associated with reduced physical activity after adjusting for gender only ($p< 0.05$).

Conclusion: Self-reported mental health was associated with some eating beliefs and habits in AYA cancer survivors. Our findings suggest that health behavior interventions for this population may address psychosocial needs by including a stress management, mindful eating, or other mind-body component. Further research including objective measures is needed to better understand associations between mental health and eating and physical activity habits in AYA cancer survivors.

CORRESPONDING AUTHOR: Acadia W. Buro, PhD, CPH, Moffitt Cancer Center, Tampa, FL; acadia.buro@moffitt.org

Abstract citation ID: kaad011.0951

POSTER SESSION D: THE RELATION BETWEEN OBESITY AND CRITICAL FLICKER FUSION FREQUENCY, A BIOMARKER OF COGNITIVE HEALTH, IN MIDDLE AGE

Colin Gardner, MS[1], Anita M. Reina, PhD[1], Taylor Leathers[1], Annaleesa Rogers[1], Megan Harris, BS[1], Billy Hammond, PhD[1], Lisa M. Renzi-Hammond, PhD[1]

[1]University of Georgia, Athens, GA

Background: Thirteen percent of Georgians age over the age of 45 perceive negative changes in cognitive health. Although cognitive decline begins in middle age, it is unlikely that these subtle-but-predictive changes are easily detectable using the tools commonly used for older persons with more obvious decline. Here, we determine whether critical flicker fusion frequency (CFF), shown in prior research to predict cognitive function even in young adults, can 1) be quickly measured at a large worksite and 2) predict other health outcomes related to cognition.

Purpose: This quasi-experimental, pseudo-randomized controlled trial's purpose was to elucidate the feasibility of using an easy cognitive speed test to predict cognitive function in a workplace and then be used to institute behavioral changes to decrease the progression of cognitive loss.

Methods: Thirty-seven adults (M=47.72±11.45 years; 79% female; 16% non-White) at a large worksite were measured. CFF was measured via flicker photometry using a 1-degree, 570nm square-wave stimulus. Waist and hip circumference (WC, HC) and height and weight were measured to calculate BMI. Serum biomarkers were measured from whole venous blood using a benchtop analyzer (Abbott Piccolo Xpress).

Results: CFF was inversely correlated with age ($r=-0.39, p< .05$), BMI ($r=-0.34, p< .05$), WC ($r=-0.34, p< .05$), and ALT enzymes ($r=-0.34, p< .05$). Serum creatinine was positively associated with CFF ($r=0.45, p< .01$). After controlling for age, the relations between CFF and WC ($r=-0.36, p< .05$), BMI ($r=0.34, p< .05$), and creatinine ($r=0.36, p< .05$) remained.

Conclusions: Easily measuring cognitive function in middle age is challenging when the subtle decline begins. Yet, interventions that prevent cognitive decline are most effective when delivered early. CFF is a rapid, sensitive biomarker of cognitive health that can easily be administered at worksites and paired with behavioral interventions.

CORRESPONDING AUTHOR: Colin Gardner, MS, University of Georgia, Athens, GA; cg79700@uga.edu

---

Abstract citation ID: kaad011.0952

POSTER SESSION D: THE RELATION BETWEEN NUTRITION, RETINAL AND VASCULAR HEALTH IN FULL-TIME WORKING ADULTS ENGAGING IN A DASH DIET INTERVENTION

Colin Gardner, MS[1], Anita M. Reina, PhD[1], Taylor Leathers[1], Annaleesa Rogers[1], Megan Harris, BS[1], Billy Hammond, PhD[1], Lisa M. Renzi-Hammond, PhD[1]

[1]University of Georgia, Athens, GA

Background: The DASH diet is recommended for persons at risk for hypertension, yet adherence is notoriously poor. Common measures of adherence (24-hour recall, food frequency questionnaires, 3-day dietary records) are limited by participant recall ability, truthfulness, seasonality, cultural norms, etc. Macular pigment optical density (MPOD) is a non-invasive measure of dietary carotenoids lutein and zeaxanthin in the neural retina. Measuring MPOD is relatively fast (about 5 minutes), non-invasive, and reflects longer term dietary carotenoid intake from foods such as dark green, leafy vegetables.

Purpose: The purpose of this study was to determine whether a quick and easy to implement MPOD measure can act as a predictor of the other health outcomes the DASH diet is aimed at improving, such as blood pressure.

Methods: MPOD was measured psychophysically using heterochromatic flicker photometry at 30-minutes of eccentricity on 37 full-time working adults (*M*=47.72±11.46 years, 92% female, 16% non-White) engaging in a DASH diet intervention. Systolic and diastolic blood pressure (SBP/DBP) were measured at three time points during the single study visit using an automated oscillometric blood pressure cuff. Serum sodium and potassium were measured from venous whole blood, using a benchtop analyzer (Abbott Piccolo Xpress).

Results: MPOD ($M=0.45\pm0.17$) was inversely associated with SBP ($r= -0.23$; $p< .05$) and DBP ($r=-0.35, p< .05$). Serum potassium levels were positively associated with MPOD ($r=0.30; p< .05$).

Discussion: MPOD reflects intake of fruits and vegetables that the DASH diet encourages participants to eat and can be measured quickly, non-invasively and without bias. MPOD also predicts health outcomes the DASH diet aims to improve.

CORRESPONDING AUTHOR: Colin Gardner, MS, University of Georgia, Athens, GA; cg79700@uga.edu

Abstract citation ID: kaad011.0953

POSTER SESSION D: IF YOU REDESIGN BASED ON PATIENT FEEDBACK, WILL THEY COME? COMMUNITY BOARD POSTING BEHAVIORS BEFORE AND AFTER REDESIGN

Sylvia Caldwell, DHSc, MPH[1], Helen Reed, MPH[1], Karen S. Ingersoll, PhD[2], Ava Lena Waldman, MHS[1], Rebecca Dillingham, MD, MPH[1]

[1]University of Virginia, Charlottesville, VA; [2]UVA School of Medicine, Charlottesvle, VA

Background: *PostiveLinks* (PL) is a clinic-deployed app that improves HIV clinical outcomes. It has tools for self-monitoring, secure messaging with providers, and connection to peers via an anonymous community board (CB). In 2018, the CB was one of the most popular features, and had active discussion threads, averaging 65 topic post and 164 reply post per week. As PL users grew to over 700, some objected to religious posts, while others wanted to express religious /spiritual content. Spanish speaking members wanted a Spanish language board to communicate more easily. The PL team divided the board into 9 topics: General, Announcements, Social Support, Q&A, Español, Faith, Opinion, Health Related, and Tech Support.

Methods: We conducted a quantitative analysis to determine whether and how posting behavior changed over three years (2018-2021) that captured posts before and after the community board division. We analyzed which boards generated the most initial posts and replies, and topic to reply ratios by board.

Results: During the year before redesign, the average member posted 3.80 times per year and replied to posts 14.97 times. After redesign, members posted 0.51 posts and replied to 4.11 posts per year. The boards with the top 3 numbers of posts were General (n=484), Social Support (n=277), and Q&A (n=116). The boards with the most replies were General (n=1583), Announcements (n=513), and Social Support (n=392). The boards with the most topic to reply ratios were Announcements (1:57), Tech Support (1:7.7), and Q&A (1:5.3). The boards with the lowest reply ratios were Health Related (1:2.3), Faith (1:1.4), and Social Support (1:1.4). On the Spanish board there were 0 replies to posts. Before board division, there were an average of 65 topic post and 164 reply post per week, while after, there were an average of 21 topic post and 67 reply post per week, a 67.7% decrease for topic post and a 59.2% decrease for reply post.

Conclusion: Responding to patient requests for redesign of the CB led to dividing the CB into nine topical boards. This led to a decrease in posts and replies. Moreover, topics that had been the impetus for developing separate boards (Faith and Spanish) were some of the least utilized after redesign. This analysis spanned the period of COVID-19 (2018-2021) and other factors could have reduced posting behaviors. However, the negative impact on community posting was significant, and board reconfiguration is being considered. Further mixed methods studies are needed to understand PL members posting behaviors and drivers of community board engagement.

CORRESPONDING AUTHOR: Sylvia Caldwell, DHSc, MPH, University of Virginia, Charlottesville, VA; sab6ce@virginia.edu

---

Abstract citation ID: kaad011.0954

POSTER SESSION D: THE ACCEPTABILITY OF TELEMEDICINE AND MHEALTH TO HELP LBQ+ WOMEN OF COLOR ACCESS SEXUAL AND REPRODUCTIVE HEALTH SERVICES

Megan Threats, PhD, MS[1]

[1]University of Michigan, Ann Arbor, MI

Background: Lesbian, bisexual, queer, and other sexual minority (LBQ+) cisgender women of color (WOC) in the U.S. face barriers to accessing sexual and reproductive health services, including human papillomavirus (HPV) vaccination, HIV and sexually transmitted infection (STI) testing, and cervical cancer screening. There is a dearth of research examining the potential utility of telemedicine and other mHealth modalities for improving access and uptake of these critical health services among LBQ+ WOC. This exploratory study aimed to investigate the acceptability of using telemedicine (i.e., video calls on a computer or smartphone) and other mHealth modalities (i.e., chatbot, mobile app) to help cisgender LBQ+ WOC access and utilize sexual and reproductive health services.

Methods: A self-administered web-based survey was launched in November 2020 and closed in March 2021. Participants (N=135) were primarily Black (65%), identified as bisexual (55.6%), and were 25 years old on average. The survey consisted of questions regarding sociodemographic characteristics, sexual and reproductive health service utilization, interpersonal discrimination in healthcare settings, awareness of HIV/STI prevention mechanisms, sexual behavior, health information acquisition practices, technology ownership and usage, and the acceptability of using telemedicine and other mHealth modalities to access sexual and reproductive healthcare.

Results: The results of this study showed high acceptance of the use of video calls (79%) to communicate with healthcare professionals about sexual and reproductive health services, and high acceptance of using a mobile app (87%) to locate sexual and reproductive health services, a chatbot (72%) to receive sexual and reproductive health information, and a mobile app to self-evaluate risk for HPV, HIV and other STIs (89%). The survey results revealed high levels of agreement that telemedicine (82.5%) and mHealth (97%) would improve access to sexual and reproductive health services and increase comfort obtaining these services (90%). Statistically significant associations were found between women who self-reported past discrimination in healthcare settings and agreement that the use of video calls, chatbots, and a mobile app would improve access and increase comfort obtaining sexual and reproductive health services (p's < .05).

Conclusion: The findings of this exploratory study demonstrated the need for additional research into the use of telemedicine and mHealth modalities to provide LBQ+ WOC with more accessible and comfortable options for sexual and reproductive healthcare. Moreover, future research should examine the influence discrimination in healthcare settings has on sexual and reproductive health service access and utilization among LBQ+ WOC, and opportunities for using digital health to combat and circumvent these barriers.

CORRESPONDING AUTHOR: Megan Threats, PhD, MS, University of Michigan, Ann Arbor, MI; threats@umich.edu

Abstract citation ID: kaad011.0955

POSTER SESSION D: DIGITAL HEALTH ENGAGEMENT OF U.S. FAMILY CAREGIVERS: A LATENT CLASS ANALYSIS

Hyojin Son, PhD, RN[1], Li Yang, PhD[1], Cory Stephens, DNP, MSN, RN-BC, CPHIMS, SHIMSS[1], Chantal Gerrard, MS, RN[1], Gwenyth R. Wallen, PhD, RN[1], Lena J. Lee, RN, PhD[1]

[1]National Institutes of Health Clinical Center, Bethesda, MD

Background: Utilizing digital technologies in healthcare can effectively promote equitable, affordable, and universal access to care delivery and health promotion in diverse populations. However, the state of digital health engagement and associated characteristics of family caregivers remain less explored. The purpose of this study was: to identify classes of family caregivers who share similar sociodemographic, caregiving, IT access related, and physical/mental health characteristics; and to determine the association between the classes and digital health engagement.

Methods: A cross-sectional analysis was performed using the merged Health Information National Trends Survey 5 Cycle 3 (2019) and Cycle 4 (2020) datasets. Family caregivers who were not professional and had accessed to the Internet were included (N = 885). Latent class analysis with sampling weights was used to identify classes in caregivers based on 16 measured characteristics: (1) sociodemographic (age, sex, race/ethnicity, marital status, education, annual income, health insurance), (2) caregiving (caring for multiple relationships, caring for more than one condition), (3) IT access related (having both smartphone and tablet, Internet access via broadband), and (4) physical/mental health (frequency of visiting care providers, having a medical condition, ever had cancer, body mass index, anxiety and depression). Logistic regression was performed to examine the association between the classes and digital health engagement.

Results: Two classes were derived: Class 1 (35%) including a higher percentage of unmarried people with lower income and education and more health issues; and Class 2 (65%) including a higher percentage of married people with higher income and education and fewer health issues. Class 2 had a higher likelihood of using electronic means to look for health information for self (OR 2.57, CI 1.39 - 4.76), to communicate with care providers (OR 2.50, CI 1.68 - 3.74), to look up test results (OR 2.34, CI 1.49 - 3.69), and to make appointments (OR 1.62, CI 1.05 - 2.50), using an electronic wearable device to monitor health or activity (OR 2.93, CI 1.81 - 4.74), and having accessed online medical records for self (OR 1.99, CI 1.23 - 3.23) and for care recipient (OR 1.77, CI 1.10 - 2.83) than Class 1.

Conclusions: The class membership based on a range of characteristics of family caregivers was associated with their likelihood of using digital health technology. This analysis suggests the importance of establishing personalized strategies to encourage digital health engagement of caregivers who may benefit most from increasing their use of digital health technology. In addition, health policymakers might elevate the discussion of digital health engagement to the policy level and use such information to facilitate the best support for caregiver populations.

CORRESPONDING AUTHOR: Hyojin Son, PhD, RN, National Institutes of Health Clinical Center, Bethesda, MD; hyojin.son@nih.gov

---

Abstract citation ID: kaad011.0956

POSTER SESSION D: DEVELOPMENT AND ACCEPTABILITY OF M-ORAL HEALTH INTERVENTIONS FOR MOTHERS: THE PREPARATION PHASE OF A MOST STUDY

Merna Ihab, BSc[1], Wafaa Essam Eldin, PhD[1], Hams Abdelrahman[2], Maha El Tantawi, PhD[3]

[1]Alexandria University, Faculty of Dentistry, Alexandria, Al Iskandariyah, Egypt; [2]Faculty of Dentistry, Alexandria University, Egypt, Alexandria, Al Iskandariyah, Egypt; [3]Alexandria University, Alexandria, Al Iskandariyah, Egypt

Background: Mothers' brushing of their young children's teeth, protects them against caries.

Aim: This study describes the development and acceptability of 3 interventions to promote mothers' brushing of their preschool children's teeth using fluoridated toothpaste.

Methods: The Theory of Planned Behavior (TPB) was the conceptual framework guiding the development of three interventions: face-to-face motivational interviewing (MI) (perceived control), story-telling videos (STVs) (attitudes), and oral health promotion text messages (OHPMs) (perceived norms).

A researcher received training to conduct the MI. 24 OHPMs were developed and tested for validity, and 14 ST scripts were developed based on the "And, But, Therefore" framework. We assessed the acceptability of the interventions for mothers, their preferences of the frequency and timing of receiving the interventions, and set the optimization criterion (the amount of time to receive the interventions) using mixed methods. Data were analyzed inductively, then deductively using the framework of acceptability.

Results: Sixteen mothers were included. Mothers described positive affective attitude towards the interventions. They felt that the interventions served as "good reminders" to brush their children's teeth, were "relatable" and "real" and the STVs and OHPMs were well understood and enjoyable. However, "time" was a burden for mothers. The mothers strongly agreed that the OHPMs, STVs, and MI will motivate other mothers to brush their children's teeth. 80% of mothers preferred receiving the OHPMs and STVs once per week, after 8 pm to 2 am (50%). They felt that the maximum amount they can allocate to receiving the interventions was 15-30 mins (60%).

Conclusion: The three interventions were acceptable to mothers. The OHPMs and STVs will be sent to mothers once per week, between 8 pm to 2 am. The MI and follow-up phone calls will be limited to 15-30 mins.

CORRESPONDING AUTHOR: Merna Ihab, BSc, Alexandria University, Faculty of Dentistry, Alexandria, Al Iskandariyah, Egypt; merna.ihab@alexu.edu.eg

Abstract citation ID: kaad011.0957

POSTER SESSION D: EVALUATION OF SELF-MEASURED BLOOD PRESSURE MONITORING IN SOUTHERN RURAL WEST VIRGINIA

Andrya J. Durr, PhD[1], Adam Baus, PhD[1], Craig Robinson[2], Robin Seabury[2], Andrea Calkins, MPH[1], Cecil Pollard, MA[1], Curt Lindberg, DM[2], Marcus Thygeson, MD, MPH[3], Jessica McColley, MD[4]

[1]West Virginia University Office of Health Services Research, Morgantown, WV; [2]Cabin Creek Health Systems, Inc., Dawes, WV; [3]Bind Benefits, Dawes, WV; [4]Riverside Health Center, Belle, WV

Nearly half of the adults in the US have hypertension (HTN) and are at risk of several negative health outcomes, including heart disease and stroke. Although several unmodifiable factors increase the risk of developing HTN (i.e., sex, age, race, ethnicity, and family history), a healthy lifestyle including a nutritious diet, a healthy weight, avoiding nicotine products, and moderate physical activity can decrease the risk of developing HTN. More than one in three adults in West Virginia have HTN, indicating a significant public health concern in the community. Self-monitored blood pressure (SMBP), or home blood pressure (BP) monitoring, when integrated with the provider's clinical management approach, is linked to improved BP management. Cabin Creek Health System (CCHS), a federally qualified health center, implemented SMBP programming in March of 2020 as one element of a developing comprehensive program aimed at reducing uncontrolled HTN. This program is funded through February of 2023, and these data represent a mid-point analysis. Patients were enrolled in the SMBP program due to uncontrolled HTN and were equipped with wireless home BP devices. Blood pressure data was collected for 234 patients and analyzed for changes in BPs between the date of enrollment and the most recently available measurement. At the time of enrollment, 201 (86%) patients had uncontrolled HTN, with 116 (49.6%) patients having both uncontrolled systolic and diastolic values (≥ 140/90). At follow-up, the number of uncontrolled HTN patients decreased to 98 (41.9%), with only 36 (15.4%) patients having both uncontrolled systolic and diastolic values. Additionally, 26 (11.1%) patients were in hypertensive crisis at the time of enrollment, and no patients remained in crisis at follow-up. The number of patients with BP values in the controlled range (< 140/90) increased from 33 (14.1%) to 136 (58.1%). To summarize, there was a 44% increase in the number of HTN patients in the controlled range at follow-up, and a concomitant 44.1% decrease in the number of HTN patients remaining in the uncontrolled range. These observations were consistent across multiple demographic indicators, including clinic location, 3-digit zip code, race, ethnicity, and sex. Despite significant barriers to care including transportation and the COVID-19 pandemic, CCHS continued to provide extensive clinical care and support to their HTN population, resulting in significant improvements in HTN management.

CORRESPONDING AUTHOR: Andrya J. Durr, PhD, West Virginia University Office of Health Services Research, Morgantown, WV; ajdurr@hsc.wvu.edu

---

Abstract citation ID: kaad011.0958

POSTER SESSION D: DEVELOPING A MOBILE APP TO ENGAGE SNAP-RECIPIENTS IN HEALTHY FOOD SHOPPING AT FARMERS MARKETS

Callie Ogland-Hand, BA[1], Owusua Yamoah, PhD, MA[1], Jillian Schulte, MA[1], Regan Gee, MSc[1], Tim Ciesielski, ScD, MD, MPH[1], Darcy A. Freedman, PhD, MPH[1]

[1]Mary Ann Swetland Center for Environmental Health, Case Western Reserve University, Cleveland, OH

Background: Fruit and vegetable consumption among people receiving Supplemental Nutrition Assistance (SNAP) benefits is low, partially due to lack of access to stores selling these items and food costs. Nutrition incentive programs at farmers markets aim to reduce access barriers with a broader goal of improving diet quality among SNAP consumers. Limited awareness of these programs and farmers market operations is a common–yet modifiable–barrier to utilization. Here we gather SNAP consumer input to guide the development of a mobile app that seeks to raise awareness and use of SNAP-based nutrition incentive programs at farmers markets. We focus on parents because early life interventions can have the greatest impact on health trajectories.

Methods: Semi-structured qualitative interviews were conducted in Ohio from June-September 2022 with 20 parents who received SNAP in the previous 12 months and had at least one child at home. The sample was purposively recruited to include people from rural and urban areas, with younger or older children, and different racial/ethnic identities. Thematic analysis was guided by diffusion of innovations theory to identify factors that may influence adoption of the app.

Results: We found that low-income households receiving SNAP were receptive to innovative ways of improving healthy food consumption. The majority of participants already used apps to facilitate their food shopping and cooking, and their feedback will be incorporated into the development of the new app. Overall, participants identified several app features that have the potential to improve access to fresh and healthy foods at local farmers markets. These results are situated in the diffusion of innovation theory: (1) provide a *relative advantage* by creating a central location for farmers markets information; (2) be highly *compatible* with user's efforts to support participants' routines and healthy eating; and (3) avoid *complexity* by building an intuitive and interactive design.

Discussion: There is a need for tools to help low-income families increase fruit and vegetable consumption by reducing barriers to use local farmers markets and nutrition incentive programs. Findings provide guidance for development of an app for SNAP consumers, and the integration of participant feedback will promote adoption. The final stages of the diffusion of innovation theory, trialability and observability of the app, will be assessed in our upcoming research.

CORRESPONDING AUTHOR: Callie Ogland-Hand, BA, Mary Ann Swetland Center for Environmental Health, Case Western Reserve University, Cleveland, OH; cmo74@case.edu

Abstract citation ID: kaad011.0959

POSTER SESSION D: CONTINGENCY MANAGEMENT IS ASSOCIATED WITH LOWER SMOKING RISK AND LONGER PERIODS OF SMOKING ABSTINENCE DURING A QUIT ATTEMPT

Lizbeth Benson, PhD[1], Emily T. Hebert, DrPH[2], Nadia Stanley, BA[3], Audrey Montgomery, MEd[4], Darla E. Kendzor, PhD[5], Adam Alexander, PhD[6], David W. Wetter, PhD[7], Michael S. Businelle, PhD in Clinical Psychology[1]

[1]University of Oklahoma Health Sciences Center, Oklahoma City, OK; [2]Department of Health Promotion and Behavioral Sciences, UT Health School of Public Health, Austin, TX, USA, Austin, TX; [3]The University of Oklahoma Health Sciences Center, Norman, OK; [4]The University of Oklahoma Health Sciences Center-HPRC, OKC, OK; [5]TSET Health Promotion Research Center, Stephenson Cancer Center, University of Oklahoma Health Sciences Center, Oklahoma City, OK; [6]TSET Health Promotion Research Center, Oklahoma City, OK; [7]Huntsman Cancer Institute/U of Utah, SALT LAKE CITY, UT

Background: Adults who smoke cigarettes often oscillate between periods of smoking and abstinence during a quit attempt. Different intervention techniques such as monetary incentives for smoking abstinence (contingency management) can help individuals initiate and maintain smoking abstinence. This study examined whether supplementing standard care with a contingency management intervention was associated with lower risk of smoking and longer periods of abstinence prior to smoking lapses among socioeconomically disadvantaged adults engaged in a quit attempt.

Methods: Data are from a randomized controlled trial that randomly assigned participants to standard care (counseling+pharmacotherapy) in a clinic-based smoking cessation program (SC; *n*=148) or SC plus a low-cost contingency management intervention (CM; *n*=147). Participants completed ecological momentary assessments of their smoking behavior during 28 days (*M*=21.3 days, *SD*=8.5) post-quit date. The analysis sample included those who were abstinent for at least 24 hours (n_{SC}=100; n_{CM}=124; M_{Age}=48.2 years, SD_{Age}=11.7, 64% Female; 80% with annual family income less than $21,000). Smoking data were formatted for fitting multilevel recurring episode survival models. Smoking episodes were defined as spans of concurrent smoking days.

Results: On average, after achieving an initial 24-hours of abstinence, participants engaged in 2.2 smoking episodes (min=1, max=6), each lasting for a median of 3 days (min=1, max=28). Results indicated participants differed substantially from one another in their risk for smoking (σ=0.8). Those with greater risk of smoking (+1 *SD* above the sample mean) had 2.3 times the risk of smoking compared with those with average risk (95% *CI*[1.8, 3.0]). The results further showed intervention group differences explained unique variance in smoking risk. Specifically, CM participants were 55% less likely to initiate a smoking episode on a given post-quit day compared with SC participants (*HR*=0.5, 95% *CI*[0.3, 0.6]). Additionally, the estimated number of abstinence days prior to each recurring smoking lapse was 5 days for CM participants and 2 days for SC participants.

Conclusions: These findings provide evidence that supplementing standard care for smoking cessation with low-cost contingency management incentives is an effective intervention technique for reducing the risk of recurring smoking episodes and lengthening the number of abstinence days between smoking lapses during a quit attempt.

CORRESPONDING AUTHOR: Lizbeth Benson, PhD, University of Oklahoma Health Sciences Center, Oklahoma City, OK; lizbeth-benson@ouhsc.edu

---

Abstract citation ID: kaad011.0960

POSTER SESSION D: MYCHOICE USER TESTING METHODOLOGY, RESULTS AND LESSONS LEARNED IN VIRTUAL AND IN-PERSON SETTING WITH DIVERSE PATIENTS

Linda Fleisher, PhD, MPH, FSBM[1], Cassidy Kenny, MBA[1], Zoe Landau, MPH[1], Sarah B. Bass, PhD, MPH, FSBM[2]

[1]Fox Chase Cancer Center, Philadelphia, PA; [2]Temple University College of Public Health, Philadelphia, PA

Background / Purpose: mychoice™ is a web-enabled, interactive, patient education tool designed to prepare cancer patients (pts) to engage in a conversation with their care team about clinical trials (CTs). Following the mychoice™ multi-site randomized control efficacy trial, user-testing (UX) is critical to guide when and how mychoice™ should be implemented in diverse clinical settings.

Methods: UX interviews were conducted with a diverse group of cancer pts from two leading cancer centers in Philadelphia. Pts were selected based on CT participation status and eligibility criteria (age≥18 yrs, able to speak and read English, in active or completed treatment ≤ last 6 months) as reported in the EMR. Pts were asked to navigate through mychoice™ and provide feedback in real-time. They were then asked to provide feedback on mychoice™ content and when they would want to receive the information through in-depth post interviews, and a supplemental post survey. Each interview was approximately one hour and conducted over Zoom or in-person.

Results/Findings: A total of 27 pts participated (52% African American, 52% female, 37% with a high school education or less) with varied CT experience (26% participated in a CT, 37% never participated in a CT but were offered, 37% never participated and were never offered). All pts thought mychoice™ would have been helpful to receive when newly diagnosed and making treatment decisions. 62% of participants said they would like to receive this tool if their provider mentioned CT as a treatment option, 24% if their cancer progresses, and 15% when changing treatments. 81% reported they would use mychoice™ on their own, if it was provided to them by their physician. Patients recommended potential content additions including: additional information on side effects, cancer specific resources, and ways to find support.

Discussion and Conclusion: While mychoice™ was generally well-received by pts in this UX testing, valuable suggestions for changes were made, such as the aforementioned additional information. UX testing was essential in planning for the upcoming implementation evaluation to ensure mychoice™ is accessible to a broader range of cancer pts to increase knowledge, awareness, and participation in CTs specifically in diverse communities.

CORRESPONDING AUTHOR: Linda Fleisher, PhD, MPH, FSBM, Fox Chase Cancer Center, Philadelphia, PA; linda.fleisher@fccc.edu

Abstract citation ID: kaad011.0961

POSTER SESSION D: INTEGRATING CLINICAL RESEARCH AND ENTREPRENEURSHIP: A CASE STUDY IN DIGITAL MENTAL HEALTH

Thomas A. Massion, BS[1], Andrea K. Graham, PhD[1]

[1]Northwestern University Feinberg School of Medicine, Chicago, IL

The implementation of evidence-based interventions has faced consistent challenges with sustainment. Consequently, implementation scientists have called for greater attention to entrepreneurship and market viability to inform intervention scale and impact. This abstract presents a case study of a clinical research team who applied entrepreneurship perspectives to the initial development of an innovation for digital mental health interventions.

We participated in the 7-week INVOForward Digital Health "Building a Business Model" program hosted by Northwestern University's Innovations and New Ventures Office. The program guided academic research teams toward commercializing a digital health innovation through an entrepreneurship speaker series and curriculum, mentorship from business leaders, and practice presentations, culminating in presenting a business model to investors.

Feedback from entrepreneurship experts illuminated strategies for determining our innovation's market viability amid our research planning. First, entrepreneurs urged demonstrating how the problem our innovation intended to solve was creating significant losses or risk for our target customer via quantitative customer market size estimation and qualitative customer interactions. Second, they recommended identifying successful analogues in other industries that inform an optimal path to market and serve as "proof of concept" for investors. Third, they emphasized taking rapid action from market research to prototype development and iteration to establish evidence of product-market fit. Lastly, they encouraged partnering with organizations (e.g., professional societies) to enhance credibility and leverage.

From these insights, our research plans have an augmented focus on identifying and targeting the economic and organizational forces that create a market demand for our innovation. Such efforts have the potential to enhance the sustainable implementation of our innovation. Given that clinical researchers who consider entrepreneurship perspectives most commonly do so towards the end of the translational process, our experience offers a useful example of applying these perspectives prior to developing an innovation to inform our research plan. We encourage other clinical researchers to leverage market analysis and other entrepreneurial tools to proactively identify their primary customer markets and business model(s), which can help shape their implementation research endeavors.

CORRESPONDING AUTHOR: Thomas A. Massion, BS, Northwestern University Feinberg School of Medicine, Chicago, IL; thomas.massion@northwestern.edu

---

Abstract citation ID: kaad011.0962

POSTER SESSION D: USING A MASSIVE OPEN ONLINE COURSE (MOOC) TO EMPOWER PEER-TO-PEER CONVERSATIONS TO IMPROVE VACCINE ACCEPTANCE

Rupali Limaye, PhD, MPH, MA[1], Alexandra Michel, MPH[2], Gretchen Schulz, MSPH[2]

[1]Johns Hopkins Bloomberg School of Public Health, Annandale, VA; [2]Johns Hopkins Bloomberg School of Public Health, Baltimore, MD

Millions of people have died of COVID-19. There are safe and effective COVID-19 vaccines, but COVID-19 vaccine uptake remains suboptimal. Safety concerns, lower levels of risk perception, and misinformation are key drivers of vaccine hesitancy. However, distrust in government and healthcare systems -- including the vaccine development and approval process, vaccine delivery, and public health recommendations -- is a key driver contributing to vaccine hesitancy.

Given the growing distrust in scientists and science, it is crucial to identify messengers trusted by the community to promote vaccines and allay vaccine concerns. Peer-based approaches are an effective approach to reduce vaccine hesitancy. We developed a first of its kind Massive Open Online Course (MOOC) with the aim of equipping parents and school staff with the knowledge and skills to navigate vaccine conversations with their peers and promote vaccine uptake. To guide the training, we convened an advisory board of 6 parents (some of whom were teachers or school administrators) from 6 US states. Guided by their recommendations, we developed a four-module course: 1) understanding vaccine hesitancy; 2) understanding the immune system and SARS CoV-2; 3) effective communication techniques; and 4) identifying and mitigating misinformation. Course delivery included slides, animated whiteboard videos (~1 minute each), and animated videos (~3 minutes each). The training was available for free on the course platform Coursera and took learners approximately 90 minutes to complete.

More than 25,000 learners have completed the course. We randomly selected 2,000 learners to participate in the course evaluation; 920 learners initiated the survey, with 851 finishing the survey. After completing the course, most survey respondents self-reported high levels of agreement in their confidence in being able to: explain why a parent should vaccinate their 5-11-year-old child (98%), discuss why someone might be concerned about the COVID vaccine (99%), use at least one communication strategy to talk to others about the COVID vaccine (99%), and use one technique to identify misinformation (99%). Ninety-nine percent felt the course was presented in a clear and logical manner and 90% felt the overall experience of the course was excellent.

Declines in trust in national health care systems demonstrate an urgent need to identify alternative trusted messengers to promote vaccines and public health generally. As vaccine hesitancy is one of the greatest threats to public health, equipping individuals outside of the medical and public health community with the skills and knowledge to have empathetic conversations about vaccines is critical. We found that peer-to-peer health promotion can empower members of the public to play a role in mitigating the pandemic in their own communities.

CORRESPONDING AUTHOR: Rupali Limaye, PhD, MPH, MA, Johns Hopkins Bloomberg School of Public Health, Annandale, VA; rlimaye@jhu.edu

Abstract citation ID: kaad011.0963

POSTER SESSION D: PARTICIPANT PERSPECTIVES OF THE NATIONAL DIABETES PREVENTION PROGRAM IMPLEMENTED IN RURAL COMMUNITIES

Anna M. Gorczyca, PhD, MS[1], Lyndsie Koon, PhD[2], Patricia Smith, MS, RD, LD[3], Kameron Suire, PhD, MS, ACSM-EP[4], Mary Hastert, MS, RD, LD[1], Gerit Wagner, MPH, RDN, LD[5], Joseph Donnelly, EdD[1]

[1]University of Kansas Medical Center, Kansas City, KS; [2]University of Kansas, Lawrence, KS; [3]University of Kansas Medical Center, Denver, CO; [4]University of Kansas Medical Center, Desoto, KS; [5]University of Kansas Medical Center, Kansas City, MO

Background: The National Diabetes Prevention Program (NDPP) has not had the population health impact intended, especially in rural counties where the availability of DPP sites is significantly lower compared to urban counties. The U.S. Cooperative Extension (CE) offers a potentially viable and under-examined option for the delivery of the NDPP to rural areas. This study assessed the views and experiences of rural adults with prediabetes participating in the NDPP using the PreventT2 curriculum (0–6 mos.) delivered by CE personnel using Zoom® (CE-Zoom®) or by research staff using Facebook® (FB).

Methods: Two focus groups were conducted with 15 participants (N=5 for FB, N=10 for CE-Zoom®) after participating in the NDPP for 6-months. Participants were asked questions about recruitment, enrollment, dietary information, physical activity (PA), and technology usage in the study. Data analysis included a content analysis in search of themes from focus group responses.

Results: Participants stated that engaging rural health clinics for recruitment and providing physician education on the NDPP components would be helpful for enrollment into the NDPP in rural communities. Health motives (diabetes prevention, improved lab values, prescription medication, and weight loss) were the primary reason for NDPP participation. Regarding dietary information, participants desired a more structured eating plan and material on how to eat healthier (e.g., recipes, grocery shopping, snacking, eating out). PA changes were more difficult than dietary changes, with walking or housework as the primary mode of PA. Confusion over the PA intensity and which intensity to focus on was a reported barrier to achieving the prescribed PA goal. Technology usage, specifically the Fitbit smartwatch and scale provided were helpful for accountability but using the diet tracking component within the Fitbit app would have been useful as well. The FB group noted that they felt awkward and self-conscious posting content to the group page and lacked social connectedness. CE-Zoom® found Zoom® easily accessible, especially after COVID, and felt they could connect better with participants who had their cameras on during the meetings.

Conclusions: Qualitative findings highlight opportunities for the implementation of the NDPP through CE in rural communities emphasizing recruitment through rural health clinics, additional resources for eating healthy and increasing physical activity, using technology for delivery, and group social support.

CORRESPONDING AUTHOR: Anna M. Gorczyca, PhD, MS, University of Kansas Medical Center, Kansas City, KS; agorczyca@kumc.edu

---

Abstract citation ID: kaad011.0964

POSTER SESSION D: LIFE STORIES: MEASURING THE IMPACT OF THE LONG-TERM INTERNATIONAL FELLOWSHIP FOR EARLY-CAREER ONCOLOGISTS

James D. Morgante, PhD[1], Caroline Clough[1], Vanessa Sarchet, MIHMEP[1]

[1]American Society of Clinical Oncology, Alexandria, VA

The Long-term International Fellowship (LIFe) provides early-career oncologists, in low- to middle-income countries (LMIC), the needed support to advance their oncology training with a mentor in a high-resource setting. During a one-year fellowship at their mentor's institution, recipients receive individualized training that they will use to effect change in cancer care in their home country. Fellowships are a combination of clinical training and clinical and laboratory research in accordance with institutional rules and regulations. Recipients are expected to return to their home institutions within one year of completing the fellowship and implement the knowledge they have gained. To measure the impact of LIFe, we developed an interview protocol to evaluate its ability to advance early-career oncologists in developing countries.

Twenty oncologists from LMICs have received a LIFe award since the program's inception in 2010; 14 LIFe recipients agreed to participate. Interview protocols were conducted in English by a trained interviewer via videotelephony software. Ten open-ended items were constructed and consistently administered across scheduled interviews. Each of the 10-items was accompanied by a probe that was used at the discretion of the interviewer for further clarification of a response. Interviews were scheduled for 30-minutes, averaged 25-minutes, and were recorded for transcription.

Transcripts were generated via the videotelephony software, reviewed against recordings for accuracy, and indexed in accordance with pre-established categories. Collectively, 85% of recipients published and/or presented and credited mentors' facilitated professional opportunities with their self-described feelings of earned respect. Dedicated research time was described as uncommon for oncologists in LMICs; LIFe provided seven of the 14 recipients with the opportunity to study cancer types with higher prevalence in LMICs and less funding in high-resource settings. Recipients were able to adapt practices common in high-resource settings to their home regions, and 9 (62%) reported gaining the ability to raise awareness in their LMIC of common practices in high-resource settings that can decrease mortality rates in patients with cancer. Moreover, 12 (86%) awardees have been using their training to train others at their home practice. Although the sample size is small, these preliminary assessments suggest LIFe promotes professional development and patient care and may serve as a fellowship model for training in other therapeutic areas.

CORRESPONDING AUTHOR: James D. Morgante, PhD, American Society of Clinical Oncology, Alexandria, VA; james.morgante@asco.org

Abstract citation ID: kaad011.0965

POSTER SESSION D: DEVELOPMENT OF A BEHAVIORAL MEDICINE CLINICAL RESEARCH EXTERNSHIP FOCUSED ON MILITARY EXPOSURES: LESSONS LEARNED

Fiona S. Graff, PsyD[1], David R. Litke, PhD[1], Nicole L. Sullivan, PhD[1], Lisa M. McAndrew, PhD[1]

[1]WRIISC, VA NJHCS, East Orange, NJ

Background: President Biden called caring for Veterans with military exposure concerns our sacred mission. Care for military exposures is complex. We are not aware of programs specializing in graduate-level training in exposure concerns, and thus there are few providers competent in this area. We established a behavioral medicine externship within a clinical research program focused on military exposures. Our goal is to share lessons learned, which can inform the development of future programs.

Methods: In 2019, we began our first externship year with a single-day/week program. Objectives include increasing extern competencies in health psychology, military exposures, and applying research to practice. Using an iterative design, we collected feedback, identified challenges, and made changes to address these.

Results: We have trained 6 externs, and a class of 2 is underway. Feedback has been positive, and applications increased from 3 in our first year to 24 in our most recent application year.

Challenges: Quickly training students. When we started, it took months to train externs on these complex concerns. To address this we:

a) developed an intensive summer training plan

b) designed weekly didactics covering relevant topics

c) incorporated locally-developed military exposures training resources

Clinical research contact hours ebb and flow. To ensure adequate contact hours, we:

a) “front-loaded” the training schedule

b) trained students on research screenings that could provide additional contact hours

c) provided opportunities for clinical experiences on other teams at our center

To encourage students to train in an area that they had generally not been aware of, we:

a) began participation in the local externship match

b) met with training directors

c) “word of mouth” among trainees increased interest in our site

d) our post-doctoral trainees - who have recently been through externship match - helped develop our training and program materials as part of their own learning experience

Conclusions: There is a need for providers with a strong foundation in clinical research, military exposures and behavioral medicine. We established a specialized training program in these areas. Through iterative feedback, we adapted our program to address training, caseload, and advertising needs. Response has been positive, and our pool of applicants has grown. This program development model may be of interest to other specialty health services considering a training program.

CORRESPONDING AUTHOR: Fiona S. Graff, PsyD, WRIISC, VA NJHCS, East Orange, NJ; FionaA.Graff@va.gov

---

Abstract citation ID: kaad011.0966

POSTER SESSION D: VACCINE HESITANCY: CAN WE CONVINCE THE UNVACCINATED TO VACCINATE?

Dhriti Dhawan, PhD, MPH[1]

[1]Dana-Farber Cancer Institute, Revere, MA

Background: Vaccine hesitancy affects vaccine uptake. Despite scientific evidence that COVID-19 vaccines are safe and effective, one in four adults in the United States is not fully vaccinated. Unvaccinated individuals provide a reservoir for the virus to mutate and variants to emerge, increasing the frequency of vaccine breakthrough cases and putting the already vaccinated at risk. However, despite initial vaccine hesitancy, some people received the COVID-19 vaccines once they became available and vice versa. In this study, we focused on people who did not follow-up on their intentions to (or not to) vaccinate and why.

Methods: This longitudinal study uses data from two nationally representative surveys of Americans from 2020 and 2021 to determine the factors that contribute to the COVID-19 vaccination-related intention-behavior gap, using multivariable logistic regression.

Results: The results indicated that 51% of previously vaccine hesitant individuals were *vaccinated* against COVID-19, and only 14% of previously pro-vaccine individuals remained *unvaccinated*. High perceptions of risk, a positive attitude towards vaccines, being informed about the vaccines, endorsing less COVID-19 misinformation, identifying as a Republican, being over 60 years old, being female, having higher education, and having access to healthcare were some factors associated with this intention-behavior gap.

Conclusions: The study indicates that it is possible to convince vaccine hesitant individuals to vaccinate as well as discourage pro-vaccine individuals from realizing their vaccination intentions. Developing evidence-based persuasive and targeted communication strategies can help convince the unvaccinated and increase the uptake of COVID-19 and other adult vaccines.

CORRESPONDING AUTHOR: Dhriti Dhawan, PhD, MPH, Dana-Farber Cancer Institute, Revere, MA; dhriti_dhawan@dfci.harvard.edu

Abstract citation ID: kaad011.0967

POSTER SESSION D: CO-DESIGNING EVIDENCE-BASED LANGUAGELESS ANIMATED BEHAVIOR CHANGE MESSAGES TO TACKLE HEALTH LITERACY AND INEQUALITIES

Nicola O'Brien, BSc, MSc, PhD, CPsychol, AFBPsS[1], Ellie Land, MA[2], Santosh Vijaykumar, PhD[2], Sigrid Aguilar, BSC[3], Xiomara Bedoya, BSc[3], Rony de la Cruz, BSc[3], Edwin Najera, BSc[3], Luisa Nicolau, BSc[3]

[1]Northumbria University, NORTH SHIELDS, England, UK; [2]Northumbria University, Newcastle upon Tyne, England, UK; [3]Oficina de Derechos Humanos del Arzobispado de Guatemala, Guatemala City, Alta Verapaz, Guatemala

Background: Health inequalities are strongly related to health literacy, access to health information, health behaviors and health outcomes. People with limited proficiency in the common language spoken in a given population, face additional health literacy challenges related to language understanding and access. Effective health communication that does not rely on language is essential in multilingual populations where multiple languages are spoken. This study aimed to integrate scientific evidence with stakeholder involvement in the co-design of languageless animated health behavior change messages. The development of messages communicating COVID-19 preventive behaviors in Guatemala, where 25 official languages are spoken, is used as an example.

Methods: Between June and September 2020, scientific evidence was compiled from a review of existing COVID-19 visual health communication and qualitative research findings. The review sought to identify communication strategies used in existing health communications in Guatemala. The qualitative study elicited views of and ways to improve existing health communications via semi-structured interviews and testimonials of 14 health professionals in Guatemala. This evidence informed an iterative process of co-design with key stakeholders to develop key design principles and the subsequent messages.

Results: The review of existing communications and qualitative study found that there was a need for clear, culturally relevant visual behavior change messages that come from a credible source and invoke a sense of social responsibility in line with Guatemala's collectivist culture. The co-design process validated these findings and resulted in initial outputs in the form of design moodboards, message narratives and definitions of the target populations. The ultimate output was four languageless animated messages presented in the Graphic Interchange Format (GIF). The GIFs promoted the correct wearing of a mask, handwashing and physical distancing, and targeted either families or young people, in either rural or urban Guatemalan settings.

Conclusions: The systematic integration of scientific evidence and stakeholder involvement in a process of co-design is likely to result in health behavior change messages that are more acceptable to the target population and within the specific clinical or public health setting. Languageless animated messages are more likely to improve health literacy and reduce health inequalities exacerbated by language barriers. These messages can be widely disseminated via digital health channels and social media which, in turn, can maximise their potential reach.

CORRESPONDING AUTHOR: Nicola O'Brien, BSc, MSc, PhD, CPsychol, AFBPsS, Northumbria University, NORTH SHIELDS, England, UK; nicki.obrien@northumbria.ac.uk

---

Abstract citation ID: kaad011.0968

POSTER SESSION D: A MULTI-STEP APPROACH TO BUILDING AND TESTING A VACCINE MISINFORMATION TRAINING FOR HEALTHCARE PROFESSIONALS

Alexandra Michel, MPH[1], Gretchen Schulz, MSPH[1], Rupali Limaye, PhD, MPH, MA[2]

[1]Johns Hopkins Bloomberg School of Public Health, Baltimore, MD; [2]Johns Hopkins Bloomberg School of Public Health, Annandale, VA

Unlike historical pandemics, the COVID-19 pandemic has led to a heavy reliance on global digital social networks for information sharing about the virus. As a result, an increase in the digital spread of misinformation has become a leading threat to public health, and COVID-19 misinformation has impacted adherence to public health recommendations. We developed an asynchronous training for health care professionals with the aim of equipping them with the skills and knowledge needed to identify and mitigate public health misinformation.

The training development followed a four-step process: 1) conducting a landscape analysis to assess existing misinformation trainings for health providers, 2) convening a stakeholder advisory group to inform our approach and content development, 3) designing content and training based on best practices in online adult pedagogy practice, and 4) pilot testing the training.

We developed an interactive, modular training that focuses on key approaches and skills that have shown to be effective in combatting vaccine misinformation across interpersonal and digital contexts: prebunking, debunking of misinformation, and interpersonal communication.

As the information landscape is ever-changing, and to be responsive to the needs of health care workers, we sought to follow an iterative approach for training design and development. As such, we pilot tested the course with 20 individuals from 8 countries and ascertained change in knowledge and self-efficacy related to identifying and debunking misinformation as well as effectively communicating with patients and peers about vaccine misinformation. The post-training assessment included questions to gauge changes in knowledge of effective misinformation interventions, self-efficacy related to the training topics, perceived effectiveness and accessibility of the training, and open responses on ways the training could be improved or refined. Results indicate that learners showed substantial gains in knowledge of key misinformation mitigation approaches as well as substantial improvements in self-rated confidence in responding to misinformation.

Medical professionals are among the most trusted and influential sources for health information; thus, it is critical that we focus on improving their ability to recognize, effectively communicate, and debunk misinformation online and through interpersonal communication. Because of the ubiquitous nature of misinformation related to COVID-19, all public health actors share in the responsibility to help address the broader implications of this pandemic and the underlying infodemic to strengthen the COVID-19 response. This short training course can help health care providers be well-equipped with the knowledge, resources, and skills to address the concerns of their communities and promote best practices when faced with vaccine misinformation.

CORRESPONDING AUTHOR: Alexandra Michel, MPH, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD; amiche17@jhmi.edu

Abstract citation ID: kaad011.0969

CITATION AWAD WINNER

POSTER SESSION D: SEXUAL IDENTITY CHANGE AND BEHAVIORAL HEALTH IN A U.S. NATIONAL PROBABILITY SAMPLE OF SEXUAL MINORITY ADULTS

Evan A. Krueger, PhD, MPH, MSW[1], Meg D. Bishop, PhD[2], Allen B. Mallory, PhD[3], Stephen T. Russell, PhD[4]

[1]Tulane University, New Orleans, LA; [2]University of Maryland, College Park, College Park, MD; [3]The Ohio State University, Columbus, OH; [4]The University of Texas at Austin, Austin, TX

Background: Sexual minority (SM) disparities in behavioral health (e.g., mental health, substance use) are well-established. Within the SM population, plurisexual (i.e., bisexual, queer, pansexual) SM people often report poorer behavioral health compared to monosexual (i.e., lesbian and gay) SM people. Sexual identity is dynamic, and changes are common over time (e.g., from monosexual to plurisexual identities); some evidence suggests that behavioral health risk may coincide with sexual identity change among SM people.

Methods: Data are from the *Generations Study*, a prospective survey of a U.S. national probability cohort of SM adults (2015–2018). Multiple regression models assessed whether changes in sexual identity over 3 years (4 groups: consistently monosexual, consistently plurisexual, monosexual to plurisexual, plurisexual to monosexual) were differentially associated with 5 behavioral health outcomes (psychological distress, social wellbeing, number of poor mental health days in the past month, alcohol abuse, other drug abuse) controlling for demographic characteristics and baseline behavioral health.

Results: Among women, recently adopting a plurisexual identity was associated with poorer mental health. Compared to consistently monosexual women, those recently adopting a plurisexual identity had greater psychological distress (B=3.11, SE=1.09, p< 0.01), more days of poor mental health in the prior month (B=0.64, SE=0.22, p< 0.01), and lower social wellbeing (B= –0.51, SE=0.24, p< 0.05). Among men, recent sexual identity change (regardless of direction) was generally associated with poorer mental health and increased substance use. Compared to consistently monosexual men, recently monosexual men reported greater psychological distress (B=1.81, SE=0.83, p< 0.05) and lower social wellbeing (B= –0.39, SE=0.22, p< 0.10), while both recently monosexual men (B=1.00, SE=0.35, p< 0.01) and recently plurisexual (B=1.59, SE=0.56, p< 0.01) men reported greater alcohol abuse.

Conclusions: Sexual identity change is an important consideration for SM behavioral health research, with changes (vs. consistency) in identity being an important risk factor for compromised behavioral health. Prevention and treatment interventions may need to tailor messaging to SM men and women differently – specifically to men undergoing any recent change in identity and to women recently adopting a plurisexual identity.

CORRESPONDING AUTHOR: Evan A. Krueger, PhD, MPH, MSW, Tulane University, New Orleans, LA; ekrueger@tulane.edu

---

Abstract citation ID: kaad011.0970

POSTER SESSION D: YOUTHS WITH TOURETTE SYNDROME ARE AT ELEVATED RISKS OF SCHOOL BULLYING AND ITS IMPACTS ON MENTAL HEALTH: A POPULATION STUDY

Chengshi Shiu, LSW, MS, PhD, GStat[1], Kristin Berg, LSW, AM, PhD[2], Rebecca Feinstein, MPH, LCSW, PhD[2]

[1]National Taiwan University, Pasadena, CA; [2]University of Illinois - Chicago, Chicago, IL

Background: Youths with Tourette syndrome (YTS) are at greater risks of school bullying. Meanwhile, YTS suffer from more mental health conditions, such as depression, anxiety, and problematic behaviors. However, the current literature focuses more on biological factors of these psychiatric comorbidity, failing to consider the roles of social stressors, such as bullying, in shaping their mental health. To fill this knowledge gap, this study aims to test the relationships between bullying and the three mental illness diagnoses among YTS, and compare these relationships with those of youths without TS (YwoTS).

Methods: This study analyzed the data from the National Survey of Children's Health. To increase the sample size of the YTS, this study pooled 5 waves of data from 2016 to 2020 surveys. We selected the subsamples between age 11 to 17. We defined the YTS as those who had current diagnosis of Tourette Syndrome (YTS: 1; YwoTS: 0). Experiences of bullying over the past year were binary coded (At least once: 1; Never: 0). The three outcomes were current depression diagnosis (Yes: 1; No: 0), current anxiety diagnosis (Yes: 1; No: 0), and current diagnosis of problematic behaviors (Yes: 1; No: 0). To adjust for the relationships between bullying and the outcomes, we selected covariates, including demographic factors, family income, and family stressors (e.g. substance use in the household etc.). A series of logistic regression models were fitted to test the relationships between TS, bullying, and the three outcomes. To compare the relationships across YTS and YwoTS, an additional interaction term (YTS x Bullying) was entered into the models. All analyses were weighted and adjusted for sampling designs.

Results: The analytic sample consisted of 259 YTS (population estimate: 80,823) with an average age of 14.34 [SD = 1.91] years, and 81,289 YwoTS. In YTS, 63.5% had experienced bullying last year, as compared with 31.5% among YwoTS (p < .001). Across the models, the main effects of YTS were significant for anxiety (adjusted O.R. = 7.59, p < .001) and problematic behaviors (a.O.R. = 4.73, p = .002) but not for depression (a.O.R. = 1.11, p = .837), while the main effects of bullying were all significant at .01 level. This suggests without school bullying, YTS had greater risks for anxiety and problematic behaviors, but not for depression. However, the interaction term reached .05 significant level for depression (a.O.R. = 4.52, p = .016) and .10 significant level for anxiety (a.O.R. = 2.48, p = .079), but did not reach .10 significant level for problematic behaviors (a.O.R. = .68, p = .550), suggesting YTS, compared with YwoTS, were more vulnerable to the impacts of bullying on their depression and, to a lesser degree, anxiety.

Conclusions: School bullying may play important roles in shaping YTS's mental health and should be carefully considered in future development of interventions in addressing their mental health needs.

CORRESPONDING AUTHOR: Chengshi Shiu, LSW, MS, PhD, GStat, National Taiwan University, Pasadena, CA; cshiu@ntu.edu.tw

Abstract citation ID: kaad011.0971

POSTER SESSION D: DEVELOPING A FACEBOOK GROUP FOR AMERICAN INDIAN WOMEN TO SUPPORT RECOVERY FROM ILLICIT OPIOID USE: THE WIIDOOKAAGE'WIN STUDY

Antonia M. Young, BA[1], Corinna Sabaque, MPH[1], Pamela S. Sinicrope, MPH, DrPH[1], Sydney Kelpin, PhD[1], Anne I. Roche, PhD[2], Gavin Bart, MD, PhD[3], Lisa Marsch, PhD[4], Aimee Campbell, PhD[5], Kamilla Venner, PhD[6], Cuong Q. Pham, MD[7], Nicole M. Reinicke, MS[1], Christi A. Patten, PhD, MA[1]

[1]Mayo Clinic, Rochester, MN; [2]Mayo Clinic Rochester, Lakeville, MN; [3]Hennepin Healthcare, Minneapolis, MN; [4]Center for Technology and Behavioral Health, Lebanon, NH; [5]Columbia University Irving Medical Center and New York State Psychiatric Institute, New York, NY; [6]Department of Psychology, University of New Mexico, Albuquerque, NM; [7]Community-University Health Care Center, Minneapolis, MN

Background: The opioid epidemic in the United States disproportionately affects American Indian and Alaska Native (AI/AN) communities mainly due to the impact of historical trauma and adverse social determinants of health. Women tend to experience less social support to maintain opioid abstinence than men, and are also more likely to experience depression and anxiety. However, gender-specific interventions to support opioid recovery among AI/AN women are lacking. The overall aim of the study is to use a community-based participatory research (CBPR) approach to develop a novel moderated Facebook group intervention to support AI/AN women in recovery from opioid use disorder.

Objectives: In this first qualitative phase of this 3-phase study, we conducted individual semi-structured interviews with AI/AN women in recovery to obtain feedback on potential content (i.e., moderator postings) for the intervention.

Methods: This phase included 12-18 interviews with AI/AN women who self-reported at least 1 month of abstinence from opioid use and were currently prescribed medications for opioid use disorder. Two trained women interviewers elicited feedback on the cultural relevance and perceived effectiveness of 3 videos and 4 text/image posts that cover the role of stress/trauma on substance use, mindfulness, and responding to triggers. Links to community resources to support opioid recovery were also included. Three team members analyzed interview transcripts using content analysis supplemented by NVivo software to generate response themes.

Results: Data saturation was reached with 14 AI/AN participants (age range 23-48, M=36.4,SD=7.1) who reported 1-24 months of opioid abstinence (M=6.7,SD=6.4). Interviews were conducted by Zoom (n=7) and telephone (n=7). Participants preferred content that elicited positive emotions, which tended to include vibrant imagery, topics such as Native traditions and family, personal stories, and humor. Postings that dealt with cravings and triggers were perceived as helpful but not culture-specific, as drugs are not part of Native culture. The role of historical trauma and reconnection to AI/AN culture emerged as important themes to promote opioid recovery.

Conclusions: Our study provides novel information on developing a social media intervention for AI/AN women recovering from opioids and provides needed information to culturally adapt our content library, which will be beta-tested with moderators in a private, closed Facebook group.

CORRESPONDING AUTHOR: Antonia M. Young, BA, Mayo Clinic, Rochester, MN; young.antonia@mayo.edu

---

Abstract citation ID: kaad011.0972

POSTER SESSION D: UNDERSTANDING THE BARRIERS AND FACILITATORS TO HEALTHY ACTIVE LIVING: A PHOTOVOICE STUDY WITH NEWCOMER FAMILIES

Sujane Kandasamy, PhD[1], Parsa Memon[2], Anand Sonia, MD, PhD[3], Matthew Y.W. Kwan, PhD[4]

[1]Brock University, Markham, ON, Canada; [2]McMaster University & YMCA Employment/Immigrant Services, Hamilton, ON, Canada; [3]McMaster University, Hamilton, ON, Canada; [4]Brock University, St. Catharines, ON, Canada

Introduction: In Canada, 32% of children aged 5-11 years are considered overweight or obese. Childhood obesity disproportionately affects children of low socioeconomic status, including many new immigrants and refugees. While broader healthy active living interventions focusing on connecting nature to activity have great potential to address these challenges whilst amplifying environmental sustainability and stewardship, little research to date has focused on newcomer families. The purpose of the current study is to understand the experiences of newcomer families (caregivers and youths) as it relates to potential barriers and facilitators for nature-based healthy active living programs in their communities.

Methods: This study uses a photovoice methodology to gain an in-depth understanding of environmental contexts for which the participants live, work, study, and recreate. Participants include 11 caregivers and 9 youths. All participated in an initial interview prior to a "photography mission", where they were asked to take photos of barriers and facilitators to accessing nature-based activities; and were finally asked to do a follow-up interview to discuss their overall experiences and perceptions around their photos taken. Direct qualitative content analysis was conducted.

Results: Findings from these data suggest that many participants associated nature with peace, citing it as "under-rated" but "vital" to the neighbourhood. Through their photographs and stories, many shared a multitude of safety concerns that prevent their access to green/outdoor spaces – preventing healthy active living. Some examples of these include woodchip covered playgrounds, ample amounts of garbage littering the park and school grounds, lack of timely ice removal on sidewalks, and unsafe motor vehicle practices at the crosswalks surrounding local parks. Despite some challenges, participants indicated that they would welcome opportunities to engage in activity programs to better connect with their neighbours, build a sense of belonging, and be a part of something to better take care of the community.

Conclusions: Results from this work suggest that there are targeted efforts required to revamp specific places for where healthy active living programs can be implemented, while the design of these programs should be centered around building better communities.

CORRESPONDING AUTHOR: Sujane Kandasamy, PhD, Brock University, Markham, ON, Canada; skandasamy@brocku.ca

Abstract citation ID: kaad011.0973

POSTER SESSION D: PERCEIVED SOCIAL SUPPORT AND HEALTH-RELATED QUALITY OF LIFE: TRANSGENDER ADULTS WITH MULTIPLE CHRONIC CONDITIONS

Stephanie Corey, MPH[1], Jonathan Garcia, PhD[1], Robert W. Coulter, PhD, MPH[2], Jessica R. Gorman, PhD, MPH[1]

[1]Oregon State University, Corvallis, OR; [2]University of Pittsburgh School of Public Health, Pittsburgh, PA

Purpose: Transgender and gender nonconforming (TGNC) individuals have increased risk of developing multiple chronic conditions compared to their cisgender counterparts, and these conditions can result in lower health-related quality of life (HRQOL). There is some evidence that those living with multiple chronic conditions need additional support while managing these diseases. However, limited research has tested whether perceived social support is associated with HRQOL for TGNC people with multiple chronic conditions.

Methods: Using cross-sectional data from the 2016-2018 TransPop Study, the first national probability sample of transgender adults, we tested the association of perceived social support (Multidimensional scale of perceived social support) and HRQOL for TGNC adults with multiple chronic conditions (n=116) using multivariable logistic regression adjusting for age, income, everyday gender discrimination, and everyday race/ethnicity discrimination.

Results: A one-point score increase (score range: 0-7) in perceived social support from friends was associated with 33% decrease in odds of reporting ≥ 14 unhealthy days in the past 30 days (AOR: 0.67; 95% CI=0.47-0.94). Scores for total social support, family support, or significant other support were not significantly associated with the HRQOL measure.

Conclusion: Social support from friends may be a protective factor against poorer HRQOL outcomes for TGNC individuals with multiple chronic conditions. Findings suggest that patient-centered care for TGNC clients should incorporate support from families of choice in medical care. Additional research is needed to explore how support from friends is provided to this population, as well as ways to strengthen support from families and significant others.

CORRESPONDING AUTHOR: Stephanie Corey, MPH, Oregon State University, Corvallis, OR; coreyst@oregonstate.edu

---

Abstract citation ID: kaad011.0974

MERITORIOUS AWARD WINNER

POSTER SESSION D: VIOLENCE, DISCRIMINATION, PSYCHOLOGICAL DISTRESS, AND HIV VULNERABILITY AMONG MEN WHO HAVE SEX WITH MEN IN MEMPHIS, TN

Meredith R. Denney[1], Kirby Gross[2], LATRICE C. C. PICHON, PhD, MPH, CHES[3], Meredith Brantley, PhD, MPH[4]

[1]Vanderbilt University, Nashville, TN; [2]University of Memphis, Germantown, TN; [3]The University of Memphis School of Public Health, Memphis, TN; [4]TN Department of Health, Nashville, TN

Background: Gay, bisexual, and other men who have sex with men (MSM) are disproportionally impacted by HIV and therefore are a priority population for HIV prevention services. Experiencing discrimination, violence, and psychological distress (PD) may influence engagement with services such as HIV testing and pre-exposure prophylaxis (PrEP). Moreover, MSM-related discrimination, MSM-related violence, and severe PD often intersect, potentially amplifying HIV vulnerability. These dynamics are understudied in the Southeastern US, a high priority area for ending the HIV epidemic. Understanding how these relationships interact with health care decision-making and accessibility to HIV services is critical to designing and implementing effective programs.

Objective: We examined associations between MSM-related discrimination, MSM-related violence, and severe PD with HIV status among 2017 National HIV Behavioral Surveillance study participants in Memphis, TN.

Methods: Eligible participants were ≥18 years, born and identified as male, and had sex with another man in their lifetime. Participants completed a CDC-designed anonymous survey and self-reported MSM-related discrimination (verbal, poor service, mistreatment at work/school, health care) and MSM-related violence across their lifetime, and PD symptoms (feeling depressed, hopeless, restless) within the past month. PD symptoms were measured based on the Kessler-6 Scale, with scores ≥13 indicating non-specific severe PD. Optional rapid HIV tests were performed on site. Bivariate and multivariable logistic regression analyses examined the associations between discrimination, violence, PD, and positive HIV test results.

Results: Among 356 respondents, 66.9% were aged < 35 years, and 79.5% identified as non-Hispanic (NH) Black. MSM-related violence was reported by 13.2% of participants, MSM-related discrimination was reported by 47.8%, and 10.7% experienced severe PD. Of the 297 participants who tested on-site for HIV, 27.8% had a positive result. MSM-related discrimination, MSM-related violence, and severe PD were significantly associated with each other ($p < 0.0001$). Positive HIV test results were associated with MSM-related assault [adjusted odds ratio = 3.6 (95% confidence interval: 1.5, 8.8)].

Conclusions: MSM in Memphis face a complex array of individual social experiences, including discrimination, violence, and PD, which may increase vulnerability to HIV. The utility of on-site testing among MSM may be an opportunity to screen and offer more comprehensive care for experiences of discrimination, violence, and severe PD. Incorporating strategies to address these issues is paramount when designing HIV prevention programs for MSM in Memphis.

CORRESPONDING AUTHOR: Meredith R. Denney, Vanderbilt University, Nashville, TN; meredith.r.denney.1@vanderbilt.edu

Abstract citation ID: kaad011.0975

POSTER SESSION D: INVESTIGATING THE ASSOCIATION BETWEEN ABUSE AND HELP-SEEKING AMONG SEXUAL MINORITY AND HETEROSEXUAL ADOLESCENTS

Lauren V. Butler, BS[1], Cassidy M. Sandoval, MA[2], Kristin E. Heron, PhD[3]

[1]University of North Carolina at Chapel Hill, Durham, NC; [2]Virginia Consortium Program in Clinical Psychology, Virginia Beach, VA; [3]Old Dominion University, Norfolk, VA

Sexual minority (e.g., lesbian, gay, queer, bisexual, questioning, etc.) youth are at higher risk for experiencing abuse in comparison to their heterosexual counterparts. Help seeking amongst those who experience abuse can be beneficial for reducing negative psychological and health-related outcomes. However, there is limited research on the types of help sought by sexual minority and heterosexual adolescents who experience abuse. To address this gap, the present study examined whether late adolescents who experienced emotional, sexual, or physical abuse in the last 12 months sought formal (i.e., professional) or informal (i.e., non-professional) help at different rates based on sexual identity status. Participants were 16,647 heterosexual and 7,490 sexual minority college students ages 18-21 (M_{age}=19.5) who participated in the Healthy Minds Study and reported abuse (sexual, physical, or emotional) in the past 12 months. Formal help seeking was assessed as receiving counseling or therapy in the past 12 months (yes/no), and informal help seeking was operationalized as seeking support from a non-professional (e.g., family member, friend, religious counselor; yes/no). Logistic regression models examined whether the likelihood of seeking formal and informal support differed based on sexual identity status, controlling for gender. Results revealed sexual minority adolescents were 1.486 (95% CI: 1.374, 1.607) times more likely to seek therapy services and 2.261 (95% CI: 2.092, 2.443) times more likely to seek informal support compared to their heterosexual counterparts. The specific sources of informal support sought were explored descriptively by sexual identity. Overall, findings suggest sexual minority adolescents who experienced any of the three forms of abuse sought both formal and informal help at higher rates than heterosexual adolescents who also experienced abuse. These results are consistent with previous research showing sexual minority adults are more likely to utilize mental health services than their heterosexual peers and extends findings into late adolescents. Given that heterosexual adolescents who experience abuse show less use of formal and informal support, this highlights that potential barriers to accessing support may exist for these youth. Future research should also examine potential differences in help-seeking rates among adolescents with different sexual minority identities (e.g., lesbian vs. bisexual) to determine if all sexual minority groups are seeking services at a higher rate.

CORRESPONDING AUTHOR: Lauren V. Butler, BS, University of North Carolina at Chapel Hill, Durham, NC; lbutl001@unc.edu

---

Abstract citation ID: kaad011.0976

POSTER SESSION D: "I HAD TO DIY FOR MOST OF MY TRANSITION": EXPERIENCES AND BARRIERS FACED BY TRANSGENDER INDIVIDUALS ACCESSING REGULAR HEALTHCARE

Catherine S. Wall[1], Alison J. Patev, PhD[1], Shelby Smout, PhD[2], Steph L. Cull, BS[3], Mari o'Neil[1], Mary A. Carrico, BS[1], Eric G. Benotsch, PhD[1]

[1]Virginia Commonwealth University, Richmond, VA; [2]University of Richmond, Richmond, VA; [3]Virginia Commonwealth University, Chester, VA

Background: Access to regular healthcare, both in the context of gender affirming care and in the context of primary care, has been linked to numerous positive health outcomes for transgender and gender diverse (TGD) individuals including reduced psychological distress, increased overall physical health, and reduced care avoidance. Despite these numerous benefits, TGD patients may face numerous barriers that limit or prevent access to care which may lead to these patients forgoing necessary care or engaging in the off-prescription use of hormone replacement therapy (HRT). Given the risks involved in avoidance or self-administration of necessary care, it is vital to explore the experiences of TGD individuals in seeking such care.

Methods: As a part of a larger mixed-methods study, transgender participants (N=147) recruited online were asked about their experiences accessing HRT and in finding a primary care physician (PCP). Individuals who indicated that they did not have a PCP were asked to discuss any barriers they had faced in finding a PCP. Participants experiences were explored using an iterative, inductive thematic analytic approach.

Results: The majority of the respondents had access to a PCP (n = 120; 81.63%) and were currently undergoing HRT (n = 95; 64.63%). Inductive coding assessing both experiences accessing HRT and difficulty finding a PCP revealed five primary themes: (1) gatekeeping, (2) affording care, (3) location, (4) provider issues, and (5) patient barriers.

Conclusion: Despite laws designed to promote equity in healthcare for TGD patients, these results highlight the underlying issues in access faced by TGD individuals. Understanding these issues is a vital first step in dismantling these barriers. These results highlight the importance of barrier reduction and of enforcing existing non-discrimination laws, as well as potential avenues for advancement in equitable access to regular care for TGD patients.

CORRESPONDING AUTHOR: Catherine S. Wall, Virginia Commonwealth University, Richmond, VA; wallcs@vcu.edu

Abstract citation ID: kaad011.0977

POSTER SESSION D: THE ASSOCIATION BETWEEN FOOD INSUFFICIENCY, FOOD INSECURITY STIGMA, AND MEDICATION ADHERENCE AMONG PEOPLE LIVING WITH HIV

Renee El-krab, MS[1], Seth Kalichman[2], Colleen B. Mistler, MS[2]

[1]University of Connecticut, Manchester, CT; [2]University of Connecticut, Storrs, CT

Food insecurity among people living with HIV is an established barrier to antiretroviral therapy (ART) adherence. While insufficient food alone has shown to impede HIV care, psychosocial challenges that accompany food insecurity, such as stigma and depression, also play an important role. The aim of the current study is to examine food insecurity stigma and depression as explanatory mechanisms in the association between food insecurity and ART adherence among people living with HIV. A cross-sectional study was conducted among Black/African American men and women living with HIV in the southeastern United States including measures on frequency of food insecurity, food insecurity stigma, depression, and ART adherence. Nearly half of our sample, which did not target any particular segment of people living with HIV, reported experiencing food insecurity. A serial mediation analysis indicated that although there was a total effect of food insecurity on art adherence, food insecurity was indirectly associated with ART adherence through food insecurity stigma and depression symptoms. Our findings support previous work that suggests that interventions aiming to reduce the impacts of HIV stigma will require multifaceted approaches that mirror the complexity of HIV's social context, including the stigmatization of food insecurity.

CORRESPONDING AUTHOR: Renee El-krab, MS, University of Connecticut, Manchester, CT; renee.el-krab@uconn.edu

---

Abstract citation ID: kaad011.0978

POSTER SESSION D: PSYCHOSOCIAL FACTORS ASSOCIATED WITH LATINO SEXUAL MINORITY MEN'S LIKELIHOOD AND MOTIVATION FOR PREP: A MIXED METHODS STUDY

Juan Pablo Zapata, PhD[1]

[1]Northwestern, Chicago, IL

Purpose: Latinx sexual minority men (SMM) are disproportionately affected by HIV in the U.S. Pre-exposure prophylaxis (PrEP) is highly effective for HIV prevention, yet PrEP uptake and persistence among Latinx SMM lags behind white SMM. High rates of psychosocial and health problems have been identified among Latinx SMM. This study sought to understand the association between psychosocial factors and PrEP use among Latinx SMM.

Methods: The method chosen for this study was a convergent, parallel mixed-methods design to explore the psycho-social determinant(s) of PrEP among Latinx SMM. Twenty qualitative interviews with health care providers, case managers, and social workers were followed by a cross-sectional survey among 151 Latinx SMM. Qualitative data were analyzed using grounded theory in MAXQDA 2020 (VERBI Software, 2021) and survey data in SPSS 25.0. Factors associated with Latinx culture and psychological distress, and the PrEP care continuum were assessed using bivariate and multivariate analysis. Data from validated measures and in-depth interviews were triangulated with relative convergence to strengthen and add context to findings.

Results: Results indicated varying levels of engagement across the PrEP cascade. As depressive symptoms increased, the odds of engagement across the PrEP cascade were significantly lowered $R2 = .22$, $F(1, 149) = 17.77$, $\beta 1 = -.52$, $p < .001$. Moreover, participants who were first-generation identified were significantly less likely to use PrEP ($M = 5.88$, $SD = 2.18$) or seek HIV testing ($M = 8.20$, $SD = 3.94$) than those who were second, third or later-generation. Convergent qualitative data corresponded with the factor(s) that increased risk for depression and further extended QUAN finding(s) by discerning the unique social and cultural experiences of Latinx SMM that then limit engagement with PrEP.

Conclusions: We found psychological stressors had a profound affect on the PrEP cascade among Latinx SMM, indicating PrEP care for this population requires integrated services with culturally competent mental health providers. Further, finding(s) suggest that issues such as stress and depression can be significantly affected by increasing support for first-generation Latinxs. In particular support from families and Latinx identified stakeholders plays a critical role in engagement with care.

CORRESPONDING AUTHOR: Juan Pablo Zapata, PhD, Northwestern, Chicago, IL; juan.zapata@northwestern.edu

Abstract citation ID: kaad011.0979

POSTER SESSION D: A PATH ANALYSIS OF GENDERED RACIAL MICROAGGRESSIONS, SELF SILENCING, SUBSTANCE USE & HIV OUTCOMES AMONG BLACK WOMEN WITH HIV

Naysha N. Shahid, BA[1], Sannisha K. Dale, PhD, EdM[1]

[1]University of Miami, Miami, FL

Background: Gendered racial microaggressions (GRM; subtle daily insults due to racism and sexism), silencing the self (silencing oneself to maintain harmony, prioritizing others over the self), and substance use have been separately linked with mental health, barriers to care, HIV medication adherence, and/or viral suppression among Black women living with HIV (BWLWH). However, no study has focused on the potential links between GRM, self-silencing, substance use, and HIV outcomes among BWLWH. Using structural equation modeling this study examined the pathways of GRM, self-silencing, and problematic substance use on HIV medication adherence and viral suppression.

Methods: 119 BWLWH living in South Florida completed a baseline visit consisting of self-report surveys, a clinical interview, and a blood draw. GRM, self-silencing, Substance Use Disorder (SUD) severity, and Alcohol Use Disorder (AUD) severity were assessed using the GRM Scale-Black Women (GRMS-BW), Silencing the Self Scale (STSS), and Mini International Neuropsychiatric Interview, respectively. HIV medication adherence for the past 1-, 2-, and 4- weeks was self-reported and HIV-1 RNA lab tests assessed viral load. GRM-appraisal, self-silencing, and medication adherence were latent variables. GRM latent variable consisted of 4 appraisal (how distressing) subscales in the GRMS-BW: Assumptions of Beauty & Sexual Objectification, Angry Black Woman Stereotype, Strong Black Woman Stereotype, and Silenced & Marginalized. Self-Silencing latent variable consisted of 4 subscales in the STSS: Care as Self-sacrifice, Externalized Self-perception, Silencing the Self, and The Divided Self. The adherence latent variable consisted of medication adherence ratings in the past 1-, 2-, and 4- weeks. The association between these latent variables, SUD severity, AUD severity, and viral suppression was determined by path analysis.

Results: The mean age for participants was 49 years old. About a quarter of participants met criteria for SUD and 11% met criteria for AUD. The model fit the data well based on the following fit indices: CFI = 0.952; SRMR= 0.062; RMSEA = 0.068. Findings showed that GRM-appraisal was directly and positively associated with self-silencing (p=0.001) and showed a trend of indirect and negative association with medication adherence via self-silencing (p=0.06). Self-silencing was directly and negatively associated with medication adherence (p=0.04). Medication adherence was directly and negatively related to viral suppression (p = 0.03).

Conclusion: Results of this study provide a better understanding of how GRM may be linked to self-silencing which in turn influence medication adherence. Prevention and intervention strategies to improve mental health and HIV outcomes among BWLWH should address the impact of GRM in conjunction with self-silencing and problematic substance use.

CORRESPONDING AUTHOR: Naysha N. Shahid, BA, University of Miami, Miami, FL; nns42@miami.edu

---

Abstract citation ID: kaad011.0980

POSTER SESSION D: GAPS IN HIV TESTING AND RISK: IMPLICATIONS FOR ACCESS TO PREP IN WOMEN

Alyssa G. Robillard, PhD[1], SeungYong Han[2], Joseph Daniels, PhD[3], David W. Coon, PhD[4]

[1]Edson College of Nursing and Health Innovation/Arizona State University, Laveen, AZ; [2]Arizona State University, Phoenix, AZ; [3]Edson College of Nursing and Health Innovation, Arizona State University, Phoenix, AZ; [4]Edson College of Nursing and Health Innovation/Arizona State University, Phoenix, AZ

Background: The "test and treat" strategy recommends annual voluntary universal HIV testing for people over 15 years of age and can serve as a gateway to PrEP—a proven biomedical strategy to prevent HIV—especially for those most at risk. Although a viable and effective option, PrEP promotion and adoption in women has been limited, especially among Black women disproportionately impacted by HIV.

Methods: National data from female respondents of the Behavioral Risk Factor Surveillance System (N=14,741) were assessed for each year from 2016 to 2020 to examine rates of HIV testing among those indicating HIV risk, using a dichotomous measure based on any one or more of the following: injection drug use, treatment for an STI, receipt of money in exchange for sex, anal sex without a condom, or four or more sex partners in the past year. HIV testing (Yes/No) was measured based on reported testing within the past year. For estimation, stratification and clustering were considered along with sample weights to account for complex sampling design of the survey data.

Results: Overall, Black respondents reported the highest testing rates compared to the other race and ethnicity groups, including non-Hispanic White, Asian, American Indian/Alaska Native (AIAN), Native Hawaiian/Pacific Islander (NHPI), and multi-race. Annual testing for Black women peaked in 2017 (79.1%), however the proportion who did not receive annual testing in spite of reported risk ranged from 21-36% in all other years. Rates of non-testing in White, Hispanic, Asian, AIAN, NHPI, and multiracial female groups in 2019 were 43.9%, 34.9%, 22%, 26.9%, and 38.1%, respectively. Notably, rates of non-testing were highest in 2020 across all race/ethnicity groups. Generally, high rates of testing were observed in each group for most years, however a notable proportion in any given year were not tested.

Conclusions: HIV testing is a prerequisite for PrEP, however women experiencing increased risk may not have access to either. Data restrict our ability to know if respondents used PrEP or are living with HIV (and thus not tested). The nature of the HIV risk measure also limits our ability to know the degree of risk. However, findings suggest notable gaps in testing, especially among groups disproportionately impacted by HIV. Testing should be promoted as a strategy to not only identify and link people to treatment and care, but also to link women with increased risk to biomedical prevention options.

CORRESPONDING AUTHOR: Alyssa G. Robillard, PhD, Edson College of Nursing and Health Innovation/Arizona State University, Laveen, AZ; alyssa.robillard@asu.edu

Abstract citation ID: kaad011.0981

POSTER SESSION D: MENTAL HEALTH SCREENING, HIV-1 RNA LEVELS, AND CD4 COUNTS IN HOSPITAL-BASED HIV PRIMARY CARE

Cramer J. Kallem, MA[1], Kevin Lam, BS[2], Holly R. Gerber, PhD[2], Michael DeAngelo, PsyD[2], Pamela Gorman, RN, ACRN[2], Cori McMahon, PsyD[3]

[1]Cooper University Hospital, Department of Medicine, Infectious Disease, Philadelphia, PA; [2]Cooper University Hospital, Department of Medicine, Infectious Disease, Camden, NJ; [3]Cooper University Hospital, Department of Medicine, Infectious Disease, Woodbury, NJ

Background: Identifying patients at greater risk for HIV disease progression is essential to promoting individual and public health. Psychological factors may influence progression via direct and indirect pathways, including neurohormone modulation and health behaviors. This study examined relationships among mental health screening results and biomarkers of HIV disease progression among patients in a medically underserved area.

Methods: 437 patients at an HIV primary care clinic completed mental health screenings between February 2020 and October 2022. Screening domains included depression, anxiety, mania, PTSD, dementia, substance abuse, and sleep and/or appetite problems. Demographic information was collected for age (range = 19 – 84; *M* = 44.46; *SD* = 14.06), race (African American 51.26%; Hispanic/Latinx 24.71%; White (Non-Hispanic) 19.45%; Asian 1.37%; multiracial 0.69%; unknown 2.52%), and gender (male 68.65%; female 27.69%; transgender female 3.66%). Viral load (VL) and CD4 count data were extracted from patients' electronic medical records. Patients were sorted into to two groups based on mental health-related risk: low-risk (positive screens ≤ 2) and high-risk (positive screens ≥ 3). Independent samples t-tests were conducted to measure between-group differences in VL and CD4 counts. Patients in the high-risk group were predicted to have significantly higher VL and lower CD4 counts than patients in the low-risk group.

Results: The average VL in this sample was 72,384.48 copies/mL (range = undetectable [< 20] – 9,910,000; *SD* = 541,441.52). The average CD4 count was 607.00 cells/µL (range = undetectable [< 5] – 1,742; *SD* = 352.36). On average, patients screened positive for 2.99 mental health domains (range = 0 - 7; *SD* = 1.92). The most commonly endorsed domain was sleep and/or appetite problems (67.7%), followed by depression (59.3%), anxiety (54.5%), PTSD (33.2%), substance abuse (32.5%), dementia (30.9%), and mania (20.6%). 118 patients (27.00%) were sorted into the low-risk group and 319 patients (73.00%) were in the high-risk group. Patients in the high-risk group (*M* = 94,761.22; *SD* = 631,533.92) had significantly higher VL than patients in the low-risk group (*M* = 11,891.41; *SD* = 58,191.38) *t*(332.29) = -2.32, *p* = .011. Though the mean difference was in the expected direction, there was no significant difference in average CD4 count between patients in the high-risk group (*M* = 591.14; *SD* = 356.57) and low-risk group (*M* = 649.88; *SD* = 338.48) *t*(435) = 1.55, *p* = .061).

Discussion: Results are consistent with prior research showing people living with HIV carry significant burden of psychological distress and that such distress is associated with disease progression. Early and routine behavioral health screening helps identify and triage at-risk patients and allows targeted intervention to address psychosocial factors impacting total health.

CORRESPONDING AUTHOR: Cramer J. Kallem, MA, Cooper University Hospital, Department of Medicine, Infectious Disease, Philadelphia, PA; cramer.kallem@gmail.com

---

Abstract citation ID: kaad011.0982

POSTER SESSION D: A RUFF LIFE: ASSOCIATIONS BETWEEN PETS, ACADEMIC BURNOUT, AND ACADEMIC MOTIVATION AMONG MEDICAL STUDENTS

Heather Villarreal, BS[1], Dhir Gala, BS[2], Maggi Horn, BS[3], Maile Allzer, MS[4], Premsai Bondalapati, BS[5], Satya Karuppiah, BS[6], Jodie Simelda, BS[7], Alison Carameros, BS[8], Allison Parrill, BSc, MsEd, MD[9], Dipali V. Rinker, PhD, LPC[10]

[1]American University of the Caribbean School of Medicine, Goliad, TX; [2]American University of the Caribbean School of Medicine, Uniondale, NY; [3]American University of the Caribbean School of Medicine, Pleasanton, CA; [4]American University of the Caribbean School of Medicine, Bozeman, MT; [5]American University of the Caribbean School of Medicine, PORT JEFFERSON STATION, NY; [6]American University of the Caribbean School of Medicine, Rancho Cucamonga,, CA; [7]American University of the Caribbean School of Medicine, Baytown, TX; [8]American University of the Caribbean School of Medicine, Citrus Springs, FL; [9]Department of Family Medicine, Prisma Health University of South Carolina School of Medicine Greenville - Seneca Family Medicine, Seneca, SC; [10]American University of the Caribbean School of Medicine, Miami, FL

Purpose: Animal therapy decreases anxiety, depression, and overall stress (Beetz et al., 2012)[1]. The effect of pet ownership on medical students' academic motivation and burnout is not well established. This study sought to examine differences in academic burnout among those with and without pets, and also whether pet ownership and length of time owning pets was uniquely associated with academic burnout.

Methods: A survey was distributed to medical school students to examine demographics, academic performance, pet ownership and amount of time owning a pet, academic motivation, and academic burnout.

Results: A total of 389 medical students completed the surveys with 178 (45.76%) owning pets and 211 (54.24%) not owning pets. Pearson *r* correlations indicated that the amount of time a student owned a pet was associated with the Exhaustion subscale of the Maslach Burnout Inventory (r=-0.22). A one-way ANOVA indicated that the longer one owned a pet, the less likely they were to experience academic exhaustion (F(2, 175)=[4.56], p< .05). Pearson *r* correlations also indicated that Exhaustion was correlated with being a woman (r=-0.15), GPA (r=-0.14), depressed mood (r=0.57), anxiety (r=0.53), and intrinsic motivation to be in medical school (Pearson *r*'s between -0.18 and -0.25).

Variables that were correlated with Exhaustion were put into a regression analysis, and amount of time owning a pet (OR=0.17, 95% CI: 0.04-0.71), being a woman (OR=0.04, 95% CI: 0.01-0.23), depressed mood (OR=1.83, 95% CI: 1.46-2.28), and intrinsic motivation to experience stimulation (OR=0.66, 95% CI: 0.47-0.92) were all uniquely associated with Exhaustion.

Conclusion: Length of time owning a pet was uniquely associated with decreased academic exhaustion. Medical students' can reduce their risk of academic burnout and potentially improve their overall wellbeing by caring for a pet.

References: Beetz A, Uvnäs-Moberg K, Julius H, Kotrschal K. Psychosocial and psychophysiological effects of human-animal interactions: the possible role of oxytocin. Front Psychol. 2012 Jul 9;3:234. doi: 10.3389/fpsyg.2012.00234. PMID: 22866043; PMCID: PMC3408111.

CORRESPONDING AUTHOR: Heather Villarreal, BS, American University of the Caribbean School of Medicine, Goliad, TX; heathervillarreal@students.aucmed.edu

Abstract citation ID: kaad011.0983

MERITORIOUS AWARD WINNER

POSTER SESSION D: CANCER STIGMA IN AFRICA- A QUALITATIVE STUDY

Judith Mwobobia[1]

[1]Duke University, Durham, NC

Introduction: Cancer stigma presents a critical barrier to care seeking, contributing to delayed presentation and poor cancer outcomes. The burden of cancer in Tanzania is on the rise, with cancer being the third-leading cause of death in the country. Despite rising incidence and poor outcomes of cancer, cancer-related stigma interventions have received low prioritization. There is a need for sound research that focuses on understanding attitudes driving stigma, its impact on care seeking and treatment adherence, and intervention models to reduce stigma.

Methods: We administered three open-ended qualitative questions to 150 adults newly diagnosed with cancer in Moshi, Tanzania. The questions explored, (1) common attitudes toward people with cancer, (2) the perceived impact of cancer-related stigma, and (3) ideas for reducing stigma experienced by people with cancer. Patients were recruited during routine appointments at the Cancer Center at Kilimanjaro Christian Medical Center. Data were analyzed using a team-based, applied thematic approach and NVivo 12 software. Twenty percent of the responses were double-coded to assess inter-coder agreement and exceeded a pre-established threshold of 80% agreement (84.9%).

Results: Participants described stigma as a major challenge for treatment and for receiving support from their social networks. Perceptions of financial stress, misconceptions about cancer such as the belief that it is contagious, and fear of death were common attitudes driving cancer stigma. Participants feared that symptoms would prevent them from working and that the cost of cancer care would drive away loved ones. Some also reported increased care and social support from family members after a cancer diagnosis. Experiences of stigma contributed to feelings of shame, fear of burdening the family, reduced resources to access treatment, and disengagement from care. Common substitutes to medical therapies included religious interventions and traditional medicine. Participants felt they would benefit from improved financial support and professional counseling, as well as education for families and communities to reduce stigmatizing attitudes and enhance social support.

Discussion: There is need for intervention studies focused on improving cancer literacy and increasing support for people with cancer. There is also a clear need for policy efforts to make cancer care more affordable and accessible to reduce the financial burden on patients and families.

CORRESPONDING AUTHOR: Judith Mwobobia, Duke University, Durham, NC; judith.mwobobia@duke.edu

---

Abstract citation ID: kaad011.0984

MERITORIOUS AWARD WINNER

POSTER SESSION D: CHILD MENTAL DISORDERS AND RELATED SCREENING PRACTICES: PERSPECTIVES FROM EARLY CHILDHOOD EDUCATION PROVIDERS

Gaurav Kumar, MBBS, MPH[1], Dejun Su, PhD[1], Priyanka Chaudhary, BS, MPH[2], Drissa Toure[3]

[1]University of Nebraska Medical Center, Omaha, NE; [2]UNO, Omaha, NE; [3]University of Minnesota, Minneapolis, MN

Background: Mental disorders in childhood harm healthy development and delay children's ability to achieve emotional, social, cognitive, and academic milestones. However, little is known about the early care and education providers ' perceived mental disorder concerns and their current screening practices to access the mental disorders among children served.

Objective: The purpose of this research is to qualitatively identify the early care and education providers' perceived concerns of mental disorders among children and their screening practices for mental illness.

Methods: Qualitative research design with a phenomenological approach was used. A purposive sample of 53 early care and education providers participated in semi-structured interview sessions. Participants were involved in delivering, managing, and coordinating services for children and youths in Nebraska in various community settings. Data were transcribed, coded, and systematically analyzed through thematic content analysis.

Results: The analysis identified two themes and associated categories and codes delineating perceived mental health disorders and screening practices by providers in childcare settings. The first theme, *mental health concerns*, reflects perceived concerns about mental health among children and contains three categories: perceived level of mental disorder (two-third), most common (attention-deficit/hyperactivity disorder, anxiety and depression) and least common concern (mood disorders, substance abuse and autism). The second theme, s*creening practices,* reflects the use of screening tools and their implication to screen mental disorders and suggested one category: screening measure usage (Ages and Stages and the Modified Checklist for Autism in Toddlers).

Conclusion: These findings show that mental illnesses in early children (0-5 years old) are less common and are identified later in childhood or adolescence. Furthermore, insufficiently developed techniques have hindered the early diagnosis of mental illnesses in children aged 0 to 5. As a result, it emphasizes the importance of refocusing on screening and referral procedures and processes in different community and organizational contexts in order to fulfill the mental health needs of Nebraska's pediatric population.

CORRESPONDING AUTHOR: Gaurav Kumar, MBBS, MPH, University of Nebraska Medical Center, Omaha, NE; gaurav.kumar@unmc.edu

Abstract citation ID: kaad011.0985

POSTER SESSION D: PERCEIVED DISCRIMINATION AND MENTAL HEALTH IN COLLEGE STUDENTS: THE MEDIATING ROLE OF PREVENTATIVE HEALTH BEHAVIORS

Sarah Morton, MS[1], Jeremy Barsell, MS[2], Robin S. Everhart, PhD[2]

[1]Virginia Commonwealth University, Mechanicsville, VA; [2]Virginia Commonwealth University, Richmond, VA

Background: Discrimination is linked to adverse mental health outcomes, increased risk-taking behaviors, and fewer health promoting behaviors. College students may be especially susceptible to negative mental health outcomes associated with discrimination due to the unique stressors faced by young adults. This study examined the mediating roles of risk-taking and preventative health behaviors in the association between perceived discrimination and mental health outcomes (e.g., anxiety, depression, suicidality) among college students.

Methods: Online cross-sectional data were collected from students at a large urban university. Questionnaires included: the Hopkins Symptom Checklist (anxiety/depression), Suicidal Behavior Questionnaire-14, Everyday Discrimination Scale, and Health Behaviors Checklist. Descriptive analyses were run to describe participant demographics and two parallel mediation models were run in SPSS using the PROCESS macro.

Results: 709 college students (42.8% White; 72.2% female; 30.2% first-generation) were included in analyses. Students reported discrimination experienced, with gender (41.3%), age (40.8%), race (36.1%), and physical traits (apart from weight and height; 31.6%) being the most common. Results indicated that students who reported greater perceived discrimination also reported lower engagement in preventative health behaviors and higher risk-taking behaviors. In the first mediation model, preventative health behaviors (indirect effect: b=.0009; 95% CI: .0001, .0020) partially mediated the association between perceived discrimination and anxiety/depression. In the second model, the effect of perceived discrimination on suicidal behavior was partially mediated through lower engagement in preventative health behaviors (b=.0007; 95% CI: .0001, .0015). Risk-taking behavior was not determined to be a significant mediator in either model.

Conclusion: Less engagement in health-promoting behaviors (e.g., healthy diet, routine medical care) may partially explain discrimination's negative impact on symptoms of anxiety, depression, and suicidal behavior. While continued interventions to address discrimination and risk-behaviors on college campuses are necessary, it may be beneficial to include elements that specifically promote preventative health behaviors. Efforts may include increasing the accessibility and affordability of healthy food options and including annual wellness exams (at no additional cost) at student health services.

CORRESPONDING AUTHOR: Sarah Morton, MS, Virginia Commonwealth University, Mechanicsville, VA; mortonsc@vcu.edu

---

Abstract citation ID: kaad011.0986

POSTER SESSION D: EFFECTS OF CREATIVE CROWDSOURCING ON PSYCHOLOGICAL DISTRESS AMONG COLLEGE STUDENTS IN EASTERN CHINA.

Etienne Jaime, MPH[1], Stephen Pan, PhD[2], Shiqiang Wu[3], Xinwen Hu[2]

[1]Xi'an Jiaotong - Liverpool University, Christiansburg, VA; [2]Xi'an Jiaotong - Liverpool University, Suzhou, Jiangsu, China; [3]Xi'ian Jiaotong - Liverpool University, Suzhou, Jiangsu, China

Background: In China, approximately 20% of college students are afflicted with mental health issues. Creative crowdsourcing interventions in public health foster community participation and promote health outcomes. We conducted a Randomized Controlled Trial evaluating a crowdsourced text-messaging health promotion intervention among college students in Eastern China. The purpose was to analyze whether engaging in creative crowdsourcing results in decreased psychological distress.

Methods: Participants were first year college students randomly assigned to the intervention group engaging in creating encouraging/health promotion messages (n=391) or assigned to control group (n=416). The intervention lasted 8 months with follow-ups at four, eight, and twelve months. Psychological distress (PD) was measured using PHQ-4 scores and PHQ-4 categories: normal (0-2), mild (3-5), and moderate-to-severe (6+). A Generalized Estimating Equations (GEE) analysis on PHQ-4 scores was performed to account for within-participant correlation from repeated measures data. We additionally conducted a stratified analysis of the GEE based on PHQ-4 category at baseline to control for selection bias.

Results: At baseline, 61% of participants had normal PHQ-4 scores, 32% mild, and 7% moderate-to-severe. A non-stratified GEE analysis for PHQ-4 scores provided an OR: 0.94 (β=-0.06, SE= 0.2, p=0.75). The stratified GEE analysis by baseline PHQ-4 category yielded an OR: 0.97 (β=-0.03, SE=0.09, p=0.75) among participants with normal scores at baseline, an OR: 0.96 (β=-0.04, SE=0.06, p=0.5) among participants with mild scores at baseline, and an OR: 1.80 (β=0.59, SE=0.46, p=0.20) among participants with moderate-to-severe scores at baseline.

Conclusion: The results of the GEE analysis show participants in the intervention with baseline normal or mild scores were less likely to present PD than those in the control group. Among participants with moderate-to-severe scores, the findings might indicate adverse effects on PD scores, possibly due to increased awareness of mental health issues. However, none of the results were statistically significant. This suggests that participation in creative crowdsourcing mental health promotion campaigns may have minimal effects on psychological distress among college students. Further research on the effects of crowdsourcing on mental health among individuals at different levels of psychological distress should be considered.

CORRESPONDING AUTHOR: Etienne Jaime, MPH, Xi'an Jiaotong - Liverpool University, Christiansburg, VA; e.jaime-hinojosa@liverpool.ac.uk

Abstract citation ID: kaad011.0987

POSTER SESSION D: TARGETED MINDFULNESS-BASED INTERVENTION FOR ADOLESCENTS WITH CONCUSSION DELIVERED THROUGH A SMARTPHONE APP

Veronik Sicard, PhD[1], Olivier Brown[2], Lauren Butterfield[2], Katherine Healey, MS[3], Kiarah O'Kane[4], Esther Choi[5], Noah Silverberg, PhD[4], Andra Smith, PhD[6], Gary Goldfield, PhD[2], Roger Zemek, PhD, MD[7], Molly Cairncross, PhD[8], Andrée-Anne Ledoux, PhD[7]

[1]CHEO RI, Ottawa, NU, Canada; [2]CHEO RI, Ottawa, ON, Canada; [3]Carleton University, Ottawa, ON, Canada; [4]University of British Columbia, Vancouver, BC, Canada; [5]Research Coordinator, Vancouver, BC, Canada; [6]University of Ottawa, Ottawa, ON, Canada; [7]Children's Hospital of Eastern Ontario, Ottawa, ON, Canada; [8]Simon Fraser University, Burnaby, BC, Canada

A third of adolescents experiencing a concussion will suffer from persistent post-concussion symptoms lasting a month or beyond. The ability to cope with concussion symptoms and regulate emotions and manage stress is an important determinant of risk for prolonged symptoms. Early psychological interventions, such as mindfulness-based interventions (MBI), might improve concussion recovery. This open-label mixed-methods pilot study assessed the acceptability and credibility of an MBI delivered through a smartphone app for pediatric concussion. Participants aged 12-18 years were recruited from an Emergency Department within 48h of a concussion (acute cohort) or from a tertiary care clinic at least 1 month post-concussion (persistent symptom cohort). Participants completed a novel 4-week MBI program, for 10-15 min/day, minimum 4 days/week. At 2 weeks post-concussion, participants completed a credibility questionnaire. At 4 weeks, participants completed questionnaires assessing satisfaction and usability, as well as a semi-structured phone interview. 10 participants completed the study outcomes, including 7 acute (5 females; median [IQR] age = 14.73 [13.94,16.94] years and 3 persistent symptom patients (2 females; median [IQR] age = 17.62 [17.48,17.86] years). Across cohorts, the app was considered usable (median = 70.00 [55.00,82.50], maximum possible = 100.00) and treatment was perceived as credible (median = 6.50 [6.83,8.75], maximum possible = 9.00). Participants indicated they were very satisfied with the app (median = 27.00 [24.50,29.50], maximum possible = 32.00). Four themes were identified from the qualitative data: 1) positive attributes (including accessibility, ease of use, perceived effectiveness, variety of features, and meditation guides); 2) negative attributes (technical issues that acted as a barrier to use, and sounds and lights that were triggering headaches); 3) ideas for modifications; and 4) technical issues. Results inform modifications to the app, instructions, and intervention, and potential ways to increase adherence by leveraging positive attributes. A randomized control trial will assess the effectiveness of the app-based MBI to decrease the risk of persistent symptoms and reduce the symptom burden following pediatric concussion. The present mixed-methods study and the iterative approach to intervention design we are using will ensure better translation and impact of interventions for youth with concussions.

CORRESPONDING AUTHOR: Andrée-Anne Ledoux, PhD, Children's Hospital of Eastern Ontario, Ottawa, ON, Canada; aledoux@cheo.on.ca

---

Abstract citation ID: kaad011.0988

POSTER SESSION D: DEPRESSION, ANXIETY, AND UTILIZATION OF MENTAL HEALTHCARE SERVICES IN INDIVIDUALS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE

Heather Y. Neifert, MA[1], Joel W. Hughes, PhD, FAACVPR[1]

[1]Kent State University, Kent, OH

Background: Depression and anxiety are common, debilitating comorbidities in chronic obstructive pulmonary disease (COPD), but early evidence suggests that this population largely does not receive appropriate psychological treatment. The present study examines prevalence of depression and anxiety among individuals with COPD in the United States and their patterns of mental healthcare utilization.

Methods: Cross-sectional data from 13,752 individuals in the 2019 National Health Interview Survey were analyzed. Depression and anxiety were measured using the Patient Health Questionnaire (PHQ-8) and Generalized Anxiety Disorder Scale (GAD-7) respectively. Hierarchical linear regression was used to predict PHQ-8 and GAD-7 scores based on COPD diagnosis. Chi-square tests were used to compare group differences in clinically significant depression and anxiety, mental healthcare utilization, and type of mental health intervention used. Significant findings were further analyzed using exploratory logistic regression.

Results: After controlling for covariates, COPD diagnosis was associated with higher depression ($\Delta R^2 = .012$, $\Delta F[1, 13736] = 182.852$, $p < .001$) and anxiety ($\Delta R^2 = .009$, $\Delta F[1, 13736] = 133.831$, $p < .001$). COPD diagnosis was associated with greater mental healthcare utilization in individuals with clinical depression and anxiety ($\chi^2[1, 4014] = 31.652$ and $\chi^2[1, 2182] = 28.141$, $p < .001$). These groups utilized pharmacological treatments more than talk therapy ($\chi^2[1, 391] = 69.659$ and $\chi^2[1, 239] = 25.784$, $p < .001$).

Conclusions: A small but significant association is present between COPD diagnosis and depression and anxiety. Although individuals with COPD and clinically elevated depression or anxiety utilize mental healthcare services at higher rates than individuals without COPD, this group still underutilizes mental healthcare services relative to their reported levels of clinical distress.

CORRESPONDING AUTHOR: Heather Y. Neifert, MA, Kent State University, Kent, OH; hneifert@kent.edu

Abstract citation ID: kaad011.0989

POSTER SESSION D: “MAKE IT ABOUT MY MENTAL HEALTH”: CLIENTS’ RECOMMENDATIONS FOR DISCUSSING PHYSICAL ACTIVITY DURING THERAPY

Emily L. Mailey, PhD[1], Gina Besenyi, MPH, PhD[1], Justin Montney, MS[1], Jared A. Durtschi, PhD[1]

[1]Kansas State University, Manhattan, KS

The mental health benefits of physical activity (PA) are well-established, and integrating PA recommendations into mental healthcare would expand the reach of PA as a complementary treatment for mental illness. However, few studies have thoroughly explored mental health clients’ perspectives regarding PA integration in therapy. Therefore, the purpose of this study was to examine clients’ receptiveness to PA counseling and recommendations for effectively discussing PA in therapy. A national sample of adults currently in therapy for their mental health (N=478, *M* age=31.7 years, 44.6% male) completed an online survey that included a single open-ended question asking: *What specific recommendations would you have for your therapist to effectively discuss physical activity with you?* We conducted a qualitative content analysis to identify the most common recommendations. Overall, 85.4% of participants agreed that they would be comfortable with their therapist discussing PA with them. The content analysis resulted in 26 unique categories, with the most common recommendations being: provide information about what to do (n=81), discuss PA benefits (n=63), reframe thinking about exercise (n=63), be understanding and nonjudgmental (n=49), and provide accountability (n=41). Overarching themes that cut across these categories emphasized the importance of making mental health central to all discussions, tailoring recommendations to each client’s unique condition and circumstances, and reframing PA as a feasible, enjoyable activity that can enhance mental wellbeing outside of any changes in physical health or appearance. Overall, this study showed a majority of mental health clients were open to discussing PA during therapy, as long as the therapist approached the conversation in a supportive, understanding, and personalized way. Clients provided thoughtful recommendations for therapists which can be incorporated into clinical guidelines and training materials for mental health professionals to facilitate integration of PA into mental health treatment.

CORRESPONDING AUTHOR: Emily L. Mailey, PhD, Kansas State University, Manhattan, KS; emailey@ksu.edu

---

Abstract citation ID: kaad011.0990

POSTER SESSION D: PHYSICAL ACTIVITY RESEARCH PARTICIPATION EFFECTS: A 2-PART STUDY TO ISOLATE THE ROLE OF RESEARCHER OBSERVATION

Kristen Pasko, MA[1], Laura M. König, BSc, MSc, PhD[2], Kiri Baga, BA[1], Kristen Edwards, BA[1], Gabrielle M. Salvatore, PhD[3], Danielle Arigo, PhD[1]

[1]Rowan University, Glassboro, NJ; [2]University of Bayreuth, Kulmbach, Bayern, Germany; [3]Clinical Health and Social Experiences (CHASE) Lab, Department of Psychology, Rowan University, Turnersville, NJ

Wearable monitors such as smartwatches and pedometers are increasingly popular for both personal and scientific monitoring of physical activity (PA) behavior. In the context of research, although using a monitor to observe participants’ *natural* PA behavior is often the goal, research participation effects are known to influence PA behavior (and thus, change the behavior of interest during study participation). Specifically, participants engage in more PA behavior than usual while participating; this increase is particularly strong in the first days of study participation due to participants’ heightened awareness induced by a novel measurement protocol (i.e., measurement reactivity). However, the source(s) of reactivity effects are not clear, as participants may respond to the novelty of a PA monitor (and any real-time feedback on their PA), the knowledge that they are being observed by researchers, or both. The present study was designed to isolate measurement reactivity due to knowledge of researcher observation from reactivity to a novel PA monitor, by recruiting adults who had used a personal wearable monitor for at least 14 days before enrolling. Participants (N=131, M_{Age}=31.1, 67.9% women, 20% racial/ethnic minority identification) completed 2 online questionnaires approximately 2 weeks apart. At each time point, they reported the number of daily steps recorded with their PA monitor for the past 14 days. Step counts reported in the first questionnaire were recorded before enrolling in the study and thus served as a baseline period, while step counts reported in the second questionnaire were tracked after participants enrolled; differences between step counts reported in the two questionnaires could thus be interpreted as reactivity to the introduction of researcher observation. Two-level multilevel models with days nested within participants revealed that reported step counts did indeed increase after the introduction of researcher observation (i.e., during the second 14-day period), by approximately 400 steps per day ($M_{Days1-14}$=7900.72, $M_{Days15-28}$=8393.81, change in steps p=0.007). Interestingly, step counts were not different between the first (or first and second) day of enrolling compared to all other days (ps >0.50), as is the typical pattern of measurement reactivity; steps per day were higher toward the end of the observation period, as participants approached completion of the second questionnaire. These findings demonstrate that some measurement reactivity is present even when participants are familiar with a wearable PA monitor, which may be due to the knowledge that their behavior will be observed. As the pattern of reactivity effects due to researcher observation may look different from that of device novelty, additional work is needed to determine how best to mitigate both effects, to estimate participants’ true PA behavior during research studies.

CORRESPONDING AUTHOR: Kristen Pasko, MA, Rowan University, Glassboro, NJ; paskok45@rowan.edu

Abstract citation ID: kaad011.0991

POSTER SESSION D: MULTIDIMENSIONAL HEALTH PERCEPTIONS AMONG ENGLISH- AND SPANISH-SPEAKING DEMENTIA CARE PARTNERS

Shannon B. Juengst, PhD, CRC[1]

[1]TIRR Memorial Hermann, Houston, TX

Health perceptions are complex and influenced by health literacy, cultural values, and healthcare experiences. To broadly measure the complexity of health perceptions, we developed the condition-neutral self-reported Multidimensional Health Perceptions Questionnaire (MHPQ) for both English-speakers and Spanish-speakers in the U.S. The MHPQ has a multidimensional structure and good internal consistency reliabilities, with seven health perceptions domains (subscales; listed below in the Results).

The objectives of this study: were to evaluate the internal consistency reliabilities and associations with age, education, gender, and Hispanic ethnicity, of the MHPQ in a sample of dementia care partners participating in a randomized optimization trial of a problem-solving intervention.

Design: Cross-sectional analysis of baseline data from the CaDeS trial (NCT04748666).

Methods: We administered the MHPQ as a self-reported survey via RedCap™ to dementia care partners enrolled in the CaDeS trial. MHPQ items rated on a 1-5 agreement scale are summed within each subscale (higher scores indicate more agreement). We evaluated Cronbach's α's to determine internal consistency reliabilities of each MHPQ subscale and assessed differences in MHPQ subscales by ethnicity (Hispanic/non-Hispanic) and gender and Spearman correlations of MHPQ subscales with age and years of education.

Results: N=71 participants completed the MHPQ as of September 2022 when data were analyzed (n=69 English, n=2 Spanish). The sample was 83.1% women, 35-82 years old, 18.3% Hispanic/Latino, and had education ranging from 9-20 years. Internal consistency reliabilities were: Anticipated Discrimination and Judgement (α=.88); Spiritual Health Beliefs (α=.84); Social and Emotional Well-being (5.5%, α=.71); Confidence in Healthcare Providers and Medicine (α=.75); Health Self-Efficacy (α=.76); Trust in Social Health Advice (α=.68); and Health Literacy (α=.86). Age was significantly negatively correlated with Trust in Social Health Advice (r=-.296, p=.012), but no other correlations were statistically significant. Women reported more anticipated discrimination (p=.017, d=.69) and less confidence and trust in healthcare providers and medicine (p=.014, d=.80) than men. Hispanics reported higher confidence and trust in healthcare providers (p=.014, d=.69) and higher health self-efficacy (p=.028, d=.60) than non-Hispanics.

Conclusion: The MHPQ demonstrated acceptable to good reliability for comprehensively characterizing health perceptions among dementia care partners. Few health perceptions were associated with demographic factors, though gender, Hispanic ethnicity, and age may affect trust and expectations among dementia care partners. Future work will explore the effects of health perceptions on intervention engagement, uptake, and efficacy.

CORRESPONDING AUTHOR: Shannon B. Juengst, PhD, CRC, TIRR Memorial Hermann, Houston, TX; shannon.juengst@memorialhermann.org

---

Abstract citation ID: kaad011.0992

OSTER SESSION D: PREPAREDNESS, MOTIVATION, AND BARRIER SELF-EFFICACY FOR PHYSICAL ACTIVITY IN A SAMPLE OF UNITED STATES VETERANS

Rachel Bollaert, PhD[1], Meghan Bennett, BS[2], Kaley Davis, MS[2], Cecilia Hillard, PhD[3], Jeffrey Whittle, MD, MPH[4], Zeno Franco, PhD[3], Jacklynn Fitzgerald, PhD[2]

[1]Marquette University, Menomonee Falls, WI; [2]Marquette University, Milwaukee, WI; [3]Medical College of Wisconsin, Milwaukee, WI; [4]Clement J. Zablocki VA Medical Center, Milwaukee, WI

Purpose: Of the over 16 million veterans in the United States, research suggests that many do not engage in physical activity (PA), despite evidence of mental and physical benefits. However, little is known about specific and unique behavioral factors that may be associated with engagement in PA behavior among the veteran population. The purpose of this study is to examine levels of PA and preparedness, motivation, and barrier self-efficacy to PA in a sample of United States veterans.

Methods: 84 veterans residing in Southeast Wisconsin, USA completed an online survey assessing demographic and military-related information and self-reported PA (International Physical Activity Questionnaire-Short Form (IPAQ-SF)), preparedness (Physical Activity Readiness Questionnaire (PARQ)), motivation (Multidimensional Outcome Expectations for Exercise Scale (MOEES)) and Physical Activity and Leisure Motivation Scale (PALMS)), and barrier self-efficacy (Barrier-Specific Self-Efficacy Scale (BARSE)). Pearson product moment correlations (*r*) were calculated between PA measures from the IPAQ and preparedness, motivation, and barrier self-efficacy measures.

Results: This sample of veterans (mean age=35.8 years [SD=11.9]) reported engaging in high levels of PA (total MET-min/week; mean=2380.5 [SD=1899.5]) and general preparedness for PA (total number of 'Yes' responses on the PARQ; mdn=1.0 [IQR=3.0]). Participants reported greater physical outcome expectations (mean=25.6 [SD=3.0]) and stronger motivation for PA in the physical (mean=21.3 [SD=3.7]) and psychological (mean=19.6 [SD=4.5]) domains. Participants further reported moderate self-efficacy for barriers to exercise (mean=52.0 [SD=25.4]). There were significant and moderate correlations between self-reported PA, specifically MET-min/week of vigorous intensity activity, and (1) social outcome expectations (*r*=0.39) (2) competition (*r*=0.51) and enjoyment (*r*=0.32) motivation, and (3) self-efficacy to overcome barriers to exercise (*r*=0.37).

Conclusion: Our results suggest that in a highly active sample of veterans, engagement in PA is associated with outcome expectations, motivation, and barrier self-efficacy. To improve engagement in physical activity and exercise among veterans, healthcare providers and researchers should consider and target these specific behavioral factors for improved mental and physical health.

CORRESPONDING AUTHOR: Rachel Bollaert, PhD, Marquette University, Menomonee Falls, WI; rachel.bollaert@marquette.edu

Abstract citation ID: kaad011.0993

POSTER SESSION D: BARRIERS AND FACILITATORS OF RECRUITMENT AND RETENTION IN A REMOTE TRIAL OF VA S.A.V.E: THE ROLE OF TRUSTWORTHINESS

Aaron Call, EdM[1], Elizabeth Hooker, MPH[1], Clarissa Fong, MS[2], Elizabeth Karras, PhD[3], Meike Neiderhausen, PhD[4], Stephanie Gamble, PhD[3], Carie Rodgers, PhD, ABPP[5], Wendi Cross, PhD[6], Steve K. Dobscha, MD[7], Alan R. Teo, MD, MS[8]

[1]VA Portland Health Care System, HSR&D Center to Improve Veteran Involvement in Care (CIVIC), Portland, OR; [2]Oregon Health & Science University, OHSU Brain Institute, Portland, OR; [3]Center of Excellence for Suicide Prevention, Canandaigua VA Medical Center, Canandaigua, NY; [4]VA Portland Health Care System, HSR&D Center to Improve Veteran Involvement in Care (CIVIC); School of Public Health, Oregon Health & Science University and Portland State University, Portland, OR; [5]PsychArmor Institute, San Diego, CA; [6]University of Rochester Medical Center (URMC), Rochester, NY; [7]VA Portland Health Care System, HSR&D Center to Improve Veteran Involvement in Care (CIVIC); Department of Psychiatry, Oregon Health & Science University, Portland, OR; [8]VA Portland Health Care System, HSR&D Center to Improve Veteran Involvement in Care (CIVIC); Department of Psychiatry, Oregon Health & Science University; School of Public Health, Oregon Health & Science University and Portland State University, Portland, OR

Background: VA S.A.V.E. (Signs; Ask; Validate; Encourage/Expedite) is a gatekeeper training designed to teach people how to identify and assist Veterans at risk for suicide. The aim of this pilot was to determine the feasibility of recruitment and retention in a fully remote randomized controlled trial (RCT) of VA S.A.V.E.

Methods: We conducted a national social media campaign using sponsored ads on Facebook designed to reach close supports (family and friends) of U.S. military veterans. Participants were automatically randomized to an online video version of VA S.A.V.E. or a video training unrelated to suicide prevention (attention control). We followed participants for six months, conducted qualitative interviews with a subgroup of intervention arm participants (n=15), and used a mixed methods framework to integrate quantitative and qualitative findings.

Results: Of the three a priori feasibility benchmarks, two were achieved (enrollment, on average, of twenty participants per week and less than 50% loss to follow-up at the 6-month study endpoint) and one was not (enrollment of at least 50% of eligible individuals). Of those who indicated consent to participate (n=434) over 25% did not continue after being asked to provide contact information necessary for follow-up. Of those who enrolled (n=281), a disproportionate number lived in Oregon. Interview data along with the distribution of enrollment among our national sample highlight the value of a trusted messenger for social media-based recruitment – in our case, Oregon Health and Science University. Participants reported a general wariness around scams and described trustworthiness as a crucial consideration in deciding whether to click on a study ad and participate in a remote study. Two facilitators of trust in our remote trial were: 1) partnering with a trusted institution as a campaign messenger (university and its affiliated medical school); and 2) creating professional-looking and easy-to-understand ads.

Conclusion: A social media campaign was a feasible and acceptable approach to recruit and retain participants—especially loved ones of veterans with prior exposure to suicide—for a fully remote trial of VA S.A.V.E. Prospective participants' perceptions of the trustworthiness of the research team and project is central to decisions about research participation, particularly in remote trials where direct contact with participants is limited.

CORRESPONDING AUTHOR: Aaron Call, EdM, VA Portland Health Care System, HSR&D Center to Improve Veteran Involvement in Care (CIVIC), Portland, OR; aaron.call@va.gov

---

Abstract citation ID: kaad011.0994

POSTER SESSION D: LONGITUDINAL CHANGES IN THE EMOTION REGULATION REPERTOIRE OF ADOLESCENTS AT-RISK FOR ENGAGING IN SEXUAL RISK BEHAVIORS

Katherine R. Shircliff, BS[1], Haley Coronado, BS[1], Caroline Cummings, PhD[1], Amy Hughes Lansing, PhD[2], Wendy Hadley, PhD[3], Christopher Houck, PhD[4]

[1]Texas Tech University, Lubbock, TX; [2]University of Vermont, Burlington, VT; [3]University of Oregon, Eugene, OR; [4]Brown University, Providence, RI

Background: Foundational research on emotion regulation development across adolescence has relied on understanding changes in the *frequency* at which adolescents implement emotion regulation strategies. However, there are increasing data supporting the clinical utility of understanding longitudinal changes in the *range* of skills within youth's emotion regulation repertoire. For example, youth with greater emotional awareness demonstrate rapid gains in the range of strategies within their emotion regulation repertoire during preschool and early childhood more broadly. Despite evidence that emotion regulation repertoire development is strongly related to subsequent risk behaviors among at-risk adolescents, researchers have yet to explore emotion regulation repertoire development across early adolescence, specifically and in the context of emotional awareness.

Objective: Using growth curve modeling, we explored longitudinal trajectories of emotion regulation repertoire development across approximately 28 months.

Methods: Data analyzed are from a sample of 419 seventh grade students at-risk for engaging in sexual risk behaviors. Participants engaged in a six-week emotion regulation and sexual health promotion randomized control trial and completed follow-up assessments for 30 months. At baseline, participants completed a demographic questionnaire. Measures of emotion regulation and emotional awareness were administered at baseline, the end of the six-week treatment period, and at 6-month follow-up intervals until study completion. We ran multilevel growth models, with time and emotional awareness at each time point as time-varying predictors and treatment condition and gender as between-subject covariates.

Results: When controlling for all covariates, we found that emotion regulation did not change over the course of 24 weeks. However, findings suggest that fewer problems with emotional awareness at each time point was associated with a greater range of total emotion regulation strategies.

Discussion: Findings suggest that changes in early adolescents' emotion regulation repertoire may be a function of emotional awareness, rather than a normative increase that is expected to occur in all early adolescents. Thus, future health interventions aimed at preventing adolescent engagement in sexual risk behaviors may need to target both emotion regulation and emotional awareness, in order to effectively reduce the onset of health risk behaviors.

CORRESPONDING AUTHOR: Katherine R. Shircliff, BS, Texas Tech University, Lubbock, TX; kshircli@ttu.edu

Abstract citation ID: kaad011.0995

POSTER SESSION D: SMOKING AND WEIGHT STIGMA SIGNIFICANTLY IMPACT EXPERIENCES OF EVERYDAY DISCRIMINATION

Liza A. Kolbasov[1], Michael Onu, BS[2], Cara Murphy, PhD[1]

[1]Brown University, Providence, RI; [2]Drexel University, Philadelphia, PA

Background: The synergistic effects of smoking and obesity on health significantly contribute to morbidity and mortality. In addition, experiencing stigma and discrimination can greatly impact both mental and physical health. Knowledge about the relationships between smoking- and weight-related stigma and discrimination can allow for health behavior change interventions to be better tailored to the challenges experienced by individuals with obesity who smoke cigarettes.

Aim: This study aimed to test the relationship between smoking- and weight-related stigma and to determine the impact of weight- and smoking-related stigma on experiences of discrimination in daily life.

Methods: We analyzed baseline data collected from adults in the US who smoked cigarettes and met criteria for overweight or obesity (Body Mass Index ≥ 25) recruited as part of a multiple health behavior change intervention study. Individuals (*n*= 52) completed self-report questionnaires about smoking-related stigma (Perceptions of Smoking-Related Stigma Scale), weight-related bias (Weight Bias Internalization Scale), and discrimination (Everyday Discrimination Scale). The relationships between weight-related and smoking-related bias and discrimination were explored via correlations and regression analyses.

Results: Participants were predominantly women (85%), white (64%) or Black or African American (35%), heterosexual (85%), obese (73%), moderately dependent on nicotine, and had household incomes of less than $50k/year (54%). Individuals who experienced more smoking-related stigma also experienced significantly more weight-related bias (r = 0.35, p < .01). Additionally, both weight-related bias and smoking-related stigma explained significant proportions of variance in the level of everyday discrimination an individual experienced, R^2 = .19, F(1, 51) = 12.01, p < .01 and R^2 = .48, F(1, 51) = 45.99, p < .01, respectively.

Conclusions: Individuals who smoke cigarettes and who are overweight or obese experience stigma and bias related to their smoking and weight. This stigma can cause prejudices against individuals, leading to them feeling embarrassed, ashamed, and devalued. Experiencing stigma or bias due to weight or dependence on nicotine may make individuals more vulnerable to discrimination in daily life.

CORRESPONDING AUTHOR: Liza A. Kolbasov, Brown University, Providence, RI; elizabeth_kolbasov@brown.edu

---

Abstract citation ID: kaad011.0996

POSTER SESSION D: SLEEP QUALITY, METABOLIC FUNCTION, AND PHYSICAL ACTIVITY: LINKING LIFESTYLE AND NEUROCOGNITION IN RESISTANT HYPERTENSION

Patrick J. Smith, PhD, MPH[1], Andrew Sherwood, PhD[2], Forgive Avorgbedor, PhD[3], Krista Ingle, PhD[2], William Kraus, MD[2], Alan Hinderliter, MD[4], James A. Blumenthal, PhD[2]

[1]University of North Carolina at Chapel Hill, Chapel hill, NC; [2]Duke University Medical Center, Durham, NC; [3]University of North Carolina at Greensboro, Greensboro, NC; [4]University of North Carolina, Chapel Hill, NC

Background: Resistant hypertension (RH) is a major risk factor for stroke, cognitive decline, and dementia. Sleep quality is increasingly suggested to play an important role linking RH to cognitive outcomes, although the mechanisms linking sleep quality to poor cognitive function have yet to be fully delineated. Existing evidence suggests that sleep quality may be linked to cognitive function through its detrimental effects on cardiometabolic health, comorbid obesity levels, and physical activity levels. To our knowledge, no studies have attempted to examine these mechanistic pathways with sleep quality and cognitive function in RH.

Methods: We conducted both cross-sectional and treatment analyses of 140 adults with RH participating in the TRIUMPH clinical trial. Sleep quality was indexed using a global z-score that combined objectively assessed sleep quality and sleep fragmentation, as well as self-reported sleep quality from the Pittsburgh Sleep Quality Index (PSQI). Cognitive function was assessed using a 45-minute battery assessing Executive Function, Processing Speed, and Memory. Obesity was assessed using body mass index (BMI), physical activity using 24-hour actigraphy over a one-week period, aerobic fitness (peak and absolute VO_2) from an exercise treadmill test, and metabolic function was assessed using HBA1c. Participants were randomized to a cardiac rehabilitation-based lifestyle program (C-LIFE) or a standardized education and physician advice condition (SEPA) for 4-months. Regression analyses adjusted for age, education, biological sex, creatinine, metabolic medications, stroke risk, and the baseline level of the respective outcome.

Results: Better sleep quality at baseline was associated with better Executive Function (B = 0.18 P = .027), as well as greater fitness (B = 0.27, P = .007) and lower HBA1c (B = -0.25, P=.010). Cross-sectional sequential mediation analyses revealed that the association between sleep quality Executive Function was mediated by greater HBA1c (indirect effects B = 0.71 [0.05, 2.05]). C-LIFE improved PSQI sleep quality (+1.1 [0.6, 1.5] vs. + 0.1 [-0.7, 0.8], P = .021) and actigraphy steps (+922 [529, 1316] vs. +56 [-548, 661], P = .019) compared with SEPA, although improved sleep and physical activity were only weakly associated (B = 0.15, P = .054). Improvements in actigraphy steps (P< .001) associated with improved Executive Function with a similar trend for PSQI sleep quality (P = .088). Improved actigraphy steps were a significant mediator of improved Executive Function (indirect effect B = 0.40 [0.02, 1.07]).

Conclusions: Better metabolic function and improved physical activity levels play an important role linking sleep quality and treatment-related improvements in sleep quality on Executive Function in RH.

CORRESPONDING AUTHOR: Patrick J. Smith, PhD, MPH, University of North Carolina at Chapel Hill, Chapel hill, NC; patrick_smith@med.unc.edu

Abstract citation ID: kaad011.0997

POSTER SESSION D: ADDITIVE EFFECTS OF MULTIPLE HEALTH BEHAVIOR INTERVENTIONS ON ENGAGEMENT: A 24-MONTH LARGE-SCALE WITHIN-SUBJECTS STUDY

Eldin Dzubur, PhD[1], Sravanthi Dama, MD[2], Bobbie James, MStat[2], Jessica Yu, PhD[2]

[1]Teladoc Health, Chicago, IL; [2]Teladoc Health, Purchase, NY

Background: Multiple health behavior interventions (MHBCI) show demonstrated effectiveness in real-world settings, even in the context of large-scale commercial digital health programs. However, most of the literature focuses on simultaneous engagement and less is known about the effectiveness of MHBCIs when interventions are added on over time. The objective of the study was to examine how the addition of programs during ongoing interventions affects both engagement changes and clinical outcomes.

Methods: Participants (N = 10,298; 54% female, mean age = 52.8 years old, SD age = 10.87) in the study were enrolled as part of an employer or health plan-sponsored remote chronic disease management program (Livongo) with at least one primary condition (diabetes, hypertension, or weight management). Participants subsequently had access to the opportunity to enroll in multiple programs over a period of 24 months. Mixed effects models were used to test the effect of MHBCIs by disaggregating within- and between-subject variance of programs enrolled, adjusting for demographics, time in program, and baseline clinical outcomes.

Results: After adjusting for covariates, individuals starting a diabetes program had 0.89 more measurements per month and 4.23 mg/dL lower blood glucose for each additional program compared to months where they used the diabetes program alone (t = 8.08, t = -15.67, ps < 0.001). Those starting a hypertension program had 2.27 mmHg lower blood pressure for each additional program compared to months where they used the hypertension program alone (t = -28.21, p < 0.001). Among individuals starting a weight loss program, 0.30 more weigh-ins per month and 0.34% greater weight loss were observed for each additional program compared to months with the weight loss program alone (t = 4.93, t = -14.33, ps < 0.001).

Discussion: Results indicate that the addition of health interventions over time can increase a person's engagement in health programs and their clinical outcomes. Moreover, as observed in smaller MHBCI studies, this effect is not limited to the addition of multiple interventions at the same time, and further, controlling for length of time in program suggests that the addition of new interventions may be beneficial at any point of an intervention. Future digital health interventions may provide users with additional disease management programs as a means of maintaining long-term user engagement.

CORRESPONDING AUTHOR: Eldin Dzubur, PhD, Teladoc Health, Chicago, IL; eldin.dzubur@teladochealth.com

---

Abstract citation ID: kaad011.0998

POSTER SESSION D: LONGITUDINAL ASSOCIATIONS OF CONSUMPTION OF BREAKFAST, LUNCH, AND DINNER WITH BMI DIFFER BY WEIGHT STATUS: EAT 2010-2018 COHORT

Cynthia Yoon, PhD, RD[1], Katherine R. Arlinghaus, PhD, RD[2], Tracey A. Ledoux, PhD, RD, FAND[1], Craig A. Johnston, PhD[1], Nicole Larson, PhD, RD[3], Dianne Neumark-Sztainer, PhD, RD[3]

[1]University of Houston, Houston, TX; [2]University of Minnesota School of Public Health, Minneapolis, MN; [3]University of Minnesota, Minneapolis, MN

Background: Regular breakfast consumption is inversely associated with body mass index (BMI). Little is known about how lunch and dinner consumption are associated with BMI during the transition from adolescence to emerging adulthood.

Purpose: To assess the prevalence of regular breakfast, lunch, and dinner consumption in a population-based sample of adolescents and examine longitudinal associations between meal consumption frequency and BMI.

Methods: Data were available for 1495 participants in the longitudinal study: Eating and Activity over Time (EAT 2010-2018). Survey data were collected in 2009-2010 and 2017-2018, including self-reported frequencies of breakfast, lunch, and dinner consumption during adolescence and BMI during adolescence and emerging adulthood. Linear regressions were used to examine how the associations between meal consumption and BMI over 8 years differed by weight status.

Results: Among adolescents with a sex and age-specific BMI < 15th percentile, regular consumption of breakfast, lunch, and dinner during adolescence was positively associated with BMI in emerging adulthood after adjustment for sociodemographic characteristics. For participants with a BMI between the 15th and 95th percentiles during adolescence, regular consumption of breakfast, lunch, and dinner were each modestly and inversely associated with BMI in emerging adulthood. For participants with a BMI ≥ 95th percentile, consumption of breakfast and lunch were each associated with a modestly lower BMI, whereas dinner consumption was associated with a higher mean BMI in emerging adulthood.

Conclusion: The relationship between regular consumption of breakfast, lunch, and dinner during adolescence and BMI in emerging adulthood may differ by adolescent weight status.

CORRESPONDING AUTHOR: Cynthia Yoon, PhD, RD, University of Houston, Houston, TX; cyyoon@central.uh.edu

Abstract citation ID: kaad011.0999

POSTER SESSION D: A MIXED METHODS EXAMINATION OF MEN'S ATTITUDES TOWARDS GAMIFIED AND TRADITIONAL GROUP-BASED BEHAVIORAL WEIGHT LOSS

Christina Chwyl, MS[1], Charlotte J. Hagerman, PhD[1], Evan M. Forman, PhD[1], Hannah Dart, BA[1]

[1]Drexel University, Philadelphia, PA

Although most men with overweight express an interest in weight loss, men are profoundly under-represented in behavioral weight loss programs (SBT), potentially because men find conventional weight loss programs (i.e., group-based, education and counseling-orientated, dietary/calorie-focused) unappealing because they run counter to notions of masculinity, involve receiving counseling, and provide little in the way of personalization or autonomy. Existing programs that tailor SBT to men have had only modest success; radical departures from traditional weight loss approaches appear warranted to engage men in weight loss. One promising approach to engaging men in weight loss is through a gamified mHealth app, given men's strong enjoyment of games, and preferences for autonomy and individualization. Yet, very little is known about the acceptability of a gamified weight loss approach vs. SBT. Therefore, we conducted a pilot study in which men with overweight or obesity (N = 48, $M_{Age}=43.10$, $M_{SD} = 10.82$) were presented with vignettes about a gamified weight loss app and SBT, and reported on their attitudes towards these approaches. Consistent with hypotheses, most (75%) men endorsed a preference for the gamified program. Men overall reported that they would find the gamified program to be more motivating and enjoyable (ts(47) > 3.80, ps < .001) than SBT. Unexpectedly, men's reported preferences to join the gamified weight loss program did not appear to be affected by age (ts < .58, ps > .54). Several themes emerged with regard to the reasons behind men's preference for a gamified weight loss program. The most popular theme, expressed by 16 men, was a dislike for group-based programs ("Having fun by playing a game feels more like a more natural way to lose weight than sitting awkwardly in a group of strangers"). Other reasons for preferring a gamified program included finding it more fun and motivating (theme expressed by 10 men), flexible and time-efficient (theme expressed by 5 men), and finding competition appealing (theme expressed by 3 men). Taken together, our findings illuminate key features men seek in weight loss programs (individual vs. group format, flexibility, competition, and elements promoting fun and motivation). A gamified mHealth weight loss app appears to be an acceptable and preferred alternative to SBT for men, and thus may represent a promising approach to attracting, enrolling, and engaging men within weight loss programs.

CORRESPONDING AUTHOR: Christina Chwyl, MS, Drexel University, Philadelphia, PA; cmc646@drexel.edu

---

Abstract citation ID: kaad011.1000

POSTER SESSION D: PHYSICAL FITNESS AMONG HISPANIC ADOLESCENTS WITH OVERWEIGHT OR OBESITY

Roberto M. Benzo, PhD, MS[1], Sara M. St. George, PhD[2], Sarah Messiah, PhD, MPH[3], Padideh Lovan, PhD, RD, LDN[4], Rafael O. Leite, MS[4], Tae Kyoung Lee, PhD[5], Guillermo Prado, PhD[6]

[1]University of Miami, Miami Beach, FL; [2]University of Miami Miller School of Medicine, Miami, FL; [3]The University of Texas Health Science Center at Houston, Dallas, TX; [4]University of Miami, Coral Gables, FL; [5]Sungkyunkwan University, Seoul, FL; [6]University of Miami, Miami, FL

Background: Given the prevalence of obesity among Hispanic children and adolescents in the US (26.2%), and the known link between fitness and health, it is important to understand physical fitness among Hispanic adolescents with overweight or obesity. The purpose of this study is to describe cardiorespiratory, strength, muscular endurance, and flexibility fitness values in a sample of Hispanic adolescents ages 11-to-15 years with overweight or obesity, stratified by age, sex, and weight status.

Methods: The sample included 280 adolescents (mean age 13.0±0.83 years, mean BMI-percentile 94.6). Anthropometric measures included height, weight, and waist- and hip-circumference. Fitness measures included handgrip strength (HG), sit-ups in 60-seconds (SU60), sit-and-reach (SR), and six-minute walk test (6MWT). We report mean scores for each fitness measure, and correlations with each anthropometric measure corrected for multiple tests using the Bonferroni Correction method. We used one-way analyses of variance with pairwise comparisons to examine differences in fitness values by age group (excluding ages 11 and 15 due to low sample size), sex, and weight status (overweight defined as BMI between 85th and below 95th percentile vs. obese defined as BMI > 95th percentile).

Results: Mean HG was 23.7±6.48 kg, SR was 25.3±8.13 cm, average SU60 was 19.4±9.28, and 6MWT was 1960±271 feet. Males outperformed females in all tests except sit-and-reach. We observed significant positive correlations between HG and all anthropometric measures, and significant negative correlations between SR and all anthropometric variables except for hip circumference. We also found a significant negative correlation between SU60, 6MWT, and all anthropometric variables except for height. Adolescents 13 and 14-years of age had significantly greater HG strength than 12-year-olds. When comparing fitness values by weight status, those with overweight had significantly less HG strength, greater SR distance, achieved more SU60, and achieved a greater distance in the 6MWT, compared to those with obesity.

Discussion: Compared to published fitness values of healthy weight adolescents, our sample of Hispanic adolescents with overweight/obesity living in southern Florida (US) are unconditioned in terms of cardiorespiratory fitness, strength, muscular endurance, and flexibility, thus placing them at greater risk for negative health outcomes due to deconditioning at a young age.

CORRESPONDING AUTHOR: Roberto M. Benzo, PhD, MS, University of Miami, Miami Beach, FL; rbenzo@miami.edu

Abstract citation ID: kaad011.1001

POSTER SESSION D: RELIABILITY AND VALIDITY OF THE WEIGHT LOSS READINESS TEST IN ACTIVE DUTY SERVICE MEMBERS WITH OBESITY

Mara E. Tynan, BA[1], Niloofar Afari, PhD[2], Matthew S. Herbert, PhD[3]

[1]SDSU/UC San Diego Clinical Psychology Joint Doctoral Program, La Jolla, CA; [2]VA San Diego Healthcare System and University of California San Diego, San Diego, CA; [3]VA San Diego Healthcare System, San Diego, CA

The Weight Loss Readiness Test (WLRT) is used clinically to assess motivation prior to initiating Navy weight management programs. Yet, little is known about the reliability and validity of this measure. The aim of this secondary analysis study was to examine the reliability and validity of the WLRT in a sample of active duty service members (SMs) enrolling in a randomized trial of a Navy-based weight management program. Adult SMs (N = 178, 61% female, Mean age = 29.7 years, mean baseline BMI = 33.1 kg/m^2) were enrolled in the weight management trial and completed the WLRT and other questionnaires prior to intervention. The WLRT consists of 6 subscales: Motivation, Expectations, Confidence, Hunger and Eating Cues, Binge Eating and Purging, and Emotional Eating. Because the Binge Eating and Purging items are only answered if participants endorse binge episodes, this subscale was not examined. Cronbach's alpha was used to examine internal reliability and Pearson's correlation coefficients to examine convergent validity with single item measures of motivation and confidence and subscales of the Three-Factor Eating Questionnaire (TFEQ). Scores on all examined WLRT subscales were normally distributed. Internal reliability of the Hunger and Eating Cues subscale was unacceptable (alpha = .236), but other subscales were acceptable to good (alpha = .797-.907). The WLRT Motivation and Confidence subscales exhibited moderate relationships with single item, face-valid indicators of motivation (*rs* = .575 and .422, respectively) and confidence (r = .524 and .468, respectively). The Expectations subscale showed weak but significant relationships with TFEQ Uncontrolled Eating (*r* =-.161) and Emotional Eating (*r* = -.264). The Hunger and Eating Cues subscale had moderate correlations with TFEQ Uncontrolled Eating (*r* = .603) and Emotional Eating (*r* = .489) and a weak relationship with TFEQ Cognitive Restraint (*r* = -.245). Finally, the WLRT Emotional Eating subscale exhibited moderate to strong correlations with TFEQ Uncontrolled Eating (*r* = .660) and Emotional Eating (*r* = .725) and a weak relationship with TFEQ Cognitive Restraint (*r* = -.206). We found adequate internal reliability for 4 of 5 examined WLRT subscales and convergent validity with other measures of motivation, confidence, and disinhibited eating in expected directions. This provides initial support for appropriate use of the WLRT to assess weight loss motivation in this population. Future research should explore the factor structure of the WLRT and consider the poor internal reliability of the Hunger and Eating Cues subscale.

CORRESPONDING AUTHOR: Mara E. Tynan, BA, SDSU/UC San Diego Clinical Psychology Joint Doctoral Program, La Jolla, CA; maratynan1650@gmail.com

---

Abstract citation ID: kaad011.1002

POSTER SESSION D: THE ROLE OF SELF-COMPASSION AND ITS INDIVIDUAL COMPONENTS IN ADAPTIVE RESPONSES TO DIETARY LAPSES

Charlotte J. Hagerman, PhD[1], Lauren C. Taylor, BA[1], Marny M. Ehmann, BA[1], Evan M. Forman, PhD[1]

[1]Drexel University, Philadelphia, PA

Dietary lapses (i.e., instances of dietary non-adherence) are common during weight loss attempts, and they compromise success in two ways: increasing caloric intake and demoralizing the participant, sometimes leading them to abandon their weight control goals altogether. Efforts to understand and prevent demoralization have received almost no research attention. Self-compassion has high potential to promote adaptive responses to these setbacks because it reframes "failure" and promotes self-improvement. Past research shows that when participants experience a lapse, those practicing higher self-compassion report higher self-efficacy and intentions to continue dieting. The current study extended this literature to examine whether self-compassion in response to a lapse would predict lower likelihood of a subsequent lapse and greater reports of perceived self-control over eating. We also examined whether the individual facets of self-compassion, including self-kindness (treating oneself the way one would a friend); common humanity (the understanding that everyone has struggles); and mindfulness (the practice of recognizing thoughts and feelings without ruminating on them) are associated with these outcomes. Participants (*N* = 187) enrolled in a behavioral weight loss trial completed 6 ecological momentary assessment (EMA) surveys a day for seven days. Most participants (N = 146) reported experiencing a dietary lapse during the study, providing 699 self-reports of state self-compassion following the lapse. Total self-compassion and each facet of self-compassion individually were all associated with less negative affect after a lapse (*bs* > .10, *ps* < .040). None of the self-compassion variables predicted likelihood of participants reporting a lapse at the following survey. However, higher total self-compassion (*b* = .14, *p* = .002) and higher self-kindness (*b* = .12, *p* < .001) after a lapse were both associated with reports of greater perceived self-control over eating in the hours following, as reported on the subsequent survey. Common humanity and mindfulness, respectively, were not associated with reports of perceived self-control over eating. Results suggest that self-compassion following dieting setbacks may prevent goal disengagement, and that self-kindness is the facet most strongly associated with adaptive responses to these setbacks.

CORRESPONDING AUTHOR: Charlotte J. Hagerman, PhD, Drexel University, Philadelphia, PA; cjh427@drexel.edu

Abstract citation ID: kaad011.1003

POSTER SESSION D: ASSESSING A COMMUNITY-BASED SMALL CHANGES LIFESTYLE TREATMENT FOR PATIENTS WITH PSORIATIC ARTHRITIS AND COMORBID OBESITY

Sydney Seidel, BA (Hons)[1], Tamara M. Williamson, MSc[1], Laura Hernandez, BA (Hons), BFA[1], Chelsea Moran, MA[1], Michelle Teo, MD[2], Stuti Patel, BSc (Hons)[1], Alex Fountaine, BSc (Hons)[3], Emily Bissonnette, BA (Hons)[3], Karah Hopgood, BA (Hons)[4], Michaela Patton, MSc[1], Himanthri Weerawardhena, MSc[1], Thomas Qiao, BA[1], Leah Chadwick, MSc[1], Tavis Campbell, PhD, RPsych[1], Lesley Lutes, PhD, RPsych[5]

[1]University of Calgary, Calgary, AB, Canada; [2]University of British Columbia, Penticton, BC, Canada; [3]University of British Columbia Okanagan, Kelowna, BC, Canada; [4]University of British Columbia Okanagan, Kelowna, AB, Canada; [5]University of British Columbia, Kelowna, BC, Canada

Background: Psoriatic Arthritis (PsA) is a chronic rheumatological condition. Comorbid obesity (BMI ≥30 kg/m$^{2;}$ present in 44% of PsA cases) impacts PsA symptoms (e.g., pain, joint inflammation), dampens medication response, and leads to higher disease activity. Modest weight loss (~5%) can lead to improvements in PsA symptomology and medication response. A Small Changes (SC) cognitive behavioural treatment approach, already evidence-based in patients living with obesity, diabetes, and depression may promote sustained weight loss for PsA patients.

Aims: This pilot study represents the second phase in a series of early-phase research to evaluate a SC treatment approach tailored for patients with PsA and comorbid obesity. The primary aim is to explore patient acceptability and feasibility of the SC intervention. Secondary aims include assessing weight and mood outcomes.

Methods: Adults (18+) with PsA and comorbid obesity were recruited from a rheumatology clinic in British Columbia, Canada and randomized to either the SC intervention or wait-list condition. Previous qualitative work informed the development of a 16-week, online, patient-tailored, group-based SC program. The SC intervention promotes incremental behavioural change and psychoeducation (e.g., pain management, nutrition, physical activity, cognitive, and behavioural factors). Acceptability and feasibility were measured at 24-weeks through a modified Theoretical Framework of Acceptability (TFA) questionnaire. Weight and self-reported mood measured by the Hospital Anxiety and Depression Scale (HADS) were collected. Data collection is ongoing.

Results: Thirty-eight patients (54.55 ± 10.10 years; 84.2% female; 97.4% White; mean BMI = 39.14, ±7.77 kg/m^2) were recruited. At baseline, participants had clinical levels of depression (8.16 ± 3.45) and anxiety (8.84 ± 4.79) on the HADS. Preliminary results from the first SC intervention group (n = 8) demonstrated that attendance was high (78.13%). Results from the TFA scale (n = 4), indicated patients enjoyed the SC. Patients indicated that the SC required little (1/4) or no effort at all (2/4), that the SC helped with PsA symptoms (3/4), improved their ability to manage their weight (2/4), increase their steps (3/4), and achieve their goals (3/4). All patients indicated that their participation in the SC program did not interfere with other priorities. Most patients rated the program as acceptable (3/4) or completely acceptable (1/4). Mean weight loss at 24-weeks (n = 5) was -1.00 (± 0.16) kg/m^2.

Conclusion: Preliminary findings suggest patients living with PsA and comorbid obesity found the SC intervention acceptable for lifestyle behavioural changes. Results will be used to inform a large-scale, randomized-controlled trial assessing the SC intervention.

CORRESPONDING AUTHOR: Tamara M. Williamson, MSc, University of Calgary, Calgary, AB, Canada; tamara.williamson@ucalgary.ca

---

Abstract citation ID: kaad011.1004

POSTER SESSION D: THE ASSOCIATION BETWEEN MENTAL STATES AND PHYSICAL ACTIVITY IN COLLEGE STUDENTS: AN ECOLOGICAL MOMENTARY ASSESSMENT STUDY

Allison Tracy[1], Jongwon Lee, MPH[2], Vanessa Bartholomew[2], Chih-Hsiang Yang, PhD[2]

[1]University of South Carolina, Bluffton, SC; [2]University of South Carolina, Columbia, SC

Background: Engaging in regular daily moderate-to-vigorous intensity physical activity (MVPA) is crucial for maintaining college students' physical and psychological health. The high-stress nature of the collegiate environment makes college students more prone to inactive lifestyles. Individuals' daily mental states, including subjective experience of autonomy, cognition, and positive and negative affect are potential determinants of daily physical activity levels. However, it is unclear whether college students' mental states are associated with their MVPA levels on the same day. This information is valuable for helping college students cope with stress and be more physically active.

Objectives: This study applied Ecological Momentary Assessment (EMA) to examine the day-level associations between college students' MVPA time with their (1) autonomy, (2) cognition, and (3) positive and negative affect measured within the same day.

Methods: College students responded to randomly prompted EMA surveys (6 surveys per day for 7 consecutive days) using a smartphone application (i.e., ExpiWell). Participants rated their levels of autonomy, cognition, and positive and negative affect on a 5-point Likert Scale at each survey. They also reported their MVPA in minutes using a daily diary evening survey. A mixed-effects model examined the day-level associations between MVPA and mental states. The model controlled demographic factors (i.e., gender, race, year in school) and day in the study.

Results: A total of 131 college students participated in the study (Female: 77.9%; M_{BMI} = 23.9 kg/m^2, *SD* = 4; M_{MVPA} = 50.16 mins, *SD* = 52.24). Results indicated that on days when participants engaged in more minutes of MVPA, they experienced (1) lower negative affect (b = -0.53, $p < 0.001$), (2) lower autonomy (b = -0.18, $p < 0.001$), and (3) higher cognition (b = 0.20, p = 0.026) compared to their usual levels. Participants' positive affect did not predict MVPA on the same day.

Conclusion: Our results suggest that maintaining a constellation of positive mental states (i.e., having higher autonomy, cognition, and lower negative affect) from day to day may be critical to promoting active lifestyles and increasing daily MVPA in college students. Developing interventions targeting not only daily affective and cognitive outcomes, but also autonomy levels (e.g., modify academic calendar to promote self-government) may be essential to enhancing daily MVPA levels in college students.

CORRESPONDING AUTHOR: Allison Tracy, University of South Carolina, Bluffton, SC; ACTRACY@email.sc.edu

Abstract citation ID: kaad011.1005

POSTER SESSION D: AUTOMATIC BEHAVIORAL TENDENCIES TO CONSERVE ENERGY

Battogtokh Zagdsuren, PhD[1], Nicholas Barefoot, MS[2], Mark Richardson, PhD[2], Hayley MacDonald, PhD[2]

[1]University of Tennessee, Tuscaloosa, AL; [2]The University of Alabama, Tuscaloosa, AL

Background: The theory of effort minimization in physical activity (TEMPA) assumes that biomechanically efficient behaviors may have a rewarding value and that an evolutionary inclination to avoid any unnecessary physical activity (PA) acts as a restraining force that hinders one's ability to implement their conscious intention to exercise.

Objective: To examine automatic approach and avoidance tendencies towards activities that are energy conserving (EC) versus energy expending (EE).

Methods: Participants (≥18 y) wore an accelerometer for 7-days to measure daily PA and completed a computerized Approach-Avoidance Task to measure automatic behavioral tendencies toward EC or EE activities. During the task, participants listened to a short description of a scenario (7 scenarios in total) that described a common situation and then were presented with EC and EE behavioral alternatives (e.g., taking the elevators versus the stairs). Participants were then asked to react (move the manikin on the screen) as quickly and accurately as possible towards or away from the stimuli shape (square or circle), which also contained an image depicting the target concepts (EC or EE). Participants completed two blocks of trials for each scenario and each block consisted of eight test trials. The mean reaction time for each block used for analyses. Data were analyzed using a 2 (*Trial:* approach and avoid) × 2 (*Stimulus*: EE and EC) analysis of variance.

Results: Sixty-six young adults (63% women; 92% students) were included in our final sample (M±SD: age=23±8 y, body mass index=26.2±19.1 kg/m^2; 53.4±13.0 min/d and 505.3±315.1 min/d of MVPA and SED, respectively). There was a significant *Trial* × *Stimulus* interaction ($F_{1,86}$=5.01, *p*=0.02, η^2=0.05) indicating that participants had a greater tendency to approach and an impaired tendency to avoidance the EC stimulus. When light-intensity PA (LPA [min/day]) was added as covariate, a significant 3-way interaction (*Trial* × *Stimulus* × *LPA*) was observed ($F_{1,64}$=4.7, *p*=0.03, η^2=0.07). Bonferroni-adjusted pairwise comparisons revealed reaction time differences in both *Stimulus* (*p*=0.01) and *Trial* (*p*=0.02) among those engaging in higher but not lower amounts of LPA.

Conclusion: Our findings support the concept of TEMPA, in that, young adults in our study showed greater approach tendencies towards EC than EE activities. Our results also revealed that daily PA moderates these tendencies, such that individuals who engage in higher amounts of daily LPA have a greater affinity towards conserving energy. Individuals' perceptions of task-related demands in the scenarios may have influenced our results by reinforcing subconscious tendencies to be "energetically efficient." Future research is required to investigate this further and should strive to include a more diverse sample in terms of age and habitual PA level.

CORRESPONDING AUTHOR: Battogtokh Zagdsuren, PhD, University of Tennessee, Tuscaloosa, AL; toogiino@gmail.com

---

Abstract citation ID: kaad011.1006

POSTER SESSION D: ASSOCIATION BETWEEN THE AMOUNT OF PHYSICAL ACTIVITY IN THE FIRST 2 WEEKS OF A PEDIATRIC CONCUSSION AND BRAIN PERFUSION AT 4 WEEKS

Veronik Sicard, PhD[1], Zhuo Fang, PhD[2], Katherine Healey, MS[3], Andra Smith, PhD[2], Greg O. Cron, PhD[4], Keith Owen Yeates, PhD[5], Nick Reed, PhD[6], Roger Zemek, PhD, MD[7], Andrée-Anne Ledoux, PhD[7]

[1]CHEO RI, Ottawa, NU, Canada; [2]University of Ottawa, Ottawa, ON, Canada; [3]Carleton University, Ottawa, ON, Canada; [4]Stanford University School of Medicine, Stanford, CA; [5]University of Calgary, Calgary, AB, Canada; [6]University of Toronto, Toronto, ON, Canada; [7]Children's Hospital of Eastern Ontario, Ottawa, ON, Canada

Accumulating evidence suggests that protracted rest following a pediatric concussion may lead to deleterious consequences, such as longer recovery and exacerbation of cerebrovascular dysregulation. The study objectives are to: 1) determine whether brain perfusion is greater at 4 weeks post-concussion compared to orthopedic injury (OI); 2) investigate the association between the amount of moderate-to-vigorous physical activity (MVPA) within the first 2 weeks of a pediatric concussion and brain perfusion at 4 weeks. Children and adolescents aged 10-17.99 years with either a concussion or an OI were recruited from the emergency department within 48 hours of injury. Concussion participants wore an accelerometer 24 hours/day for 14 consecutive days. Both groups underwent continuous arterial spin labelling MRI at 4 weeks post-injury. An ANCOVA examined the difference in brain perfusion between concussion and OI groups, adjusting for head motion and global average gray matter perfusion. A general linear model investigated the association between MVPA within the first 2 weeks post-concussion and brain perfusion at 4 weeks, covarying for age, sex, head motion, and global average gray matter perfusion. Participants included 70 children with concussion (median[IQR] age = 12.70 [11.67,14.35] years, 47.1% females) and 29 with OI (age = 12.05[11.18,13.77], 41.4% females). The concussion group showed greater adjusted perfusion within the left anterior cingulate cortex (ACC; $p_{cluster\text{-}FWE}$ = 0.001) and right middle frontal gyrus (rMFG; $p_{cluster\text{-}FWE}$ = 0.029) compared to the OI group. From the 70 children with a concussion, 52 children had valid accelerometer data, defined herein as ≥ 10 hours/day for 4 days [mean(SD) MVPA = 30.26(18.41) min/day]. Whole-brain analysis revealed a negative association between MVPA and adjusted perfusion in the precuneus ($p_{cluster\text{-}FDR}$ = 0.046). No significant associations were found between MVPA and adjusted perfusion in the ACC or rMFG. The current findings suggest differential brain perfusion profiles at 4 weeks post-injury between concussion and OI. Moreover, they provide evidence that physical activity following a pediatric concussion may reduce perfusion in certain brain areas, possibly facilitating recovery. Future studies are needed to determine whether perfusion changes to certain brain structures explain symptom clusters or associate with recovery trajectories.

CORRESPONDING AUTHOR: Andrée-Anne Ledoux, PhD, Children's Hospital of Eastern Ontario, Ottawa, ON, Canada; aledoux@cheo.on.ca

Abstract citation ID: kaad011.1007

POSTER SESSION D: CIRCADIAN ALIGNMENT IN HEALTHY ADULTS: ASSOCIATIONS WITH PHYSICAL ACTIVITY BEHAVIORS AND ATTITUDES

Sarah Trela-Hoskins, BS[1], Matthew P. Buman, PhD[2], Katherine Reid, PhD[3], Hrayr Attarian, MD[3], Phyllis Zee, MD, PhD[3], Kelly G. Baron, PhD, MPH[4]

[1]University of Utah, Scottsdale, AZ; [2]Arizona State University, Phoenix, AZ; [3]Northwestern Medicine Feinberg School of Medicine, Chicago, IL; [4]University of Utah, Salt Lake City, UT

Background: Late sleep timing and short sleep duration has been associated with lower physical activity; however, research findings have been inconsistent and often self-reported. Accordingly, the goal of our study was to identify –among healthy adults– associations between sleep timing (DLMO), sleep misalignment, social jetlag, and the physical activity duration, intensity, and perceived self-efficacy to adhere to physical activity recommendations.

Methods: This secondary data analysis included healthy participants aged 18 to 50. Participants completed questionnaires, seven days of wrist actigraphy to measure sleep duration and timing, and Sensewear armband recording to measure physical activity (total minutes of moderate and vigorous physical activity per day). Circadian timing was defined using dim light melatonin (DLMO) using a standardized laboratory protocol. Data were analyzed using descriptive statistics, correlation, and regression analyses controlling for relevant confounders. Age and sex differences were explored for significant models in follow-up analyses.

Results: Participants (n=70, 43f) mean age was 26.7 years (sd=7.3 years). In univariate analyses, Circadian timing was not associated with physical activity variables or perceived self-efficacy to exercise. Participants with longer sleep duration had lower physical activity duration (-0.270, =.028). Additionally, participants with later sleep offset had lower self-efficacy to exercise (-0.304, =.01). We observed sex differences in the relationships between sleep duration and physical activity duration. Among men, longer sleep duration was associated with lower physical activity duration (-.382*, p< .05) but was unrelated among women. There were also sex differences in the relationship between sleep offset time and exercise self-efficacy in that among women, later sleep offset time was associated with lower exercise self-efficacy (-.491**, p< .001) but was unrelated among men.

Practical Implications: Late sleep was not associated with reduced physical activity. Findings suggest sleep and physical activity relationships are moderated by sex. Gender differences may play a role in the effect of sleep timing on physical activity behavior and attitudes.

CORRESPONDING AUTHOR: Sarah Trela-Hoskins, BS, University of Utah, Scottsdale, AZ; u1053722@umail.utah.edu

---

Abstract citation ID: kaad011.1008

POSTER SESSION D: THE EXPLANATORY ROLE OF SOCIAL COGNITION IN THE RELATIONSHIP BETWEEN AFFECT AND PHYSICAL ACTIVITY ENGAGEMENT IN ADOLESCENCE

Calissa J. Leslie-Miller, MS[1], Christopher C. Cushing, PhD[1]

[1]Clinical Child Psychology Program, University of Kansas, Lawrence, KS

Background: Affective states influence subsequent engagement in physical activity, but the directionality of this relationship varies substantially from person-to-person. This raises the further question about which variables may potentially explain the individual differences in the relationship between affect and engagement in physical activity. We hypothesized that within-person changes in positive affect, and separately within-person changes in negative affect, would predict engagement in physical activity, and the individual differences in the relationship would be explained by self-efficacy and outcome expectancies.

Methods: This study explores social cognitive variables as moderators of the relationship between affect and physical activity through a 20-day ecological momentary assessment (EMA) study, in which 100 adolescents aged 13-18 years old (M=14.45, SD=1.37) were asked to complete a baseline assessment of their physical activity, self-efficacy, and outcome expectancies. Subsequently, participants wore an Actigraph accelerometer 24 hours per day and answered EMA surveys assessing affect 4 times per day using time-based signaling.

Results: Within-person and between-person positive affect did not significantly predict engagement in physical activity and did not interact with self-efficacy or outcome expectancies. Within-person negative affect predicted engagement in physical activity (b = -0.15 p < .05) with 95% CI [-0.29, -0.01], as did between-person negative affect (b = 0.09 p < .05) with 95% CI [0.03, 0.15]. Additionally, there was a significant interaction between within-person negative affect and self-efficacy such that for individuals low in self-efficacy (< 2.23 on a 5-point scale) increased negative affect led to decreased physical activity (b = -.06, p < .05), but not for individuals high in self-efficacy (> 4.97 on a 5-point scale; b =.06, p < .05). Within-person negative effect did not interact with positive or negative outcome expectancies.

Discussion: The results of multilevel modeling demonstrated that the relationship between negative affect and physical activity for adolescents is altered by self-efficacy, such that self-efficacy is a protective factor. This is an important finding for intervention optimization as it indicates that self-efficacy is an important target for overcoming the deleterious effects of momentary negative affect on physical activity and suggests just-in-time intervention techniques for individuals who are typical or low in self-efficacy.

CORRESPONDING AUTHOR: Calissa J. Leslie-Miller, MS, Clinical Child Psychology Program, University of Kansas, Lawrence, KS; calissa.lm@ku.edu

Abstract citation ID: kaad011.1009

POSTER SESSION D: EFFECTS OF PHYSICAL ACTIVITY INTERVENTION COMPONENTS ON ACTIVITY GOAL ADHERENCE IN BREAST CANCER SURVIVORS

Melanie E. Wolter, BA[1], Payton Solk, MS[2], Julia Starikovsky, MA[2], Jean M. Reading, PhD[2], Jing Song, MS[3], Bonnie Spring, PhD, FSBM[4], David Cella, PhD[5], Frank J. Penedo, PhD, FSBM[6], Kerry S. Courneya, PhD[7], Ronald T. Ackermann, MD, MPH[2], Juned Siddique, DrPH[2], Hannah Freeman, BA[2], Abby Mishory, BS[5], Jacqueline Alexander, BS[2], Lillian B. Carden, BA[8], Siobhan M. Phillips, PhD, MPH[2]

[1]Northwestern University, Newport Beach, CA; [2]Northwestern University Feinberg School of Medicine, Chicago, IL; [3]Department of Preventive Medicine, Division of Biostatistics, Chicago, IA; [4]Northwestern University Feinberg School of Medicine, CHICAGO, IL; [5]Northwestern University, Chicago, IL; [6]University of Miami, Miami, FL; [7]University of Alberta, Edmonton, AB, Canada; [8]Northwestern Feinberg School of Medicine, Chicago, IL

Background: Moderate to vigorous physical activity (MVPA) is associated with improved health outcomes among breast cancer survivors (BCS). Yet, most are insufficiently active. It is unclear if specific intervention components increase MVPA intervention adherence because multiple components are usually delivered simultaneously. The purpose of this study was to test the effects of five Fit2Thrive technology supported MVPA promotion intervention components on MVPA goal attainment.

Methods: Using Multiphase Optimization Strategy methodology, inactive BCS [n=269; M_{age}=52.5; SD=9.9)] received a core intervention (Fitbit + Fit2Thrive smartphone app) and were randomly assigned to "on" or "off" conditions of five intervention components: support calls, deluxe app, online gym, buddy, and tailored text messages. The 12-week intervention phase (P1) was followed by a 12-week maintenance phase (P2). Fitbit and self-reported MVPA data from the Fit2Thrive app assessed whether the prescribed weekly MVPA goal was met. The weekly MVPA progressively increased to 150 minutes per week. Descriptive statistics for weekly goal attainment were examined. Main effects of each component on weekly goal attainment during each phase were examined using mixed-effects logistic regression modeling.

Results: BCS wore the Fitbit an average of 85.1% study days (M_{P1}=93% [SD=12.7%]; M_{P2}=80.0% [SD=25.8%]). BCS averaged 174.9 min/week of MVPA (M_{P1}=181.2 [SD=107.5]; M_{P2}=168.5 [SD=104.2]) and reached MVPA goals an average of 60.3% of the study 24 weeks (M_{P1}=72.5%; M_{P2}=47.6%). In P1, BCS randomized to support calls "on" v. "off" had significantly greater odds of meeting MVPA goals (OR [95% CI] =1.58 [1.12, 2.23]; M_{ON}=77.3% v. M_{OFF}=68.3% weekly goals met). In P2, BCS randomized to deluxe app "on" v. "off" had a significantly lower odds of meeting MVPA goals (OR=0.68 [0.50, 0.93]; M_{ON}=42.3% v. M_{OFF}=51.8% weekly goals met]. No other "on" v. "off" comparison was statistically significant.

Conclusions: Overall, Fit2Thrive adherence was high. Support calls increased the odds that BCS reached MVPA goals during the intervention, but effects did not persist in the maintenance period. The deluxe app reduced the odds BCS reached MVPA goals in the maintenance phase. Future research should investigate which aspects of these components influenced adherence in order to enhance positive effects, reduce less favorable effects, and enhance maintenance of component effects.

CORRESPONDING AUTHOR: Melanie E. Wolter, BA, Northwestern University, Newport Beach, CA; melanie.wolter@northwestern.edu

---

Abstract citation ID: kaad011.1010

POSTER SESSION D: SOCIAL DETERMINANTS OF DEVICE-MEASURED PHYSICAL ACTIVITY AMONG US CHILDREN AND ADOLESCENTS

Bryce Summerville, BA[1], Stuart J. Fairclough, PhD[2], Gregore Mielke, PhD[3], Richard Tyler, PhD[4], Denver M. Brown, PhD[5]

[1]University of Texas at San Antonio, San Antonio, TX; [2]Edge Hill University, Ormskirk, England, UK; [3]The University of Queensland, Brisbane, Queensland, Australia; [4]Edge Hill University, Ormskirk Lancashire, England, UK; [5]The University of Texas at San Antonio, San Antonio, TX

Engaging in recommended amounts of physical activity (PA) is important for healthy development during childhood and adolescence. However, research has shown that sociodemographic characteristics such as sex, race/ethnicity, and socioeconomic status indicators explain some of the disparities in population-level PA behavior during the early life stages. Despite such evidence, potential interactions between sociodemographic characteristics and their associations with PA behavior have received limited attention. The aim of this study was to explore the intersectionality of sociodemographic characteristics in relation to device-measured PA in a nationally representative sample of US children and adolescents. This cross-sectional study used data from three cycles of the US National Health and Nutrition Survey (2011-2012; 2012 NYFS; 2013-2014). A total of 6,116 children and adolescents (49% girls) between 3 to 17 years of age wore an ActiGraph GT3X+ accelerometer on their wrist for 7 full days. Average daily monitor-independent movement summary units were computed to estimate PA behavior according to participants' biological sex, race/ethnicity, highest level of parental education, and household income to poverty ratio, and combinations of these sociodemographic characteristics (i.e., social disadvantages were summed to create a social jeopardy index). Linear regression models were computed. The results showed that children and adolescents categorized into the lowest household income to poverty ratio were more physically active than those in the highest category, whereas no differences were observed based on sex, race/ethnicity, or parental education. Furthermore, we did not find a social jeopardy effect in that disparities in PA behavior were not observed with increasing intersections of social disadvantages. Our findings suggest sociodemographic characteristics may have a weak influence on the total volume of PA that children and adolescents engage in. In fact, children of lower socioeconomic status appear to be more active than those living in more affluent households. Given that accelerometry does not capture contextual information about PA behavior, it remains possible that disparities in different domains of PA exist (e.g., leisure time vs. active transportation), but total volume is relatively similar across the intersections of the sociodemographic characteristics investigated.

CORRESPONDING AUTHOR: Bryce Summerville, BA, University of Texas at San Antonio, San Antonio, TX; brycesummerville@hotmail.com

Abstract citation ID: kaad011.1011

POSTER SESSION D: OPTIMAL COMBINATIONS OF 24-HOUR MOVEMENT BEHAVIORS FOR MENTAL HEALTH ACROSS THE LIFESPAN: A SYSTEMATIC REVIEW

Claire I. Groves, MA[1], Braden Witham[2], Christopher Huong, BA[1], Carah D. Porter, BSc[1], Bryce Summerville, BA[3], Isabella Swafford[4], Matt Hayward, MS, MLIS[2], Matthew Y.W. Kwan, PhD[5], Denver M. Brown, PhD[1]

[1]The University of Texas at San Antonio, San Antonio, TX; [2]University of Texas at San Antonio, San Antonio, TX; [3]University of Texas at San Antonio, San Antonio, KS; [4]The University of Texas at San Antonio, Johnson City, TX; [5]Brock University, St. Catharines, ON, Canada

Background: The accumulation of movement behaviors – physical activity, sedentary behaviors, and sleep – we engage in (or do not) across the course of a day are drawing increased attention for their role in mental health and wellbeing. This evidence base is rapidly growing and researchers are adopting a variety of analytical techniques to examine these relationships through an integrative 24-hr approach. However, renewed efforts to synthesize this rapidly emerging body of literature are needed. The purpose of this systematic review was to identify how combinations of 24-hour movement behaviors relate to social, emotional and psychological indicators of mental health across the lifespan.

Methods: A systematic search of MEDLINE, PsycINFO, Embase, and SPORTDiscus was conducted. Studies were only included if they reported a combination of all three movement behaviors (physical activity, sedentary behavior, sleep duration); an indicator of mental health; were published from January 2009 – July 2022; and in English. Samples consisting of both clinical and non-clinical populations across the lifespan were included.

Results: A total of 49 studies met our inclusion criteria. Four analytical approaches were used to examine relationships between combinations of movement behaviors and mental health: guideline adherence (specific combinations, n = 19; total guidelines, n = 21), latent profiles or clusters (n = 4), movement compositions (n = 12), and isotemporal substitution (n = 16). More favorable scores for indicators of mental health were generally associated with adherence to all three 24-hr movement guidelines or an increasing number of guidelines, membership in profiles with healthier combinations of movement behaviors, and replacing sedentary behaviors with either sleep or moderate-to-vigorous physical activity. Significant associations were also observed between the 24-hr movement composition and mental health; these relationships were often driven by moderate-to-vigorous physical activity.

Conclusions: Triangulating the evidence informed by several different statistical approaches generally shows that engaging in healthier combinations of sleep, sedentary behavior and physical activity is positively associated with a variety of mental health indicators across the life span. These findings lend further support for the importance of adopting an integrative whole day approach to understand the relationships between 24-hr movement behaviors and mental health.

CORRESPONDING AUTHOR: Claire I. Groves, MA, The University of Texas at San Antonio, San Antonio, TX; claire.groves@utsa.edu

---

Abstract citation ID: kaad011.1012

POSTER SESSION D: MOVEMENT MATTERS: SHORT-TERM IMPACTS OF PHYSICAL ACTIVITY ON MOOD AND WELL-BEING

Loree T. Pham, MS, OTR/L, DipACLM[1], Raymond Hernandez, PhD, OTR/L[1], Beth Pyatak, PhD, OTR/L, CDCES, FAOTA[1]

[1]University of Southern California, ALHAMBRA, CA

Background: Few studies have investigated the short-term, momentary relationships between physical activity (PA) and well-being. Gaining a better understanding of the meaning and importance of activities engaged in related physical activity may be beneficial in promoting participation in physical activity. This study focuses on investigating the dynamic relationships between physical activity and affective well-being in adults, while also investigating the potential effects of activity type and activity importance.

Methods: Participants were 122 adults (41±15 yrs, 56% female, 38% Latinx, 35% White, 11% Black, 12% multiethnic/other) who completed daily ecological momentary assessment surveys that looked at current activities (activity type and activity importance) and affective well-being states (e.g., happy, stressed, excited, anxious) by answering prompts on a mobile phone six times per day over 14 days. Time spent in vigorous PA, moderate PA, light PA, and sedentary was measured using wrist-worn accelerometers (Actigraph wGT3X-BT) worn continuously for 14 consecutive days, removed only for bathing or other water activities.

Results: Within person, increased time spent sedentary was associated with less positive affect (r = -0.03, p < 0.01), while more physical activity at any intensity was associated with greater positive affect and reduced fatigue, three hours later (p < 0.001). Between-person, however, increased light PA was associated with increased stress (r = 0.19, p = 0.042).

Conclusions: This study provides evidence that positive affect and fatigue are predicted by previous activity and this relationship is still pertinent even when adjusting for the different activities that people engaged in. There exists an independent effect that suggests a portion of the improved mood was derived from purely the physical activity component and some portion comes from the activities that are considered important and meaningful. This study also suggests that while people may experience increased positive affect after engaging in physical activity, people who, on average, experienced higher amounts of light physical activity had higher mean stress ratings.

CORRESPONDING AUTHOR: Loree T. Pham, MS, OTR/L, DipACLM, University of Southern California, ALHAMBRA, CA; ltpham@usc.edu

Abstract citation ID: kaad011.1013

POSTER SESSION D: RACIAL DIFFERENCES IN PHYSICAL ACTIVITY BARRIERS, ENJOYMENT, AND ENGAGEMENT THROUGHOUT A BEHAVIORAL WEIGHT LOSS INTERVENTION

Francesca M. Knudsen, BA[1], Charlotte J. Hagerman, PhD[1], Meghan L. Butryn, PhD, FSBM[1]

[1]Drexel University, Philadelphia, PA

Participation in regular physical activity (PA) during behavioral weight loss (BWL) treatment improves outcomes. However, past research has found that Black participants engage in disproportionately lower levels of PA and lose less weight than White participants during BWL. We sought to examine how race relates to PA cognitions and behavior to better understand this discrepancy. The aims of this study were: 1) examine differences between Black and White participants on perceptions of PA barriers, enjoyment, and moderate-to-vigorous PA engagement during an 18-month BWL program, and 2) examine whether the change in PA barriers, enjoyment, and PA engagement over time depends on race. Participants (N = 320) were adults enrolled in BWL treatment who completed self-report measures of PA barriers (Barriers to Being Active Quiz), the Physical Activity Enjoyment Scale, and accelerometer-based measurements of moderate-to-vigorous PA at 0 (baseline), 6 (mid-treatment), and 18 months (end-of-treatment). First, ANCOVAs examined the effect of race on PA outcomes while controlling for participants' income. Black participants reported higher PA enjoyment than White participants at 0 and 6 months (p's < .01), but not at 18 months (p > .05). They also reported fewer barriers to PA than White participants at 0 months (p = .008) and marginally fewer at 6 months (p = .050), but not at 18 months (p > .05). Although Black and White participants engaged in statistically equivalent PA at baseline, Black participants had fewer minutes of PA at 6 and 18 months (p's < .05). Repeated measures ANOVAs examined whether race influenced the change in these variables across time while controlling for income. Whereas White participants had a significant reduction in barriers to PA (p = .005) and an increase in PA behavior (p = .047) from baseline to 18 months, Black participants did not (p's > .05). There was no interaction between race and time on PA enjoyment (p > .05). Despite findings that Black participants report fewer barriers to PA and higher enjoyment in PA at baseline, they have smaller improvements in PA and smaller reductions in PA barriers than White participants during treatment. Traditional BWL interventions may not effectively address the unique PA barriers that Black participants face. Future research is needed to identify other factors that could explain racial differences in PA improvement throughout BWL, such as sociocultural factors.

CORRESPONDING AUTHOR: Francesca M. Knudsen, BA, Drexel University, Philadelphia, PA; fk365@drexel.edu

---

Abstract citation ID: kaad011.1014

POSTER SESSION D: PHYSICAL ACTIVITY AND SELF-COMPASSION: A SYSTEMATIC REVIEW

Hudson M. Cunningham-Baker[1], Nicole Hall, MPH[2], Jamie S. Bodenlos, PhD[3], Dorothy Pekmezi, PhD[4]

[1]Hobart and William Smith Colleges, Bozeman, MT; [2]University of Alabama of Birmingham, Fort Benning, GA; [3]Hobart and William Smith Colleges, Geneva, NY; [4]University of Alabama at Birmingham, Birmingham, AL

Physical activity and self compassion have both been shown to positively impact mental and physical health. Findings from a prior review provided evidence of an association between physical activity and self compassion, as well as the positive effect of physical activity upon self compassion. The increased interest and published studies in this area in recent years is not surprising, given surges in stress, inactivity, and global pandemic since last review. Thus the aims for the current review are to provide an update on the state of the science for physical activity and self compassion, pinpoint gaps and advances, and provide future directions for this burgeoning literature. A total of 10 recent studies, with n = 6808 participants, were reviewed, including 7 non-experimental studies (mostly cross-sectional designs, with one longitudinal study) and 3 experimental studies (two randomized, controlled trials and a non-randomized controlled trial). As for results, most (6 out of 7) of the non-experimental studies reported a significant association between self-compassion and physical activity (or related variables, e.g., exercise identity) in varying populations (mothers of young children, secondary school or undergraduate students, community-dwelling adults) from different countries. Recent experimental studies examined the effects of incorporating self compassion strategies into lifestyle interventions. While most found improvements in self compassion, only one such study reported significant improvements in physical activity outcomes, which may be due to short intervention durations and/or lack of reliable, valid physical activity measures. Overall this review corroborated past findings on the relationship between self compassion and physical activity, highlighted the extension of this work to new populations and physical activities other than mind-body exercise, and identified interesting emerging trends (e.g. shift in focus among intervention studies from physical activity for self compassion to self compassion for physical activity; improved male representation). Future directions should include more racial and ethnic diversity in study samples and further investigation into the direction/s of this physical activity- self compassion relationship and the underlying mechanisms. A better understanding of how these critical components to self care "work" could help dramatically improve quality of life and have important public health implications, especially during these unprecedented times.

CORRESPONDING AUTHOR: Hudson M. Cunningham-Baker, Hobart and William Smith Colleges, Bozeman, MT; hudson.baker@hws.edu

Abstract citation ID: kaad011.1015

POSTER SESSION D: GENDER DIFFERENCES IN THE RELATION BETWEEN PHYSICAL ACTIVITY AND POSTTRAUMATIC STRESS SYMTOMS OVER TIME IN U.S. VETERANS

Katherine E. Gnall, BA[1], Sinead M. Sinnott, MS[1], Shane J. Sacco, PhD[1], Crystal L. Park, PhD[1]

[1]University of Connecticut, Storrs, CT

Background: Post-9/11 U.S. military veterans tend to show long-term disadvantages in both physical and mental health, including posttraumatic stress symptoms (PTSS). One potential avenue for addressing mental and physical health concerns is engaging in regular physical activity (PA). Despite its many benefits, little research has specifically examined PA in post-9/11 US veterans over time nor how it relates to PTSS. Further, research on gender differences is lacking. The present study addressed these gaps.

Method: Post-9/11 veterans (N = 410, M = 3.4 years out from service, 40% female) completed leisure time PA (IPAQ) and PTSS (PCL-C) assessments at baseline and 12-month follow-up. We first examined PA change over time and then tested 3-way interactions in regression analyses of PA, gender, and time since discharge in predicting PTSS at 12-month follow-up, controlling for age, race, and ethnicity.

Results: A large portion of post-9/11 veterans (i.e., 33% of males and 37% of females) were not engaging in *any* weekly PA at study baseline, and veterans overall showed decreased PA over a period of 12 months ($t(405) = 2.75$, $p < .01$). Participants who did any PA at baseline had lower PTSS at baseline and 12 months, compared to those who did not. Results revealed a 3-way interaction between PA at baseline, gender, and discharge time in predicting PTSS at 12 months (B = -0.09, p = .01) and marginally in predicting changes over study time (B = -0.04, p = .059). For men furthest from discharge, *any* baseline PA predicted less PTSS at study end and a reduction in symptoms over study time. However, the *amount* of PA within study time did not significantly predict men's PTSS. On the other hand, for women who had more recently been discharged, *any* PA at baseline predicted less PTSS at 12-month follow-up, but not changes in PTSS. Further, within the subgroup of women who engaged in any PA, the amount of PA *did* matter; that is, higher PA (minutes/day) predicted lower PTSS overall among those who had been recently discharged from the military.

Discussion: As both PTSS and low PA are known risk factors for cardiovascular disease, PA may have both a direct and indirect effect (i.e., through reduction in PTSS) on health outcomes, and is therefore essential to better understand in populations struggling with PA engagement & PTSS. In general, veterans evidence decreases in their PA over time. PA also seems to be associated with lower PTSS in post-9/11 veterans, although this depends on both gender and time since discharge. Engaging in PA seems to be associated with lower PTSS in female veterans closer to military discharge. Interventions may usefully target PA in female veterans immediately following discharge from the military. Additionally, while PA may be helpful for men who have been separated from the military for several years, alternative interventions are needed to address their PTSS upon military discharge.

CORRESPONDING AUTHOR: Katherine E. Gnall, BA, University of Connecticut, Storrs, CT; katherine.gnall@uconn.edu

---

Abstract citation ID: kaad011.1016

POSTER SESSION D: A SYSTEMATIC REVIEW OF THE INFLUENCE OF STRESS-RELATED RISK & BUFFERING EFFECTS OF PHYSICAL ACTIVITY ON BLOOD PRESSURE OUTCOMES

Asia M. Brown, MA[1], Dawn K. Wilson, PhD, FSBM[1]

[1]University of South Carolina, Columbia, SC

High blood pressure (BP) or hypertension is a major risk factor for morbidity and mortality. Having hypertension has been found to be the most significant risk factor for premature cardiovascular and neurovascular diseases, accounting for 47% of all ischemic heart disease events and 54% of all strokes in the world. Psychological stress can increase BP and represents a risk factor for hypertension and related pathophysiology. Physical activity (PA) has been shown to reduce BP as well as perceptions of stress, making it a potential cost-effective intervention for lowering BP among populations experiencing chronic stress. The purpose of this systematic review was to assess the current state of the evidence for stress-buffering effects of PA on BP and related cardiovascular processes among adult populations. Using the PRISMA guidelines, a total of 22 studies were identified as meeting inclusion criteria. Outcome variables assessed among the studies that met inclusion criteria were as follows: systolic and diastolic BP (k = 14), mean arterial pressure (k = 2), ambulatory BP (k = 4), heart rate (k =5), heart rate variability (k = 5). Regarding PA buffering effects on systolic and diastolic blood pressure, half of the studies did not show significant findings (k = 7); the other half of studies showed significant moderation effects on both systolic and diastolic BP (k =5), and two studies found evidence for buffering effects on systolic BP only (k =2). There was a split between studies measuring BP via ambulatory methods with half of the studies finding significant moderation effects (k =2) and the other half finding nonsignificant effects (k =2). Both studies assessing mean arterial pressure as a dependent variable found null effects (k = 2). Heart rate variability was significantly buffered among 4 of the 5 studies that utilized this outcome measure, however, heart rate calculated simply as beats per minute was more evenly split with 3 studies finding support for buffering effects and 2 studies yielding nonsignificant results. Overall, although studies were widely variable on elements of methodological rigor such as study design, sample size, dose, and operationalization of variables of interest, this systematic review provided only limited evidence for the buffering effects of PA on BP outcomes. However, future research is needed that includes more rigorous methodological design, more specific measures of stress, and objective measurements of PA.

CORRESPONDING AUTHOR: Asia M. Brown, MA, University of South Carolina, Columbia, SC; asia@email.sc.edu

Abstract citation ID: kaad011.1017

POSTER SESSION D: EXAMINING CLIENTS' RECEPTIVENESS TO DISCUSS PA WITH A MENTAL HEALTH PROVIDER: ANALYZING DIFFERENCES BY SEXUAL ORIENTATION

Justin Montney, MS[1], Gina Besenyi, MPH, PhD[1], Jared A. Durtschi, PhD[1], Emily L. Mailey, PhD[1]

[1]Kansas State University, Manhattan, KS

Objective: A disproportionate number of people that identify as nonheterosexual seek help from mental health providers (MHP). Physical activity (PA) is effective at reducing the impact of mental health issues in the general population, but it is not known if discussing PA with a MHP is well received by those in the nonheterosexual minority. This study aimed to examine the factors that predict receptiveness to discuss PA with their MHP among heterosexual and nonheterosexual individuals.

Methods: A national scale survey was administered to individuals seeing a MHP (N=478). Measures included demographics, sexual orientation, Godin-Shephard Weekly Leisure Physical Activity Questionnaire (GSLTPAQ), height/weight, and brief inventories on mental health metrics (anxiety, depression, stress, and loneliness). Six items were developed to assess clients' receptiveness to discussing PA with a MHP. Separate linear models were created for nonheterosexual and heterosexual clients using gender identity, body mass index (BMI), reported PA minutes (GSLTPAQ), and mental health metrics as independent variables to examine their association with receptiveness to discuss PA.

Results: There was a significant difference in average receptiveness between heterosexual (n=269) and nonheterosexual (n=217) clients (3.805 vs 3.660 out of 5; p = 0.033). For heterosexual clients, BMI (ß -0.062, p = 0.098) and loneliness (ß -0.138, p= 0.014) scores were negatively associated with receptiveness to discuss PA with a MHP. For nonheterosexual clients, GSLTPAQ (ß 0.003, p = 0.021) was positively associated with receptiveness. Identifying as a cisgender male, when compared to a cisgender female, was positively associated with receptiveness for both nonheterosexual (ß 1.366, p = 0.069) and heterosexual (ß 1.390, p = 0.005) groups.

Conclusions: These results can give MHPs insight for discussing/prescribing PA with their clients. Additional rapport/support may be needed when discussing the benefits/prescription of PA for heterosexual patients with higher BMI and/or loneliness scores and for cisgender females. Overall, MH clients were receptive to discussing PA, and negative correlations should not disvalue the discussion of PA with those seeing a MHP as the benefits outweigh the risks. Instead, negative correlations could provide an opportunity to positively reframe perceptions of PA and mental/physical health benefits.

CORRESPONDING AUTHOR: Justin Montney, MS, Kansas State University, Manhattan, KS; jboogie2fatcat@gmail.com

---

Abstract citation ID: kaad011.1018

POSTER SESSION D: PERCEIVED BARRIERS AND FACILITATORS OF CHILDCARE PROVIDERS OWN PHYSICAL ACTIVITY: A MIXED METHOD STUDY

Priyanka Chaudhary, BS, MPH[1], John P. Rech, MAE[2], Danae Dinkel, PhD[3]

[1]UNO, Omaha, NE; [2]University of Nebraska - Omaha, Omaha, NE; [3]University of Nebraska at Omaha, Omaha, NE

Background: Childcare providers serve as role models to children in their care by developing children's behaviors and attitudes surrounding physical activity. However, childcare providers' work demands have been associated with high rates of work-related stress, depression, and chronic physical health conditions. Physical activity may help to alleviate some of these issues; yet few studies have objectively assessed and explored the barriers and facilitators that childcare providers face regarding their own physical activity.

Objective: The purpose of the study is to assess childcare providers' physical activity levels and to explore childcare providers' perceived barriers and facilitators to physical activity.

Methods: This was a mixed-method concurrent triangulation study. A purposive sampling method was used to recruit a diverse group of childcare providers (n = 27) from both childcare centers and family childcare homes from urban (n = 14) and rural (n = 13) areas across Nebraska. Accelerometers and the Global Physical Activity Questionnaire (GPAQ) were used to measure the amount of physical activity and domain (work, leisure, active travel) where it occurred. Accelerometer data were processed using wrist-based cut points by Montoye et al., 2020 and 60-second epochs. GPAQ data were cleaned and processed using the WHO steps program. Childcare providers completed a semi-structured interview that was guided by the Theoretical Domain Framework. Data were analyzed through thematic content analysis.

Results: For accelerometer data, on average per day, childcare providers accumulated 199.53 ± 62.50 minutes of light activity; 125.98 ± 68.12 minutes of moderate to vigorous physical activity; and 1094.42 ± 122.08 minutes of sedentary time. For GPAQ data, childcare providers reported on average per day being active for 120.91 ± 106.35 minutes, including 89.00 ± 103.30 minutes of activity at work, 6.40 ± 13.04 minutes of active travel, and 25.51 ± 34.60 minutes of activity during leisure time. Childcare providers' reported barriers included time constraints, health issues, self-efficacy or limited knowledge, and safety concerns. On the other hand, the most commonly reported facilitators included knowledge of health benefits from physical activity, family and peer support, more time, and the COVID-19 pandemic.

Conclusion: Childcare providers in this study had high levels of sedentary time but also met the physical activity guidelines. Interventions may be needed to address barriers such as health issues and safety concerns to decrease sedentary time and maintain the provider's physical activity levels.

CORRESPONDING AUTHOR: Priyanka Chaudhary, BS, MPH, UNO, Omaha, NE; pchaudhary@unomaha.edu

Abstract citation ID: kaad011.1019

POSTER SESSION D: CANNABIS USE IS RELATED TO INCREASED PHYSICAL ACTIVITY

Irene De La Torre, BS[1], Dingjing Shi, PhD in Quantitative Psychology[2], Clayton Ulm, BS[3], Danielle I. Walters, MS[1], Emily T. Hebert, DrPH[4], Michael S. Businelle, PhD in Clinical Psychology[1]

[1]University of Oklahoma Health Sciences Center, Oklahoma City, OK; [2]University of Oklahoma, Norman, OK; [3]TSET Health Promotion Research Center, Stephenson Cancer Center, Oklahoma, USA, Oklahoma City, OK; [4]Department of Health Promotion and Behavioral Sciences, UT Health School of Public Health, Austin, TX, USA, Austin, TX

Background: As cannabis legalization and use becomes more prevalent, it is important to understand the impact of cannabis use on health behaviors. Prior research examining the association of cannabis use on physical activity (PA) has yielded contradictory results. While some studies suggest cannabis use is associated with lower levels of PA, others find that physically active individuals use cannabis during PA. The present study examined differences in moderate, vigorous, and combined PA by cannabis use. Further, this study used daily reports of PA and cannabis use to examine proximal relationships between these variables.

Methods: Participants were 456 individuals enrolled in a 28-day smartphone-based nationwide trial to determine the effects of five study design factors (e.g., timing and frequency of assessments) on compliance with prompted ecological momentary assessments (EMAs). The current analyses included baseline data to examine relationships between any past 28-day cannabis use and moderate, vigorous, and combined leisure time PA (N = 456). In addition, EMA data for those that reported using cannabis at least once during the 28-day EMA period (n = 96) were used to assess the multilevel effects of cannabis use on next day combined moderate and vigorous PA.

Results: Participants (N = 456) were 48.2 (*SD* = 12.5) years old on average and were mostly White (70.6%), and female (76.1%). After accounting for covariates (i.e., age, sex, race), multiple regression analyses of baseline data indicated that past 28-day cannabis users reported higher average daily moderate PA ($p < 0.05$) than non-cannabis users. Participants that reported cannabis use at least once during the 28-day EMA study period (n = 96) were 46.5 years old on average (*SD* = 12.3) and were mostly White (69%) and female (71%). EMA data indicated that these participants used cannabis for an average of 12.0 (*SD* = 9.0) days. After accounting for covariates, multivariate analyses indicated that daily cannabis use was associated with increased combined PA the following day ($p < 0.05$).

Conclusion: In this large nationwide study, past 28-day cannabis users reported greater moderate PA compared with non-cannabis users. Further, those that used cannabis during the 28-day EMA monitoring period reported greater combined PA on days following cannabis use compared with non-use days. Future research should identify potential mechanisms for this relationship and use fitness trackers to objectively evaluate PA in cannabis users.

CORRESPONDING AUTHOR: Irene De La Torre, BS, University of Oklahoma Health Sciences Center, Oklahoma City, OK; Irene-DeLaTorre@ouhsc.edu

---

Abstract citation ID: kaad011.1020

POSTER SESSION D: ASSOCIATIONS OF RELATIONSHIP SATISFACTION, GENDER TRAITS, AND SPOUSAL SEDENTARY TIME AMONG MARRIED COUPLES

Jennifer Mattingly, MPH[1], Megan E. Petrov, PhD[1], Rodney P. Joseph, PhD[1]

[1]Arizona State University, Phoenix, AZ

Introduction: Marriage and high relationship satisfaction (RS) are associated with positive health outcomes in husbands and wives, as partners often engage in similar health behaviors (i.e. diet, exercise). However, partners with young children tend to be less physically active and report lower levels of well-being. Little is known about whether RS and gender trait identification are related to activity levels within partners with dependent children. Among married adult couples caring for dependent children, we assessed differences between husbands' and wives' sedentary time (ST), and examined whether RS, gender trait identification, ST in one partner predicts ST in the other partner.

Methods: Recruitment occurred from March-July 2021 via social media. We invited couples, ages 18-64 years, in heterosexual cohabitating relationships, caring for at least one child, employed $\geq$20h/wk to participate. Wrist-worn ActiGraph GT3X accelerometers assessed seven-day sedentary time (ST) and moderate-to-vigorous physical activity (MVPA). The Dyadic Adjustment Scale measured RS, and Bem Sex Role Inventory (BSRI) assessed self-identification with masculine, feminine, and neutral gender traits. Pearson correlations tested associations in activity levels between husbands and wives. Examination of spousal ST from their partner's ST was conducted with multiple regression, with the addition of RS and BSRI scores as predictors in separate models.

Results: Twelve married couples (n=24, 71% White; *M*(*SD*) age=38.1±7.1y) enrolled. Wives and husbands averaged 2.5min of daily MVPA, 624.5min ST, and 3.1min of daily MVPA, 637.2min ST, respectively. Wives' and husbands' average MVPA were significantly, positively related (r=.58, p=0.046), while average ST were not (r=.36, p=0.244). Wives' ST was not significantly predicted by husbands' ST and RS scores (β=.35, β=-.56, respectively; p=.20, .053), or by husbands' ST and BSRI scores (β=.46, β=-.13; p=.19, .69). Husbands' ST was not significantly predicted by wives' ST and RS (β=.42, β=.16, respectively; p=.23, .64), or by wives' ST and BSRI (β=.80, β=.46; p=.09, .11).

Conclusions: In a small sample of young-to-middle aged married couples, concordance in MVPA was observed, but not for ST. Relationship satisfaction, gender trait identification, and ST of one partner did not predict ST in the other partner. Well-powered studies of couples are warranted to understand how relationship dynamics and gender roles may impact activity levels.

CORRESPONDING AUTHOR: Jennifer Mattingly, MPH, Arizona State University, Phoenix, AZ; jlmatti1@asu.edu

Abstract citation ID: kaad011.1021

POSTER SESSION D: ROLE OF INTERPERSONAL CLOSENESS IN PARTICIPANT-REPORTED OUTCOMES AMONG ADULT CANCER PATIENT-CAREGIVER DYADS

Anna Amirov[1], Thomas C. Tsai, BS[2], Youngmee Kim, PhD[1]

[1]University of Miami, Coral Gables, FL; [2]University of Miami, Miami, FL

Introduction: Greater interpersonal closeness has been associated with better mental health and lower distress. Its generalizability to physical and social functioning, however, is less understood. Poorer quality of life among patients with cancer and their family caregivers has been well-documented. Yet, the extent to which perceived intimacy in patients and caregivers relates to their own and their partners' mental, physical, and social functioning is understudied, which this study aimed to test.

Method: Patients newly diagnosed with colorectal cancer (N = 118, M age = 56.57 years, 33.9% female, 6.8 months post-diagnosis) and their spousal caregivers (M age = 55.12 years) reported feelings of intimacy (being cared for, validated, and understood by their partners) over 14 consecutive days, from which the overall and the daily fluctuation of intimacy were calculated. Patients and caregivers also self-reported their own mental, physical, and social health functioning outcomes (PROMIS-29). Age, gender, and patient's cancer stage served as covariates.

Results: Both patients and caregivers reported moderate levels of intimacy with minimal variability across days and normative levels of health functioning. Actor-Partner Interdependence Modeling revealed that patients' greater overall intimacy was associated with their own better physical and social functioning, and lower pain interference ($b \geq |.23|$, $p \leq .044$). Patients' larger fluctuation in daily intimacy was associated with their own higher pain interference ($b = .75$, $p = .014$). Additionally, caregivers' greater overall intimacy was associated with not only their own lower depressive symptoms and less sleep disturbance ($b \geq -.21$, $p \leq .017$), but also their patients' better social functioning and less sleep disturbance ($b \geq |.20|$, $p \leq .041$).

Conclusion: Results demonstrated the salutary effects of higher and more stable intimacy on various aspects of participant-reported quality of life, highlighting the significant role of interpersonal closeness in cancer adjustment outcomes. Findings also suggest clinicians take close relationship concerns of adult cancer patients into consideration for cancer survivorship care plan. Data indicate that both adult cancer patients and their caregivers may benefit from dyadic interventions that strengthen feelings of intimacy, particularly in caregivers. Examination of the pathways of intimacy affecting health functioning among this vulnerable population is warranted.

CORRESPONDING AUTHOR: Anna Amirov, University of Miami, Coral Gables, FL; aka152@miami.edu

Abstract citation ID: kaad011.1022

POSTER SESSION D: TRAJECTORIES AND RISK FACTORS OF FATIGUE FOLLOWING COLORECTAL CANCER DIAGNOSIS

Xiaoyin Li, PhD[1], Aasha I. Hoogland, PhD[1], Brent J. Small, PhD[2], Sylvia L. Crowder, PhD, RDN[1], Brian D. Gonzalez, PhD[1], Laura B. Oswald, PhD[1], Yuichi Murayama[3], Nathalie Nguyen[4], Jane Figueiredo, PhD[4], Heather S. Jim, PhD, FSBM[1]

[1]Moffitt Cancer Center, Tampa, FL; [2]University South Florida, Tampa, FL; [3]Cedars-Sinai Medical Center, Los Angels, CA; [4]Cedars-Sinai Center, Los Angels, CA

Objectives: Cancer-related fatigue is common among cancer survivors, but the underlying causes remain unclear. In this study, we sought to determine whether colorectal cancer patients differed in their longitudinal trajectories of fatigue, as well as if demographic and clinical risk factors differentiated these trajectories.

Methods: Colorectal cancer patients were recruited between 2009 and 2021 from six cancer centers with the ColoCare Consortium (five in the US and one in Germany). Patients with newly diagnosed colorectal cancer were enrolled to the study before starting systemic treatment and were followed up with questionnaires 3, 6, 12, and 24 months after the treatment. Fatigue was measured at all five time points using the 3-item fatigue subscale (range 0-100) of EORTC-QLQ-C30. Piecewise growth mixture models (GMM) were used to identify latent trajectories of fatigue. Logistic regression models were used to test if demographic, clinical, and behavioral characteristics were related to fatigue trajectories.

Results: Among 1,684 participants (57% male, 86% Non-Hispanic White, M age = 62 years old), two distinct groups were identified by GMM modeling: a high fatigue group (38.6%, M fatigue score = 54.8) whose fatigue level increased significantly up to 6 months after treatment ($p < 0.01$) and significantly declined thereafter to 24 months after treatment ($p < 0.01$); and a low-stable fatigue group (61.4%; M fatigue score = 18.5) who reported lower levels of fatigue at baseline and did not exhibit significant changes across the follow-up period to 24 months. Patients who were female (OR = 1.3 [1.04-1.54]), had stage IV cancer (vs. stage 0 cancer) (OR = 2.2 [1.25-3.82]), had rectal cancer (vs. colon cancer) (OR = 1.3 [1.06-1.58]) or received neo-adjuvant treatment (OR = 1.5 [1.25-1.86]) were more likely to be in the high fatigue group.

Conclusions: Despite improvements in fatigue over time, patients in the high fatigue group experienced greater sustained fatigue over the two years of follow-up compared to those in the low-stable group. Findings suggest considerable heterogeneity in the experience of cancer/treatment-related fatigue and support the more studies to better understand the pathophysiology of cancer-related fatigue.

CORRESPONDING AUTHOR: Xiaoyin Li, PhD, Moffitt Cancer Center, Tampa, FL; shelly.li@moffitt.org

Abstract citation ID: kaad011.1023

CITATION AWARD WINNER

POSTER SESSION D: PROMOTING WELLNESS WITH HOME-BASED REMOTE PATIENT MONITORING AND HEALTH COACHING IN PATIENTS WITH COPD: A RANDOMIZED STUDY

Roberto P. Benzo, MD[1], Maria Benzo, MD[1]

[1]Mayo Clinic, Rochester, MN

Rationale: Health-related Quality of Life (QoL) is considered a critical patient-reported outcome in Chronic Obstructive Pulmonary Disease (COPD) as it is not only what matters the most to the patient but also because it is associated with other meaningful outcomes like hospitalizations and survival. Pulmonary Rehabilitation is effective in improving QoL but has low uptake and adherence. Home-based programs are proposed as a sustainable option that can impact QoL in patients with COPD. The objective of this randomized controlled trial was to determine whether home-based remote patient monitoring and health coaching improve physical and emotional disease-specific quality of life measured by the Chronic Respiratory Questionnaire (CRQ).

Methods: This multicenter clinical trial enrolled 375 adult patients with COPD, randomized to a 12-week remote patient monitoring with health coaching (N=188) or wait-list usual care (n = 187). Primary outcomes: Physical and Emotional quality of life. Prespecified secondary outcomes included CRQ-dyspnea, CRQ-fatigue, CRQ-emotions, CRQ-mastery, daily physical activity, self-management abilities, symptoms of depression/anxiety, ER/Hospital admissions, and sleep.

Results: Participants' ages 69 + 9 years; 59% women; FEV1 % 45 + 19. At 12 weeks, there was a significant and clinically meaningful difference between the intervention vs. the control group in the physical and emotional CRQ summary scores: ((Change difference (95% CI) 0.54 points (0.36, 0.73) p< 0.001, 0.51 (0.39, 0.69) p< 0.001 respectively.

In addition, all CRQ domains, Self- management, daily physical activity, Sleep, and Depression scores improved (p< 0.01). CRQ changes were maintained at 24 weeks.

Conclusions: Remote monitoring with health coaching promotes COPD Wellness and behavior change given its effect on all aspects of QoL, self-management, daily physical activity, sleep, and depression scores. It represents an effective option for home-based rehabilitation.

CORRESPONDING AUTHOR: Roberto P. Benzo, MD, Mayo Clinic, Rochester, MN; benzo.roberto@mayo.edu

---

Abstract citation ID: kaad011.1024

POSTER SESSION D: A DECADE OF INADEQUATE SLEEP FOR NURSING MAJORS

Tracy Trevorrow, PhD[1], Jaqueline Yoshimura, MA[1], Alexandra Boyce[1], Clara Slate-Liu[1]

[1]Chaminade University of Honolulu, Honolulu, HI

Undergraduates' sleep has consistently been found inadequate and to vary by academic major. This study investigated the sleep experience of nursing students over ten years. Considering academic loads, tuition costs, and high-stakes examinations, it was hypothesized that the sleep quantity and quality of nursing students would be consistently below that of other majors.

This longitudinal study was conducted at a private university in Honolulu. Undergraduates across all majors completed an annual sleep and health behaviors survey, which included the Pittsburgh Sleep Quality Index (PSQI). Descriptive statistics characterized nursing majors' sleep from 2013 to 2022, including sleep onset, terminal awakening, sleep efficiency, total sleep time, and PSQI scores.

A total of 786 nursing students provided data regarding sleep experience from 2013 to 2022. Participants were 86.1% female, with a mean age of 22.78 (5.25), and were mostly of mixed ethnicity, Filipino, or White. Nursing students went to bed around 11:42 pm and woke around 6:30 am. (A one-hour phase delay occurred in 2021 during the COVID-19 pandemic.) Mean total sleep time was 6 hours 18 minutes.

Nursing students' PSQI scores averaged above 5.0 for every year, indicating consistently inadequate sleep quality, (M = 7.85, SD = 3.01). Nursing students ranked amongst the top 5 highest mean PSQI scores across 19 majors in 7 of the 10 years. Nursing students also reported difficulty with prolonged sleep onset (M = 25.06, SD = 22.29), and slightly below healthy sleep efficiency (M = 84%, SD = 1.11%).

To our knowledge, this is the first longitudinal study of a decade of undergraduate nursing students' sleep experience. Our data supports an assumption that there are intrinsic, longstanding aspects of being a nursing major that relates to these students having inadequate sleep. Our participants tended not to receive adequate quantity or quality of sleep and this deficit was consistently apparent when compared to other majors. Future studies should assess nursing students' sleep experience through prospective assessment, as well as physiological parameters of sleep. The need for specific interventions to promote improved sleep for nursing students appears warranted.

CORRESPONDING AUTHOR: Tracy Trevorrow, PhD, Chaminade University of Honolulu, Honolulu, HI; ttrevorr@chaminade.edu

Abstract citation ID: kaad011.1025

POSTER SESSION D: CANNABIS USE IS RELATED TO SLEEP QUALITY AND DURATION

Irene De La Torre, BS[1], Danielle I. Walters, MS[1], Dingjing Shi, PhD in Quantitative Psychology[2], Emily T. Hebert, DrPH[3], Chaelin K. Ra, PhD[4], Michael S. Businelle, PhD in Clinical Psychology[1]

[1]University of Oklahoma Health Sciences Center, Oklahoma City, OK; [2]University of Oklahoma, Norman, OK; [3]Department of Health Promotion and Behavioral Sciences, UT Health School of Public Health, Austin, TX, USA, Austin, TX; [4]TSET Health Promotion Research Center, Stephenson Cancer Center, Oklahoma City, OK, USA, Oklahoma City, OK

Background: Prior research has demonstrated mixed associations between cannabis use, sleep quality, and sleep duration. Few studies have used smartphone-based ecological momentary assessments (EMA) to examine proximal relationships between cannabis use and perceived sleep quality and duration in the general population. The purpose of this study was to address this gap in the literature in a nationwide sample of adults.

Methods: Participants (N = 456) in the parent trial enrolled in a nationwide 28-day smartphone-based study that aimed to determine the effects of five study design factors (e.g., timing and frequency of assessments) on compliance with prompted EMAs. The current sub-study included 96 participants that reported using cannabis during at least one of the 28 daily EMAs. During the morning EMA, participants were asked about cannabis use "yesterday." Participants answered the following sleep quality question for 28 days: "How would you rate the quality of your sleep last night?," but answer responses were on a Likert-type scale for 14 days (i.e., 1 = Very poor-5 = Very good) and a slider-type scale for 14 days (i.e., 0 = Low-10 = High). Participants also answered the following question about sleep duration: "How many hours of sleep did you get yesterday?" with answer options ranging from 0 to 12 or more on ½ hour increments.

Results: Participants (n = 96) were 46.5 years old on average (SD = 12.3) and were mostly White (69%) and female (71%). Participants reported that they used cannabis on 12.0 (SD = 9.0) days on average. After accounting for covariates (i.e., age, sex, race), multilevel analyses indicated significant positive effects of cannabis use on sleep quality (both Likert-type and slider-type questions, p's < .05) and a second multilevel analysis indicated that participants reported more hours of sleep on days that cannabis was used versus not used ($p < 0.05$). A likelihood ratio test indicated that the effect of cannabis use on sleep hours differed across participants (chi square = 61.3, $p < 0.05$).

Conclusion: In this general population sample, cannabis use was associated with increased sleep duration and quality. This study provides new evidence about the impact of cannabis use on sleep through EMAs that minimize recall bias and highlight within-subject variation. Future research should incorporate objective measures of sleep quality and duration to identify mechanisms linking cannabis use and sleep quality and duration.

CORRESPONDING AUTHOR: Irene De La Torre, BS, University of Oklahoma Health Sciences Center, Oklahoma City, OK; Irene-DeLaTorre@ouhsc.edu

---

Abstract citation ID: kaad011.1026

POSTER SESSION D: UNDERSTANDING COMMUNICATION BETWEEN HEALTHCARE CLINICS AND COMMUNITY BASED ORGANIZATIONS TO ADDRESS SOCIAL NEEDS

Andrea Lopez[1], Mandi L. Pratt-Chapman, PhD, MA, OPN-CG[2], Bryan O. Buckley, DrPH, MPH[3], Laura C. Schubel, MPH[4], Teletia Taylor, PhD[5], Robin Littlejohn, MS, AEP[6], Joseph A. Astorino, PhD, MA[7], Judith Lee Smith, PhD, MS[8], Susan Sabatino, MD, MPH[8], Arica White, PhD, MPH[8], Hannah Arem, PhD[4]

[1]Medstar Health Research Institute, Washington, DC; [2]The George Washington University, Alexandria, VA; [3]National Committee for Quality Assurance (NCQA), Washington, DC; [4]MedStar Health Research Institute, Washington, DC; [5]Howard University, Washington, DC; [6]MedStar Health Research Institute - National Center for Human Factors in Healthcare, Middletown, DE; [7]George Washington University, Washington, DC; [8]Centers for Disease Control and Prevention, Atlanta, GA

Healthcare clinics frequently refer patients to community-based organizations (CBOs) to address unmet health-related social needs (HRSN). However, there are frequent barriers in connecting patients from healthcare settings to appropriate CBOs and understanding whether needs were met. As part of a larger study to improve clinical-community linkages via healthcare information exchange systems, we conducted a qualitative study to understand CBO perceptions of how to optimize the referral system and improve partnerships to support cancer survivors.

We reached out to CBOs suggested by clinical social work teams at the participating cancer centers who provide key HRSN for cancer survivors in the Washington, DC area. We conducted (n=8) semi-structured virtual interviews with medical or executive directors, outreach coordinators, and social service managers. Interviews were recorded with automated transcription, reviewed for quality, and then feedback was collated using a structured data extraction form.

Participating CBOs reported providing the following services: social support, nutrition, primary care, transportation, mind/body programs, and health education. CBOs reported that patients self-referred via phone or email, and that most clients learned of services from peers or healthcare providers (n=7). Most CBOs reported that a designated staff member such as a patient care navigator or community outreach coordinator facilitated such referrals (n=5). Few CBOs reported using an electronic referral system (n=2). CBOs cited the following perceived barriers to referral from healthcare clinics: 1) Limited healthcare provider knowledge of the appropriate point of contact at CBOs (n=4), 2) CBO information not up to date online (n=3), 3) Healthcare provider lack of knowledge and understanding of CBO services (n=3), and 4) No shared electronic referral network (n=3). CBOs suggested opportunities to improve the healthcare clinic-CBO partnership, including the need to build trust through an effective, continuous open line of communication (n=8), improved methods of sharing of CBO services offered (n=3), and establishing a relationship not dependent on a single point of contact (n=2).

Interview findings revealed both barriers to and opportunities for improving referrals. Next, we will expand access to the local health information exchange system, increase provider knowledge of CBO services, and continue to engage CBO leaders and staff to address ongoing concerns.

CORRESPONDING AUTHOR: Andrea Lopez, Medstar Health Research Institute, Washington, DC; andrea.j.lopez@medstar.net

Abstract citation ID: kaad011.1027

POSTER SESSION D: NAVIGATING FOOD INSECURITY: PERSONAL AND PRO-SOCIAL APPROACHES

Safalta Khadka, MS, Bpharm[1], Leonie L. Adjeroh[1], Sabina Nduaguba, PhD[1], Kimberly M. Kelly, MS, PhD, MS, FSBM[1]

[1]West Virginia University, Morgantown, WV

Background: Poverty and food insecurity are persistent social problems contributing to health disparities. Studies exploring altruistic/pro-social behavior of people to improve poverty and food-insecurity are scarce. We explored the behavior of people navigating food insecurity in two ways. First, we examined the association between factors such as food-related worry and food-related beliefs with food pantry utilization. Next, we explored responses to a hypothetical situation where individuals encountered a person needing help, to better understand pro-social behavior in different scenarios, depending on age of the person in need, i.e., adult versus child, as a part of this analysis.

Method: A Qualtrics survey was launched to understand food insecurity. For objective #1, food-related worry and food-related beliefs scales were developed, and psychometrics were assessed. Logistic regression was used to identify factors associated with food pantry utilization, including food-related worry, food-related beliefs, and food insecurity status. For objective #2, we used a mixed-methods design to explore pro-social behavior in response to scenarios. Responses to open-ended questions were used for qualitative analysis, whereas closed-ended questions were used for quantitative analysis.

Results: Of 184 participants, 41 (22%) were male and 142 (77%) were female, with a mean age of 41 years (SD=33.7). Most (88%) were from the Appalachian region, and 16% had incomes below the poverty level. Some (n=25, 13.5%) had used food pantries. Those using food pantries had higher food-related worry and higher poverty than those who did not (p=0.001; p=0.02, respectively). For objective #2, our quantitative analysis showed that 68% people were willing to offer help in two or more ways to the child, while for the adult case, 45% were willing to offer help in two or more ways (p< 0.001). Our qualitative analysis showed that the most common approach to helping a child was calling agencies such as Child Protective Services and 911, while buying food and referring/taking to a shelter was common for helping an adult.

Conclusion: The association of food related worry and poverty to pantry utilization is not surprising. This may indicate that although individuals are worried and have low income, food pantries in our community are effectively meeting their needs. Further, our community also evidences high levels of helping behavior and appeared to understand the proper sources for referral.

CORRESPONDING AUTHOR: Safalta Khadka, MS, Bpharm, West Virginia University, Morgantown, WV; sk00056@mix.wvu.edu

---

Abstract citation ID: kaad011.1028

POSTER SESSION D: FEASIBILITY AND ACCEPTABILITY OF A HEALTHCARE SYSTEM-BASED, PEER-LED INTERVENTION TO REDUCE SOCIAL ISOLATION AMONG VETERANS

Johanne Eliacin, PhD[1], Diana J. Burgess, PhD[2], Scott M. Patterson, PhD[3], Diana M. Mendez, PhD[4], Morgan H. Traylor, MBA[3], Maria Borden, MEd, MIT[3], James E. Slaven, MS[5], Emily Reinhard, BA[3], Marianne S. Matthias, PhD[3]

[1]Roudebush VA Medical Center/ Regenstrief Institute/ National Center for PTSD, Boston VA Healthcare System, Indianapolis, IN; [2]Minneapolis VA Health Care System, Minneapolis, MN; [3]Roudebush VA Medical Center, Indianapolis, IN; [4]Orlando VA Medical Center, Orlando, FL; [5]Indiana University School of Medicine, Indianapolis, IN

Objectives: The COVID-19 pandemic has contributed to increased social isolation, especially among vulnerable populations such as veterans. Social isolation is associated with negative health outcomes. Yet, few effective social isolation interventions exist. Moreover, current efforts to address social isolation are limited by lack of diversity of participant samples and minimal involvement of healthcare systems to systematically assess and reduce social isolation. To address these gaps, we developed and pilot-tested the COPE-CI intervention, a manualized, 3-month social isolation reduction intervention delivered by peer specialists to Veterans in primary care settings. COPE-CI involves delivery of peer support services, psychosocial interventions, and navigation to VA and community services to foster social connectedness.

Methods: We used a mixed-methods, successive cohort design. To evaluate our recruitment strategy, we surveyed a random sample of primary care veterans, using the Lubben Social Network Scale, a validated social isolation measure. We then tested the intervention with two cohorts of Veterans (n = 19). We assessed COPE-CI's feasibility, acceptability, and preliminary effects on social isolation and health related outcomes (e.g., depression and anxiety). We also conducted qualitative interviews to evaluate participants' experience with COPE-CI.

Results: We surveyed 200 primary care veterans. Of those, 39% met the threshold for social isolation. Veterans who identified as non-White, had children living with them, identified as a caregiver, were under the age of 55, and reported any unmet social needs were more likely to be socially isolated. Relative to non-isolated veterans, isolated veterans reported significantly worse physical and mental health. Participants were mostly male (63%), non-White (58%), non-Hispanic (84%), < 55 years of age (79%), and married (58%).

Recruitment rate for both cohorts (n=19) was 88%, enrollment rate was 86%, and retention rate at 3 months was 63%. At the end of the first cohort (n=8), participants had statistically significant improvements on social isolation (8.2 vs. 12.7, p = .02), social support (4.4 vs. 5.5, p = .04), anxiety (9.0 vs. 4.3, p = .01), and depression (9.7 vs. 4.5, p = .01). Results for the other measures were not significant. All participants (100%) reported satisfaction with COPE-CI. Results from the second cohort are pending. Participants' qualitative interviews corroborate the quantitative findings, indicating high satisfaction with and positive impact of COPE-CI. To illustrate, one participant explained: *"I did not realize how isolated I was prior to [COPE-CI]… the program opened up a lot of opportunities to not be so isolated."*

Conclusions: These data show that COPE-CI is feasible, acceptable, and likely to be effective. COPE-CI reduced participants' social isolation and improved their mental health.

CORRESPONDING AUTHOR: Johanne Eliacin, PhD, Roudebush VA Medical Center/ Regenstrief Institute/ National Center for PTSD, Boston VA Healthcare System, Indianapolis, IN; johanne.eliacin@va.gov

Abstract citation ID: kaad011.1029

POSTER SESSION D: NEIGHBORHOOD PARK ACCESS AND PARK CHARACTERISTICS ARE ASSOCIATED WITH WEIGHT STATUS IN YOUTH

Qianxia Jiang, PhD[1], Jordan A. carlson, PhD[2], Chelsea Steel[2], Gina Besenyi, MPH, PhD[3], Andrew T T. Kaczynski, PhD[4], Mallory Moon[2], Robin P. Shook, PhD[5], Sarah Hampl, MD[6], Sonja Wilhelm Stanis, PhD[7]

[1]Children's Mercy Hospital Kansas City, Vista, CA; [2]Children's Mercy Hospital Kansas City, Kansas City, MO; [3]Kansas State University, Manhattan, KS; [4]University of South Carolina, Columbia, SC; [5]Children's Mercy/University of Missouri-Kansas City, KANSAS CITY, MO; [6]UMKC, Kansas City, MO; [7]University of Missouri, Columbia, MO

Background: Neighborhood parks play an important role in supporting children's physical activity. However, less is known about how park access interacts with characteristics within parks in relation to children's weight status and whether this differs by neighborhood sociodemographic characteristics.

Objective: The study investigated associations of park access and park characteristics with children's weight status, and how these park factors interact with one another and with neighborhood characteristics.

Methods: This study utilized electronic health records from 20,638 children aged 6-17 who visited a Children's Mercy Hospital (Kansas City, MO, USA) pediatric primary care clinic between June 2013 and June 2016. 164 parks were audited in 2010 using the Community Park Audit Tool (CPAT) to collect park characteristics (i.e., park access, facilities, amenities, quality concerns, aesthetic features, and neighborhood quality concerns). Mixed effects regression models accounting for nesting of participants in block groups were used to assess associations between park access and characteristics and children's BMIz/being overweight or obese vs. healthy weight, adjusted for sociodemographics. Interactions were investigated between park access/characteristics variables and neighborhood income, sex, and age groups.

Results: Children with greater distance to the nearest park were more likely to be obese (OR = 1.05, 95%CI = [1.01,1.09], p = .013). Children with more parks (β = -.02, 95%CI = [-.04, -.01], p = .012) or more park acres (β = -.02, 95%CI = [-.04, -.00], p =.020) within a half mile distance of their home tended to have lower BMIz score. Children were less likely to be obese when their nearest park had better aesthetic features (OR = .92, 95%CI = [.86, .97], p =.004) and overall park quality (OR = .94, 95%CI = [.89,.98], p =.034). Children ages 12-14, girls, and those living in neighborhoods with higher median household income were found to benefit more from better overall park quality regarding their weight status.

Conclusion: Both park access and the quality of the nearest park appear important for supporting a healthy weight in children, with certain groups of children tending to benefit more from park quality than others. Future research should investigate how children's' active use of parks differs by age, sex, and economic status to improve understanding of the mechanisms through which park characteristics can promote healthy weight status.

CORRESPONDING AUTHOR: Qianxia Jiang, PhD, Children's Mercy Hospital Kansas City, Vista, CA; qjiang@cmh.edu

---

Abstract citation ID: kaad011.1030

POSTER SESSION D: CHILDHOOD OPPORTUNITY AND FOOD INSECURITY AMONG FAMILIES OF 2ND GRADE CHILDREN IN TEXAS

Ethan T. Hunt, PhD, MPH[1], Keith Brazendale, PhD, MSc[2], Dale M. Mantey, PhD[3], Alexandra (Sandra) van den Berg, PhD[3], Kimberly Bird, MS[3], Deanna M. Hoelscher, PhD[3]

[1]The University of Texas Health Science Center at Houston, Austin, TX; [2]University of Central Florida, Orlando, FL; [3]UTHealth School of Public Health in Austin, Austin, TX

Background: Food insecurity is one of the United States' leading social determinants of health. Lack of access to adequate food due to limited money, other resources, or geographic area is associated with a myriad of children's health outcomes. The Childhood Opportunity Index 2.0 is an index of neighborhood features that help children develop in a healthy way. It combines data from 29 neighborhood-level indicators into a single composite measure that is available for nearly all U.S. neighborhoods. This study aimed to examine the upstream association between the Childhood Opportunity Index 2.0 (COI) and the likelihood of parents reporting food insecurity among families of 2nd-grade children in Texas.

Methods: We analyzed cross-sectional, self-reported data from parents of 2nd grader students using the Texas School Physical Activity and Nutrition (SPAN) using a one-item validated scale of food insecurity, and individual school zip codes. We then dichotomized the COI into "Low Opportunity" (very low, low, moderate) and "High Opportunity" (high, very high), and merged to our SPAN dataset by zip code at the community level. Two multinomial logistic regressions estimated the relative risk of parent-reported family food insecurity given childhood opportunity. We adjusted for child gender and race/ethnicity as fixed effects and zip code as a random-effect.

Results: Of the final analytic sample, 1,046 (51% female, 68% non-White) individual observations, capturing 131 unique zip codes, were examined. 19% of the districts examined were located in either high or very high childhood opportunity areas. 26% of parents reported a lack of consistent access to adequate food, categorizing their families as food insecure. Families were significantly more likely to be food insecure if their children's schools were located in the lowest opportunity areas (OR 5.61 95%CI = 2.12, 14.87) compared to families with children attending schools in the highest opportunity areas. After adjusting for sociodemographic variables, families were significantly more likely to be food insecure if their children's schools were located in the lowest opportunity areas (aOR 5.43 95%CI = 2.08, 14.19) compared to families with children attending schools located in the highest opportunity areas.

Discussion: In this sample of Texas families of 2nd-grade children, school-level childhood opportunity is associated with food insecurity. Food insecurity is highly associated with other markers of child insecurity, interventions addressing these factors should target food security as well as other measures of social determinants of health. Public health practitioners, school-level officials, and researchers should include a measure of childhood opportunity at the zip code and census-block level when examining food insecurity within their student population.

CORRESPONDING AUTHOR: Ethan T. Hunt, PhD, MPH, The University of Texas Health Science Center at Houston, Austin, TX; ethan.t.hunt@uth.tmc.edu

Abstract citation ID: kaad011.1031

POSTER SESSION D: MAJOR DEPRESSION AND HAZARDOUS ALCOHOL USE IN A SPANISH-LANGUAGE SURVEY OF LEISURE AND HOSPITALITY INDUSTRY WORKERS

Perla Palomares, BS[1], Sumner J. Sydeman, PhD[1], Steven D. Barger, PhD[1]

[1]Northern Arizona University, Flagstaff, AZ

Hispanics comprise over a quarter of the US hospitality and tourism industry workforce, an industry devastated by COVID-19. Despite economic recovery, hospitality industry employment remains below prepandemic levels, placing Hispanic workers at disproportionate risk for economic hardship and associated sequelae, i.e., depression and hazardous alcohol use. Little data exist describing health among ethnic minorities in the hospitality industry, a particularly important gap in light of the pandemic. We therefore examined current major depression (MDD) and hazardous alcohol use in a cross-sectional study of Hispanic (98.5%) hospitality workers who chose to complete our survey in Spanish. Current MDD was defined as a score > 9 on the Patient Health Questionnaire-9. Recent hazardous alcohol use was defined using sex-specific binge drinking criteria. The sample (N = 694) was mostly female (70.1%; mean age 51.0 years), most participants were labor union members (84.4%), and the modal occupation was guest room attendant (36.1%). The majority of the sample (83.2%) was currently employed, 6% were unemployed, and 10.9% were in other categories (e.g. homemaker, unable to work). The overall prevalence of current MDD was 29.3% (95% CI [25.0, 33.8]) with higher rates among women 34.4% (95% CI [29.1, 40.5]) vs. men (17.8%, 95% CI [11.3, 24.8]). MDD was higher among unemployed/other (60.3%; 95% CI [46.6, 72.7]) vs. currently employed (24%; 95% CI [19.5, 28.5]). Binge drinking prevalence was 13.3% (95% CI [10.8, 16.0]) with higher prevalence for males (21.6%; 95% [15.5, 28.7]) vs. females (14.8%, 95% CI [11.4, 18.8]). However, binge drinking was comparable for employed (19.1%, 95% CI [15.3, 23.4]) vs. unemployed/other (18.9%, 95% CI [10.7, 29.7]). Our study found clinically important levels of recent hazardous drinking and substantially elevated current major depression among Hispanics in the hospitality industry. MDD was even more pronounced among unemployed/other persons. Although overall US employment has returned to prepandemic levels, this recovery has not extended to the hospitality industry where employment gains lag behind other occupational categories. These data reveal ongoing vulnerabilities in a particularly understudied and vulnerable subgroup, ethnic minority Spanish-speaking hospitality workers.

CORRESPONDING AUTHOR: Sumner J. Sydeman, PhD, Northern Arizona University, Flagstaff, AZ; sumner.sydeman@nau.edu

---

Abstract citation ID: kaad011.1032

POSTER SESSION D: INSOMNIA AND PHYSICAL ACTIVITY AS MEDIATORS OF THE ASSOCIATION BETWEEN POSTTRAUMATIC STRESS AND PAIN INTERFERENCE IN VETERANS

Mariel Emrich, BS[1], Katherine E. Gnall, BA[1], Camille Garnsey, BA[1], Jamilah George, MDiv[1], Crystal L. Park, PhD[1]

[1]University of Connecticut, Storrs, CT

Introduction: Posttraumatic stress symptoms (PTSS) and chronic pain are highly comorbid, particularly for veterans. However, the mechanisms underlying this relationship are unclear. Insomnia and physical activity (PA) have been shown to be closely related to both PTSS and pain and thus, this study first aims to determine whether these health behaviors may serve as pathways through which PTSS contributes to subsequent pain interference. Also unknown is whether PTSS symptom clusters differentially relate to pain-related outcomes through health behaviors, which was evaluated as a second aim.

Methods: Data were drawn from SERV, a longitudinal study of post-9/11 veterans (*N*= 673; mean age = 35.6; 45.8% female) at three timepoints post-deployment: baseline (T1) 3-month (T2), and 6-month (T3) follow-ups. PTSS was assessed at T1, insomnia and PA were assessed at T2, and pain interference was assessed at T3. Linear regression analyses using bootstrapped 95% confidence intervals from 1,000 resamples examined PTSS as a predictor of pain interference and the mediating effects of insomnia and PA (Model 1). Next, baseline pain interference was added into the models to assess residual change (Model 2). Models 1 and 2 were run separately for our four predictors: PTSS overall, PTSS Cluster B (re-experiencing), PTSS Cluster C (avoidance), and PTSS Cluster D (hyperarousal).

Results: PTSS (overall) measured at T1 significantly predicted pain interference measured at T3 (B = .02, SE = .00, p < .001). Insomnia partially mediated the relation between PTSS and pain interference (B = .01, SE = .01, p =.00), but PA did not (B = .00, SE = .01, p = .13). Results for Model 1 were consistent across all symptom clusters. When baseline pain interference was added into each of the models to predict residual change (Model 2), insomnia remained a significant partial mediator for the re-experiencing cluster (B = .01, SE = .01, p = .048), but not for the avoidance or hyperarousal clusters.

Discussion: All PTSS symptom clusters independently predicted subsequent pain interference. Findings suggest that insomnia may be an important underlying mechanism linking PTSS to pain interference in veterans, underscoring the importance of targeting sleep to disrupt the vicious cycle of PTSS and pain. Individuals presenting with particularly heightened re-experiencing symptoms (cluster B) may be especially vulnerable to this pathway through which PTSS impacts change in pain over time.

CORRESPONDING AUTHOR: Mariel Emrich, BS, University of Connecticut, Storrs, CT; mariel.emrich@uconn.edu

Abstract citation ID: kaad011.1033

POSTER SESSION D: EXAMINING SOCIAL VIGILANCE AND ASSOCIATED PHYSIOLOGICAL EFFECTS ACROSS TYPES OF SITUATIONAL STRESS

Riley M. O'Neill[1], Krystal S. Jovel, MA[2], Sydney E. Friedman, MA[2], John M. Ruiz[1]

[1]The University of Arizona, Tucson, AZ; [2]University of Arizona, Tucson, AZ

Background: Emerging work over the past four decades supports psychological stress as a critical determinant of cardiovascular disease (CVD). Previous research has supported social vigilance, or active watchful monitoring of one's social environment for interpersonal challenges or threats, as a candidate biobehavioral process linking stress exposure to adverse cardiovascular reactivity and recovery profiles. Review of findings in this area reveals the need for research examining whether experimentally controlled contextual vigilance and individual vigilance differences evoke predicted biobehavioral responses.

Methods: The current study randomized 135 undergraduate young adults (49% male, 51% female; M_{age} = 19 years, SD_{age} = 4 years) to one of three videogames standardized as all first-person shooter scenarios, with the manipulation across games being type of situational stress (challenge, threat, neutral). Participants' dispositional social vigilance was measured via trait assessment, and participants' cardiovascular reactivity (CVR) was measured prior to, during, and after the experimental task.

Hypotheses: This study examined two central hypotheses: (1) higher stress games will evoke greater increases in CVR, and (2) individuals high in trait-level social vigilance will demonstrate greatest changes in CVR from baseline.

Results: Analysis of covariance (ANCOVA) models revealed higher stress games evoked significantly greater increases in blood pressure (BP) and heart rate (HR) than the neutral game (*F's* [1, 107] > .60, *p*'s < .001), especially in the case of threat condition. Participants in the high threat condition also demonstrated the least overall recovery to baseline BP (*p*'s < .05). No effects of vigilance disposition were observed during gameplay (*F*'s [1, 117] < 0.60, *p*'s = ns) and modest effects of higher vigilance were associated with better BP recovery (*F*'s [1, 119] > 7.00, *p*'s < .01), in contrast to expectations. Autonomic correlates, specifically pre-ejection period (PEP) and respiratory sinus arrythmia (RSA), were also assessed. There were no significant effects of game stress type on PEP or RSA during gameplay or recovery (*F'*s [2, 0.351) < 1.938, *p*'s = ns). The only significant effect of vigilance disposition on autonomic correlates was observed during recovery, where higher vigilance was modestly associated with less PEP recovery (*F* [1, 1802] = 10.335, *p* < .01).

Conclusions: These findings contribute to understanding how higher threat social situations may connote CVD risk through pull for greater preparatory monitoring and the acute cardiovascular responses corresponding to that behavior.

CORRESPONDING AUTHOR: Riley M. O'Neill, The University of Arizona, Tucson, AZ; rmoneill@arizona.edu

---

Abstract citation ID: kaad011.1034

POSTER SESSION D: POST-HURRICANE OUTCOMES: COMPLICATED ROLES OF NEGATIVE COPING, SITUATIONAL INDICATORS, AND DISPOSITIONAL FACTOR

Wenyi Li[1], Beren Sabuncu, MSW[2], Amy L. Ai, PhD, FSBM[3], Kaitlyn Walker

[1]Florida State University, Tallahassee, FL; [2]Florida State University College of Social Work, Tallahassee, FL; [3]FSU, TALLAHASSEE, FL

Major natural hazards have presented increasing challenges to humans' survival and mental health. Hurricane Katrina became one of the deadliest disasters in the U.S. history. But most of studies in this area have been cross-sectional. More recently, behavioral scientists have called for more prospective design to reveal the lasting impact of disasters. This secondary analysis investigated: a) the lasting nature of hurricane stressors on posttraumatic stress symptoms (PTSS); and b) the effect of social support and character strength factors (optimism and altruism) in Wave-1 on PTSS in Wave-2 among Hurricane-Katrina (H-K) volunteers, controlling for negative coping behaviors after deadly hurricanes. We hypothesized that PTSS symptoms would be lasting between waves. We also expected that social support and character strengths right after the traumatic event would have contracting roles against the negative impact of hurricane stressors and negative coping.

The study used the recovered follow-up data of a previous study which had not been explored before. In 2005, researchers of universities in the Deep South collected data from H-K volunteers of five universities, among whom some were also disaster victims (age=29.66±9.10, Black=55%). The Wave-1 survey delivered at three-months after H-K assessed hurricane-related stressors, PTSS, perceived social support, optimism and altruism, and negative coping behaviors. The Wave-2 survey, delivered six-months after H-K at two universities, assessed PTSS again. Multiple regression analysis was employed using SPSS27.

After listwise deletion, the final model included 158 volunteers. Multiple regression analysis shows that the model was significant ($F_{8,158}$ = 23.02, R^2 = 53.8%, *p* < .001), and explained nearly 54% of the variance in Wave-2 PTSS. Overall, H-K victims were more likely to report higher levels of PTSS, if they experienced hurricane-related stress, self- blaming, and self-denying and had higher PTSS scores in Wave-1. Those who reported greater social support, optimism, and elder victims had fewer PTSS symptoms.

The present study demonstrates the lasting nature of PTSS. The six-month assessment is important because it is the time a diagnosis of posttraumatic stress disorder (PTSD) could be established. Findings also underscore the importance of social support and optimism in fending off the negative role of disaster-induced stressors and two forms of negative coping behaviors. However, altruism does not show a positive role, which is alarming as this suggests that volunteers could experience secondary trauma in their relief actions. Findings point to the need for more longitudinal behavioral health research in growing populations affected by collective catastrophes. The findings also imply that disaster relief workers and behavioral health providers should mobilize the inner strength of victims to combat traumatization.

CORRESPONDING AUTHOR: Wenyi Li, Florida State University, Tallahassee, FL; wli8@fsu.edu

Abstract citation ID: kaad011.1035

POSTER SESSION D: MYSTERIOUS EATS: PREGNANCY AND POSTPARTUM CRAVINGS AT THE CENTER OF MULTIPLE INFLUENCES ON APPETITE

Jan T. Mooney, MA[1], Leah M. Lipsky, PhD[2], Jennifer B. Webb, PhD[3], Tonja R. Nansel, PhD[2]

[1]UNC Charlotte Health Psychology PhD Program, Detroit, MI; [2]Social and Behavioral Sciences Branch, Division of Population Health Research, National Institute for Child Health and Human Development, Bethesda, MD; [3]Department of Psychological Science, University of North Carolina at Charlotte, Charlotte, NC

Cravings, strong desires for specific foods that are often highly palatable and calorically dense, are common during pregnancy, reduced after birth, and may contribute to low diet quality. Cravings may be influenced by psychological responses to environmental food cues (hedonic hunger), hormonal signals (leptin), or dietary restraint, but these relationships have not been examined during pregnancy and postpartum. This was a secondary analysis from an observational cohort study conducted in the southeastern US ($N = 377$, $M_{age} = 31$). Participants self-reported past-month foods craved, including frequency and intensity. Structural equation models tested concurrent and prospective associations of first trimester leptin, hedonic hunger, and dietary restraint with first trimester, second trimester, and 12 months postpartum cravings, respectively. Together, first trimester dietary restraint, leptin, and hedonic hunger accounted for approximately 9% of the variance in first trimester cravings (χ^2 = 807.28, *df* = 441, *p* < .001, CFI = .925, RMSEA = .047[.042, .052]) and 8% of the variance in second trimester cravings (χ^2 = 912.42, *df* = 441, *p* < .001, CFI = .911, RMSEA = .052[.047, 057]). These first trimester factors were associated with 15% of the variance in cravings at 12-months postpartum (χ^2 = 673.99, *df* = 311, *p* < .001, CFI = .879, RMSEA = .055[.049, .061]). None of the appetite influences were individually associated with cravings at any timepoint. Lack of support for hypothesized associations could be due to nonlinearity or because the examined factors are not strong determinants of cravings. Alternatively or in addition, other internal or environmental factors may influence cravings more strongly. Future work could test nonlinear relationships with interaction models and examine the contributions of other hormones, psychological responses, or social/physical environmental characteristics.

CORRESPONDING AUTHOR: Jan T. Mooney, MA, UNC Charlotte Health Psychology PhD Program, Detroit, MI; jmoone14@uncc.edu

---

Abstract citation ID: kaad011.1036

POSTER SESSION D: DETERMINANTS OF BREASTFEEDING INTENT, INITIATION, AND DURATION

Sarah Niemi, BA[1], Marquis S. Hawkins, PhD[2], Christine C. Call, PhD[3], Michele D. Levine, PhD[2], Emma A. Ferguson[2]

[1]University of Pittsburgh Medical Center, Pittsburgh, PA; [2]University of Pittsburgh, Pittsburgh, PA; [3]University of Pittsburgh, Sewickley, PA

Background: Despite increased public awareness of the myriad health-related benefits of breastfeeding for both birthing parent and infant, many birthing parents discontinue breastfeeding earlier than recommended. Breastfeeding intent, initiation, and duration are associated with demographic and psychosocial factors including education level, smoking status, depressive symptoms, and pre-pregnancy body mass index (BMI). Additional research on breastfeeding behaviors in individuals with BMIs >25 kg/m2, who are at risk for poor breastfeeding outcomes, is needed. To fill this gap in the literature, this study aimed to (1) characterize breastfeeding intent, initiation and duration, and (2) examine associations between pre-pregnancy BMI and breastfeeding duration in a sample of individuals with pre-pregnancy BMI >25 kg/m2.

Methods: Participants (N=237) with pre-pregnancy overweight or obesity who were enrolled in a longitudinal study of eating behaviors, weight, and wellbeing during early pregnancy reported intent to breastfeed and planned duration of breastfeeding in late-pregnancy. Postpartum, participants were asked if they had ever initiated breastfeeding and for how long they continued.

Multivariable logistic regression was used to examine associations between BMI and breastfeeding intent and initiation (yes/no). Multinomial regression was used to examine associations between BMI and breastfeeding duration (i.e., never, < 6 weeks, or 6+ weeks). Models adjusted for age, marital status, household income, education, and parity. Multinomial models were additionally adjusted for gestational age.

Results: During the 3rd trimester, 74% (n=176) of birthing parents reported plans to breastfeed with 51% (n=94) of those planning to breastfeed for 6 months or longer. Of individuals who planned to breastfeed, 97% (n=166) initiated breastfeeding and of those who did not plan to breastfeed, 13% (n=26) initiated breastfeeding at least once. Higher BMI is associated with higher likelihood of breastfeeding for < 6 weeks compared to not at all after adjusting for relevant covariates of age, marital status, household income, education, and parity. BMI was not associated with breastfeeding intent or initiation.

Conclusion: Despite no differences in breastfeeding intent and initiation, people with higher BMI were more likely to breastfeed for 6 weeks, but not longer.

CORRESPONDING AUTHOR: Sarah Niemi, BA, University of Pittsburgh Medical Center, Pittsburgh, PA; niemis@upmc.edu

Abstract citation ID: kaad011.1037

POSTER SESSION D: ELECTRONIC MONITORING OF MOM'S SCHEDULE (EMOMS): A FEASIBILITY RANDOMIZED CONTROLLED TRIAL TO IMPROVE WEIGHT AND LACTATION

Lisette T. Jacobson, PhD, MPA, MA[1], Hayrettin Okut, PhD[1], Rosey E. Zackula, MA[1], Jolynn Dowling, MSN, APRN, NNP-BC, IBCLC[2], David C. Robbins, MD[3], Judy E. Stern, PhD[4], David A. Grainger, MD, MPH[1], Patricia Kluding, PhD[3], Michael Wolfe, MD[5], Christie Befort, PhD[3]

[1]University of Kansas School of Medicine-Wichita, Wichita, KS; [2]Wichita State University, Wichita, KS; [3]University of Kansas Medical Center-Kansas City, Kansas City, KS; [4]Dartmouth-Hitchcock Health, Geisel School of Medicine, Lebanon, NH; [5]Ascension Via Christi Hospitals Wichita, Inc., Wichita, KS

Background: Rising trends in obesity contribute to maternal and neonatal morbidity and mortality with people in rural locations at particular risk of pregnancy-related death. Nearly 3 in 10 U.S. women have pre-pregnancy obesity associated with an increased likelihood to develop diabetes during/after pregnancy. Lifestyle modifications and breastfeeding longevity may reverse this effect, though few studies have combined these into one intervention. The purpose of this study is to report on the feasibility of this intervention in a rural Great Plains state.

Methods: The electronic Monitoring Of Mom's Schedule study (eMOMS^{TM}) was a feasibility, three-arm, multi-center randomized controlled trial (NCT04021602) that included an intervention modelled after the national Diabetes Prevention Program (DPP) supporting pregnant women with postpartum weight loss and breastfeeding support. The intervention was delivered by a trained health coach (HC) via Facebook and included 3 groups: DPP + Breastfeeding (DPP+BF+HC), DPP Only (DPP+HC), and attention comparison [general health coaching (HC)]. Outcomes included feasibility of recruitment and retention, and estimates of breastfeeding duration and postpartum weight change.

Results: Between Sept. 2019 and Dec. 2020, 100 individuals were screened, 62 were assessed for eligibility, 47 were eligible, 44 consented, and 35 were randomized: 9 to DPP+BF+HC, 14 to DPP+HC, and 12 to HC. A total of 26 participants (74.3%) completed the study. Health status for 35 randomized participants showed that they were an average 12.9 (±2.5) weeks pregnant at study entry with a mean pre-pregnancy BMI of 29.9 (±2.9). Mean age was 27.4 (±5.4) years, 64.7% were non-Hispanic white, and 52.9% had graduated from high school or some college. In-depth interviews indicated that participants valued the program's content, interaction with the health coach, and program delivery via Facebook. With 10,000 bootstrap samples drawn from the original participants, weight retention (in pounds) from baseline to 6 mos. postpartum was 8.9 lbs., 95% CI (4.5, 13.2); 8.1 lbs., 95% CI (-3.6, 22.0); and 16.5 lbs., 95% CI (9.3, 25.0) for DPP+BF+HC, DPP+HC, and HC groups respectively; breastfeeding duration (in weeks) through 6 mos. was 11.3 wks., 95% CI (1.3, 21.2); 14.9 wks., 95% CI (9.9, 20.0); and 16.7 wks., 95% CI (9.4, 23.3) for each group respectively.

Conclusion: This study's findings inform intervention programming to improve healthy weight and breastfeeding. Use of the DPP and a health coach appears to have a positive impact on postpartum weight and breastfeeding duration. Lessons learned are: (1) use of a health coach for all study arms influences outcomes, and (2) a combination of providers and social media to screen and recruit participants provides adequate recruitment. Future work will focus on a control group that does not involve health coaching and more active recruitment strategies.

CORRESPONDING AUTHOR: Lisette T. Jacobson, PhD, MPA, MA, University of Kansas School of Medicine-Wichita, Wichita, KS; ljacobson@kumc.edu

---

Abstract citation ID: kaad011.1038

POSTER SESSION D: A NATIONAL DENTAL PBRN PILOT STUDY OF NICOTINE REPLACEMENT THERAPY SAMPLING IN DENTAL PRACTICES

Pearl Fang, BS[1], Sarah Basile, RDH, MPH[2], Peggy Richardson, DDS, MS[3], David Louis, DDS[4], Melissa Adkins-Hempel, BA[1], Michael Dunbar, PhD[5], Zachary Predmore, PhD[6], Lisa Waiwaiole, MS[7], Brad Rindal, DDS[2], Matthew Carpenter, PhD[8], Dorota Kopycka-Kedzierawski, DDS, MPH[9], Tamara Lischka, BA[10], Sandra Japuntich, PhD, LP[11]

[1]Hennepin Healthcare Research Institute, Minneapolis, MN; [2]HealthPartners Institute, Minneapolis, MN; [3]Midwest Region, Private Practice, Tinley Park, IL; [4]HealthPartners Dental Group, Eden Prairie, MN; [5]RAND Corporation, Pittsburgh, PA; [6]RAND Corporation, Boston, MA; [7]Kaiser Permanente, Portland, OR; [8]Medical University of South Carolina, Charleston, SC; [9]University of Rochester, Rochester, NY; [10]Kaiser Permanente Center for Health Research, Portland, OR; [11]Hennepin Healthcare, Minneapolis, MN

Background: Cigarette smoking is detrimental to oral health. Oral health providers advise patients to quit tobacco, but rarely recommend or prescribe cessation medications. Nicotine Replacement Therapy Sampling (NRTS) means providing all patients who smoke, regardless of interest in quitting, with samples of over-the-counter NRT products. In primary care, NRTS increases quit attempts and smoking abstinence. Dental settings are fit for NRTS because providing samples is common in dental care. Additionally, NRTS can be combined with the American Dental Hygienists' Association's recommended Ask-Advise-Refer (AAR) intervention (Ask about tobacco use, Advise quitting, Refer to quit line). The aim of this pilot study was to assess the feasibility of clinical trial procedures to test the effect of AAR + NRTS on smoking abstinence. Methods: Two dental practices from the Midwest Node of the National Dental PBRN recruited 10 patients who smoke (n = 5/practice; 100% White, 50% male, M age = 54). Practices were randomly assigned to distribute either NRTS or an electric toothbrush (ET) at dental visits in conjunction with AAR. Patients' smoking status and sample use were assessed 1-month post-visit. Participants were sent a carbon monoxide (CO) monitor and self-administered a CO breath test via smartphone. Finally, patients (N = 7) and dentists (N = 2, both White, one male, one female, M age = 54) were interviewed regarding feasibility and acceptability of study procedures. Interview transcripts were analyzed to identify opportunities to improve the upcoming clinical trial. Results: All patients completed all surveys and 90% completed the CO test. One fifth (20%) of patients in the NRTS group were abstinent (vs. 0% of the ET group) and 60% of the SET group used NRT during the study period (vs. 0% of the NRTS group). Patients and practitioners thought study procedures were acceptable and with low burden/disruption. Patients appreciated providers' non-judgmental approach to discussing tobacco use and felt their questions about NRT side effects/dosage were addressed. Providers suggested involving more staff in patient enrollment procedures and providing written instructions for study logs. Conclusions: Patients and providers deemed study procedures to be feasible and the sampling interventions acceptable. Both found AAR acceptable and staff found it feasible to implement into current workflows. Efficacy of NRTS in dental care will be tested in an upcoming clinical trial. Funding: NIDCR UG3DE029973; U19DE028717; U01DE028727.

CORRESPONDING AUTHOR: Pearl Fang, BS, Hennepin Healthcare Research Institute, Minneapolis, MN; Pearl.Fang@hcmed.org

Abstract citation ID: kaad011.1039

POSTER SESSION D: IDENTIFYING SOCIODEMOGRAPHIC CORRELATES OF TOBACCO COUPON RECEIPT AMONG A SAMPLE OF US ADULTS

Jammy Macal, MS in Public Health and Kinesiology[1], Coralia Vazquez-Otero, PhD, JD, MPH[1], Joanne G. Patterson, PhD, MPH, MSW[2], Brittney Keller-Hamilton, PhD, MPH[2], Donghee N. Lee, PhD[3], Jessica Liu, MPH[4], Amy Wedel, MS[5], Elise Stevens, PhD[6]

[1]University of Texas at San Antonio, San Antonio, TX; [2]The Ohio State University, Columbus, OH; [3]UMass Chan Medical School, Worcester, MA; [4]Harvard T.H. Chan School of Public Health, Boston, MA; [5]Syracuse University, Syracuse, NY; [6]University of Massachusetts Medical School, Worcester, MA

Introduction: While the US Food and Drug Administration has restricted tobacco companies from directly selling tobacco products through mail-order redemption, they can leverage direct-to-consumer marketing to distribute tobacco coupons via mail or email. This is concerning, as accessibility to tobacco product coupons is associated with increased tobacco product uptake and use. The aim of this study was to evaluate the sociodemographic and behavioral factors associated with receipt of tobacco coupons.

Methods: Adults living in the US (n=479) completed an online survey. Adjusted logistic regressions were used to estimate associations between receiving coupons for tobacco products during the past 12-months and sociodemographic and behavioral correlates, including race/ethnicity, age, income, sexual orientation, gender, level of education, and tobacco use.

Results: Adults with a bachelor's degree or higher (vs adults with less than a bachelor's degree) had lower relative odds of ever receiving tobacco coupons during the past 12-months (aOR = 0.55; 95% CI: 0.32-0.94). Adults aged 41 years or older (vs 18-25 years old) reported greater relative odds of receiving tobacco coupons (aOR = 3.38; 95% CI: 1.72-6.64). Adults reporting current use of e-cigarettes or combustible cigarettes reported higher relative odds (vs never users) of receiving tobacco coupons in the past 12-months (aOR = 4.13; 95% CI: 2.31-7.38). Participants reporting current dual use of cigarettes and e-cigarettes reported substantially higher relative odds (vs never users) of receiving tobacco coupons in the past 12-months (aOR = 17.11; 95% CI: 9.83-29.77).

Discussion: Distribution of direct mail coupons is a primary marketing strategy used by the tobacco industry. In this study, we found that single users of cigarettes or electronic cigarettes, dual users, those with lower educational attainment, and adults aged 41 years or older were most likely to receive tobacco coupons. As consumers must opt-in to receive tobacco direct mail marketing, these groups may be actively seeking tobacco coupons to support established use patterns. While FDA does not regulate direct mail coupon distribution, state and local policies limiting coupon distribution or redemption may reduce tobacco product uptake and use in these groups.

CORRESPONDING AUTHOR: Jammy Macal, MS in Public Health and Kinesiology, University of Texas at San Antonio, San Antonio, TX; macal.jammy@gmail.com

---

Abstract citation ID: kaad011.1040

POSTER SESSION D: SMARTPHONE-BASED MEDICATION REMINDERS INCREASE DAILY MEDICATION ADHERENCE AND DECREASE THE LIKELIHOOD OF DAILY SMOKING

Munjireen Sifat, PhD MPH[1], Emily T. Hebert, DrPH[2], Jasjit S. Ahluwalia, MD, MPH, MS[3], Michael S. Businelle, PhD in Clinical Psychology[4], Joseph Waring, MPH[5], Summer Frank-Pearce, PhD[6], Bishop Noble, BS[7], Chase Bryer, MSW[3], Stefani Madison, MD[8], Lourdes G. Planas, PhD[4], Darla E. Kendzor, PhD[9]

[1]University of Oklahoma, OKLAHOMA CITY, OK; [2]Department of Health Promotion and Behavioral Sciences, UT Health School of Public Health, Austin, TX, USA, Austin, TX; [3]Brown University School of Public Health, Providence, RI; [4]University of Oklahoma Health Sciences Center, Oklahoma City, OK; [5]Johns Hopkins Bloomberg School of Public Health, Baltimore, MD; [6]TSET Health Promotion Research Center, Stephenson Cancer Center, Oklahoma, USA, Oklahoma City, OK; [7]Oklahoma University Health Sciences Center, Edmond, OK; [8]University of Oklahoma, Oklahoma City, OK; [9]TSET Health Promotion Research Center, Stephenson Cancer Center, University of Oklahoma Health Sciences Center, Oklahoma City, OK

Varenicline and nicotine replacement therapy (NRT) are each known to increase the likelihood of smoking cessation. However, medication adherence is often poor. Automated smartphone-based reminders to take medications as prescribed may improve medication adherence. The effect of smartphone medication reminders on daily pharmacotherapy adherence and smoking abstinence was evaluated among adults enrolled in a smoking cessation trial. The current study employed a 2x2 factorial design. Participants (N=34) were randomized to 12 weeks of 1) varenicline + oral NRT (VAR+NRT) or varenicline alone (VAR) and 2) smartphone medication reminders messages (REM) or no reminder messages (NREM). Participants assigned to VAR+REM (n=2) received varenicline reminder prompts, and those assigned to VAR+NRT+REM (n=9) also received reminders to use oral NRT. Participants assigned to VAR+NREM (n=12) and VAR+NRT+NREM (n=11) did not receive medication reminders. All participants received tobacco cessation counseling. Daily smartphone assessments (each morning) evaluated smoking as well as varenicline and NRT use (if applicable) during the previous day. Generalized linear mixed model analyses were conducted to evaluate the relationship between the reminder group with daily smoking (yes/no), varenicline use (yes/no), and the number of pieces of NRT used). Models were adjusted for age, race, income, education level, and smoking dependence at baseline. Participants (n=34) were predominantly White (70.6%) and half were female (50%). Participants reported an average age of 54.2 (SD=9.4) years and had smoked an average of 19.0 (SD=9.0) cigarettes per day for 34.6 (SD=12.7) years. Analyses indicated that the odds of smoking on a given day decreased by a factor of 0.19, 95% CI (.04, .96) among those who received reminders relative to those who did not receive reminders. Participants in the reminder group had increased odds of using varenicline by a factor of 9.42, 95% CI (1.59, 55.85), compared to participants who did not receive reminders. There was no significant difference in the number of pieces of NRT used by the reminder group. In summary, daily smartphone reminders to use smoking cessation medications as prescribed were associated with greater medication adherence and a lower likelihood of daily smoking among individuals participating in tobacco cessation treatment. Smoking cessation interventions may benefit from incorporating medication reminders.

CORRESPONDING AUTHOR: Munjireen Sifat, PhD MPH, University of Oklahoma, OKLAHOMA CITY, OK; Munjireen-sifat@ouhsc.edu

Abstract citation ID: kaad011.1041

POSTER SESSION D: NICOTINE POUCH AWARENESS, PERCEPTIONS AND USE AMONG RECENT FORMER AND CURRENT US TOBACCO USERS, 2021

Lindsey Sparrock[1], Lilianna Phan, PhD, MPH[2], Julia Chen-Sankey, PhD, MPH[3], Kiana Hacker[2], Aniruddh Ajith[4], Bambi Jewett[2], Kelvin Choi, PhD, MPH[2]

[1]American University, Takoma Park, MD; [2]National Institute on Minority Health and Health Disparities, Bethesda, MD; [3]Center for Tobacco Studies, School of Public Health, Newark, NJ; [4]University of Pittsburgh School of Medicine, Bethesda, MD

Background: Nicotine pouches (NPs) are a new, noncombustible nicotine product that packages flavored nicotine powder in microfiber pouches that can be dissolved in the mouth without spitting. Data on awareness, perceptions, and use of NPs in the U.S. are limited.

Aim: To assess NP-related awareness, perceptions, and use among U.S. adult commercial tobacco users, sociodemographic correlates of awareness and use, and how NP-related perceptions varied by NP use status.

Methods: A nationally representative sample of 1,700 U.S. adult (21 years or above) recent former and current tobacco users were surveyed during January-February 2021. Participants were asked if they had ever heard of NPs, susceptible to using NPs, ever used NPs, and were currently using NPs. NP-related perceptions were also assessed, along with current tobacco use and demographics. We used weighted multivariable logistic regression models to explore the associations between sociodemographics and NP awareness and use, and used weighted multinomial regression models to examine the associations between NP-perceptions and NP use statuses (e.g., susceptibility, ever use, current use).

Results: Overall, 46.6%, 16.4%, and 3.0% of U.S. adults who recently or currently used commercial tobacco had ever heard of NPs, ever used NPs, and currently used NPs, respectively. Young individuals (vs. those 61+ years old) were more likely to have heard of and report ever and current use of NPs. Additionally, those who reported current cigarette use (vs. nonuse; AOR = 2.51), current electronic vaping product use (vs. nonuse; AOR = 3.23), and current smokeless tobacco use (vs. nonuse; AOR = 8.35) were more likely to report current NP use ($p < 0.05$). Moreover, individuals who held favorable NP-related perceptions were more likely to be at a more advanced NP use status. For example, those who agreed that NPs were less harmful than smokeless tobacco (vs. those who disagreed) were more likely to be susceptible to NP use (AOR = 4.88), ever but not current NP users (AOR = 2.91), and current NP users (AOR = 10.61) versus being non-susceptible to NP use ($p < 0.05$).

Conclusion: Younger individuals were more likely to be interested in NPs, so as current cigarette, electronic cigarette, and smokeless tobacco users. Favorable perceptions were associated with susceptibility to and current NP use. While continuous surveillance of NP use and perceptions are important, studies to examine NPs harm are needed to dispute these perceptions.

CORRESPONDING AUTHOR: Lindsey Sparrock, American University, Takoma Park, MD; ls3186a@american.edu

---

Abstract citation ID: kaad011.1042

POSTER SESSION D: GOING BEYOND THE CHECKED BOX: REASONS FOR POSITIONS ON VERY LOW NICOTINE CIGARETTES

Natasha C. Allard, MBA[1], Jessica A. Kulak, PhD, MPH[2], Cierra A. Balfour[3], Lynn Kozlowski, PhD[1]

[1]University at Buffalo, School of Public Health and Health Professions, Buffalo, NY; [2]University at Buffalo, Buffalo, NY; [3]Buffalo State, Buffalo, NY

The U.S. Food and Drug Administration tobacco control law allows requiring that only very low nicotine content cigarettes be sold, provided levels are not zero. We studied reasons respondents gave for endorsing four different proposals for modifying nicotine content: 1) eliminating all nicotine, 2) allowing only very low levels of nicotine, 3) allowing up to moderate levels of nicotine or 4) allowing nicotine from zero to high levels. Usually only multiple-choice style questions had been used in assessing public support for nicotine policy. We explored open-ended reasons for support.

We surveyed U.S. adults (N=540) in June 2019 on Turk-Prime: cigarette smokers (N=180, 33.33%), former smokers (N=119, 22.04%), and never smokers (N=232, 42.96%). All answered the question, “Which one of the following best describes a policy that you would support?” (See options in first paragraph.) Respondents were asked, “Why did you pick this policy?” We identified categories to represent the reasons participants gave for their choice and iteratively refined these into 14 codes. Three authors independently coded each response (Cohen’s kappa inter-rater reliability = k > 0.96).

There is evidence of thoughtful bases for the different responses. Of participants who chose an only nicotine free cigarettes (N=146, 27.19%), most stated general concern for people’s health, well-being and lives (38%), wanted to deal with addiction (16%), hated smoking (13%) or thought nicotine caused disease (13%). Participants who supported only very low levels of nicotine (N=113, 21.04%) expressed a desire to prevent or improve addiction (18%), help smokers quit (12%) or thought it had the best chance of becoming law (9%). Those who supported up to moderate levels of nicotine (N=143, 26.63%) gave a belief in freedom of choice or balance of choice and health as their leading reason (32%) or thought it would help smokers quit (11%). Individuals who supported all levels of nicotine in cigarettes (N=135, 25.14%) most often indicated personal choice or balance of choice and health (46%). Although the overall pattern of responses were sensible, many respondents did not give sensible reasons, perhaps indicating they were not very engaged in the issue or the survey itself. Smokers were more likely to support the last two policies.

Policymakers should consider and attempt to understand the public’s reasons for supporting policies as well as their responses on Likert-type indicators of support or opposition.

CORRESPONDING AUTHOR: Natasha C. Allard, MBA, University at Buffalo, School of Public Health and Health Professions, Buffalo, NY; ncallard@buffalo.edu

Abstract citation ID: kaad011.1043

POSTER SESSION D: USABILITY TESTING: MINDFULNESS-BASED ADDICTION TREATMENT DELIVERED THROUGH MOBILE TECHNOLOGY FOR LOW-INCOME SMOKERS

Katherine C. Henderson, MPH[1], Helina Teklu[1], Darla E. Kendzor, PhD[2], Michael S. Businelle, PhD in Clinical Psychology[3], Michael P. Eriksen, ScD[1], David W. Wetter, PhD[4], Claire A. Spears, PhD[1]

[1]Georgia State University, Atlanta, GA; [2]TSET Health Promotion Research Center, Stephenson Cancer Center, University of Oklahoma Health Sciences Center, Oklahoma City, OK; [3]University of Oklahoma Health Sciences Center, Oklahoma City, OK; [4]Huntsman Cancer Institute/U of Utah, SALT LAKE CITY, UT

Adults with low socioeconomic status (SES) experience severe tobacco-related health disparities, and improved tobacco cessation programs are needed for this population. Mindfulness training can promote smoking cessation, but in-person mindfulness treatment is costly and not easily accessible. Drawing from our prior formative work, the iQuit Mindfully smartphone app was designed to be a clear, relevant, and accessible tool to address unique cessation barriers among low-SES adults. App features include: 8 treatment modules with psychoeducation, short videos, and interactive exercises; daily push messages; audio mindfulness recordings; tips for practicing mindfulness and coping with cravings and stress; ability to request mailed nicotine patches/lozenges; and option to connect to the Tobacco Quitline. Preliminary usability testing was conducted with 16 low-SES, racially/ethnically diverse adults who smoked cigarettes daily (mean age 52, 63% female, 63% African American, 80% with less than $36,000 annual household income). Participants used the app for 2 weeks and provided daily feedback, then engaged in individual in-depth interviews about their experiences and suggestions. Overall, participants described the app as appealing, relevant, and helpful. They appreciated the videos depicting people dealing with challenging situations (e.g., stress, social gatherings, living with people who smoke) and daily encouraging messages and they highlighted the helpfulness of learning mindfulness and other coping strategies. On a 1-5 scale, participants indicated that the app gave them confidence to quit smoking (mean 4.4, SD .65), made them think it was worthwhile to quit (mean 4.6, SD .65), made them feel that someone cared if they quit (mean 4.5, SD .65), and made them feel that they knew the right steps to take to quit (mean 4.4, SD .76). On a 1-10 scale of likelihood of recommending the app to others, the mean rating was 8.8 (SD 1.8). Qualitative results revealed areas for improvement including adding features to track individual progress, enhancing the aesthetics, minimizing repetitiveness, and fixing technical glitches. The app will be revised accordingly, with the long-term goal to provide mindfulness-based smoking cessation treatment that is considerably more accessible and cost-effective than most existing resources for low-SES adults. The presentation will include example participant quotes and recommendations for improving mHealth apps for low-SES populations.

CORRESPONDING AUTHOR: Katherine C. Henderson, MPH, Georgia State University, Atlanta, GA; khenderson18@gsu.edu

---

Abstract citation ID: kaad011.1044

POSTER SESSION D: CHALLENGES IN THE IMPLEMENTATION OF SMOKE-FREE POLICIES IN PUBLIC HOUSING: PERSPECTIVES FROM RESIDENTS AND STAFF

Jonathan Lee[1], Jessica Liu, MPH[2], Jessica Davine, MSW, MPH[1], Ellen Childs, PhD[3], Alan C. Geller, MPH, RN[4], Vaughan W. Rees, PhD[1]

[1]Harvard University, Boston, MA; [2]Harvard T.H. Chan School of Public Health, Boston, MA; [3]Abt Associates, Rockville, MD; [4]Harvard School of Public Health, Cambridge, MA

Significance: Smoke-free housing is a vital strategy to combat smoking-related health disparities among underserved and socioeconomically disadvantaged communities. However, perspectives from public housing residents and staff are needed to inform opportunities for more effective policy implementation. We used qualitative methods to document the positive and negative experiences of residents and staff of Public Housing Authorities (PHAs) that had adopted a smoke-free housing policy.

Methods: We invited a random selection of 26 PHAs (out of N=154 who previously completed quantitative surveys) to participate in a site visit. We completed 13 site visits between March-June 2017, representing the 10 HUD-designated U.S. regions. At each property, we conducted an interview with at least one PHA staff member (e.g. executive directors, property managers, resident service coordinators, maintenance) and at least one resident community meeting (total N=473), using a semi-structured interview guide for each format. Transcripts were coded by primary theme before organization into specific themes using NVivo.

Results: Residents who smoke reported varying degrees of support for the policy, with some welcoming it as a catalyst for smoking cessation, while others felt that their rights and freedoms were being taken away. Some residents who do not smoke were willing to help their neighbors who smoke to adhere to the rule, such as offers to keep them company when smoking outside. Yet other residents who do not smoke lamented the burden of being responsible for reporting violations. Staff cited concerns with competing priorities, such as illicit drug use or pest infestations. Both residents and staff agreed that evictions should be a last resort, whereas fines were considered a good negative incentive. Residents generally viewed outdoor smoking shelters as a positive incentive for helping residents adhere with the rules, whereas staff held mixed views.

Conclusions: These findings highlight the complexity of residents' views, and their sometimes-conflicting priorities with staff in implementing smoke free policies. Careful consideration must be given to engaging residents to help refine the policy and communicate the details of the rules while ensuring that rules are equitably and clearly enforced. Further research on implementation approaches will be needed to identify alternatives to punitive enforcement and advance collaborative, community-driven options that reflect residents' values.

CORRESPONDING AUTHOR: Jonathan Lee, Harvard University, Boston, MA; jonathan_lee@gsd.harvard.edu

Abstract citation ID: kaad011.1045

POSTER SESSION D: COLLEGE STUDENTS' BELIEFS ABOUT E-CIGARETTES

Leslie A. Robinson, PhD[1], James D. Morris, BA[1], Crosse N. Thomas[1]

[1]The University of Memphis, Memphis, TN

Introduction: Research indicates that cigarette smokers hold more positive beliefs about smoking than non-smokers. However, few studies have explored opinions about e-cigarettes and whether these beliefs differentiate vapers from non-vapers. In this study, we gathered qualitative data on college students' views of vaping. Their responses allowed us to develop eight quantitative measures of student opinions about e-cigarettes, measures that were then used to predict vaping in college students.

Method: Opinions on the safety or hazards of vaping were solicited from a group of 30 undergraduates. These responses were later transformed into statements to be rated true or false. For example, one item stated, "*Vaping is not harmful to health*." Another indicated, "*Vaping helps you quit smoking*." Eight such items were administered to 472 undergraduates (73.2% female; 53% White; 30% Black; 17% other races/ethnicities). Students were also asked whether they had *ever* vaped, were *current* vapers (use within the last 30 days), or *experienced* vapers (had vaped at least 100 times).

Results: Almost 60% of the sample had ever vaped, 32% currently vaped, and 21% were established vapers. Most students realized that vaping could harm one's health, but over 53% believed vaping was *less* harmful than smoking due to the lack of combustion. Almost 25% thought vaping was less harmful than cigarettes because the product *only* contained nicotine. Thus, incorrect beliefs about potential harm were common. Logistic regression analyses were then conducted, using each true/false statement to predict ever, current, and established vaping. Overall, students who denied potential harm from e-cigarettes were significantly more likely to vape. For example, those who believed vaping was less harmful than smoking because the product only contains nicotine were 3 to 4 times as likely to use e-cigarettes at any level (ever, current, and experienced use) than students who did not endorse this belief (all $ps < .001$)

Conclusions: Our findings suggest that inaccurate beliefs about the benefits and dangers of vaping are common in college students and these beliefs are associated with e-cigarette consumption. Longitudinal studies are needed to clarify the direction of causality.

CORRESPONDING AUTHOR: James D. Morris, BA, The University of Memphis, Memphis, TN; jdmrris6@memphis.edu

---

Abstract citation ID: kaad011.1046

POSTER SESSION D: CHARACTERIZING CANNABIS VAPING IN A DUAL USE VAPING AND SMOKING SAMPLE: COMPARING QUIT INTENTIONS, DEPENDENCE, AND ALCOHOL USE

Emma I. Brett, PhD[1], Andrea C. King, PhD[2]

[1]University of Chicago, CHICAGO, IL; [2]University of Chicago, Chicago, IL

Background: Over one in three e-cigarette users also smoke cigarettes (dual users). Dual use may initiate with the goal of vaping to help reduce or quit smoking, but health outcomes are poor in this group and use of other substances, like cannabis, confers additional risk of mental and physical health concerns. The goal of this study was to conduct a preliminary comparison of dual users who vape cannabis (versus those who do not) on vaping, alcohol use, and smoking quit-relevant behaviors.

Methods: Dual users (n = 48; 52% male, ages 22-50) reported on frequency of smoking, nicotine vaping, cannabis vaping, and quit-relevant behaviors as part of their participation in an ongoing randomized cue reactivity study. They were recruited through social media advertisements across various U.S. metropolitan areas. Main outcomes included smoking (FTCD) and vaping dependence (PSECDI), alcohol use (AUDIT scores), use of e-cigarettes to quit smoking, and intentions to quit vaping among cannabis vapers versus non-users.

Results: Participants reported smoking an average of 10.2 ± 5.6 SD cigarettes per day and vaped e-cigarettes at least one day per week, with 44% reporting daily vaping. The prevalence of vaping cannabis was high in 63% (n = 30) of dual users, with nearly three-quarters of them (73%) reporting past month cannabis use. Both cannabis vapers and non-users (n = 18) reported similar levels of e-cigarette (7.9 and 8.1/20 respectively, low dependence) and cigarette (4.8 and 5.2/10, moderate) dependence, however cannabis users had a higher frequency of hazardous drinking, with 47% (vs. 28% of non-users) having elevated AUDIT scores. 40% of cannabis users reported using an e-cigarette to try to quit smoking compared with 50% of non-cannabis users. A large portion of both cannabis vapers (50%) and non-users (60%) reported a serious desire to quit nicotine vaping.

Conclusions: Cannabis vaping was common among this sample of dual users. Fewer cannabis vapers reported using an e-cigarette to help with quitting smoking compared with non-users. Interestingly, cannabis users and non-users reported comparable levels of device dependence with similar proportions of both groups reporting a desire to quit vaping. Interventions targeting dual users and exclusive vapers should incorporate content relevant to cannabis use given the high prevalence and interest in quitting among this group.

CORRESPONDING AUTHOR: Emma I. Brett, PhD, University of Chicago, CHICAGO, IL; ebrett@bsd.uchicago.edu

Abstract citation ID: kaad011.1047

MERITORIOUS AWARD WINNER

POSTER SESSION D: EXAMINING BEHAVIORAL ECONOMIC STRATEGIES TO IMPROVE RECRUITMENT AND RETENTION RATES ACROSS FOUR RANDOMIZED CONTROLLED TRIALS

Brittney Greene, BA[1], Morgan Thompson, BA[2], Leah Bernardo, BA[2], James Loughead, PhD[2], Rebecca Ashare, PhD[3]

[1]University at Buffalo, SUNY, Brooklyn, NY; [2]University of Pennsylvania, Philadelphia, PA; [3]University at Buffalo, SUNY, Buffalo, NY

Background: Nearly 1 in 3 clinical trials end prematurely due to under-enrollment. Strategies to enhance recruitment are often implemented without scientific rigor to evaluate efficacy or cost-effectiveness. This study evaluated two behavioral economic strategies to improve enrollment and retention rates: information provision (IP) and contingency management (CM; i.e., lottery) across four clinical trials.

Methods: A sample of 212 participants were enrolled across four clinical trials focused on tobacco use, HIV, and/or neuroimaging (NCT03169101, NCT03384784, NCT03438188, NCT02837510). The CM condition included a lottery: for each study visit completed, participants received 5 "draws" from a bowl containing 500 "chips" valued at $0, $1, $5, or $100. In the IP condition, text messages that targeted injunctive norms about research (e.g., "Many find it a rewarding way to advance science and be part of a community") were sent via the Way to Health Platform before all study visits. Participants were randomized to 1 of 4 conditions: IP, CM, IP+CM, and standard recruitment (SR). We performed logistic regression, controlling for sex and study, with condition as a between-subject predictor. Outcomes were percentage who met final eligibility (FE; primary) and intent-to-treat criteria (ITT; secondary).

Results: Rates of meeting FE and ITT status were: 42.9% and 33.9% for IP+CM; 30.9% and 18.2% for IP only; 20.8% and 18.9% for CM only; and 25% and 12.5% for SR, respectively. In the logistic regressions, females were more likely to meet FE and ITT status than males (ORs= 2.0 and 2.7, respectively, $ps < 0.05$). Although not significant, the IP+CM group was twice as likely to achieve FE status than the SR group (OR=2.3, 95%CI 0.96, 5.4, p=.061). The IP+CM group was significantly more likely to reach ITT status than the SR condition (OR= 3.9, 95%CI 1.3, 11.1, $p < .05$). Follow-up models suggested that those who received the IP condition (controlling for CM) were significantly more likely to reach FE status (OR=1.9, 95%CI 1.0, 3.6, $p < .05$). However, CM (controlling for IP) accounted for increased likelihood to reach ITT status (OR=2.3, 95% CI 1.1, 4.7, $p < .05$).

Conclusion: Combining IP and CM strategies may improve rates of recruitment and retention. IP appeared to have increased enrollment, while CM increased retention rates. Evidence from this study provides support for the utility of behavioral economics strategies to improve enrollment and reduce attrition in clinical trials.

CORRESPONDING AUTHOR: Brittney Greene, BA, University at Buffalo, SUNY, Brooklyn, NY; bgreene3@buffalo.edu

---

Abstract citation ID: kaad011.1048

POSTER SESSION D: PSYCHOSOCIAL FACTORS ASSOCIATED WITH E-CIGARETTE USE AND ADDICTION IN HIGH SCHOOL SENIORS

Samantha Randolph, MA, OTR/L[1], Lisa Connor, PhD, OTR/L[1]

[1]Washington University in St. Louis, St. Louis, MO

Title: Psychosocial factors associated with e-cigarette use and addiction in high school seniors

Background: The rate of e-cigarette use has been rapidly rising in high school seniors in recent years[1]. Meanwhile, depression has sharply increased in this population[2] and anxiety impacts up to 1 in 3 adolescents[3]. Mental health symptoms have previously been linked to e-cigarette use[4], but it remains unclear how the presence of anxiety or depression impacts the risk of developing an addiction to this substance.

Objective: To explore psychosocial factors associated with e-cigarette use and addiction in high school seniors.

Methods: Data from the 2019 *Monitoring the Future*[1] survey was analyzed (N = 2,277). Two logistic regression models were built using purposeful selection[5], with e-cigarette use in the past year and addiction as the DVs. The following were entered into the models as potential confounders: age, sex, and race. Anxiety and depression were entered as potentially significant IVs.

Results: _ After non-significant variables and confounders were removed, the presence of anxiety was the only factor significantly associated with e-cigarette use or addiction in high school seniors. Seniors who reported never feeling anxious were less likely to use (β=-.64, $p < .001$, 95% CI) or become addicted to e-cigarettes (β=-1.23, $p < .01$, 95% CI).

Conclusion: _This study adds to previous research that has established a positive association between psychosocial symptoms and adolescent substance use. Anxiety should be considered when treating adolescent substance use. Future research should include longitudinal observational studies to establish causal relationships.

References

1. Johnston, L., Miech, R., O'Malley, P., Bachman, J., Schulenberg, J., & Patrick, M. (2020). Monitoring the Future national survey results on drug use, 1975-2019: Overview, key findings on adolescent drug use.
2. Keyes, K. M., Gary, D., O'Malley, P. M., Hamilton, A., & Schulenberg, J. (2019). Recent increases in depressive symptoms among US adolescents: trends from 1991 to 2018. *Social psychiatry and psychiatric epidemiology*, *54*(8), 987-996.
3. Kessler, R. C., Chiu, W. T., Demler, O., & Walters, E. E. (2005). Prevalence, Severity, and Comorbidity of 12-Month DSM-IV Disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry*, *62*(6), 617. https://doi.org/10.1001/archpsyc.62.6.617
4. Becker, T. D., Arnold, M. K., Ro, V., Martin, L., & Rice, T. R. (2021). Systematic review of electronic cigarette use (vaping) and mental health comorbidity among adolescents and young adults. *Nicotine and Tobacco Research*, *23*(3), 415-425.
5. Zhang, Z. (2016). Model building strategy for logistic regression: purposeful selection. *Annals of Translational Medicine*, *4*(6), 111-111. https://doi.org/10.21037/atm.2016.02.

CORRESPONDING AUTHOR: Samantha Randolph, MA, OTR/L, Washington University in St. Louis, St. Louis, MO; srandolph@wustl.edu

Abstract citation ID: kaad011.1049

POSTER SESSION D: APPLYING THE EIGHT DIMENSIONS OF WELLNESS AS A FRAMEWORK FOR RECOVERY FROM OPIOID USE DISORDER: A QUALITATIVE ASSESSMENT

Stephanie Mallahan, MPH[1], Julie Armin, PhD[2], Yvonne Bueno, MPH, DrPH, OTR/L[1], Allison Huff, DHEd[1], Alicia Allen, PhD, MPH[1]

[1]University of Arizona, Tucson, AZ; [2]The University of Arizona, Tucson, AZ

Background: Opioid use disorder (OUD) during the perinatal period comes with unique challenges in recovery, including an increased risk for relapse during the postpartum. Clinical recommendations call for development of nonpharmacological interventions in adjunct to medication for OUD. The Substance Abuse and Mental Health Services Administration (SAMHSA) has developed Eight Dimensions of Wellness. While commonly used as a framework to classify key factors of health and wellness in other areas (education, mental health, and fertility settings), our research examines services for perinatal OUD using the Eight Dimensions of Wellness as a guide.

Methods: We conducted semi-structured in-depth interviews (n=11) with professionals who work with pregnant and postpartum people with OUD in April to December 2020. Participants were shown the SAMHSA Eight Dimensions of Wellness (emotional, social, environmental, physical, financial, spiritual, occupational, intellectual) diagram and asked to share how their clinic or agency is addressing each of these dimensions for women that are both in early recovery from OUD and postpartum. Responses were transcribed and coded by two researchers using Dedoose software.

Results: Thematic analysis revealed ways professionals see how the services they provide fit into each of the dimensions. This included connecting women to other agencies to provide services (financial, social), assessments to make recommendations (occupational, intellectual), and agency of the women (spiritual, physical). Some themes showed overlap across dimensions (e.g., environmental, and social, and the need for supportive people and spaces; nonjudgmental approaches). Not all dimensions were endorsed by each professional.

Discussion: Understanding how professionals feel that their agency or role falls under each dimension gives an understanding of the range of recovery support, as well as highlights opportunities for developing additional services to address gaps. Revising treatment techniques or developing new interventions along the SAMHSA framework may improve health and wellness for those with OUD during the perinatal period.

CORRESPONDING AUTHOR: Stephanie Mallahan, MPH, University of Arizona, Tucson, AZ; smallahan@arizona.edu

---

Abstract citation ID: kaad011.1050

POSTER SESSION D: ACCEPTABILITY OF A SOCIAL MEDIA INTERVENTION TO REDUCE HIGH-INTENSITY DRINKING AMONG EMERGING ADULTS

Chiu Yi J. Tan, MSW[1], Lyndsay Chapman, MPH[1], Alexis LaChappa, BA[1], Maureen A. Walton, PhD, MPH[1], Anne C. Fernandez, PhD[1], Jason Goldstick, PhD[1], Erin E. Bonar, PhD[1]

[1]University of Michigan - Ann Arbor, Ann Arbor, MI

Introduction: High-intensity drinking (HID; 8+ drinks in females, 10+ drinks in males) peaks during emerging adulthood. Young adults who engage in HID experience more alcohol-related consequences (e.g., blackouts) and are at an increased risk for developing alcohol use disorder symptoms in their mid-30s. As the use of social media is ubiquitous in emerging adults, they are also more likely to be exposed to alcohol risk behaviors, alcohol, and peer influences on popular social media platforms, such as Snapchat. The purpose of this study was to examine the acceptability of a novel social media intervention for emerging adults who engage in high-intensity drinking.

Methods: We recruited 102 participants into this randomized controlled trial through Snapchat advertisements. Participants had a mean age of 20.9 years and were: 51% male, 49% female, 64.7% White, 14.7% Black, 5.9% Asian, 1% American Indian, and 13.7% Multiracial. Of those, 50 were randomized to the intervention condition. Trained health coaches delivered an 8-week-long intervention through private individual messaging on Snapchat, addressing upstream factors of high-intensity drinking (e.g., motives) and reinforcing harm reduction strategies using Motivational Interviewing. Control participants (n=52) received a link to an alcohol educational website and a resource brochure. Follow-up assessments were collected at 2-months, after the intervention concluded.

Results: Among intervention participants who completed their follow-up survey (n=47), 74.5% enjoyed the Snapchat messages, 85.1% liked snapping with the e-coaches, and 76.7% found it helpful to talk about alcohol use in general. On a scale of 1 (hated it) to 10 (loved it), mean enjoyment ratings for discussing ways to reduce alcohol consumption, consume alcohol and other drugs more safely, avoid legal trouble, and get home safety were: 7.7 (SD=1.9), 8.0 (SD=1.7), 7.8 (SD=1.9), and 8.2 (SD=1.8), respectively. Most (91.5%) intervention participants felt that health coaches were caring, supportive, and warm and they were likely to recommend this intervention to others (M = 8.0/10; SD=2.1).

Conclusion: Early evidence supports the acceptability of this alcohol intervention delivered on a social media platform, via Snapchat. Additional follow-up data will be collected to examine preliminary effects on alcohol use behaviors.

Supported by NIAAA: AA027272

CORRESPONDING AUTHOR: Chiu Yi J. Tan, MSW, University of Michigan - Ann Arbor, Ann Arbor, MI; joeytan@umich.edu

Abstract citation ID: kaad011.1051

POSTER SESSION D: THE ASSOCIATION BETWEEN CHEMSEX TRAJECTORIES AND MENTAL HEALTH AMONG MEN WHO HAVE SEX WITH MEN IN TAIWAN: A LONGITUDINAL ANALYSIS

Shih-Chun Hua, MS[1], Tsan-Tse Chuang[2], Nai-Ying Ko, PhD[3], Stephane Wen-Wei Ku, MD[4], Carol Strong, PhD[5]

[1]Department of Public Health, National Cheng Kung University, Xihu Township, Changhua, Taiwan (Republic of China); [2]Department of Public Health, National Cheng Kung University, Tainan City, Tainan, Taiwan (Republic of China); [3]Department of Nursing, National Cheng Kung University, Tainan City, Tainan, Taiwan (Republic of China); [4]Division of Infectious Diseases, Department of Medicine, Taipei City Hospital Renai Branch, Taipei City, Taipei, Taiwan (Republic of China); [5]Department of Public Health, College of Medicine, National Cheng Kung University, Tainan, Taiwan, Tainan, Tainan, Taiwan (Republic of China)

Introduction: Chemsex is a particular form of sexualized drug use to facilitate, enhance or prolong sexual experiences among men who have sex with men (MSM). Previous research has been linked chemsex use to poor mental health but revealed insistent results, probably owing to cross-sectional design and failure to distinguish the chemsex patterns. This study aims to explore the longitudinal associations between chemsex trajectory and mental health among MSM attending sexual health clinics in Taiwan.

Method: Participants were recruited from two sexual health clinics, the Integrated Health Center of Healing, Empowerment, Recovery of Chemsex (HERO) and the Sexual Health Integrated Polyclinic (SHIP). Clients were invited to complete self-administered online questionnaire. MSM were eligible if they were 20 years old or above and provided at least two outcome measurements at baseline and follow-up questionnaires. Chemsex was measured by proportions of certain drug use in a sexual context, while anxiety and depressive symptoms were assessed using the General Anxiety Disorder 7-item scale and the Patient Health Questionnaire-9, respectively. A dichotomized category was created for each mental health scale using total score of 10 as the cutoff. Group-based trajectory modeling was used to identify trajectories of chemsex, and multivariable generalized estimating equations (GEE) logistic model with robust variance estimation and an exchangeable covariance matrix was used to examine the changes in depression and anxiety related to chemsex trajectories over 2 years of follow-up.

Results: During November 2017 and December 2021, 256 MSM were included in this analysis. Three chemsex trajectory groups were identified, including the rarely use group (84.4%), the consistently use group (6.9%), and the high decreasing and relapse group (8.7%) who reported highest proportion of chemsex at the initial visit then declined after three months but relapse at the end of follow-up. The high decreasing group has significantly higher odds for moderate to severe depression and anxiety symptoms compared to the rarely use group (depression: aOR=3.12, 95% CI= 1.26-7.75; anxiety: aOR=3.03, 95% CI=1.09-8.43).

Conclusion: The majority of MSM attending sexual clinics in Taiwan rarely engaged in chemsex. Chemsex use with rapidly reduced then relapsed pattern was associated with greater risks of mental health problems. The disproportionate risks have reinforced the importance of differentiation of chemsex practice as well as tailored mental health care.

CORRESPONDING AUTHOR: Shih-Chun Hua, MS, Department of Public Health, National Cheng Kung University, Xihu Township, Changhua, Taiwan (Republic of China); hanahua0121@gmail.com

---

Abstract citation ID: kaad011.1052

POSTER SESSION D: IMPLEMENTING EVIDENCE-BASED SBIRT SERVICES: DOES TRAINING FORMAT IMPACT BRIEF INTERVENTION PERFORMANCE RATES?

Janice Vendetti, MPH[1], Bonnie McRee, PhD, MPH[1], Karen Steinberg Gallucci, PhD[1], Jessica Johnson, BSW[2], Lauren Rosato, IMBA[2]

[1]University of Connecticut School of Medicine, Farmington, CT; [2]Planned Parenthood of Southern New England, New Haven, CT

Introduction: Screening, brief intervention and referral to treatment (SBIRT) services are shown to reduce psychoactive substance misuse in general adult patient populations. With the goal of implementing SBIRT services in Planned Parenthood of Southern New England (PPSNE), we rolled out SBIRT training to mid-level medical practitioners in 15 health centers over a 2-year period. Training modules were designed to educate practitioners in providing brief interventions (BIs) using motivational techniques to encourage their patients to reduce substance use. Skills-building through case examples and role-play practice was utilized. With the urgency to adapt training protocols due to disruptions of the COVID-19 Pandemic, we converted our in-person training format to an online synchronous design and then finally to an online asynchronous format. All formats included identical training modules. In-person site visits to support implementation efforts were provided across the study period. The aim of this study was to evaluate training performance based on BI completion rates of practitioners trained across the 3 formats.

Methods: We extracted BI performance rates from PPSNE's electronic health record for 62 practitioners trained to deliver BIs to patients screening positive for substance misuse between 8/1/21 and 9/30/22. Of those, 13 practitioners were trained "in-person" prior to the COVID-19 Pandemic, 20 were trained through the "online synchronous" format and 29 were trained via the "online asynchronous" format across the Pandemic period.

Results: A two-way ANOVA revealed no significant interaction between the effects of training type and site visit attendance on BI rates, $F(2, 57) = .462$, $p = .632$. The main effect of training type on BI rates was significant ($p = .016$), as was the main effect of site visit attendance on BI rates ($p = .001$). Controlling for site visit attendance, those who were trained in-person provided BIs at significantly higher rates (72%) than those trained via the online asynchronous format (37%).

Conclusion: The COVID-19 Pandemic period provided the opportunity to create what ultimately could be a more efficient and sustainable training format. Despite the potential for efficiency gained with online training, those attending in-person training outperformed their online asynchronous trained colleagues. The didactic approach and practice with peers in the live sessions may have contributed to their superior performance post training.

CORRESPONDING AUTHOR: Janice Vendetti, MPH, University of Connecticut School of Medicine, Farmington, CT; vendetti@uchc.edu

Abstract citation ID: kaad011.1053

CITATION AWARD WINNER

POSTER SESSION D: DECREASED ALCOHOL USE, PTSD, AND SLEEP PROBLEMS DURING THE COVID-19 PANDEMIC IN TREATMENT-SEEKING BLACK/AFRICAN AMERICANS

Daniel Brady, BA[1], Emma Dumez, BA[2], Brian Brandler, MA[2], Melanie Bennett, PhD[1], Daniel Roche, PhD[2]

[1]University of Maryland School of Medicine, Baltimore, MD; [2]University of Maryland School of Medicine, Catonsville, MD

Beyond the direct effects of COVID-19 on public health, the varied stressors of the COVID-19 pandemic may have had widespread effects on behavioral health including substance use and sleep, and such effects may be exacerbated in racial minorities. To test the effects of the pandemic on behavioral health in vulnerable populations, we assessed alcohol consumption, sleep quality, and post-traumatic stress disorder (PTSD) symptoms before and during the COVID-19 pandemic in Black/African American (AA) individuals who were seeking treatment for their alcohol use.

Black/AA individuals (n=144) who reported 1) interest in receiving treatment for their alcohol use and 2) experiencing a traumatic event were screened for eligibility for an alcohol use disorder (AUD) and PTSD treatment trial between July 2017 and March 2020. A subset of these individuals (n=44) completed a phone survey between September 2020 and April 2021. For all participants, alcohol consumption was assessed at each timepoint via a 30-day Timeline Follow-Back interview. For a subset of these participants, sleep quality was assessed with the Pittsburgh Sleep Quality Index (PSQI) and number and severity of PTSD symptoms was measured with the PTSD Checklist for DSM-5 (PCL-5). Paired samples t-tests compared pre- and during-pandemic outcomes for average number of drinks per drinking day, total number of drinks, number of endorsed PCL-5 symptoms, total PCL-5 score (i.e., severity of PTSD symptoms), and PSQI global score.

From screen to follow-up, participants reported a significant reduction in drinks per drinking day [$t(41) = 3.58$, $p < .001$] and total number of drinks in the past 30 days [$t(41) = 5.76$, $p < .001$]. They also reported a reduction in the number of PCL-5 symptoms endorsed [t(31) = 2.25, $p = .03$] and total PCL-5 score [$t(31) = 3.57$, $p = .001$]. Finally, participants reported a significant reduction in PSQI global scores [$t(20) = 3.11$, $p = .006$], indicating an improvement in subjective sleep quality.

Unexpectedly, this treatment-seeking sample of Black/AA individuals showed reductions in alcohol use, number and severity of PTSD symptoms, and sleep problems from before to during the pandemic. Other groups should attempt to replicate these findings in larger Black/AA samples and attempt to determine the motivations and mechanisms for these changes with the use of qualitative interviewing.

CORRESPONDING AUTHOR: Daniel Brady, BA, University of Maryland School of Medicine, Baltimore, MD; dbrady912@gmail.com

---

Abstract citation ID: kaad011.1054

POSTER SESSION D: MICROAGGRESSIONS, RESILIENCE LEVELS, AND ALCOHOL USE AMONG A PREDOMINATELY LATINX COLLEGE STUDENT SAMPLE

Aitiana Sanchez, BA[1], Andrea Rodriguez-Crespo, BS[1], Anna Drozdova, MA[1], Kevin Sandoval Medina, BA[1], Gabriel Tarango, BA[1], Theodore V V. Cooper, PhD[1]

[1]University of Texas at El Paso, El Paso, TX

Resilience, defined as the ability to recover from stressful situations (Masten, 2001), often serves as a protective factor for unhealthy alcohol use. Specifically, high resilience has previously been associated with lower levels of alcohol use (Johnson et al., 2012). Conversely, microaggressions, which are events that have the effect of insulting people because of their race, have been found to be a risk factor for increased alcohol use (Blume et al., 2012). This study assessed the relationship between microaggressions and alcohol use, as well as the moderating effect of resilience on this relationship.

College students (n=292; M_{age}= 20.86 years, SD = 4.81; 77.1% female; 81.2% Hispanic) from a university on the U.S/Mexico border were recruited via SONA, a web-based recruitment system. After signing an electronic consent form, participants completed the following measures: sociodemographics, the Revised Racial and Ethnic Microaggression Scale, the Brief Resilience Scale, and Drug Use Frequency. Multiple linear regressions examined the main effect and moderating effect of resilience on the relationship between five subscales of microaggressions and alcohol use. There were no significant differences in resilience levels between males and females, thus gender was not used as a control variable in the analyses.

There were main effects of assumptions of inferiority on alcohol use in the past month (β =.255, p < .001), in the past year (β =.259, p< .001), and lifetime alcohol use (β =.323, p< .001). Additionally, there was a main effect of assumptions of similarities on alcohol use in the past month (β =.171, p=.008). Resilience served as a moderator for the relationship between media microaggressions and alcohol use in the past year, R^2=.033, $F(3)$ = 2.671, p=.048. Additionally, there was a marginally significant moderation effect of resilience on the relationship between media microaggressions and lifetime alcohol use (R^2=.019, $F(3)$ = 2.584, p=.054) as well as between assumptions of similarities and alcohol use in the past month (R^2=.030, $F(3)$ = 2.410, p=.068).

These findings offer support for resilience serving as a protective factor for experiencing microaggressions and using alcohol as a coping mechanism, as well as microaggressions serving as a risk factor for increased alcohol use among a predominately Latinx college student sample. Future studies should examine the influence that resilience has on other recreational drugs, such as tobacco and marijuana.

CORRESPONDING AUTHOR: Aitiana Sanchez, BA, University of Texas at El Paso, El Paso, TX; aisanchez4@miners.utep.edu

Abstract citation ID: kaad011.1055

POSTER SESSION D: INVESTIGATING THE CONNECTION BETWEEN SLEEP DISTURBANCE AND PAIN RUMINATION AMONG YOUTH WITH CHRONIC PAIN

Sana Aladin, BS[1], Ayeong (Jenny) Kim, BA[2], Samantha Bento, PhD[1], Sarah Nelson, PhD[3]

[1]Boston Children's Hospital, Palo Alto, CA; [2]Boston Children's Hospital, Boston, MA; [3]Boston Children's Hospital/Harvard Medical School, Boston, MA

The prevalence of chronic pain in youth is high, with 44.2% of school-aged children reporting chronic weekly pain in the last six months. In the pediatric pain population, sleep disturbance is a common comorbidity and known predictor of greater pain intensity, indicating the need for a better understanding of the pain-sleep relationship. Multiple aspects of psychosocial functioning have been identified as impacting youth with chronic pain, and past literature indicates that psychosocial mechanisms influence the pain-sleep relationship for youth as well. Rumination—specifically pain-related rumination—is known to worsen pain intensity and is suggested to be connected to sleep disturbance in the adult population. However, much of the potential mirrored relationship in youth has not been explored. In the current study, we aim to establish a connection between pain intensity, sleep disturbances, and pain-related rumination in the pediatric population.

Using survey data from sample of 1355 adolescents (age M = 15.51, SD = 1.88) at an academic medical center located in the northeast US, we revealed a relationship between pain intensity, sleep disturbances, and pain-related rumination. Within a comprehensive battery of psychological questionnaires, we used a self-reported rating of pain intensity, the pediatric PROMIS sleep disturbance assessment, and the rumination subscale of the Pain Catastrophizing Scale. Sleep disturbance and rumination had a statistically significant weakly positive correlation (r = 0.331, p < .001). In addition, a combined effect of these two variables on pain intensity was found by running a multiple regression: sleep disturbance and rumination were significantly associated with pain intensity (F(2, 908) = 44.047, p < 0.05), with an R^2 value of 0.088. Thus, greater sleep disturbance and increased pain-related rumination are associated with higher pain intensity ratings in this sample. Specifically, their combined effect accounts for 8.8% of the variance in pain intensity score.

These findings indicate that pain-related rumination and sleep disturbance affect the lives of youth with chronic pain and suggest the need for more research on the combined effect of these factors. Future studies should further explore these ideas to better support a biopsychosocial model of treatment that would inform pediatric pain treatment plans.

CORRESPONDING AUTHOR: Sana Aladin, BS, Boston Children's Hospital, Palo Alto, CA; sana.aladin@childrens.harvard.edu

---

Abstract citation ID: kaad011.1056

POSTER SESSION D: EXPECTANCIES AND CHRONIC PAIN: ONLY NEGATIVE (NOT POSITIVE) TRAIT EXPECTANCIES PREDICT 10-YEAR CHANGES IN PAIN OUTCOMES

Mackenzie Shanahan, PhD[1], Emily Ross, PhD[2], Kevin L. Rand, PhD[3]

[1]VA HSR&D Center for Innovations in Quality, Effectiveness, and Safety, Michael E DeBakey Veterans Affairs Medical Center, Houston, TX; [2]University of Miami School of Medicine, Miami, FL; [3]Indiana University Purdue University Indianapolis, Indianapolis, IN

Chronic pain is a burdensome diagnosis with a constellation of significant mental and physical symptoms. Previous research suggests that positive expectancies are associated with less severe pain symptoms, whereas, negative expectancies are associated with more severe pain symptoms both cross-sectionally and longitudinally. However, it is unclear whether positive and negative expectancies are 1) *uniquely* predictive of pain outcomes and 2) predictive of long-term *changes* in pain outcomes over time. Our aim was to examine how shared and unique aspects of positive and negative expectancies differentially predict 10-year changes in pain-related outcomes (i.e., pain severity, pain interference, disability, and depressive symptoms) in adults with chronic pain. We utilized data from a nationally representative, longitudinal study (The Health and Retirement Study) to sample 5,829 adults with chronic pain across a 10-year period. Mixed latent and measured variable path analyses were created to examine the unique relationships between expectancy variables and changes in pain-related outcomes. Path analyses demonstrated adequate fit across fit indices. Results suggested that only negative, not positive, expectancies were significantly associated with worsening pain severity (ß = .15, p < .001), pain interference (ß = .14, p < .001), disability (ß = .09, p < .001), and depressive symptoms (ß = .13, p < .001) across a 10-year period. This suggests that positive and negative expectancies may be related but are distinct factors in predicting persistent pain. Moreover, these findings suggest negative expectancies worsen the severity of pain symptoms over time. Clinically, negative expectancies may be an appropriate treatment target to improve functioning with chronic pain over time.

CORRESPONDING AUTHOR: Mackenzie Shanahan, PhD, VA HSR&D Center for Innovations in Quality, Effectiveness, and Safety, Michael E DeBakey Veterans Affairs Medical Center, Houston, TX; Mackenzie.Shanahan@bcm.edu

Abstract citation ID: kaad011.1057

POSTER SESSION D: COMPASSION CULTIVATION, ANGER, AND EMOTIONAL TENSION IN MIGRAINE MANAGEMENT: RESULTS FROM A PILOT STUDY

Dustin Goerlitz, MA[1], Amy Wachholtz, PhD, MDiv, MS, FSBM[2]

[1]University of Colorado Denver, LAKEWOOD, CO; [2]University of Colorado Denver, Denver, CO

Introduction: Loving-kindness meditation (LKM) has been shown in pilot studies to be associated with improved pain outcomes (e.g., in those with migraines and other chronic pain). Negative affect constructs (e.g., anger and other negative emotion) have been postulated as mechanisms by which LKM is effective in improving pain. In the present study we hypothesized weekly anger and emotional tension to be significantly less compared to baseline, during a 4-week group LKM intervention for those with recurring migraines.

Method: 89 meditation naïve participants [M_{age}=41.8 years (SD=12.72), 80.7% female, and 85.2% Caucasian] were recruited from the New England region. Participants were 18+ years-old, reported 2-10 migraines per month confirmed by their PCP, and confirmed at least 66% of items on a migraine screener. Anger and emotional tension were collected immediately before and after each weekly session via 0-10 emotion thermometers. The present study analyzed weekly post-session thermometer scores. Differences in weekly scores were assessed via linear mixed models.

Results: A significant effect was shown for time on weekly emotional tension, F(4,88.788)=10.879, *p*< .001 with a proportional reduction in variance (PRV) from the null model of .33 at level 1 and .15 at level 2; however, no significant reduction was found for anger F(4,110.984)=1.245, *p*=.296. Although emotional tension post each weekly session was significantly less compared to baseline, there were no significant differences between the post-session assessments.

Discussion: Our hypotheses were partially supported. Emotional tension was significantly reduced during the intervention; however, anger was not. It is worth noting that a floor effect with baseline anger (M=1.64, SD=1.759) may have been responsible for the null finding with anger. Overall, our results indicate the construct of emotional tension can be improved in those with recurring migraines via LKM practice. This reinforces the importance of assessing a range of negative affect constructs in future compassion-cultivation studies for pain management. A particular limitation of the study is a small sample size. It is possible that with a larger sample, there may have been more variance in anger and a reduction there seen. As the present study utilized pilot data, fully powered studies are encouraged for further investigation and modeling with affect and pain outcomes.

CORRESPONDING AUTHOR: Dustin Goerlitz, MA, University of Colorado Denver, LAKEWOOD, CO; dustin.goerlitz@ucdenver.edu

---

Abstract citation ID: kaad011.1058

POSTER SESSION D: ILLNESS REPRESENTATIONS, TREATMENT BELIEFS, AND HEALTH OUTCOMES IN CHRONIC PAIN: A META-ANALYSIS

Lauren McKinley, MA, BA[1], Martin S. Hagger, PhD[1]

[1]University of California, Merced, Merced, CA

Chronic pain is a common reason adults seek medical attention and has been linked to negative health outcomes. Individuals' cognitive and emotional representations of their symptoms, and their beliefs regarding treatment, may influence their behaviors and health outcomes. We aimed to test a process model, based on the common sense model of illness self-regulation, specifying relations among illness representations, treatment beliefs, and health outcomes in individuals experiencing chronic pain using synthesized data from multiple studies. Studies (k=95, N=19,182) reporting relations between model constructs were identified in a systematic database search. We tested the fit of our model with the pooled matrix of correlations among the variables from a multi-level meta-analysis using meta-analytic structural equation modeling. We also tested effects of moderators on proposed model relations in subgroup analyses. The analyses revealed non-zero averaged correlations among the relations between illness representations (control, timeline, identity, consequences, emotional representations) and treatment beliefs with health outcomes (physical and psychological impairment, disease status). We also found non-zero correlations of the control illness representation and treatment beliefs dimension with social/role functioning. Our meta-analytic structural equation model fit the data well. We found non-zero unique effects of the control, timeline, identity, consequences, and emotional representation dimensions on physical and psychological impairment, and disease status. We also found unique effects of treatment beliefs on physical impairment and social/role functioning, and an effect of cause on psychological impairment. In general, there was little evidence to suggest a consistent, systematic pattern of moderation of the model effects by key moderator variables that were identified (participant age, gender, illness type, study design, study quality, or publication status). The findings indicate that individuals' representations of chronic pain and their treatment beliefs consistently relate to their physical and psychological health, disease status, and their social and role functioning. They also provide empirical support for the application of the model in longitudinal research and can contribute formative evidence to inform the development of interventions designed to modify beliefs about chronic pain and improve the well-being of affected individuals.

CORRESPONDING AUTHOR: Lauren McKinley, MA, BA, University of California, Merced, Merced, CA; lmckinley@ucmerced.edu

Abstract citation ID: kaad011.1059

POSTER SESSION D: CHALLENGES FOR IMPLEMENTING A PRIMARY CARE SERVICE IN A BEHAVIORAL HEALTH FACILITY IN NORTHERN ARIZONA

JEFFERSSON SANTOS, BSN[1], Amanda Pollitt, PhD[1], Julie Baldwin, PHD[1]

[1]Northern Arizona University, flagstaff, AZ

Integrating behavioral health and primary care is urgent to meet the complex health challenges in Northern Arizona (NAZ). To advance integrated care services in the region, Northern Arizona University's Center for Health Equity Research and its Culturally-Centered Addictions Research Training (C-CART) Program have developed a partnership with a NAZ behavioral health facility, which implemented a primary care service in 2021. This project describes the lessons learned from the quantitative portion of a process program evaluation to further develop the newly implemented primary care service and advance care integration at the NAZ facility. The evaluation showed that the integrated care service has been vital in providing access to care for people with substance use disorders from underserved backgrounds, such as Native Americans (24%) and homeless populations (22%). The evaluation also evidenced four areas of challenge. First, there was a high proportion of missed appointments [369 (56.25%) of 656 scheduled visits] in the first eight months after primary care service implementation, interrupting the continuity of care for the no-show patient and preventing or delaying other clients from accessing care. Second, the facility's electronic health record system requires providers to type clients' physical health conditions, which impedes the automatic collection of this information. Accordingly, the EHR interface limits collection of detailed internal reports and outcome measures, which are vital for clinical monitoring and resource allocation. Third, although it is recommended by US National Academy of Medicine, the facility's EHR interface cannot accommodate information on clients` sexual orientation and gender identity (SOGI), which are critical social determinants of health as mental and physical health conditions highly impact LGBT people. Finally, there is hesitancy in incorporating SOGI data into the facility's EHR for concerns that collection of SOGI information could make clients and providers uncomfortable and result in legal problems. The collection of SOGI data is crucial for monitoring health disparities and allocating resources. When facilities do not adopt an EHR that enables the collection of SOGI data, they miss an opportunity to offer culturally-centered care for LGBT clients. Based on the lessons we learned, we recommend (1) further culturally-centered, community-based participatory studies to improve service utilization, (2) further investments in EHR technology optimization, and (3) further partnerships with local LGBT organizations to make the facility a safer environment for LGBT people and facilitate SOGI data collection.

CORRESPONDING AUTHOR: JEFFERSSON SANTOS, BSN, Northern Arizona University, flagstaff, AZ; jbp246@nau.edu

---

Abstract citation ID: kaad011.1060

POSTER SESSION D: MULTI-LEVEL FACTORS IMPACTING YOUNG ADULT PRIMARY CARE TRANSITIONS: EVIDENCE FROM A STATE ALL-PAYER CLAIMS ANALYSIS

Sarah Nowak, PhD[1], Maija Reblin, FSBM[1], Mark Fung, MD[1], Kirsten Threlkeld, MD[1]

[1]University of Vermont, Burlington, VT

Background: Transitions from pediatric to adult primary should ideally occur between the ages of 18 and 21. Delayed transitions can lead to gaps in medical care. Research has primarily focused on the transition in care for patients with special health care needs. However, a gap in service can place all patients at risk for worse health outcomes.

Objective: We use state all-payer claims data to assess the patient, family, provider, and county-level factors that influence timely transitions to adult primary care for adolescents and young adults.

Methods: We created a cohort of 18,996 patients aged 17-20 in 2014-2017 who were continuously enrolled in health insurance at least 36 months between 2014-2019. Predictors were based on months 1-12 (planned transition pre-period), and outcomes were based on data from months 25-36 (planned transition post-period). Each period, patients were attributed to the primary care provider with whom they had the most visits. Logistic regression was used to predict receipt of any pediatric care on patient, family, provider, and county-level factors.

Results: We found a substantial increase in the percent of patients without any primary care between our pre-period and post period (22-33%). Young men (vs women OR = 1.04, p = .018) and those on Medicaid (vs commercial insurance, OR = 1.004, p = .017) are more likely to see a pediatrician vs. adult primary care in the post-period. Patients with a family member seeing a pediatrician are more likely to see a pediatrician in the post-period (OR = 1.11, p < .001). Those seeing a pediatrician with higher panel churn (OR = 0.63, p < .001) and greater panel size (OR = 0.99, p = .005) are less likely to see a pediatrician in the post-period. Patients in counties with higher adult primary care capacity were less likely to have any visit with a pediatrician (OR=.92, p< .001), and those in counties with greater capacity to provide primary care to children were more likely to see a pediatrician in the post-period (OR = 1.15, p < .001).

Discussion: Young women seeing a pediatrician may be more likely to find new primary care to address sexual and reproductive health needs; continued contact with providers may also depend on family context. Delayed transitions to adult primary care might result not only from constrained local adult primary care capacity, but also from robust pediatric primary care. Although based on one state's all-payer claims data, understanding the factors associated with appropriate transition can help inform state and national policy.

CORRESPONDING AUTHOR: Sarah Nowak, PhD, University of Vermont, Burlington, VT; sarah.nowak@med.uvm.edu

Abstract citation ID: kaad011.1061

POSTER SESSION D: RHEUMATOID ARTHRITIS MANAGEMENT IN PRIMARY CARE: THE NEED FOR BEHAVIORAL HEALTH INTEGRATION

Sarah Wilson, MS, MA[1], Sara Hayes, MPH[2], Amanda Lipski, MBA[2], Amy Wachholtz, PhD, MDiv, MS, FSBM[3]

[1]University of Colorado Denver, Centennial, CO; [2]Health Union, LLC, Philadelphia, PA; [3]University of Colorado Denver, Denver, CO

Introduction: Integrated care models have been of increased interest to primary care and family medicine clinics in recent years. Research has shown that integrating behavioral health services into primary care associates with improvements in diabetes, cardiovascular disease, and depression outcomes, higher scores on Patient Reported Experience Measures, and reductions in physician burnout. The current study looks to build upon this research by examining the potential utility of behavioral health providers for supporting rheumatoid arthritis (RA) management in primary care and family medicine settings.

Method: As part of a larger study, 3852 adults diagnosed with RA provided information about their health and treatment experiences in the *Rheumatoid Arthritis In America 2021 Survey*.

Results: RA management that occurred mainly in primary care or family medicine settings associated with less patient-reported control over RA symptoms than RA management occurring in other medical settings (*Wald* χ^2 = 41.988, *p* < .001, OR = .87, CI = .835 – .908). Patients who see primary care or family medicine physicians for RA management are also about 25% more likely to be diagnosed with depression (*Wald* χ^2 = 8.45, *p* = .004, OR = 1.25, CI = 1.075 – 1.448), 35% more like to be diagnosed with insomnia (*Wald* χ^2 = 14.91, *p* < .001, OR = 1.35, CI = 1.157 – 1.563) and 40% more likely to endorse symptoms of anxiety and depression (*Wald* χ^2 = 14.91, *p* < .001, OR = 1.35, CI = 1.157 – 1.563) compared to people managing RA in different settings.

Discussion: Considering the biopsychosocial model of pain, involving behavioral health providers in RA management may be a significant step toward improving RA outcomes in primary care and family medicine. Future research should look to expand upon these promising results by testing the effectiveness of integrated primary care for RA management.

CORRESPONDING AUTHOR: Sarah Wilson, MS, MA, University of Colorado Denver, Centennial, CO; sarah.c.wilson@ucdenver.edu

---

Abstract citation ID: kaad011.1062

POSTER SESSION D: PRIVATE RELIGIOSITY BETTER PREDICTS LESS HAZARDOUS DRINKING THAN PUBLIC RELIGIOSITY

Clayton Ulm, BS[1], Jamie M. Gajos, PhD[2], Jessica Becerra, MS[3], Adam Barry, PhD[4], Dingjing Shi, PhD in Quantitative Psychology[5], Emily T. Hebert, DrPH[6], Chaelin K. Ra, PhD[3], Michael S. Businelle, PhD in Clinical Psychology[7]

[1]TSET Health Promotion Research Center, Stephenson Cancer Center, Oklahoma, USA, Oklahoma City, OK; [2]Department of Human Development and Family Studies, University of Alabama, Tuscaloosa, AL, USA, Tuscaloosa, AL; [3]TSET Health Promotion Research Center, Stephenson Cancer Center, Oklahoma City, OK, USA, Oklahoma City, OK; [4]Department of Health and Kinesiology, Texas A&M University, College Station, TX, USA, College Station, TX; [5]University of Oklahoma, Norman, OK; [6]Department of Health Promotion and Behavioral Sciences, UT Health School of Public Health, Austin, TX, USA, Austin, TX; [7]University of Oklahoma Health Sciences Center, Oklahoma City, OK

Background: Prior research has indicated that both frequency of attendance to religious services (i.e., public religiosity) and personal importance of religion (i.e., private religiosity) are related to lower levels of hazardous drinking in specific populations (e.g., youth, African Americans). However, little is known about the relations between public and private religiosity on alcohol consumption and hazardous drinking in general adult populations. This study addressed this gap in the literature.

Methods: The current study used data from a large nationwide sample of general population adults. At baseline, participants completed the AUDIT-C to assess hazardous drinking. Measures of public religiosity were assessed with two items *(…how often do you attend religious services?*, 0=never, 8=everyday) and (*During the past week, how often did you attend religious services?,* 0=0 times, 9=9 or more times). Another item assessed private religiosity (*Religion or spirituality is important to me,* 1= strongly disagree, 5=strongly agree). Negative binomial regressions explored the impact of both private and public religiosity on total AUDIT-C scores (sum of 3 items scored on a 0-12 scale), after controlling for important demographic covariates (age, ses, race, and educational status).

Results: Participants (*N*=456) were mostly White (70.6%), female (76.1%, M_{Age}=48.1, SD_{Age}=12.5), and had completed at least some college (86.2%). Average AUDIT-C scores were 1.74 (*SD*=2.05). Overall, greater levels of private religiosity were associated with lower AUDIT-C scores (IRR=0.91, *p*=0.026) after controlling for age, ses, race, and educational status. However, the effect of both measures of public religiosity (how often attended religious services and how often in the past week attended religious services) were weaker and statistically non-significant (IRR=0.95, *p*=0.066; IRR=0.88, *p*=0.098, respectively).

Conclusion: While previous research has highlighted religiosity as a protective factor against alcohol-related problems, this investigation noted private religiosity, but not public religiosity, was related to a reduced likelihood for hazardous drinking. These findings highlight the importance of a nuanced approach to how religiosity is conceptualized and operationalized in survey-based research, as personal/internal religion measures may have more robust effects than outward/external religious behaviors, such as frequency of religious attendance.

CORRESPONDING AUTHOR: Clayton Ulm, BS, TSET Health Promotion Research Center, Stephenson Cancer Center, Oklahoma, USA, Oklahoma City, OK; clayton-ulm@ouhsc.edu

Abstract citation ID: kaad011.1063

POSTER SESSION D: SPIRITUALITY, FAITH AND MEDICATION ADHERENCE AMONG MIDUS STUDY PARTICIPANTS WITH HYPERTENSION

Rachel Jaffe[1], Yendelela Cuffee, PhD, MPH[2]

[1]University of Delaware, Newark, DE; [2]University of Delaware, Newark, DC

Introduction: Spirituality refers to feelings of connection to a higher power, and it is typically associated with religiosity, faith, and participation in religious practices. The positive effects of such spirituality on psychological well-being have been well-documented in the literature. Spirituality and participation in religious practices are cited as coping mechanisms for individuals living with hypertension and have been shown to reduce blood pressure. The relationship between spirituality, faith, and medication adherence among individuals with hypertension warrants further examination. We hypothesize that spirituality and faith will be associated with better adherence to medication among midlife adults.

Methods: Data were obtained from the third wave of the Midlife Development in the US (MIDUS) study, which collected longitudinal data about lifestyle, health-related behaviors, and health outcomes from midlife adults. Our analysis included the 1,606 individuals from MIDUS Wave 3 who self-reported hypertension diagnosis. We conducted ordinal logistic regression to examine the association between medication adherence, blood pressure, and spirituality/faith.

Results: The study participants were white (95%), women (54%) and reported good or better health (76%). Approximately 94% reported taking high blood pressure medication daily. The majority reported never engaging in prayer or spiritual practices (57%), yet 55% reported faith was essential to living a good life. Multivariate analysis revealed that taking medication daily reduced the odds of having high systolic or diastolic blood pressure (Systolic OR: 0.99, p=0.003, 95% CI: 0.98-1.00) and (Diastolic OR 0.99, p= 0.022, and 95% CI: 0.98-1.00). We did not detect a statistically significant association between daily medication adherence and prayer/spiritual practices or beliefs about faith being important for a good life.

Discussion: Participants in this study felt faith was important for a good life but were less likely to engage in prayer or other spiritual practices. Medication adherence was associated with lower systolic and diastolic blood pressure, good or better mental health, and increasing age. Spirituality and faith may play an important role in hypertension management and blood pressure; having a deeper understanding of the effects of spirituality may provide opportunities to develop culturally relevant health interventions to improve medication adherence.

CORRESPONDING AUTHOR: Rachel Jaffe, University of Delaware, Newark, DE; rachelj@udel.edu

---

Abstract citation ID: kaad011.1064

POSTER SESSION D: USE OF QUALITATIVE METHODS TO EXAMINE COLORECTAL CANCER SCREENING EDUCATION IN HISPANIC ADULTS DIAGNOSED WITH TYPE 2 DIABETES

Adriena N. Hernandez, BA, BPH[1], Gloria Cota Aguirre, BS[2], Kristin Morrill, PhD[3], Samantha Werts, MPH[4], Emanuelle M. Dias, MPH, CPH[5], Rosi Vogel, BBA, MBA[4], Lizzie Garcia, BSBM[6], Tatiana Enriquez, CHW[6], Cynthia Thomson, PhD, RD[1]

[1]Department of Health Promotion Sciences, College of Public Health,University of Arizona, Tucson, AZ; [2]University of Arizona, College of Agriculture and Life Sciences, Tucson, AZ; [3]Community & Systems Health Science Division, College of Nursing, University of Arizona, Tucson, AZ; [4]University of Arizona, Tucson, AZ; [5]Department of Health Promotion & Behavioral Sciences, Center for Health Promotion and Prevention Research, University of Texas Health Science Center at Houston School of Public Health, Houston, TX; [6]Mariposa Community Health Center, Nogales, AZ

Background: Hispanic adults living in the U.S.-Mexico border region have high prevalence of type 2 diabetes (T2D), a risk factor for colorectal cancer (CRC). While screening has proven to promote early detection of CRC, screening prevalence is considerably lower among Hispanic adults (54.7%) when compared to Non-Hispanic White adults (70.1%). Screening rates among border-dwelling Hispanic adults with diabetes have not been characterized. Theory-driven health promotion materials that integrate the opinions, interests, and attitudes of Hispanic community members are likely to be more effective in increasing CRC screening in this at-risk group. Purpose: The purpose of this qualitative research study is to examine the knowledge, beliefs, and motivation toward CRC and CRC screening among Hispanic adults with T2D and their preferences of CRC screening health promotion material content. Methods: In-person focus groups were conducted in Spanish with Hispanic adults diagnosed with pre-diabetes or T2D aged 45 and older who were recruited from a Diabetes Prevention Program at a federally qualified health center in Southern Arizona. Participants were asked questions concerning their beliefs, knowledge, and motivation for CRC screening and their preference for CRC health promotion material content. Materials were developed using literature-informed marketing strategies (information, humor, or fear) and constructs from health behavior change theory and then shared with focus group members. Results: To date, 15 Hispanic adults (86% female) participated in one of three focus groups. Initial key themes identified include: (1) limited knowledge of CRC and its risk factors (including T2D), (2) provider recommendations may increase motivation to complete CRC screening, and (3) intersectional effects of gender and culture (e.g., machismo) as barriers to completing CRC screening for Hispanic men. Participants identified that the materials incorporating humor were the most personable and motivating for CRC screening. Conclusion: The initial study findings demonstrate a lack of knowledge of the CRC-diabetes risk association in Hispanic adults with T2DM, the importance of provider recommendations to encourage CRC screening, and that theory-driven health promotion materials may be more likely to increase CRC screening behavior in this group. Additional focus groups will be conducted to reach rich and sufficient findings and form final conclusions. We will use these findings in future efforts to disseminate CRC screening education materials among Hispanic adults living in the border region.

CORRESPONDING AUTHOR: Adriena N. Hernandez, BA, BPH, Department of Health Promotion Sciences, College of Public Health,University of Arizona, Tucson, AZ; adrienanicole@gmail.com

Abstract citation ID: kaad011.1065

POSTER SESSION D: PILOT STUDY OF ‘ROADMAP TO PARENTHOOD’ DECISION AID AND PLANNING TOOL FOR FAMILY BUILDING AFTER CANCER

Catherine Benedict, PhD[1], Pamela Simon, MSN, CPNP, CPON[2], David Spiegel, MD[1], Allison W. Kurian, MD[1], Ruben Alvero, MD[3], Jonathan S. Berek, MD[1], ERROL J. PHILIP, PhD[4], Lidia Schapira, MD[5]

[1]Stanford University School of Medicine, Palo Alto, CA; [2]Stanford Adolescent and Young Adult Cancer Program, Lucile Packard Children's Hospital Stanford, Palo Alto, CA; [3]Stanford University School of Medicine, Sunnyvale, CA; [4]UCSF, Arcadia, CA; [5]Stanford University, Redwood City, CA

Background: Gonadotoxic cancer treatments can limit family-building options for young adult female (YA-F) survivors. Roadmap to Parenthood is a web-based decision aid and planning tool (‘Roadmap’) for family building after cancer when reproductive medicine or adoption/fostering is needed. Study aims were to test the feasibility, acceptability, and preliminary efficacy of the Roadmap tool in a single-arm pilot trial.

Methods: Participants were Stanford cancer patients, assigned female at birth, 18-45 years old, who completed gonadotoxic cancer treatment and desired a future child or were unsure of family-building plans. After completing a baseline survey (T1), participants were provided access to the Roadmap tool. Follow-up surveys were completed at 4- and 6-weeks, before and after having a cancer survivorship visit (T2 and T3, respectively). Measures included an investigator-designed Information Needs Questionnaire, Reproductive Concerns After Cancer Scale, the Decision Conflict Scale, and the COMRADE patient-provider communication subscales. Repeated measures ANOVAs evaluated change in outcomes over time.

Results: Participants (N=20) averaged 30.70 years old (SD=7.83), identified as White (55%), Asian (30%), Latinx (20%), and other/mixed race (15%), and most were employed (65%) and nulliparous (85%). The most common cancers were breast, gynecologic, and lymphoma and 10% completed fertility preservation before cancer treatment. Feasibility of study procedures and acceptability of the intervention was demonstrated with a 90% completion rate and 100% of YA-Fs accessing the website at least once. Participant feedback was positive, e.g., “This is a good step one to help me prepare for my visit [with my oncologist].” The intervention led to reduced information needs (p< .001), lower reproductive concerns (p=.014), lower decisional conflict about family-building options (p< .001), and greater satisfaction with provider communication (p=.003) and greater confidence in decision making with providers about fertility and family-building issues (p=.03).

Conclusions: These findings suggest that the Roadmap tool is both feasible and useful to YA-Fs as part of survivorship care. Engagement in the program was associated with improved knowledge, decision making, and communication with providers regarding post-cancer fertility care and family building. Further work will identify whether companion provider resources are needed and explore the broader implementation potential of this tool across disciplines equipped to address reproductive health such as primary care and gynecology.

CORRESPONDING AUTHOR: Catherine Benedict, PhD, Stanford University School of Medicine, Palo Alto, CA; cbenedict@stanford.edu

---

Abstract citation ID: kaad011.1066

POSTER SESSION D: MULTIPLE LEVELS OF INFLUENCE ON LIFESTYLE BEHAVIORS AMONG RACIAL/ETHNIC MINORITY CANCER SURVIVORS: A SYSTEMATIC REVIEW

Dalnim Cho, PhD[1], Seokhun Kim, PhD[1], Scherezade K. Mama, DrPH[2], Maria C. Swartz, PhD, MPH, RD, LD[3], Yimin Geng, MS[1], Qian Lu, PhD, MD[1]

[1]MD Anderson Cancer Center, Houston, TX; [2]The University of Texas MD Anderson Cancer Center, Houston, TX; [3]UT MD Anderson Cancer Center, Houston, TX

Objective: Although the number of racial/ethnic minority cancer survivors is rapidly increasing in the U.S., existing lifestyle interventions (e.g., physical activity and eating behaviors) have been mostly conducted among non-Hispanic White survivors. To better understand and eventually develop effective lifestyle interventions for racial/ethnic minority survivors, investigation of factors across multiple levels of influence that affect their lifestyle behaviors is critical. Thus, based on socio-ecological models, we conducted a systematic review to identify factors across multiple levels that affect lifestyle behaviors (physical activity and diet) among racial/ethnic minority cancer survivors and to identify knowledge gaps in the literature.

Methods: We searched the Ovid MEDLINE, EBSCO CINAHL, Ovid PsycInfo, and PubMed databases to identify studies that assessed associations between physical activity or diet and various factors. We recorded the level(s) of influence (and corresponding factor[s]) each eligible study investigated: (1) individual (e.g., demographic characteristics, psychological factors), (2) family/social support, (3) provider/team (e.g., physician knowledge, communication skills), and (4) organization/local community/policy environment (e.g., neighborhood and social environment, acculturation). The last level was a combination of multiple levels of influence because very few studies examined these levels of influence.

Results: Of 1,603 records identified, 23 studies of 14 unique samples were eligible. Most included breast cancer survivors (n=19) and Black survivors (n=13); only one study included Asian survivors. Of 17 studies investigating physical activity, 16, two, one, and four, respectively, assessed individual, family/friend, provider/team, and environmental factors. None of the studies assessed physical activity using a device (e.g., accelerometer). Of 11 studies investigating diet, 11, two, one, and two, respectively, assessed these factors. Only five studies simultaneously investigated factors across multiple levels.

Conclusions: Our findings indicate a critical need for more studies that investigate multiple levels of influence and thus could inform future multilevel interventions for racial/ethnic minority cancer survivors. Lifestyle behavior studies that target Asian American survivors, male survivors, and cancers other than breast cancer are also urgently needed.

CORRESPONDING AUTHOR: Dalnim Cho, PhD, MD Anderson Cancer Center, Houston, TX; dcho1@mdanderson.org

Abstract citation ID: kaad011.1067

POSTER SESSION D: ITERATIVE DEVELOPMENT OF AN INTERACTIVE WEBSITE TO SUPPORT SHARED DECISION MAKING IN METASTATIC BREAST CANCER

Claire C. Conley, PhD[1], Afton Boles, BA[1], Jennifer D. Rodriguez, BA[2], Katherine Lopez, BA[3], Nicole Schwab, BA[4], Sophia Cumbo[1], David Farrell, MPH[5], Suzan Abduljawad, PhD[6], Claudine Isaacs, MD[1], Suzanne C. O'Neill, PhD, FSBM[1]

[1]Georgetown University, Washington, DC; [2]Georgetown University, Herndon, VA; [3]Georgetown University, Philadelphia, PA; [4]University of North Carolina, Charlotte, charlotte, NC; [5]People Designs, Durham, NC; [6]Georgetown University, Vienna, VA

Background: Recent treatment advances have resulted in significantly increased survival times following metastatic breast cancer (MBC) diagnosis. Novel treatment approaches–and their related side effects–have changed the landscape of MBC treatment decision-making. MBC patients and their caregivers have unique information needs. Thus, we developed a prototype of an online educational tool to prepare MBC patients for shared decision making with their oncologists.

Methods: Intervention development consisted of five phases. *Phase I:* We conducted in-depth, semi-structured qualitative interviews with MBC patients (N=17), their primary caregivers (N=2), and their oncology providers (N=8). Phase I results were used to develop storyboards including potential website interface and content. *Phase II:* We interviewed MBC patients (N=6) and oncology providers (N=5) to gather feedback on the storyboards. Phase II results were used to turn storyboards into a website "wireframe" (a non-functioning but navigable illustration of key website interface and content). *Phase III:* We interviewed MBC patients (N=9) to gather feedback on the wireframe. Phase III results were used to develop a beta version of the full website. *Phase IV:* We interviewed MBC patients (N=5) to gather feedback on the beta website. Phase III results were used to finalize the website prototype. *Phase V:* Patients newly diagnosed with MBC (N=4) used the website prototype for 1 week and completed surveys assessing acceptability, feasibility, treatment knowledge, decision satisfaction, preparation for decision-making, and self-efficacy for decision-making.

Results: *Phase I:* Participants characterized a cyclical process of MBC treatment decision-making and identified key information needs. *Phases II-IV:* Participants provided detailed feedback on information to add, remove, and change on the website. *Phase V:* All participants felt they learned new information from the website prototype and would recommend it to others newly-diagnosed with MBC. Participants' MBC treatment knowledge increased 1.3 points on average (on a 0-10 scale) from pre-to-post using the website prototype. After using the website prototype, participants reported high satisfaction with MBC treatment decisions (M=4.5 out of 5), preparation for decision-making (M=82 out of 100), and self-efficacy for decision-making (M=95 out of 100).

Conclusions: This multiphase, iterative process resulted in a prototype intervention designed to support decision-making for MBC patients. Future research is needed to: (1) finalize the intervention; (2) assess the intervention's effect on decisional outcomes; and (3) disseminate the intervention.

CORRESPONDING AUTHOR: Claire C. Conley, PhD, Georgetown University, Washington, DC; claire.conley@georgetown.edu

---

Abstract citation ID: kaad011.1068

POSTER SESSION D: "I FEEL DISCONNECTED, BUT ALSO MORE IN TUNE:" RELATIONSHIPS WITH BODY IN YOUNG PEOPLE WITH HEREDITARY MULTI-ORGAN CANCER RISK

Camella J. Rising, PhD, MS, RDN[1], Chloe Huelsnitz, PhD, MPH[2], Rowan Forbes Shepherd, PhD[3], Catherine Wilsnack, MSW, LCSW[4], Alix G. Sleight, PhD, OTD, MPH, OTR/L[5], Patrick Boyd, PhD[6], Payal P. Khincha, MBBS, MSHS[3], Allison Werner-lin, PhD, LCSW[7]

[1]National Cancer Institute, Rokville, MD; [2]National Cancer Institute, Blaine, MN; [3]National Cancer Institute, Rockville, MD; [4]University of Texas at Austin, Austin, TX; [5]Samuel Oschin Comprehensive Cancer Institute, Los Angeles, CA; [6]Press Ganey, South Bend, IN; [7]University of Pennsylvania, Philadelphia, PA

Background: Adolescent and young adult (AYA) cancer survivors are at risk of negative body image due to physical and psychosocial sequelae and social pressures. Negative body image is associated with psychopathology and lower health-related quality of life. Psychological resilience, however, may be protective. The present research aimed to extend the literature by describing how AYAs with hereditary multi-organ cancer risk associated with Li-Fraumeni syndrome (LFS) relate to their bodies and to examine correlates of body acceptance.

Methods: Participants (N=57) were AYAs with LFS aged 15-39 years enrolled in a longitudinal mixed-method behavioral study under the National Cancer Institute's LFS study. AYAs completed wave 1 (n=38) and/or wave 2 interviews (n=30) and/or an online survey (n=37). Semi-structured interview guides asked about physical and emotional well-being, relationship with the body, and adaptation to physical change over time. Survey items measured reported body acceptance (1 item), psychological resilience (10 items, α=.83), physical health (7 items, α=.86), and satisfaction with quality of life (QOL) (1 item). Quantitative and qualitative data were analyzed concurrently.

Results: Participants were mostly female (n=44/57, 77%), with mean age 30 years and ≥1 primary cancer (n=33/57, 58%) (*e.g.,* breast, brain, sarcoma). Lower reported body acceptance was associated with poorer physical health (β=.49, 95% CI [.19, .79]), lower psychological resilience (β=.40, 95% CI [.08, .71]), and lower satisfaction with QOL (β=.44, 95% CI [.14, .75]). Interviewees described complex relationships with body as a result of frequent self-monitoring, intensive whole-body scans, risk-reducing surgeries (*e.g.,* mastectomy, oophorectomy), and cancer treatment. Living with multi-organ cancer risk meant participants sometimes did not trust their bodies to be healthy. Most participants reported heightened body attunement, which facilitated self-protective behaviors, but triggered worry, preoccupation, and distress. Women who underwent procedures that altered appearance (*e.g.,* mastectomy, breast reconstruction), described body trauma and grief that, at times, made them feel self-conscious and disembodied. Several AYAs reported that with time and use of coping behaviors (*e.g.,* positive reframing, yoga) they developed greater body respect and forgiveness.

Conclusion: Many AYAs with LFS reported body acceptance; however, this varied with physical and psychosocial health. Findings suggest AYAs may experience challenges adjusting to bodily changes while living with high lifelong multi-organ cancer risk and need psychosocial support to improve body acceptance. This support may include assessing AYAs' body image and satisfaction during psychosocial checkups and providing recommendations to foster balanced relationships with, and appreciation for, their bodies.

CORRESPONDING AUTHOR: Camella J. Rising, PhD, MS, RDN, National Cancer Institute, Rokville, MD; camella.rising@nih.gov

Abstract citation ID: kaad011.1069

POSTER SESSION D: AWARENESS OF THE ALCOHOL-CANCER LINK AMONG US CANCER SURVIVORS: FINDINGS FROM HINTS-SEER

Andrew Seidenberg, PhD, MPH[1], Naomi Greene, PhD, MPH, CPH[2], George Kueppers, PhD[3], Ashley B. Murray, PhD[4], Carlos O. Garrido, PhD[5], Richard P. Moser, PhD, FSBM[6], William Klein, PhD[7]

[1]Truth Initiative, Washington, DC; [2]National Cancer Institute (NCI), Rockville, MD; [3]Division of Cancer Control and Population Sciences, National Cancer Institute, Rockville, MD; [4]National Cancer Institute | National Institutes of Health, Bethesda, MD; [5]National Cancer Institute, WASHINGTON, DC; [6]National Cancer Institute -, Rockville, MD; [7]National Cancer Institute, Rockville, MD

Background: Alcohol is a leading modifiable risk factor for cancer, contributing to an estimated 75,000 cancer cases and nearly 19,000 cancer deaths per year in the United States. Previous research has shown that awareness of the alcohol-cancer link is low among the general US adult population. Alcohol use after cancer diagnosis can interact with treatment and increase the risk of cancer recurrence. The purpose of this study was to examine awareness of the alcohol-cancer link among US cancer survivors.

Methods: We analyzed data from HINTS-SEER, a pilot study of the Health Information National Trends

Survey (HINTS) 5 Cycle 4 administered to cancer survivors from three Surveillance, Epidemiology, and End Results (SEER) cancer registries (Greater Bay Area, Iowa, New Mexico). Data were collected between January and August of 2021 from a total of 1,234 cancer survivors. The main outcome was awareness of the alcohol-cancer link, measured separately for wine, beer, and liquor. We calculated weighted estimates of awareness and used weighted multivariable logistic regression to identify predictors of awareness by beverage type. Analyses combined responses from all three registries.

Results: Only 24.3%, 27.0%, and 35.6% of survivors were aware that wine, beer, and liquor increased cancer risk, respectively. Moreover, 50.7%, 53.3%, and 49.9% of survivors did not know how wine, beer, and liquor affected cancer risk, respectively. In multivariable models we found that survivors of alcohol-related cancers had higher odds of awareness that wine (OR=1.99; 95% CI=1.21, 3.27), beer (OR=1.57; 95% CI=1.02, 2.42), and liquor (OR=1.63; 95% CI=1.07, 2.51) increased cancer risk, compared to survivors of cancers not associated with alcohol use. Moreover, survivors who disagreed with the statement “There's not much people can do to lower their chances of getting cancer” had higher odds of awareness for wine (OR=2.42; 95% CI=1.28, 4.59), beer (OR=1.99; 95% CI=1.15, 3.44), and liquor (OR=2.29; 95% CI=1.38, 3.80). Sex assigned at birth, race/ethnicity, and education were not associated with awareness.

Conclusions: Awareness of the alcohol-cancer link is low among cancer survivors from the Greater Bay Area, Iowa, and New Mexico registries, but those with any alcohol-associated cancer had higher awareness of this link. Educational interventions are needed to raise awareness of the alcohol-cancer link among all cancer survivors.

CORRESPONDING AUTHOR: George Kueppers, PhD, Division of Cancer Control and Population Sciences, National Cancer Institute, Rockville, MD; george.kueppers@nih.gov

---

Abstract citation ID: kaad011.1070

POSTER SESSION D: PREFERENCES FOR IMAGING VERSUS BLOOD-BASED LUNG CANCER SCREENING AMONG HIGH-RISK ADULTS

Samantha L. Quaife, PhD, CPsychol[1], Jennifer L. Dickson, MBBS, PhD[2], Kate E. Brain, PhD, CPsychol[3], Stefanie Bonfield, BSc, MSc[1], Stephen W. Duffy, MSc, CStat[1], Allan Hackshaw, MSc[2], Jo Waller, PhD[4], Samuel M. Janes, PhD[2]

[1]Queen Mary University of London, London, England, UK; [2]University College London, London, England, UK; [3]Cardiff University, Cardiff, Wales, UK; [4]King's College London, London, England, UK

Background: Low-dose computed tomography (CT) screening reduces lung cancer deaths in high-risk adults. The development of multi-cancer early detection (MCED) blood tests means, hypothetically, that it may be possible to improve or even replace CT screening with a blood test. Acceptability to the target population is critical for equitable access to novel innovations, particularly in lung screening where inequalities in participation already exist.

Methods: Data were collected during a longitudinal survey cohort study examining correlates of lung screening participation which was embedded within the SUMMIT Study. Adults aged 56-79 with a significant smoking history were mailed a survey four months after their second annual CT screen. This measured preferences for having a 'lung CT scan', blood test or both tests, and the main reason for their preference. Participants were asked to imagine that the blood test and CT scan were equally effective in detecting early lung cancer. Test preferences were analysed descriptively, and unadjusted associations with demographics and smoking status explored.

Results: Of 1449 respondents, 61.6% preferred to have both tests, 22.6% preferred the blood test alone and 8.0% preferred the CT scan only. A minority (7.8%) had no preference. The most commonly endorsed reasons for preferring both tests or the CT scan alone were greater perceived test effectiveness (62.1% and 49.1%, respectively) and reassurance (29.2% and 16.7%). For those preferring the CT scan only, 18.5% reported they disliked blood tests. Reasons for preferring the blood test alone included convenience (35.9%) and fewer perceived risks or harms (27.9%). Fewer of those who currently smoke preferred the blood test alone than those who used to smoke (18.0% vs. 26.0%), but a higher proportion preferred both tests (68.0% vs. 56.9%). Similarly, fewer of those with lower education preferred the blood test alone than those with higher education (16.8% vs. 31.6%); more commonly preferring both tests (66.2% vs. 52.4%).

Conclusion: Among adults participating in CT screening, most preferred to have a simultaneous CT scan should a lung screening blood test be introduced. This dual preference was highest among those who currently smoke and those with lower education, and was primarily driven by perceived effectiveness and reassurance. Any future implementation of blood-based lung screening should accurately convey the relative effectiveness of a blood test when supporting informed choice. Research should seek to understand ‘action biases’ towards multiple screening tests even when no additional effectiveness is stated.

CORRESPONDING AUTHOR: Samantha L. Quaife, PhD, CPsychol, Queen Mary University of London, London, England, UK; s.quaife@qmul.ac.uk

Abstract citation ID: kaad011.1071

POSTER SESSION D: RACIAL DISPARITIES IN GENETIC TESTING ACROSS 15 CLINICAL SITES IN 6 STATES

Ingrid Wagner, BSPH[1], Ziming Xuan, ScD, SM, MA[1], Haibo Lu, MBA[2], Catharine Wang, PhD[1]

[1]Boston University School of Public Health, Boston, MA; [2]CancerIQ, Chicago, IL

Prior research has shown the importance of genetic testing for hereditary cancer, yet evidence is sparse about racial and ethnic disparities in uptake across different clinical sites and settings. Our study is aimed at assessing the racial and ethnic differences in genetic testing for hereditary cancer syndromes, overall and within two distinct clinical workflows: 1) referral/scheduling, 2) point-of-care testing (POC). We employed a cross-sectional study design with data collected from a digital cancer genetic risk assessment program, implemented at 15 health care sites (7 referral/scheduling, 8 POC) across 6 geographically disperse states. Individuals who screened at high risk of hereditary cancer syndromes were offered one of two services depending on the clinical workflow deployed at the site: 1) an appointment with a genetic specialist to discuss genetic testing (referral/scheduling model) or 2) immediate genetic testing at the point-of-care (POC model). The main outcome was whether a high-risk patient received genetic testing (Y/N). Clinical sites included breast or colon health centers, oncology, OBGYN or GI clinics, and primary care. Individual-level covariates included patient age, cancer history, race, and ethnicity. County-level factors including race, ethnicity, and health insurance were obtained from the 2019 US Census for each site location. We conducted logistic regression analysis to evaluate the associations between race/ethnicity and genetic testing controlling for demographics, clinical factors, and county-level covariates. In 2019, a total of 43,079 patients with non-missing age, race, and ethnicity were screened across the 15 sites and 14,665 (34%) were identified as high risk and meeting National Comprehensive Cancer Network (NCCN) genetic testing criteria for Hereditary Breast and Ovarian Cancer, Lynch syndrome or both. Among those identified at high risk, 3,143 (21%) proceeded with genetic testing. Overall, Black non-Hispanic patients were significantly less likely to undergo genetic testing compared to the White non-Hispanic patients (adjusted Odds Ratio (aOR)=0.839, 95% CI 0.705, 0.999). Patients from the POC clinical sites had substantially greater odds of genetic testing compared to referral/scheduling sites (aOR=3.091, 95% CI 2.798, 3.415). Among sites with a referral/scheduling model, Black non-Hispanic patients had decreased odds of genetic testing (aOR=0.605, 95% CI 0.416, 0.879), and county-level proportion of Black residents was also inversely associated with genetic testing (aOR=0.904, 95% CI 0.887, 0.922). This study sheds light on the individual-, clinic-, and county-level factors that influence genetic testing uptake. Findings suggest that point-of-care testing may be better suited for improving genetic testing uptake, particularly among Black non-Hispanic patients.

CORRESPONDING AUTHOR: Catharine Wang, PhD, Boston University School of Public Health, Boston, MA; CLWANG@BU.EDU

Abstract citation ID: kaad011.1072

POSTER SESSION D: "IT'S ABOUT FREEDOM": A CONTENT ANALYSIS OF TWITTER MESSAGES ABOUT COVID-19 VACCINE POLICY

Jaime E. Sidani, PhD, MPH, CHES[1], Beth L. Hoffman, PhD, MPH[1], Riley L. Wolynn[1], Una Haines[1], Havannah Tung[1]

[1]University of Pittsburgh School of Public Health, Pittsburgh, PA

Introduction: While the development and deployment of COVID-19 vaccines was welcomed by some, others expressed strong resistance. To increase vaccination rates, in summer 2021 a series of COVID-19 vaccine mandates were considered and announced by various agencies, professional organizations, and schools and universities, followed by the September 2021 announcement of several federal mandates by the Biden Administration. This study sought to characterize Twitter messages (i.e., tweets) during the height of vaccine policy announcements to understand public sentiment toward mandates.

Methods: We collected tweets from Twitter's Application Programming Interface (API) from August 12, 2021 through September 11, 2021. A total of 82,501 tweets were collected using COVID-19 vaccine-specific keywords (e.g., *vaccin**, *corona**). We filtered these tweets using terms related to policy (e.g., *policy*, *mandate**). This resulted in 14,413 tweets, which we further filtered to include tweets that were re-tweeted at least once and could be geo-located to a US state, resulting in a final dataset of 1,472 tweets for human coding. We applied a systematically developed codebook to the dataset by two experienced human coders (Cohen's kappa=0.74-1). Coding categories included *relevance*, *sentiment*, and *policy type*. We calculated descriptive statistics and used z-tests of proportions to compare sentiment by policy type.

Results: A total of 972 (66%) tweets were coded as relevant. Of these, 228 (23%) were positive, 90 (9%) were negative, and 655 (67%) were neutral in sentiment. A total of 205 (21%) referenced national policy, 197 (20%) referenced state policy, and 104 (11%) referenced local policy. A total of 240 (25%) referenced school policy; of these 133 (55%) referenced university policy while 97 (40%) referenced secondary school policy. Finally, 398 (41%) of tweets referenced workplace policy; of these 80 (20%) referenced healthcare workplaces. Tweets about state policy were more likely to be positive than tweets about local policy ($p < 0.05$) and national policy ($p=0.01$), tweets about school policy were more likely to be positive than tweets about workplace policy ($p < 0.01$), and tweets about university policy were more likely to be positive than tweets about secondary school policy ($p < 0.05$).

Discussion: Despite public attention being focused on those who oppose vaccine mandates, few tweets in our dataset expressed negative sentiment, suggesting those who express strong anti-mandate sentiment are a vocal minority. This finding, along with our finding of differences in sentiment by policy type, has implications for policymakers seeking to assess community support for vaccine mandates.

CORRESPONDING AUTHOR: Jaime E. Sidani, PhD, MPH, CHES, University of Pittsburgh School of Public Health, Pittsburgh, PA; jaime.sidani@pitt.edu

Abstract citation ID: kaad011.1073

POSTER SESSION D: PSYCHOSOCIAL FACTORS ASSOCIATED WITH PHYSICAL ACTIVITY AMONG LOW-INCOME OVERWEIGHT OR OBESE MOTHERS WITH YOUNG CHILDREN

Mei-Wei Chang, RN[1], Carolyn Gunther, RDN[2], Lisa K. K. Militello, RN[1], Duane T. Wegener[1], Chyongchiou J. Lin, PhD[1]

[1]The Ohio State University, Columbus, OH; [2]The Ohio State University, Bexley, OH

Purpose: Investigate the associations between psychosocial factors and physical activity.

Design: Secondary data analysis utilizing baseline data of a large-scale community-based randomized controlled lifestyle behavior intervention.

Setting: The Special Supplemental Program for Women, Infants, and Children in Michigan, USA.

Subjects: Low-income overweight or obese mothers with young children (N = 740, 65% response rate).

Measures: Survey data were collected via phone interview. Predictors included self-efficacy, emotional coping, autonomous motivation, and social support. Self-reported leisure physical activity was the outcome variable. Covariates were age, race, smoking, employment, education, body mass index, and postpartum status.

Analysis: A multiple linear regression model was applied.

Results: Self-efficacy ($\beta = 0.32$, 95% CI = 0.11, 0.52, $p = 0.003$) and autonomous motivation ($\beta = 0.10$, 95% CI = 0.03, 0.17, $p = 0.005$) were positively associated with increased physical activity. However, emotional coping and social support were not associated with physical activity.

Conclusion: Future research should examine the longitudinal association of key psychosocial factors with physical activity.

CORRESPONDING AUTHOR: Mei-Wei Chang, RN, The Ohio State University, Columbus, OH; chang.1572@osu.edu

Saturday
April 29th, 2023
9:00 AM – 9:50 AM
Symposia

Abstract citation ID: kaad011.1074

SYMPOSIUM 27: ADVANCING HEALTH EQUITY: STRESS AND HEALTH BEHAVIORS FOR BLACK POPULATIONS FROM AN ADAPTIVE STRENGTHS-BASED PERSPECTIVE

Vanessa V. Volpe, PhD[1], Caryn N. Bell, PhD[2], Courtney S. Thomas Tobin, PhD[3], Stephanie L. Fitzpatrick, PhD[4]

[1]North Carolina State University, Raleigh, NC; [2]Tulane University, New Orleans, LA; [3]University of California Los Angeles, Los Angeles, CA; [4]Northwell Health; Kaiser Permanente Center for Health Research, Portland, OR

This symposium brings together interdisciplinary approaches from public health, psychology, and sociology to explore dynamic intersections of mental and physical health required to advance health equity for Black Americans. The promotion of healthy behaviors in the face of stress remains a key target for interventions focused on bolstering population health. Yet many traditional health behavior interventions are not particularly effective for Black Americans and do not serve their needs. For example, many traditional approaches do not take into consideration structural social determinants of health or take a purely deficit-based approach when conceptualizing health for Black populations. To advance the state of population health science on critical health equity research, the papers in this panel offer a different approach to understanding stress and health behaviors (diet, physical activity, emotional eating, substance use) for Black populations. Across three papers, our investigations of the catalysts and consequences of health behaviors for Black populations aim to honor the full complex humanity of Black Americans and highlight not only the structural systems of oppression that dampen their opportunities to be healthy, but also spotlight the material and psychosocial resources of Black populations. Centering on these strengths-based resources when designing culturally-appropriate interventions dedicated to bolstering the health of Black populations is one important next step in building capacity to address multiple forms of oppression and ultimately achieve health equity.

CORRESPONDING AUTHOR: Vanessa V. Volpe, PhD, North Carolina State University, Raleigh, NC; vvvolpe@ncsu.edu

Abstract citation ID: kaad011.1075

1: PROCESSES LINKING CONTEXTUALIZED STRESS AND EMOTIONAL EATING FOR BLACK YOUNG ADULT WOMEN: THE ROLES OF SUPERWOMAN SCHEMA AND SELF-COMPASSION

Vanessa V. Volpe, PhD[1], Julia Ross, BS[2], Abbey Collins, BA[2]

[1]North Carolina State University, Raleigh, NC; [2]North Carolina State University

Emotional eating (i.e., eating in response to negative emotional states) is one precipitating stress-related health behavior that increases obesity risk. Emotional eating may be especially concerning for Black women during young adulthood, when they experience the greatest weight gains. Black young adult women face stress from exposure to intersectional racism and sexism (i.e., contextualized stress), and engage in emotional eating in response to this stress. To cope with this stress, some Black women come to view themselves as superwomen, emphasizing that they can "do it all" and that they are resilient and self-efficacious. This is an adaptive response to contextualized stress but may pose challenges to successfully making lifestyle changes. Black women in this role may feel the need to present an image of strength and feel that their self-worth is threatened if they don't achieve their lifestyle goals, suppress emotions that may lead to emotional eating, and resist vulnerability or social support required to stay engaged in behavior change efforts. Endorsement of the superwoman schema is a symptom of experiencing stress from being a Black woman, and has been associated with less healthy eating patterns for Black women, including using food to cope with stress. Yet the *processes* that we can intervene on to decrease emotional eating risk for Black young adult women who experience contextualized stress and endorse a superwoman schema have not been examined, despite the necessity of such intervention for health equity. We use cross-sectional online survey data from a 2021 national investigation of 504 US Black (75.2% African American) young adult (18-35 years old) women (98.4% cisgender) to examine one process through which contextualized stress may be associated with emotional eating for Black young adult women - through increased superwoman schema and less self-compassion (being kind and understanding toward oneself in instances of failure). Employing a serial mediation with bootstrapping and controlling for age, student status, eating disorder, overweight/obesity, and impacts of COVID-19, we found support for the hypothesized mediation (indirect effect = 1.01, 95% CI: .33, 1.80). More contextualized stress was associated with greater endorsement of the superwoman schema (B = 5.72, 95% CI: 4.28, 7.16). Greater endorsement of the superwoman schema was associated with less self-compassion (B =-.01 , 95% CI: -.02, -.01), and less self-compassion was associated with more emotional eating (B = -7.01, 95% CI: -10.19, -3.84). Results provide cross-sectional evidence of theorized processes between contextualized stress and emotional eating for Black young adult women, and point to self-compassion as one potentially important component of health behavior interventions to reduce emotional eating in response to contextualized stress for Black young adult women who take on a superwoman role.

Abstract citation ID: kaad011.1076

2: LINKING HOUSEHOLD COMPOSITION WITH BODY WEIGHT OUTCOMES AND RELATED BEHAVIORS: IDENTIFYING STRESS- AND MENTAL HEALTH-RELATED PATHWAYS

Caryn N. Bell, PhD[1]

[1]Tulane University, New Orleans, LA

Caregiving for children and other family members is cited as an important stressor and key barrier to weight-related behaviors among Black women. Previous studies have linked the number of children and household composition to body weight outcomes with variations by race and sex. Specifically, the number of school-aged children and older adults in the household is associated with body mass index (BMI) among Black women. Previous studies have examined the role of household income, yet the pathways between household composition and body weight outcomes have not been assessed among Black women. Because weight-related behaviors, stress, and possibly mental health-related factors likely play an important role, the aim of this study is to identify the pathways between household composition and body weight outcomes as well as related behaviors through stress- and mental health-related factors. To investigate this, secondary analyses of the 2011-2018 National Health and Nutrition Examination Survey (NHANES) examined adults aged between 20 and 60 years old. Using structural equation models, the associations between the number of young and school-aged children and older adults (age ≥60 years) with body weight outcomes, physical activity, and dietary behaviors are assessed as well as the role of depressive symptoms and inflammation. Household income and marital status are assessed as moderators. Preliminary findings suggest that depressive symptoms are an important factor in the association of household composition with dietary behaviors and physical activity among Black women. Household income also moderates these associations ($p < .05$). Moreover, there are interactions between type of household members on body weight outcomes and related behaviors ($p < .05$). The results of this study will contribute to our understanding of the role of caregiving and household composition in weight-related outcomes among Black women. Interventions and programs to address obesity and behaviors should account for these findings.

Abstract citation ID: kaad011.1077

3: PSYCHOSOCIAL AND BEHAVIORAL COPING TYPOLOGIES AMONG BLACK AMERICANS: EVIDENCE OF SKIN-DEEP RESILIENCE

Courtney S. Thomas Tobin, PhD[1], Angela Gutierrez, PhD, MPH[2]

[1]University of California Los Angeles, Los Angeles, CA; [2]Ohio Heritage College of Osteopathic Medicine

Black Americans experience relatively low rates of major psychiatric disorders (e.g., major depressive disorder [MDD]) than White Americans, despite heightened psychological distress and worse physical health (e.g., chronic conditions, physical disability). Referred to as the "race paradox in mental health," these discordant outcomes challenge our understanding of the social determinants of health because prior research suggests that MDD, distress, and physical health are similarly shaped by risk factors (e.g., socioeconomic disadvantage, exposure to social stressors), which Black Americans disproportionately face. This study clarifies health patterns of Black Americans by investigating the synergistic effects of psychosocial resources and health behaviors on mental and physical health among this population. With data from Black Americans in the Nashville Stress and Health Study (n=627), we used latent class analysis to identify multidimensional coping profiles based on distinct combinations of psychosocial resources (positive reappraisal, John Henryism, religious coping, social support) and health behaviors (smoking, alcohol consumption, physical activity). We assessed the sociodemographic, stress, and health-related correlates associated with each coping class. Results identify three latent classes. Classes varied in risk exposures and health outcomes. Class 1 was characterized by limited psychosocial resources and risky health behaviors [39.07%]; these individuals reported heightened socioeconomic disadvantage and stress exposure, poor mental health, but good physical health. Class 2 had limited psychosocial resources and mixed health behaviors [19.30%]; they faced risks comparable to Class 1 members but reported poor mental and physical health outcomes. Class 3 exhibited positive psychosocial resources and health behaviors [41.63%]. They were socioeconomically advantaged, faced few stressors, and had positive mental health yet poor physical health. Findings demonstrate the combined significance of psychosocial resources and health behaviors for shaping the distinct mental and physical health patterns observed among Black Americans.

Abstract citation ID: kaad011.1078

SYMPOSIUM 28: ADVANCING THE MITIGATION OF HIV-RELATED STIGMAS BY TRANSLATING BEHAVIOR CHANGE SCIENCE INTO INTERVENTION AND STUDY DESIGN

Bryan A. Kutner, PhD, MPH[1], Valerie Earnshaw, PhD[2], Talea Cornelius, PhD, MSW, MS[3], Kate Guastaferro, PhD, MPH[4]

[1]HIV Center for Clinical and Behavioral Studies at Columbia University and New York State Psychiatric Institute, New York, NY; [2]University of Delaware, Newark, DE; [3]Columbia University Irving Medical Center, New York, NY; [4]New York University, New York, NY

Stigma interferes with behavioral and biomedical HIV services that could otherwise improve health and well-being. Methodologies for the development of interventions to address HIV-related stigmas and their evaluation vary widely, limiting the development of generalizable knowledge about how best to mitigate stigma in the settings where its effects are most detrimental. As science in this domain proliferates, organizing this body of work in a coherent way and with a theory-based structure would promote greater comprehension of generalizable knowledge and the development, dissemination and implementation of the most promising intervention strategies. Numerous aspects of intervention and study design can be considered and refined to tackle this conceptual problem and improve the impact of research as it transitions from the 'lab' to real-world implementation.

This symposium bridges innovative research methods and research applications. Primary goals are threefold: (1) to outline methodological and theoretical considerations in the design of behavioral interventions, (2) to share available theory-based tools and evaluation designs to guide and support behavioral scientists, and (3) to illustrate how putting these methods into practice can improve the impact of our behavioral interventions.

First, Dr. Earnshaw will provide an overview of the state of the science of stigma and HIV and highlight the advantages of a mechanism-focused approach to guide the development of more effective, efficient, and targeted behavioral interventions.

Next, Dr. Cornelius will discuss methodological considerations of theory-informed and mechanism-focused behavioral science with a focus on valid measurement. She will introduce freely available online tools to facilitate this work.

Dr. Kutner will then share the results of his large systematic review that distills different theory-based intervention components within the field of HIV research, including evidence for their potential effectiveness.

Finally, Dr. Guastaferro will discuss the multiphase optimization strategy (MOST). She will give an overview of the goal of intervention optimization, showcase examples related to stigma research in HIV, and provide resources for a brief "how-to" guide.

By the end of this session, participants will be oriented to the state of the field of HIV stigma research and will be equipped with novel tools and insights into the design and implementation of interventions to mitigate stigma.

CORRESPONDING AUTHOR: Bryan A. Kutner, PhD, MPH, HIV Center for Clinical and Behavioral Studies at Columbia University and New York State Psychiatric Institute, New York, NY; bak2133@cumc.columbia.edu

Abstract citation ID: kaad011.1079

1: USING BEHAVIOR CHANGE TAXONOMIES TO UNDERSTAND HOW TO REDUCE HIV-RELATED STIGMAS IN US HEALTH CARE: A SYSTEMATIC REVIEW LINKING INTERVENTION TYPES, TECHNIQUES, AND MECHANISMS TO POTENTIAL EFFECTIVENESS

Bryan A. Kutner, PhD, MPH[1], Michael Vaughn, PhD[2], Rebecca Giguere, MPH[3], Cristina Rodriguez-Hart, PhD, MPH[4], Farnaz Kaighobadi, PhD[5], Karen McKinnon, MA[6], Bimbla Felix, LMSW[7], Attisso Akakpo, MPH, MA[8], Francine Cournos, MD[6], Matt Mikaelian, LMSW[9], Justin Knox, PhD, MSc, MPH[10], Daria Boccher-Lattimore, DrPH[6], Kimbirly Mack, MSW[4], Marian LaForest, MPH[11], Theo G M Sandfort, PhD[12]

[1]HIV Center for Clinical and Behavioral Studies at Columbia University and New York State Psychiatric Institute, New York, NY; [2]New York State Psychiatric Institute & Columbia University; [3]HIV Center For Clinical And Behavioral Studies At The New York State Psychiatric Institute And Columbia University; [4]Division of Disease Control (DIS), New York City Department of Health and Mental Hygiene (DOHMH); [5]Department of Social Sciences, Bronx Community College, City University New York; [6]Northeast/Caribbean AIDS Education and Training Center, Columbia University; [7]Adult Comprehensive Services, Jacobi Medical Center; [8]AIDS Institute, New York State Department of Health; [9]The Mental Health Association Of Westchester Inc.; [10]Columbia University Irving Medical Center, New York, NY; [11]Augustus C. Long Health Sciences Library, Columbia University Irving Medical Center; [12]New York State Psychiatric Institute, New York, NY

Background: To end the HIV epidemic, we need to understand how to reduce stigma in health care settings. If we can characterize the theory behind strategies that have reduced HIV-related stigmas, we may then be able to translate the beneficial effects of these efforts across the settings where they are needed. This presentation will present the results of a project that sought to characterize the components of stigma reduction efforts by identifying their transtheoretical intervention functions, techniques, and mechanisms of action.

Methods: A systematic review of studies published by April 2021 was conducted across 5 databases. To be included, studies needed to quantify the effects of efforts to reduce HIV-related stigmas among health care providers or systems in the United States. In addition to assessing study quality, the team applied transtheoretical taxonomies from the UK-based Human Behaviour Change Project (HBCP) to code the frequency and potential effectiveness of intervention functions, behavior change techniques, and mechanisms of action. Potential effectiveness was defined as the percentage of articles reporting significant effects out of all articles coded as having studied each function, technique and mechanism.

Results: Coders identified at least one theory-based component in each of the 28 included studies, despite only a minority of studies (43%) referring explicitly to theory. Quality was generally low. Among the 9 studies with the highest quality indicator, the use of an experimental design, the intervention function with the highest potential effectiveness was “Persuasion” (i.e., using communication to induce emotions and/or stimulate action; 66.7% or 4/6 studies). The techniques with the highest potential effectiveness were “Behavioral practice/rehearsal” and “Salience of consequences” (each 100% or 3/3 studies), and mechanisms with the highest potential effectiveness were “Knowledge” and “Beliefs about capabilities” (each 67% or 2/3 studies).

Conclusions: Practitioners and researchers can use these findings to better explore theory-based components of existing and potential intervention strategies, including areas requiring further evaluation. Characterizing the function, techniques and mechanisms of various strategies promotes a taxonomic approach that can advance understanding about effective changes to HIV-related stigmas in healthcare settings and thereby improvements in services for affected populations.

Abstract citation ID: kaad011.1080

2: HIV-RELATED STIGMA: INTRODUCTION AND CONCEPTUAL OVERVIEW

Valerie Earnshaw, PhD[1]

[1]University of Delaware, Newark, DE

This presentation will provide a foundation for the symposium by introducing audience members to key concepts related to stigma and providing an overview of research on associations between stigma and health outcomes across the HIV care continuum. First, stigma will be defined as a social process supported by power that differentiates people based on social statuses and results in social devaluation. Guided by the Health Stigma and Discrimination Framework, key concepts related to stigma will be introduced. These will include drivers and facilitators of stigma (i.e., upstream factors that enable stigma processes) and manifestations of stigma (i.e., ways in which individuals experience and perpetuate stigma). Drawing on Fundamental Cause Theory, mediating mechanisms linking stigma with HIV-related outcomes will be introduced (e.g., social isolation, psychological responses, stress, and resource access). Moderating factors that may impact experiences and/or outcomes of stigma (e.g., intersectional stigma, cultural contexts, and time) will also be briefly considered. Second, research findings on associations between stigma and health outcomes across the HIV care continuum will be reviewed. HIV-related stigma undermines efforts related to HIV prevention (e.g., access to pre-exposure prophylaxis, engagement in substance use and condomless sex), diagnosis (e.g., regular HIV testing), linkage to and retention in HIV care, and viral load suppression. Finally, the landscape of existing HIV stigma interventions will be reviewed. Results of reviews of HIV stigma reduction interventions conducted within the past five years will be discussed. These reviews highlight key gaps in and limitations of existing HIV stigma interventions as well as opportunities to improve our scientific understanding of the mechanisms through which interventions operate to reduce stigma. Adopting a mechanism-focused approach creates opportunities to conduct valid theory tests and identify the most promising targets for developing interventions with powerful real-world impacts.

Abstract citation ID: kaad011.1081

3: THE SCIENCE OF BEHAVIOR CHANGE (SOBC): CONSIDERING MECHANISMS AND THEIR MEASURES TO IMPROVE THE IMPACT OF BEHAVIORAL INTERVENTIONS

Talea Cornelius, PhD, MSW, MS[1]

[1]Columbia University Irving Medical Center, New York, NY

Background: Many interventions fail to measure mechanisms that underlie behavior change, leaving it an open question as to why interventions do (or do not) work and presenting challenges for scalability. To address this public health issue, researchers at the Science Of Behavior Change (SOBC) promote a mechanism-focused approach to behavioral intervention research and have created and curated several online resources to support behavioral scientists, such as those seeking to reduce HIV-related stigmas. Further attention has been drawn to questions of valid measurement in collaboration with the UK-based Human Behaviour Change Project (HBCP).

This presentation introduces the SOBC method, provides resources available to support mechanistic science, and presents quantitative and qualitative data on the correspondence of SOBC measures and HBCP mechanisms of action (MoAs).

Methods: The SOBC method aims to identify hypothesized mechanisms that underlie behavior change, measure these mechanisms, test whether these measures are influenced by an intervention, and test whether change in a mechanism is associated with subsequent behavior change. Data from a 3-round expert opinion study are now available to link SOBC measures to the HBCP MoAs.

Results: The SOBC website hosts examples of mechanism-focused science and an online repository comprising putative measures of mechanisms and documentation of their progress through the SOBC steps. Collaboration with the HBCP uncovered 167 links between 44 SOBC self-report measures and 26 MoAs. Qualitative data from an anonymous online discussion revealed shortcomings in current measurement approaches (e.g., concerns about measure quality, broadly defined mechanisms).

Discussion: Resources to facilitate behavioral science are available on the SOBC website, including access to measures that have undergone validation with respect to behavior change. The measures repository has been linked to online resources hosted by the HBCP, including MoAs and behavior change techniques. Although this is an important step forward, more work is required to validate measures with respect to mechanisms, and the field must pay more attention to questions of measurement. Integrating these considerations in intervention research to reduce HIV-related stigmas and improve health and well-being will allow science to cumulate in a theory-based and structured way, illuminating the most promising intervention targets with the greatest real-world impacts.

Abstract citation ID: kaad011.1082

4: APPLYING INTERVENTION OPTIMIZATION METHODS TO INTERVENTIONS DESIGNED TO ADDRESS HIV-RELATED STIGMA

Kate Guastaferro, PhD, MPH[1]

[1]New York University, New York, NY

The majority of HIV stigma interventions include multicomponent strategies targeting changes to knowledge, social contact, and skills. These interventions historically have been tested in a two-arm randomized controlled trial (RCT) design wherein the packaged intervention is tested against a suitable control. While the RCT is well suited to demonstrate the effectiveness of an overall intervention, this design cannot provide information regarding the inner workings of the component strategies within interventions, or the mechanisms that underlie their beneficial effects. This leads to unanswered questions about the essential mechanisms that underlie behavior change targeted by these components - specifically regarding the affordability, scalability, and efficiency of the intervention – which impacts the translation of these interventions into practice and limits their public health impact.

An alternative methodological approach designed to answer the aforementioned unanswered questions is the multiphase optimization strategy (MOST) framework. MOST is an innovative framework for the development, optimization, and evaluation of multicomponent interventions. Based on principles of engineering, interventions using the engineering inspired MOST framework are designed to produce the best expected outcome obtainable, given key constraints imposed by the need to maximize affordability, scalability, and/or efficiency. The strategic balance of Effectiveness against Affordability, Scalability, and Efficiency, (EASE), is accomplished through a process called optimization. Using alternative rigorous experimental designs, such as the factorial experiment or Sequential Multiple Assignment Randomized Trial (SMART), the scientist is able to empirically examine the contribution (i.e., effect) of intervention components, alone and in combination, on the outcome of interest. For example, optimizing an HIV stigma intervention consisting of components related to knowledge, contact, and skills will provide empirical information about the contribution of each component in the reduction of stigma. The scientist thus has an opportunity to examine and refine intervention components and their intended mechanisms to increase intervention EASE. Ultimately, when the optimized intervention is subjected to an RCT to determine effectiveness, many of the unanswered questions have been addressed.

The presentation will provide a brief overview of intervention optimization following the three phases of MOST (preparation, optimization, and evaluation); showcase the utility of the factorial experimental design; highlight applied examples of how MOST has been applied in the field of HIV prevention; and describe the potential to optimize interventions designed to reduce HIV-related stigma.

Abstract citation ID: kaad011.1083

SYMPOSIUM 29: APPLICATION AND ADVANCEMENT OF SOCIAL COGNITION AND MOTIVATIONAL THEORIES TO INFORM HEALTH BEHAVIOR CHANGE

Ryan E. Rhodes, PhD, FSBM[1], Chun-Qing Zhang, PhD[2], Derwin King Chung Chan, PhD[3], Krya Hamilton, PhD[4], Martin S. Hagger, PhD[5]

[1]University of Victoria, Victoria, BC, Canada; [2]Sun Yat-sen University, Guangzhou, Guangdong, China; [3]The Education University of Hong Kong, N.T., N/A, Hong Kong; [4]Griffith University, Mt Gravatt, Queensland, Australia; [5]University of California, Merced, Merced, CA

Multiple problems in society can be prevented by the actions people take. For example, cardiovascular disease and doing regular physical activity, COVID-19 and engaging in respiratory preventive behaviors, drowning and avoiding driving into floodwater. To tackle these issues, we need ways to identify and develop effective interventions for behavior change. Intervening to change health behavior through intervention necessitates identifying target behavioral determinants and the accompanying mechanisms by which they guide the behavior. While there are a range of suggestions for behavior change interventions, there is little underlying research on the general mechanisms of action of behavioral change. This is problematic because research indicates not only are many interventions ineffective, but also that theory-based interventions are more effective and more precise in evoking behavior change. Without a basis in theory, one cannot ascertain 'why' and 'how' an intervention is effective in changing behavior. Evidence on social cognition models such as theory of planned behavior and health action process approach provide an evidence base of salient antecedents and processes to guide intervention design. It should be noted, however, that such theories, which are based on testing effects of constructs underpinning deliberative, conscious processes on behavior, have inherent limitations. Researchers have started to include constructs from various psychological models or integrate behavioral theories to offer greater insights into the complexities of behavioral action. Such advances in social cognition theories may provide better guidance on targets for behavioral intervention. The collection of papers in this symposium present applications of theory and innovative ways that advance theories of social cognition that paves the way for practical translation and policy implementation. The symposium will showcase research using observational, intervention, and meta-analytic designs from studies across Australia, Hong Kong, Canada, and USA that highlight the application and advancement of theory and how this can be used and translated to practice.

CORRESPONDING AUTHOR: Krya Hamilton, PhD, Griffith University, Mt Gravatt, Queensland, Australia; kyra.hamilton@griffith.edu.au

---

Abstract citation ID: kaad011.1084

1: REFLECTING ON PHYSICAL ACTIVITY ACROSS TWO YEARS OF THE COVID-19 PANDEMIC: PREDICTORS OF INTENTION-BEHAVIOR PROFILES

Ryan E. Rhodes, PhD, FSBM[1], Wuyou Sui, PhD[1], Kayla Nuss, PhD[2], Sam Liu, PhD[1]

[1]University of Victoria, Victoria, BC, Canada; [2]Klein Buendel, Denver, CO

Objective: The COVID-19 pandemic has affected how many people engage in regular moderate-to-vigorous intensity physical activity (MVPA) over the last two years. Understanding the correlates of various motivational and behavioral profiles is important to producing effective interventions. The purpose of this study was to predict current and dynamic (across two years of the COVID-19 pandemic) intention and MVPA profiles using the multi-process action control (M-PAC) framework.

Method: A representative sample of 977 English-speaking Canadians (M age = 46.79; SD =15.23) completed measures of reflective (instrumental attitude, affective attitude, perceived capability and opportunity), regulatory (planning and self-monitoring), and reflexive (habit, identity) processes and MVPA (adapted Godin Leisure-Time Exercise Questionnaire). These measures included current assessments and reflections prior to the COVID-19 restrictions and were characterized as residual change scores for analyses.

Results: Three current intention-behavior profiles (non-intenders, unsuccessful intenders, successful intenders) and five dynamic intention-MVPA by pre-pandemic MVPA profiles (consistent non-intenders, relapsed non-intenders, consistent unsuccessful intenders, relapsed unsuccessful intenders, consistent successful intenders) emerged from these data. For the current intention-MVPA profile, changes in affective attitude (r = .18), perceived capability (r = .16), behavioral regulation (r = .33), and identity (r = .41) pre-post pandemic had meaningful correlations with a significant (p < .01) discriminant function, controlling for demographic covariates. Similarly, changes in perceived capability (r = .16), behavioral regulation (r = .32), habit (r = .15) and identity (r = .49) had meaningful correlations with a significant (p < .01) discriminant function of the dynamic 2-year intention-MVPA profiles, controlling for demographic covariates; however, only change in identity predicted successful MVPA enactment.

Conclusions: Few participants increased MVPA across the pandemic and dynamic patterns of intention-MVPA profiles by pre-pandemic MVPA showed the presence of two at risk groups (relapsed non-intenders, relapsed unsuccessful intenders) who have relapsed in MVPA. Collectively, the findings support the joint promotion of reflective, regulatory, and reflexive processes in the choice of behavior change techniques to promote post-pandemic MVPA intention and behavior.

Abstract citation ID: kaad011.1085

2: A RANDOMIZED CONTROLLED TRIAL EXAMINING THE EFFICACY OF USING THE HEALTH ACTION PROCESS APPROACH TO IMPROVE INFLUENZA PREVENTION BEHAVIORS AMONG OLDER ADULTS IN HONG KONG

Chun-Qing Zhang, PhD[1], Ru Zhang, PhD[2], Derwin King Chung Chan, PhD[3], Martin S. Hagger, PhD[4]

[1]Sun Yat-sen University, Guangzhou, Guangdong, China; [2]South China Normal University; [3]The Education University of Hong Kong, N.T., N/A, Hong Kong; [4]University of California, Merced, Merced, CA

Objective: Older adults are at greater risk of serious complications from the seasonal influenza. Yet, their compliance with influenza prevention behaviors is low. Building on the health action process approach (HAPA), the current study aimed to examine the effectiveness of a telephone-delivered intervention to promote older adults' compliance with influenza prevention behaviors.

Methods: The intervention adopted a randomized controlled design within three groups of older adults in Hong Kong (n = 312) aged 65 or older: (a) behavior initiation only, (b) behavior initiation + behavior maintenance, and (c) measurement only control. The behavior initiation only group completed a three-month weekly-delivered telephone-based intervention, while the initiation + behavior maintenance group completed the same intervention for a six-month period. The primary outcome was self-reported compliance with influenza prevention behaviors (e.g., washing hands before touching food, avoid touching eyes, nose, or mouth with unwashed hands; and wearing facemasks). Secondary outcomes were HAPA psychological variables.

Results: The HAPA-based intervention significantly improved older adults' participation in influenza prevention behaviors at the 3-month post-intervention follow-up, but intervention effects were short lived and effects on behavior were non-significant at 6- and 12-month follow-up. There were significant intervention effects on the social support, action planning, and coping planning variables from the HAPA. The mediation effects of HAPA variables on the paths from intervention conditions to influenza preventive behaviors were non-significant.

Conclusions: Current results provided preliminary support on the efficacy of the HAPA-based intervention in improving participation in influenza prevention behaviors. It seems that an intervention targeting change in the motivational aspects of the HAPA is sufficient in improving behavioral participation. Future interventions should further examine the changing mechanisms of the intervention and focus strategies to promote maintenance of behavior change post-intervention.

Abstract citation ID: kaad011.1086

3: CAN SWIMMING COMPETENCE MODERATE THE PSYCHOLOGICAL PATHWAYS AND VARIABLES WITHIN THE INTEGRATED MODEL OF SELF-DETERMINATION THEORY AND THE THEORY OF PLANNED BEHAVIOR?

Derwin King Chung Chan, PhD[1]

[1]The Education University of Hong Kong, N.T., N/A, Hong Kong

Objective: Two-large scale studies examined if children's competence in swimming moderated the pathways and psychological variables within an integrated model incorporating constructs from self-determination theory and theory of planned behavior.

Methods: Study 1 used a cross-sectional survey. The sample comprised 4959 young children who were representative of primary school students in Hong Kong. Participants were asked to complete established scales of the model variables and their competence in swimming. Study 2 was a pre-post-test quasi-experiment in which 1609 primary school children who gained swimming competence in a learn-to-swim program completed the same measures of Study 1. Structural equation modelling examined the hypothesized moderating effects of swimming competence at cross-sectional level (Study 1) and change-score level (Study 2).

Results: In Study 1, swimming competence correlated positively with all the model variables ($\beta = .061$ to .330, $p < .05$) except intention ($\beta = -.009$, $p > .05$). The proposed moderating effects of competence on the model parameters were either small in magnitude or not statistically significant at cross-sectional level. In Study 2, improvement of swimming competence linked positively with the change-scores of all the model variables ($\beta = .046$ to .230, $p < .05$) except subjective norms ($\beta = .049$, $p > .05$). The hypothesized moderating effects of competence were not statistically significant at change-score level ($p > .05$).

Conclusions: Swimming competence was associated with higher autonomous motivation, social cognition variables, and intention. The pathways of the integrated model appear to be robust against children with high or low swimming competence. Findings provide evidence for theory targets for future interventions aimed at improving young children's swimming competence.

Abstract citation ID: kaad011.1087

4: KNOWLEDGE, BELIEFS, AND ATTITUDES OF AUSTRALIAN LEARNER DRIVERS TOWARD WILLINGNESS TO DRIVE THROUGH FLOODWATER

Krya Hamilton, PhD[1], Jacob J. Keech, PhD[2], Amy Peden, PhD[3], Martin S. Hagger, PhD[4]

[1]Griffith University, Mt Gravatt, Queensland, Australia; [2]University of the Sunshine Coast, Sunshine Coast, Queensland, Australia; [3]University of New South Wales; [4]University of California, Merced, Merced, CA

Objective: Driving through floodwater is a significant cause of flood-related injury and mortality, yet opportunities exist to embed safe driving messages regarding floodwaters to novice drivers in graduated driver licensing schemes. To inform future educational efforts, we investigated the knowledge, beliefs, and attitudes of Australian learner drivers about driving and avoid driving through floodwaters.

Methods: The study adopted a cross-sectional correlational design with measures drawn from the theory of planned behavior and administered within an online survey. Phase 1 ($N = 44$ learner drivers) aimed to identify the core beliefs associated with driving through floodwater. Phase 2 ($N = 250$ learner drivers) tested these beliefs on willingness to drive through floodwater as well as the social psychological factors that impact learner drivers' willingness to drive and avoid driving through floodwater using a pre-tested scenario. Analyses comprised descriptive statistics, linear regression, and structural equation models.

Results: Ten key beliefs were identified as predicting willingness to drive through floodwater. These included perceived advantages and disadvantages, perceived social approval from important others, and perceived facilitators and barriers regarding driving through floodwater in the presented scenario. Structural equation models of social cognition constructs revealed attitude, subjective norm, and perceived behavioral control predicted both willingness to drive and avoid driving through floodwater. Past experience as a passenger also predicted these social cognition constructs, although this differed across models.

Conclusion: Results highlight the importance of modelling safe driving behavior for young passengers. The strong association between subjective norm and willingness to drive through floodwater further highlights the importance of those supervising learner drivers to establish expectations around avoiding driving through the floodwater if it is encountered on a driving route. Conclusion: Social cognition factors from the theory of planned behavior predict willingness to drive and avoid driving though floodwater. Theory-based targets should be considered for the development of intervention programs for novice drivers, such as those holding learner licenses.

Abstract citation ID: kaad011.1088

5: THE HABIT CONSTRUCT IN SOCIAL COGNITION THEORIES: A META-ANALYSIS

Martin S. Hagger, PhD[1], Krya Hamilton, PhD[2], Cleo Protogerou, PhD[3], Chun-Qing Zhang, PhD[4], Laura Girelli, PhD[5], Luca Mallia, PhD[6], Fabio Lucidi, PhD[7]

[1]University of California, Merced, Merced, CA; [2]Griffith University, Mt Gravatt, Queensland, Australia; [3]Suffolk University; [4]Sun Yat-sen University, Guangzhou, Guangdong, China; [5]University of Salerno; [6]University of Rome "Foro Italico"; [7]University of Rome "La Sapienza"

Objective: Social cognition theories offer a pre-eminent account of behavior in health contexts and are based on the assumption that behavior is a function of reasoned decision making processes, represented by intention-mediated effects of theory constructs on behavior. However, these theories do not account for effects of constructs that represent the non-conscious processes that line up behavior, such as habits. Researchers have augmented these theories to test effects of the habit construct on behavior and broaden their predictive validity. Drawing from this research, we tested key hypotheses of habit effects on behavior in these theories using meta-analysis: the relative effects of habit and intention on behavior; the mediation of past behavior-future behavior effects by habit; and the mediation of habit-behavior effects by social cognition constructs and intention. We also tested the moderation of habit effects by habit measure type, behavior type (e.g., specific health behaviors, health behaviors vs. non-health behaviors), opportunity for habit formation, behavior complexity, behavior measure type, and measurement lag.

Method: A database search identified studies (k=248) reporting relations among three habit measures (behavioral frequency x context stability, response frequency, self-report measures), intention, behavior, and social cognition constructs from the theory of planned behavior – a prototypical social cognition theory. Data were analyzed using multi-level meta-analytic structural equation modeling.

Results: Habit measures and intention independently predicted behavior. Past-future behavior and habit-behavior effects were partially mediated by habit measures, and intention and social cognition constructs, respectively. Larger habit-behavior effects were observed when habit measures included behavioral frequency items, for complex behaviors (e.g., physical activity), for 'rewarding' behaviors such as alcohol consumption, and when habit was measured in close proximity to behavior.

Conclusion: Findings indicate that past-future behavior effects can be partially attributed to habit, habit-behavior effects are partially subsumed by intention and social cognition constructs, and habit-behavior effects were larger for less complex and rewarding behaviors, and when measurement lag was shorter. Findings are expected to catalyze future research exploring habit effects in social cognition theories using experimental methods and non-self-report measures. The research also highlights the imperative of encompassing habit measures in predictive studies, as well as potentially tapping into strategies to target habit change in behavioral interventions aimed at promoting health behavior or breaking maladaptive habitual behaviors, particularly potentially rewarding and less complex behaviors.

Abstract citation ID: kaad011.1089

SYMPOSIUM 30: FEDERALLY FUNDED PEDIATRIC OBESITY TREATMENT TRIALS: A DISCUSSION OF THE IMPACT OF COVID-19 ON OUTCOMES

Bethany Forseth, PhD[1], Bradley M. Appelhans, PhD, FSBM[2], Elissa Jelalian, PhD[3], Hollie Raynor, PhD, RD, LDN[4], Ann Davis, PhD, MPH, ABPP[1]

[1]KUMC, Kansas City, MO; [2]Rush University Medical Center, Chicago, IL; [3]Brown, providence, RI; [4]University of Tennessee Knoxville, Knoxville, TN

Treating obesity among youth is a public health priority as rates of overweight and obesity continue to increase with the current prevalence at 35%. Through clinical trials, researchers continue to develop and refine empirically supported treatments, based on expert committee guidelines, for a wide array of populations. COVID-19 impacted many of these pediatric obesity treatment trials through modifications to methods or delivery or by impacting the daily lives of the participants. Analyzing and comparing results from these trials that were disrupted by the pandemic has been challenging. This symposium aims to create a discussion and culminate in guidance on interpreting results from obesity trials that took place during the COVID-19 pandemic. The first presentation will describe the impact of COVID-19 on transition from in-person to remote intervention delivery in under resourced communities, with consideration of the implications for intervention scalability. The second presentation will discuss how to provide a context for interpreting childhood obesity treatment outcome data during COVID-19 from an ongoing trial involving 59 children randomized to an intensive multicomponent, family-based program, by looking at data from a questionnaire designed to measure family experiences with COVID-19 (COVID-19 Exposure and Family Impact Survey [CEFIS]), and/or other sources of child growth data collected during the same time period as the trial. The third presentation will describe data from a project which included treatment cohorts before, during and after the pandemic. The discussant will talk about the strengths and weaknesses of each approach and summarize key conclusions learned from the speakers, put them into context for other interventions impacted by the COVID-19 pandemic, or other major societal disruptions, and stimulate discussion on how best to consider the impacts of similar societal disruptions that occur in the future on treatment outcome research.

CORRESPONDING AUTHOR: Bethany Forseth, PhD, KUMC, Kansas City, MO; bhanson4@kumc.edu

---

Abstract citation ID: kaad011.1090

1: UNDERSTANDING THE IMPLICATIONS OF COVID-19 FOR DELIVERY OF THE RHODE ISLAND CORD 3.0 INTERVENTION: ADAPTATIONS AND LESSONS LEARNED

Elissa Jelalian, PhD[1], Katherine Darling, PhD[2], Jacqueline F. Hayes, PhD[3], Whitney Evans, PhD[2]

[1]Brown, providence, RI; [2]Brown University; [3]Brown University/The Miriam Hospital, Providence, RI

The goal of the Rhode Island CORD 3.0 project is to adapt and test an evidence-based pediatric weight management intervention, JOIN for ME, in a hybrid effectiveness-implementation trial design. The aims of the trial are to examine both patient-centered (child and caregiver weight status and health-related quality of life) and implementation (intervention reach, appropriateness, fidelity, and feasibility) outcomes. JOIN for ME is 10 months in duration, which includes 16 weekly sessions, followed by 4 bi-weekly and 4 monthly meetings. The group-based intervention is offered in English and Spanish and delivered by trained community health workers. This study employs a delayed treatment study design given the focus on dissemination, with one group beginning treatment immediately and the second delaying onset by four months. Children between the ages of 6 and 12 years with BMI > 85th% and a caregiver are recruited through one of two settings, a federally qualified health center or low-income housing. A formative evaluation phase was launched in August 2019 to inform fidelity-consistent adaptations to the intervention. Specific attention was given to delivering the JOIN for ME intervention to families from low-income backgrounds (i.e., target audience) as well as Latinx families (i.e., cultural adaptation). Given the timing of the qualitative work, the research team was able to solicit feedback related to the possibility of remote intervention delivery from children and caregivers. With input from families, a decision was made to transition the intervention to virtual, synchronous delivery. Families are now recruited from the identified community settings, with intervention delivered via Zoom, rather than within the community. To facilitate virtual participation, families are provided with a scale for weekly weigh-ins, a wi-fi hotspot, and a tablet that contains the intervention materials and food tracking apps, as well as access to a study-created website outlining food, physical activity, and health resources within each community. Sixty-five child-caregiver dyads have been enrolled in the intervention and recruitment is ongoing. Discussion will include critical examination of the resources required to transition from in-person to virtual delivery in families from low-income communities, with particular focus on considering implications for scalability.

Abstract citation ID: kaad011.1091

2: PROVIDING CONTEXT IN UNDERSTANDING CHILDHOOD OBESITY TREATMENT OUTCOMES DURING COVID-19: FAMILIES BECOMING HEALTHY TOGETHER

Hollie Raynor, PhD, RD, LDN[1], Chelsi Cardoso, MS, RD, CDE[2], Lauren Griffiths, MPH[3], Anna M. Jackson, MS, RDN[4]

[1]University of Tennessee Knoxville, Knoxville, TN; [2]University of Tennessee, Knoxville; [3]University of Tennessee; [4]University of Tennessee, Knoxville, knoxville, TN

Families Becoming Health Together is a randomized clinical trial testing a dietary variety prescription within an intensive (29 contact hours over 18 months) family-based, multicomponent childhood overweight/obesity intervention. Participants are family dyads, a child aged 8 to 12 years with BMI > 85th% and an adult caregiver living in the household with overweight/obesity (> 25 kg/m2). The trial was designed to be face-to-face, both in terms of intensive assessment measures (salivary habituation measures) and delivery of intervention. Intervention is provided to families via child and adult group sessions. The group setting allows support to develop regarding changing adult caregiver parenting behaviors and lifestyle and child lifestyle, so that both children and adults can improve weight status. Each family is also provided with a brief family session for individualized feedback during weeks when group sessions occur. Recruitment for the trial started in Fall 2019. Due to the COVID-19 pandemic, transition to remote intervention, remote assessment, and remote recruitment/enrollment occurred in March, May, and June 2020, respectively. Fifty-nine families have been randomized into the trial, with recruitment ongoing. Research conducted during the pandemic has indicated that for many children, engaging in healthy eating and activity behaviors has been challenging, and that greater weight gain has occurred in children, as compared to pre-pandemic time periods of equivalent length. This likely indicates that childhood obesity treatment programs, even those based on current evidence-based recommendations, may show poorer outcomes, making overall treatment effects challenging to interpret. Two methods will be discussed that can provide a context to interpret treatment outcomes. The first is using data from a questionnaire designed to measure family experiences with COVID-19 (COVID-19 Exposure and Family Impact Survey [CEFIS]), and the second is to examine other sources of child growth data collected during the same time period as the trial.

Abstract citation ID: kaad011.1092

3: THE IMPACT OF COVID-19 ON THE IAMHEALTHY SCHOOLS TREATMENT OUTCOME DATA

Ann Davis, PhD, MPH, ABPP[1], Bethany Forseth, PhD[1], Kandace Fleming, PhD[2], Rebecca Swinburne Romine, PhD[3]

[1]KUMC, Kansas City, MO; [2]University of Kansas, Lawrence, KS; [3]University of Kansas

Certain populations are differentially impacted by pediatric obesity, including children from rural areas who are more likely to have an unhealthy weight status than children in urban areas. Very few treatment programs have been developed that target this underserved population; one such treatment is the iAmHealthy Schools program. This program delivered empirically supported family based behavioral group session to parents and children (2^{nd} – 4^{th} grade) with overweight (with BMI > 85th%) living in rural areas via televideo over 8-months (n = 141). The program is conducted in partnership with elementary schools, all of which transitioned to remote learning during the initial phases of the COVID-19 pandemic. Due to the televideo nature of the treatment delivery, the iAmHealthy Schools intervention was able to switch to fully remote data collection procedures and continue despite the pandemic. However, determining the impact of the pandemic on the effectiveness on the treatment in regard to body mass, nutrition and physical activity outcomes is challenging. In this presentation we will present data from each type of cohort (before, during and after the COVID-19 pandemic) and propose a "correction factor" which could be applied across all treatment outcome studies for body mass, activity level and nutrition outcomes. We will also discuss how to identify outliers, which became more prevalent during the pandemic. The strengths and weaknesses of this approach will be discussed.

Abstract citation ID: kaad011.1093

SYMPOSIUM 31: INCORPORATING ECONOMIC AND OTHER RESOURCE CONSIDERATIONS INTO INTERVENTION OPTIMIZATION

Jillian C. Strayhorn, PhD[1], Samuel G. Smith, PhD[2], Linda M. Collins, PhD, FSBM[3], David E. Conroy, PhD, FSBM[4]

[1]New York University, Warriors Mark, PA; [2]Leeds Institute of Health Sciences, University of Leeds, UK, Leeds, England, UK; [3]New York University, Jersey City, NJ; [4]The Pennsylvania State University, University Park, PA

One of the fundamental purposes of intervention optimization using the multiphase optimization strategy (MOST) is to identify and advance interventions that are readily implementable—i.e., not just effective, but also affordable, scalable, and/or efficient. Success in achieving ready implementability in intervention optimization involves a number of key steps, including: (i) anticipating the resource considerations that will take priority in the eventual implementation of the intervention; (ii) collecting the relevant resource use data and estimating the resource demands of each combination of components and component levels; and (iii) making decisions, based on the results of the optimization trial, about which alternative interventions offer the best balance of effectiveness and resource use. In this symposium, we showcase these steps using two optimization trials (from two different areas of behavioral health and two different stages of completion) as exemplars. Presenters will explain the importance of balancing intervention effectiveness with other key aspects of ready implementability, share experiences and lessons from the field related to obtaining resource use data, and demonstrate recently developed methods for strategically balancing effectiveness and resource demands to optimize interventions for ready implementability. Our discussant, Dr. David Conroy, will highlight implications for intervention science.

CORRESPONDING AUTHOR: Jillian C. Strayhorn, PhD, New York University, Warriors Mark, PA; jillian.strayhorn@nyu.edu

---

Abstract citation ID: kaad011.1094

1: DECISION-MAKING THAT INCORPORATES AFFORDABILITY AND EFFICIENCY CONSIDERATIONS IN THE OPTIMIZATION PHASE OF MOST: A CASE STUDY FROM HIV CARE.

Jillian C. Strayhorn, PhD[1], Charles Cleland, PhD[2], David Vanness, PhD[3], Leo Wilton, PhD[4], Amanda Ritchie, MAA[5], Marya Gwadz, PhD[2], Linda M. Collins, PhD, FSBM[6]

[1]New York University, Warriors Mark, PA; [2]New York University; [3]Pennsylvania State University; [4]Binghamton University; [5]Constance and Martin Silver Center on Data Science and Social Equity; [6]New York University, Jersey City, NJ

Recent advances in decision-making methods in the multiphase optimization strategy (MOST) have enabled optimization based on a wider variety of optimization objectives, including objectives that involve (i) multiple outcome variables and/or (ii) the consideration of opportunity costs. In this presentation, we demonstrate these advances using the Heart to Heart 2 (HTH2) optimization trial as an empirical example. The goal of the HTH2 study was to optimize an intervention that would, while remaining affordable and efficient, best promote important health outcomes for African American, Black, and/or Latinx individuals living with HIV and experiencing barriers to HIV treatment. The HTH2 optimization trial used a 2^{5-1} fractional factorial design to estimate the individual and combined effects of five candidate intervention components. Candidate intervention components included: (1) Motivational interviewing sessions, (2) Focused support groups, (3) Peer mentorship, (4) Pre-adherence skill building, and (5) Navigation through the health care system. We briefly describe how the resource demands of each combination of components and component levels were estimated in this empirical example. We then show different ways of incorporating that resource use data in selecting optimized interventions under different optimization objectives. We particularly focus on objectives that approach economic considerations differently—i.e., with and without consideration of opportunity costs. We also introduce the concept of "value efficiency" in intervention optimization, and we explain why investigators using MOST might consider optimizing for value efficiency.

Abstract citation ID: kaad011.1095

2: ECONOMIC CONSIDERATIONS WITHIN THE PREPARATION PHASE OF THE MULTIPHASE OPTIMIZATION STRATEGY: A CASE STUDY IN BREAST CANCER CONTROL

Samuel G. Smith, PhD[1], Sophie Green, BSc, MSc[1]

[1]Leeds Institute of Health Sciences, University of Leeds, UK, Leeds, England, UK

Background: The multiphase optimization strategy (MOST) is a framework for the preparation, optimization and evaluation of behavioral interventions. In the preparation phase of MOST, investigators select their candidate intervention components, identify the objective that will guide their choice of an optimized intervention package, and make plans to ensure appropriate data are collected. This talk will describe how we used Intervention Mapping to consider economic factors and guide data collection within a MOST-informed program of research (ROSETA) in the UK. The aim of ROSETA is to optimize an intervention package to support medication adherence in women with breast cancer.

Methods: We developed four candidate intervention components in Intervention Mapping stages 1-4: SMS reminders to encourage habitual behaviors; information leaflet targeting erroneous medication beliefs; guided self-help to address psychological distress; and a side-effect self-management website. In stage 5 (implementation) we identified a strategy for estimating delivery costs for these components. We also considered how to develop an optimization objective that strategically balanced effectiveness with cost. In stage 6 (evaluation), we designed two trials, a pilot trial using a 2^{4-1} fractional factorial design and an optimization trial using a 2^4 factorial design. The decision to proceed from the pilot to the optimization trial will be made in Q3 2023.

Results: Our strategy for estimating costs if the National Health Service were to implement the intervention components will use information from the Personal Social Services Research Unit and NHS Reference Costs. To supplement these calculations, we adapted the UK Cancer Costs Questionnaire to identify unrecorded health service use and out-of-pocket patient costs. We also used observational research and stakeholder engagement to develop an optimization objective of building the most effective intervention package possible for a maximum cost of £3390 (~$3893) per participant. We will test the feasibility of this overall approach in the pilot trial and implement it within the optimization trial, if appropriate.

Conclusion: Intervention Mapping can inform key activities in the preparation phase of MOST. Economic factors can be considered in planning for delivery of intervention components and selecting the optimization objective, and in designing pilot trials to establish the availability and validity of health economic data.

Abstract citation ID: kaad011.1096

3: OPTIMIZING FOR INTERVENTION EASE: FINDING A STRATEGIC BALANCE OF EFFECTIVENESS AND AFFORDABILITY, SCALABILITY, AND/OR EFFICIENCY.

Linda M. Collins, PhD, FSBM[1], Jillian C. Strayhorn, PhD[2], David Vanness, PhD[3]

[1]New York University, Jersey City, NJ; [2]New York University, Warriors Mark, PA; [3]Pennsylvania State University

Many of the cost analyses that intervention scientists are familiar with start with complete treatment packages that have been evaluated in an RCT (e.g., is a treatment package that is effective overall also cost-effective?). By contrast, in intervention optimization using the multiphase optimization strategy (MOST), economic and other resource use data are considered as part of the decision-making during the optimization process, i.e. as part of the criteria considered when arriving at the optimized intervention, before it is evaluated in an RCT. As we describe in this presentation, the incorporation of economic and other resource considerations into intervention optimization therefore requires a subtle but important shift in perspective, from emphasis on determining whether or not an intervention is cost-effective to emphasis on building an intervention that will offer sufficient value for the required resources, however those are defined in a particular application. In this presentation we briefly introduce MOST and the idea of including resource use considerations as part of intervention optimization. We highlight key challenges that arise, for example when the intervention components that are most effective are also most expensive (or otherwise burdensome). We make a case for using intervention optimization methods to establish a strategic balance of effectiveness and affordability, scalability, and/or efficiency (intervention *EASE*)—even when this means sacrificing a certain amount of effectiveness to achieve ready implementability and, by extension, greater public health impact.

Abstract citation ID: kaad011.1097

SYMPOSIUM 32: INNOVATIVE SOLUTIONS TO IMPROVE THE IMPACT OF ACCEPTANCE-BASED TREATMENTS FOR WEIGHT LOSS

Jonathan B. Bricker, PhD[1], Jason Lillis, PhD[2], Evan M. Forman, PhD[3], Bonnie Spring, PhD, FSBM[4]

[1]Fred Hutchinson Cancer Research Center, Seattle, WA; [2]Brown Medical School/ California Northstate University, Roseville, CA; [3]Drexel University, Philadelphia, PA; [4]Northwestern University Feinberg School of Medicine, CHICAGO, IL

Especially since the COVID-19 pandemic, the overweight/obesity epidemic has continued to worsen, with now over 75% US adults overweight or obese. Standard behavioral treatments (SBTs) have been tested to address this serious problem, yet they have small effects on weight loss: a mere 2.39 kg (approximately 5 pounds of initial weight) by the 12-month follow-up. To improve on these outcomes, over the past decade acceptance-based treatments (ABTs) have been developed and shown efficacious. A recent random-effects meta-analysis of 21 randomized trials showed that ABTs had moderate-to high-quality evidence of greater weight loss than SBTs at 12 months (SMD: -0.17, 95% CI: -0.36, 0.02; N = 5; I^2 = 33%), and 24 months (SMD: -0.21, 95% CI: -0.42, 0.00; N = 2; I^2 = 0%; Lawlor et al., Obesity Review, 2020). The review concluded that needed now are full-scale trials with long-term follow-up in order to determine: (1) the impact of ABTs on weight loss and its maintenance, (2) who ABTs work for, (3) ABTs' most effective components, and (4) cost-effective methods of delivering ABTs. The current symposium directly responds to these needs in a presentation of three current Phase III NIH R01s demonstrating innovative and alternative approaches to ABTs for weight loss. First, Dr. Bricker will present the full-scale WelNES randomized trial of telehealth ABT for 24-month weight loss that includes a second year of booster sessions to prevent weight regain, examination of vulnerable subgroups (i.e., by race, ethnicity, income) that might benefit most from the ABT intervention, and cost-effectiveness analysis. Second, Dr. Lillis will present the full-scale Healthy for Life randomized trial comparing online group ABT to a self-regulation approach for weight loss maintenance (up to 30 months) among adults with overweight or obesity who recently completed a standardized behavioral weight loss program and lost 4 kilograms or more of weight. Third, Dr. Forman will present the full-scale Activate randomized trial testing the efficacy of individual components of ABTs through a 2 X 2 X 2 factorial design with 36-month follow-up, with examining the moderating effects of vulnerability to internal/external food cues. Dr. Spring will compare and contrast the approaches of the three ABT trials along with their potential for impact on the behavioral science of weight loss and public health disseminability.

CORRESPONDING AUTHOR: Jonathan B. Bricker, PhD, Fred Hutchinson Cancer Research Center, Seattle, WA; jbricker@fredhutch.org

---

Abstract citation ID: kaad011.1098

1: TELEHEALTH ACCEPTANCE AND COMMITMENT THERAPY FOR WEIGHT LOSS: THE WELNES FULL SCALE RANDOMIZED CONTROLLED TRIAL

Jonathan B. Bricker, PhD[1], Kristin Mull, MS[2], Brianna Sullivan, MS[2], Evan M. Forman, PhD[3], Anne McTiernan, MD[2], Margarita Santiago-Torres, PhD[2]

[1]Fred Hutchinson Cancer Research Center, Seattle, WA; [2]Fred Hutchinson Cancer Center; [3]Drexel University, Philadelphia, PA

Background: Telehealth coaching for weight loss has had great population-level reach but to date limited efficacy. Acceptance and Commitment Therapy (ACT) has promise to improve efficacy by addressing the fundamental challenge of weight loss: overeating in response to internal (e.g., stress) and external (e.g., high calorie foods) cues.

Objectives: Here we describe the WeLNES full scale randomized controlled trial that is testing the efficacy of an ACT-based telehealth coaching intervention for weight loss against a Standard Behavioral Therapy (SBT)-based telehealth coaching intervention and provide enrollment data and participant characteristics to date.

Methods: A total of 398 overweight or obese male and female adults are being recruited across the United States (US) and randomized 1:1 to either ACT or SBT telehealth coaching. Participants in both arms are offered twenty-five telehealth coaching sessions in year one and nine booster sessions in year two. All participants are receiving a Bluetooth-enabled scale to self-monitor weight, and a Fitbit watch to track diet and physical activity. The primary outcome is 10% or more weight loss at 12-months. Secondary outcomes include changes from baseline to 6, 12, and 24-months in weight outcomes and trajectories of weight change. Whether the effect of ACT on weight loss is mediated by hypothesized ACT processes and is moderated by baseline factors will be examined.

Results: The primary source of recruitment is Facebook ads. To date, 3016 individuals have been screened, and 269 (9%) were eligible. Primary reasons for ineligibility include CAPTCHA authentication failure and not providing contact email address. Of 269 eligible, 197 completed the baseline survey and 134 overweight/obese adults [mean BMI: 34.6 (SD: 4.8)], ages 18-73 [mean: 47.5 (SD: 12.5)], from 37 US states have been randomized (31% male, 29% racial minority group, 11% Hispanic). Outcome data retention rates at the 6 and 12-month follow-ups are currently 94% and 88%, respectively.

Conclusions: Trial results will demonstrate the efficacy of an ACT telehealth coaching intervention for weight loss against SBT. If successful, ACT telehealth could have a high public health impact by providing a more effective, broadly scalable weight loss treatment option nationwide.

Abstract citation ID: kaad011.1099

2: PRELIMINARY RESULTS OF THE HEALTHY FOR LIFE STUDY: AN RCT TESTING A LOW-INTENSITY ACT INTERVENTION FOR WEIGHT LOSS MAINTENANCE

Jason Lillis, PhD[1], Graham Thomas, PhD[2], Jessica L. Unick, PhD[3], Samantha Schram, MS[4], Rena R. Wing, PhD, FSBM[2]

[1]Brown Medical School/ California Northstate University, Roseville, CA; [2]Brown University & The Miriam Hospital, PROVIDENCE, RI; [3]The Miriam Hospital & Brown University, Providence, RI; [4]Brown University

Background: Obesity continues to be a major public health issue with personal and societal consequences. The short-term effectiveness of behavioral interventions is well established; however, innovations are still needed to improve long-term outcomes.

Methods: This is an investigator-initiated clinical trial R01 to compare the efficacy of an intervention based on Acceptance and Commitment Therapy (ACT) and a self-regulation (SR) intervention for weight loss maintenance. All participants first complete a validated online weight loss intervention (Phase 1: months 1-3 of the study, non-randomized). Participants who lose ≥4 kilograms of initial weight are then randomly assigned to receive ACT or SR, with both conditions consisting of four face-to-face, group-based intervention meetings (10 hours total) and weekly email contact for 6 months (Phase 2). The ACT intervention uses values and acceptance processes to help align weight loss goals with personal values and foster internal motivation to continue with weight control efforts. Assessments are at baseline, post-weight loss/pre-randomization, and then 6, 12, 18, 24, and 30-month follow-up.

Results: 587 participants were enrolled in the online weight loss intervention with 224 advancing to the randomized weight loss maintenance phase (38% vs an a priori expected 55% projection). Phase 2 participants show high assessment retention (95% completion) and treatment attendance (>90% attendance). Post treatment weight change outcomes (following the 6-month weight loss maintenance intervention period) will also be presented and discussed.

Conclusion: Lower than expected initial average weight loss may in part be due to a combination of COVID and study procedure changes necessitated by COIVD. The ACT intervention was feasible and acceptable. Results suggest a potentially viable low-touch weight loss maintenance model suited for dissemination, though results need to be confirmed by longer-term follow up still to come.

Abstract citation ID: kaad011.1100

3: PROJECT ACTIVATE: A 2X2X2 FACTORIAL TRIAL EVALUATING THE EFFICACY OF MINDFULNESS AND ACCEPTANCE-BASED TREATMENT COMPONENTS FOR WEIGHT LOSS

Evan M. Forman, PhD[1], Stephanie Manasse, PhD[2], Lauren C. Taylor, BA[1], Christina Chwyl, MS[1], Michael P. Berry, MS[1], Charlotte J. Hagerman, PhD[1], Meghan L. Butryn, PhD, FSBM[1], Adrienne S. Juarascio, PhD[1], Donna L. Coffman, PhD[3]

[1]Drexel University, Philadelphia, PA; [2]Drexel University, Wynnewood, PA; [3]University of South Carolina, Philadelphia, PA

Behavioral weight loss treatment (BT) for individuals with overweight and obesity is effective but leaves room for improvement. Mindfulness and acceptance-based treatments may bolster weight loss outcomes; yet, little is known about the efficacy of the individual components or the combinations of components that are most effective in producing weight loss above and beyond standard BT strategies for weight loss. This talk presents the first study to utilize a multiphase optimization strategy approach to evaluating the independent and combinatory efficacy mindfulness and acceptance-based treatment (MABT) components. Using a 2 x 2 x 2 factorial design, participants (N = 288) were randomized to one of eight 12-month treatment conditions, each representing a combination of foundational BT and one or more of three core MABT components: mindful awareness, mindful acceptance, and values awareness. Six- and 12-month results will be presented on: (1) the independent and synergistic efficacies of each MABT component (versus BT alone) on weight loss, calorie intake, physical activity, and overall quality of life; (2) the degree to which each treatment component affects proposed mechanisms of action); and (3) the moderating effect of susceptibility to internal and external food cues. Preliminary, 6-month, weight loss results are already available, and indicate no main effect of values awareness (d = -.05, p = .71), or mindful awareness (d = -.02, p = .79), but a trend level effect of mindful acceptance (d = .16), with additional weight loss versus BT alone (M = 10.3% vs 7.8%, t(60) = 1.62, p = .11, d = .41), suggesting that mindful acceptance, but not mindful awareness or values awareness, may enhance BT outcomes. Yet, conclusions should await 12-month results with a full sample. We will discuss implications of final results for the construction of an optimal treatment package featuring BT, mindful awareness, mindful acceptance, and/or values awareness, on MABT theory, and on matching treatment to individual characteristics.

Abstract citation ID: kaad011.1101

SYMPOSIUM 33: MULTIPLE APPROACHES AND TARGETS TO HEALTH PROMOTION FOR OLDER ADULTS' HEALTH AND WELL-BEING

Ryan A. Mace, PhD[1], Meghan Mattos, PhD, RN[2], Kathi L. Heffner, PhD[3], Beth M. Orsega-Smith, PhD[4], Nancy Gell, PT, PhD, MPH[5]

[1]Harvard Medical School/Massachusetts General Hospital, Boston, MA; [2]University of Virginia, Charlottesville, VA; [3]University of Rochester Medical Center, Rochester, NY; [4]University of Delaware, Newark, DE; [5]University of Vermont, Burlington, VT

Aging increases the risk of chronic health conditions such as heart disease, chronic pain, dementia, and cancer. These conditions and related stressors are leading drivers of disability, morbidity, and healthcare costs in the US. Behavioral medicine interventions are needed to investigate and treat the interconnected factors that prevent illness, promote functioning, and enhance wellbeing with aging. This symposium will highlight multiple approaches (mindfulness, mind-body, cognitive training, exercise) and targets (chronic pain, cognitive impairment, mood, physical function) from health promotion trials of older adults at various intervention development stages. Consistent with the SBM 2023 conference theme, our multidisciplinary team from psychology, exercise science, occupational therapy, biobehavioral health, and nursing will demonstrate their methods for translating advances in their field into interventions that improve older adults' health and wellbeing.

Presenter 1 will present an efficacy trial of multicomponent exergame healthy lifestyle behaviors (physical activity, healthy eating), stimulating cognitive functioning, and engaging movement to support healthy aging (N=13). Presenter 1 will describe the exergame development, explore brain imaging technology (fNIR) to measure cognitive load during gameplay, and discuss the behavioral and knowledge outcomes.

Presenter 2 will present a feasibility RCT of remotely-delivered exercise (tele-exercise) for older, rural cancer survivors (N=39). The findings indicate that tele-exercise is feasible for this population and associated with improvements in both physical function and physical activity.

Presenter 3 will present the protocol and preliminary results for an ongoing fully-powered efficacy RCT (target N=260) of *Active Brains*, a virtual group mind-body walking program aided by Fitbit for older adults with chronic pain and early cognitive decline. Recruitment and enrollment have revealed insights on conducting health promotion trials with older adults, such as inclusion diversity, virtual cognitive assessments, wearable technology, and walking safety.

Presenter 4 will present an RCT of mindfulness-based stress reduction for older caregivers of a family member with dementia. The results from N=110 caregivers support the effects of MBSR on improvements in caregivers' emotion regulation difficulties, as well as MBSR's effect on lessening the impact of the care recipient's dementia progression on caregivers' depressive symptoms.

The Discussant will place these intervention studies in the broader context of health promotion, highlighting multiple pathways for behavioral medicine to improve older adults' health and wellbeing.

CORRESPONDING AUTHOR: Ryan A. Mace, PhD, Harvard Medical School/ Massachusetts General Hospital, Boston, MA; rmace@mgh.harvard.edu

---

Abstract citation ID: kaad011.1102

1: A MIND-BODY WALKING PROGRAM TO ADDRESS THE CHRONIC PAIN-EARLY COGNITIVE DECLINE COMORBIDITY AMONG OLDER ADULTS; PROTOCOL AND PRELIMINARY RESULTS FOR THE ACTIVE BRAINS VIRTUAL EFFICACY TRIAL

Ryan A. Mace, PhD[1], Nathaniel Choukas, BS[2], Elizabeth Rochon, BA[2], Brooke Duarte, MS[2], Malvina Pietrzykowski, MS[2], Millan Kanaya, BS[3], Emily C. Woodworth, BA[4], Crystal Castillo, BA[5], Christine S. Ritchie, MD, MSPH[6], Ronald Kulich, PhD[7], Yakeel Quiroz, PhD[8], Robert Parker, ScD[6], Eric Macklin, PhD[9], Ana Maria Vranceanu, PhD, FSBM[10]

[1]Harvard Medical School/Massachusetts General Hospital, Boston, MA; [2]Center for Health Outcomes and Interdisciplinary Research, Department of Psychiatry, Massachusetts General Hospital; [3]Center for Health Outcomes and Interdisciplinary Research, Department of Psychiatry, Massachusetts General Hospital, Boston, MA, USA; [4]Massachusetts General Hospital, Boston, MA; [5]MGH, Boston, MA; [6]Massachusetts General Hospital/Harvard Medical School, Boston, MA; [7]Tufts University School of Dental Medicine; Massachusetts General Hospital/Harvard Medical School; [8]Multicultural Alzheimer's Prevention Program, Department of Psychiatry, Massachusetts General Hospital; [9]Biostatistics Center, Massachusetts General Hospital; [10]Harvard Medical School, Boston, MA

Introduction: Chronic pain (CP) and early cognitive decline (ECD) are highly prevalent among older adults, undertreated, and costly for patients, caregivers and society. Comorbid CP and ECD can lead to a "disability spiral" and accelerate the progression of both conditions. We iteratively developed Active Brains (AB), a virtual group mind-body walking program aided by Fitbit, that is feasible and associated with improvements in physical, cognitive, and social-emotional functioning. Currently, we are conducting a fully-powered efficacy RCT versus an attention-matched education control. Here, we describe the study design, protocol, manualized treatments, outcomes assessment, recruitment numbers, and "lessons learned."

Methods: Our goal is to recruit 260 older adults through provider referrals at MGH, flyers, and community partnerships. Eligibility includes older adults (age ≥ 59), CP ≥ 3 months, and self-reported or mild cognitive impairment. Participants are randomized to the 8-week, 90-minute, group intervention (AB) or control (Health Enhancement Program; HEP) with a clinical psychologist via Zoom. AB teaches mind-body skills to manage CP-ECD and quota-based pacing to gradually increase walking aided by Fitbit. HEP provides health information relevant to CP-ECP. Co-primary outcomes are multimodal physical function (self-report, 6-minute walk test, ActiGraph steps).

Results: We have received 86 referrals and contacted 85 potential participants. Of these, we have screened 60 and recruited 17 eligible participants. There are several key "lessons learned" thus far. First, we adapted the RBANS cognitive assessment for Zoom to conduct an entirely remote trial with older adults during COVID-19. Second, we implemented 1-on-1 sessions with RAs and developed multimedia to teach older adults technology. Third, we improved our screening procedures for assessing walking safety (fall risk) and identifying sedentary older adults (< 5K steps/day). Fourth, we reconciled step count discrepancies between the two activity watches: ActiGraph GT3X (steps primary outcome) and the Fitbit Inspire 2 (step count reinforcement to support quota-based pacing).

Conclusions: Our findings from this efficacy trial will be used to inform the development of a future multi-site effectiveness trial. Consistent with the SBM 2023 theme,

Translating Science into Impact, AB has the potential to be an effective and easily scalable treatment for older adults with the CP-ECD comorbidity.

Abstract citation ID: kaad011.1103

2: MINDFULNESS TRAINING TO IMPROVE DEMENTIA CAREGIVERS' EMOTION REGULATION AND DEPRESSIVE SYMPTOM RESILIENCE

Kathi L. Heffner, PhD[1], Autumn Gallegos, PhD[2], Maria Quinones, PhD[2]

[1]University of Rochester Medical Center, Rochester, NY; [2]University of Rochester Medical Center

Introduction: Caregivers of a family member with dementia are at increased risk for poor emotional well-being, including depression. Interventions that strengthen caregivers' capacity to regulate emotions in response to evolving caregiving stressors may be key to protecting caregivers' mood. We examined whether a mindfulness-based stress reduction (MBSR) intervention improves caregivers' capacity for emotion regulation - generally and in response to caregiver stressors - and reduces the impact of the care recipient's functional and behavioral declines over time on caregivers' depressive symptoms.

Methods: Stressed dementia caregivers (N=110), age >=55 years, were randomly assigned to an 8-week MBSR or health education (HE) weekly group program, or care-as-usual (CAU). Emotion regulation (Difficulties in Emotion Regulation Scale (DERS); Revised Scale for Caregiver Self-Efficacy (RSCSE), Responding to Disruptive Patient Behaviors subscale), depressive symptoms (Center for Epidemiological Studies Depression Scale), care recipient's changes over time in instrumental activities of daily living (IADLs from Modified Barthel Index), and caregivers' responses to problem behaviors (Revised Memory and Behavior Checklist) were assessed at baseline, post-intervention, and a 6-month follow-up. Mixed effects models tested group differences across time.

Results: A group x time interaction was found for both DERS (p=.04) and RSCSE (p=.008): MBSR group showed greater reductions in emotion regulation difficulties (p=.04), and increases in self-efficacy for regulating emotional responses to disruptive behaviors (p=.01), compared to CAU at 6-months. Associations between declines in care recipients' IADLs and caregivers' depressive symptoms at 6-months were stronger for CAU and HE groups (group x IADL change, p=.02): there was a small-to-medium, nonsignificant (r=-.35, p=.11) association for CAU, a significant moderate association (r=-.53, p=.01) for the HE group, and a small (positive), nonsignificant association for the MBSR group (r=.23, p =.21). Worsening of the care recipient's memory and problem behaviors predicted higher caregiver depressive symptoms with no moderation by group.

Conclusions: MBSR targeted emotion regulation capacity in a group of stressed caregivers lessened the impact of the care recipients' functional decline on caregivers' depressive symptoms. Clarifying emotion regulation targets of mindfulness training may advance translation to effective interventions that promote caregivers' psychological resilience.

Abstract citation ID: kaad011.1104

3: IMPLEMENTATION STUDY OF A MULTICOMPONENT EXERGAME: KNOWLEDGE, BEHAVIORAL AND COGNITIVE LOAD EXPLORATION

Beth M. Orsega-Smith, PhD[1], Laurie Ruggiero, PhD[2], Nancy Getchell, PhD[2], Amy Nichols, BS[3], Joshua Varghese, BS[2], Rachel DeLauder, MS[2], Reza Koiler, PhD[2], Roghayeh Barmaki, PhD[2]

[1]University of Delaware, Newark, DE; [2]University of Delaware; [3]University of Delaware, Cherry Hill, NJ

Introduction: Chronic disease increases with age and many older adults manage at least one chronic condition, including heart disease, cancer, stroke, diabetes, and disease related to cognitive decline. Informed by healthy aging theory, our multidisciplinary team has developed a prototype educational exergame, with a combined focus on educating about healthy lifestyle behaviors, stimulating cognitive functioning, and social interaction. The interactive game presents educational questions (physical activity and healthy eating), trivia questions, and cognitive challenges. Additionally, functional near infrared spectroscopy (fNIR) provides a unique tool to assess real time measurement of brain activation during gameplay. The purpose of this presentation is to: 1) Examine the impact of game play on behavioral intention and healthy eating and physical activity knowledge and 2) Explore the use of fNIR to measure cognitive load during gameplay.

Methods: The pilot included 13 senior center members who played the digital health game four occasions over a two-week period. Participants completed intention of behavior, physical activity and healthy eating knowledge questionnaires pre and post 2 week game play. Additionally, demographics and SLUMS assessments were collected. To establish the feasibility of fNIR use, brain oxygenation measures were collected during gameplay.

Results: Participants were female members of a local senior center (M age 78 years). Based on the SLUMS scores, 4 participants had normal cognitive function, 5 Mild cognitive impairment, and 4 had dementia symptoms. There was a significant difference pre-post game play session in knowledge scores of PA and healthy eating ($p< 0.05$;$d= .49$). Following game play, results showed 5 (38.4%) were in precontemplation/contemplation and 8(51.6%) were in preparation, action or maintenance to eat 5 or more fruits and vegetables. Additionally, 2(14%) participants were in pre-contemplation/ contemplation and 11(86%) were in preparation, action, or maintenance to engage in at least 30 minutes of physical activity. Preliminary fNIRS data were used to identify prefrontal cortex oxygenation patterns. When combined with game scores, measures of relative neural efficiency were calculated.

Conclusion: This pilot implementation suggests that a technology-based educational exergame may hold promise for older adults to learn about healthy lifestyles and for researchers to understand cognitive function during game play.

Abstract citation ID: kaad011.1105

4: TRANSLATION OF AN EVIDENCE-BASED EXERCISE PROGRAM FOR REMOTE DELIVERY TO RURAL, OLDER CANCER SURVIVORS

Nancy Gell, PT, PhD, MPH[1], Jacqueline F. Caefer[2], Anita Martin, MS[1], Myeongjin Bae, MS[3], Thomas Bloch, DPT[3], Kim Dittus, MD, PhD[4], Kushang V. Patel, PhD, MPH[5]

[1]University of Vermont, Burlington, VT; [2]University of Vermont, Dunstable, MA; [3]University of Vermont; [4]University of Vermont Medical center; [5]University of Washington, Seattle, WA

Background: Exercise is recommended for cancer survivors, yet participation is low in this population. Access to supervised exercise opportunities is cited as a key barrier, and more so for older cancer survivors living in rural communities. Given the multiple benefits, novel approaches to increasing access are needed to engage rural, older survivors in exercise. EnhanceFitness (EF) is an evidence-based, group exercise program designed for older adults that is traditionally offered in community settings. In 2020, EF was adapted for remote delivery (tele-EF) using teleconference technology. With this timely opportunity, we aimed to examine the effects of tele-EF on physical function and physical activity, and participation facilitators and barriers among rural, older cancer survivors.

Methods: We recruited 39 rural cancer survivors (79% female; mean age 70.4±5.7) for this pilot trial. Participants were randomly assigned to the tele-EF exercise group (n=20) or to a waitlist control group (n=19). The tele-EF classes met for one hour, three days/week for 16 weeks and included aerobic, strength, and balance exercise led by a certified trainer. Measures were collected at baseline and 16 weeks later, post-intervention. We assessed physical function through remotely conducted tests of strength and balance and through patient-reported outcomes. Physical activity metrics were assessed with the activPAL accelerometer. At the conclusion of the exercise program, semi-structured interviews were completed to assess barriers and facilitators to participating in tele-EF.

Results: After tele-EF, participants had statistically significant improvements in the 30 second sit-to-stand test (+1.9 reps, p=0.002) and self-reported physical function (+2.4 points, p=0.04); mean daily step counts increased by 1977steps/day (p=0.003). The control group showed no significant change on the same measures. Key facilitators to participation were physical improvement, accessibility, comradery, and live instruction whereas noted barriers were internet connection instability, sound clarity, and screen size.

Conclusion: Rural, older cancer survivors experienced significant improvements in physical function and physical activity after participating in tele-EF. While technical challenges were noted as the primary barriers, participants found that the remotely delivered classes fostered accountability and adherence through instructor and group relationships, ease of accessibility, and noticeable physical improvements.

Abstract citation ID: kaad011.1106

SYMPOSIUM 34: PHYSICAL ACTIVITY INTERVENTIONS FOR PATIENTS WITH SERIOUS ILLNESS: CHALLENGES AND OPPORTUNITIES

Laura S. Porter, PhD[1], Shelby Langer, PhD, FSBM[2], Fang Yu, PhD[2], Stacey A. Kenfield, ScD[3], Elizabeth Salerno, PhD, MPH[4]

[1]Department of Psychiatry and Behavioral Sciences, Duke University School of Medicine, Durham, NC; [2]Arizona State University, Phoenix, AZ; [3]UCSF, San Francisco, CA; [4]National Cancer Institute, Rockville, MD

For patients living with serious illness, their disease and treatment often leads to declines in physical activity. Lack of physical activity can, in turn, exacerbate the negative impact of disease on patients' physical, emotional, and cognitive functioning. Thus, interventions to increase physical activity for patients with serious illnesses – such as advanced cancer and neurological disorders – are warranted. However, these patient populations have unique needs that warrant consideration when designing and implementing such interventions to ensure their safety, feasibility, acceptability, and efficacy. This symposium will highlight novel strategies for delivering physical activity interventions and evaluating their effects in patients with metastatic prostate cancer, hematopoietic cell transplantation, and Alzheimer's disease (AD). The first presenter will describe findings from a pilot study of an exercise intervention for men with metastatic prostate cancer that included remotely monitored high intensity aerobic and resistance training. She will also discuss an ongoing large-scale RCT with this population that focuses on failure-free survival as the primary outcome. The second presentation focuses on findings from a pilot study of a couple-based physical activity intervention for patients undergoing hematopoietic cell transplantation and their caregiving partners. This intervention leverages the patient-caregiver relationship to increase daily step counts in both dyad members. The third presentation will discuss the benefits of exercise for patients with AD dementia and present novel findings regarding the effects of an aerobic exercise intervention on AD-neurodegenerative biomarkers as measured by magnetic resonance imaging (MRI). The discussant will synthesize these findings and highlight the promise of physical activity interventions in the context of serious disease, strategies to promote safety and acceptability in these patient populations, and directions for future research.

CORRESPONDING AUTHOR: Laura S. Porter, PhD, Department of Psychiatry and Behavioral Sciences, Duke University School of Medicine, Durham, NC; laura.porter@duke.edu

Abstract citation ID: kaad011.1107

1: FAMILY-FOCUSED FACILITATED FITNESS: FEASIBILITY AND ACCEPTABILITY IN A HEMATOPOIETIC CELL TRANSPLANT SAMPLE

Shelby Langer, PhD, FSBM[1], Rodney P. Joseph, PhD[1], Erin G. Mistretta, MA[2], Chun Tao, PhD[3], Allison Spain, BS[3], Laura S. Porter, PhD[4], Nandita Khera, MD[3]

[1]Arizona State University, Phoenix, AZ; [2]Arizona State University, Seattle, WA; [3]Mayo Clinic Arizona; [4]Department of Psychiatry and Behavioral Sciences, Duke University School of Medicine, Durham, NC

Hematopoietic cell transplantation is a rigorous treatment for hematologic malignancies. Reductions in physical activity (PA) are common following transplant, and a risk factor for poor physical functioning. Patients are required to have a family caregiver, a demanding role requiring provision of medical and logistical support. Caregivers often report distress and neglect their own self-care. PA interventions for this population have focused entirely on patients, ignoring an opportunity to engage and benefit the caregiver. We sought to leverage the patient-caregiver relationship to improve PA among *both* dyad members, testing feasibility and acceptability of a couple-based PA intervention called Family-Focused Facilitated Fitness (FFFF). Guided by interdependence and communal coping perspectives, FFFF is an 8-week intervention, delivered via videoconference, that provides training in communication skills and joint problem-solving to help patients and caregivers support one another in PA. Participants are also given a Fitbit to track their steps and weekly individualized step prescription based on the 75th percentile ranked value of their last 7 recorded daily step counts. Seventeen couples consented from 03.02.22 to 08.08.22: M (SD) age = 55.5 (13); 24% female patients and 71% female caregivers; 6% >1 race; and 12% Hispanic. All 34 participants completed the pre-transplant baseline assessment. Twelve couples commenced intervention, on average 19 days post-transplant; 2 others are pending. Six couples completed all 8 sessions; 2 are in process, having completed 5-6 sessions. Four couples discontinued due to medical complications, hospital readmission, feeling overwhelmed, or the caregiver's work schedule. Among completers, treatment satisfaction scores (a mean of 13 items ranging from therapist warmth and competence to perceived program benefits) were quite high, M (SD) = 4.67 (0.36) on a 1-5 scale. Fitbit wear adherence (8+ hours/day) was also high, on average 52.7 days out of 56. Daily step counts increased across intervention weeks: for patients, from 1831 steps/day (week 1) to 4773 steps/day (week 8), partial eta squared = .408, indicating a large effect; and for caregivers, from 10,137 steps/day (week 1) to 11,340 steps/day (week 8), partial eta squared = .176. Results offer promise for the utility of FFFF for those ready and able to engage with the program. More work is needed to determine optimal timing and frequency including tailored approaches.

Abstract citation ID: kaad011.1108

2: MECHANISMS OF AEROBIC EXERCISE IN ALZHEIMER'S DISEASE: MRI FINDINGS FROM THE FIT-AD TRIAL

Fang Yu, PhD[1], SeungYong Han[1], Michelle A. Mathiason, MS[2], Clifford Jack, Jr., MD[3]

[1]Arizona State University, Phoenix, AZ; [2]University of Minnesota, Minneapolis, MN; [3]Mayo Clinical Rochester Department of Radiology

There is strong epidemiological evidence linking physical activity, particularly exercise, to reduced risk for Alzheimer's disease (AD). Meta-analyses showed that aerobic exercise has modest-to-moderate effects on cognition in older adults with AD. Mechanistically, aerobic exercise modified AD pathology in AD animals, but clinical trials have shown mixed effects on AD-neurodegenerative biomarkers as measured by magnetic resonance imaging (MRI). The purpose of the FIT-AD Trial was to examine the effects of 6-month aerobic exercise on AD-neurodegenerative MRI biomarkers in older adults with AD dementia. Fifty-nine participants were randomized to moderate-intensity cycling (n=38) or low-intensity stretching (n=21) for 6 months on a 2:1 ratio with 3 age strata (66-75, 76-85, and 85+ years of age) and followed up for another 6 months. Outcomes included hippocampal volume, temporal meta-regions of interest cortical thickness, white matter hyperintensity (WMH) volume, and network failure quotient (NFQ) measured by MRI at baseline, 6 months, and 12 months. The sample averaged 77.3±6.3 years old with 15.6±2.9 years of education and 53% men. Both groups experienced a significant decline in hippocampal volume (2.64% in cycling vs. 2.89% in stretching) and cortical thickness (0.94% vs. 1.54%) over 6 months and over 12 months (hippocampal volume: 4.47% vs. 3.84%; cortical thickness: 2.27% vs. 1.79%). Between-group changes were not significant. WMH volume increased significantly, but the cycling group increased >50% less than stretching (10.9% vs. 24.5% over 6 months [f=4.47, p=.04]; 12.1% vs. 27.6% over 12 months [f=5.88, p=.02]). NFQ didn't change significantly over time nor differed between group. Our results indicate that aerobic exercise may reduce hippocampal volume and cortical thickness, but the effect size may be small. This result is consistent with recent findings that neurodegeneration is a relatively late stage of pathological event in AD and may be less sensitive to intervention effects. In contrast, WMH has emerged as a sensitive biomarker for AD, and our results showed that aerobic exercise significantly reduced WMH progression. In conclusion, aerobic exercise may slow AD pathological progression by reducing WMH progression and potentially hippocampal volume shrinkage, which need to be further investigated in trials with larger sample sizes.

Abstract citation ID: kaad011.1109

3: CONDUCTING EXERCISE INTERVENTIONS FOR PATIENTS WITH METASTATIC PROSTATE CANCER: STRATEGIES AND LESSONS LEARNED IN THE CHAMP AND INTERVAL-GAP4 TRIALS

Stacey A. Kenfield, ScD[1], Erin L. Van Blarigan, ScD[1], Nicolas Hart, PhD[2], Neil Panchal, MS[3], Jennette Sison, MPH[3], Kyle Smith, BS[4], Robert Newton, PhD, DSc, FSBM[4], Fred Saad, MD, FRCS[5], June M. Chan, ScD[6]

[1]UCSF, San Francisco, CA; [2]Flinders University; [3]UCSF; [4]Edith Cowan University; [5]University of Montreal Hospital Center; [6]UCSF, san francisco, CA

Background: Physical activity may improve clinical and quality of life outcomes for men with prostate cancer. Few studies have examined the feasibility, safety, acceptability, and clinical efficacy of exercise training in men with metastatic prostate cancer.

Methods: The completed 3-arm 3-month pilot randomized controlled trial (RCT) called CHAMP (A Clinical Trial of High-Intensity Aerobic and Resistance Exercise for Metastatic Prostate Cancer) was conducted in 25 men with metastatic prostate cancer to assess feasibility, safety, and acceptability. It started as a supervised onsite exercise trial (1:1:1 aerobic or resistance exercise 3x/week or usual care) and transitioned to remotely monitored exercise to increase enrollment. The ongoing phase III global RCT called INTERVAL-GAP4 (Intense Exercise for Survival among Men with Metastatic Prostate Cancer) also began as a supervised exercise trial but transitioned to home-based exercise during the COVID-19 pandemic and has since expanded to offer participants a remotely monitored exercise option. Following consent, men are randomized to a 1-yr supervised or monitored exercise intervention vs. self-directed exercise (1:1). The primary endpoint is failure-free survival assessed every 6 months, with patient-reported outcomes assessed quarterly. We will discuss eligibility criteria, safety measures, and challenges and opportunities when implementing these studies in the United States and globally.

Results: Both trials have extensive eligibility criteria to ensure appropriate patient enrollment. Remotely monitored programs can increase enrollment rates and access, especially for cities/communities where transportation is a barrier. These programs require higher technological literacy and on-demand support resources but offer participants convenience and control over when and where to exercise. No safety concerns have been identified related to exercise testing or training in either trial. Common adverse events include joint or bone pain consistent with disease status; some may be possibly related to the study. Providing exercises that are accessible to those with progressive prostate cancer symptoms (e.g., bone pain, stiffness, nausea, fatigue) is necessary, as well as continuous tailoring to participants' capabilities. Finally, when implementing the program, different team setups - for example, academic/university-led vs. clinician/hospital-led teams - must leverage the expertise and operational advantages and address the limitations and challenges of each structure.

Conclusion: Remotely monitored exercise interventions can be safe, feasible, and acceptable for patients with metastatic cancer. This is an attractive intervention model that will grow as survivorship support expands beyond the clinic/center.

Abstract citation ID: kaad011.1110

SYMPOSIUM 35: PSYCHOSOCIAL CONSEQUENCES OF 'PANDEMIC LIFE' IN CHRONICALLY ILL ADULTS: FINDINGS FROM THE COVID-19 & CHRONIC CONDITIONS COHORT

Andrea Russell, PhD[1], Rebecca Lovett, PhD[1], Esther Yoon, MS, MPH[1], Sophia W. Light, MS[1], sarah R. Lowe, PhD[2]

[1]Feinberg School of Medicine, Northwestern University, Chicago, IL; [2]Yale School of Public Health, New Haven, CT

COVID-19 has been an unprecedented public health threat in modern times, especially for older adults with a chronic illness. As of July 2022, 74% of COVID deaths have been among adults over 65; 94% among individuals with ≥1 underlying health conditions. Beyond consequences to personal health from acquiring COVID-19, there is growing concern about the spillover impact of the pandemic on non-COVID-19 outcomes, as one's ability to self-manage chronic conditions during and after a pandemic may be compromised for several reasons.

In March 2020, as cases of COVID-19 emerged in the U.S., our team rapidly launched the COVID-19 & Chronic Conditions (C3) study. Our objective was to assess how community-dwelling, middle age and older adults with ≥1 chronic conditions were responding to the pandemic and taking action to prevent infection, disease spread, and continue to self-manage health. Five active NIH studies with uniform data collection on a range of patient-reported outcomes prior to COVID-19 and with electronic health records access were leveraged to establish the C3 cohort; 673 adults in Chicago were interviewed during the 1st week of the outbreak. Soon after, the cohort was expanded using two of the 'parent studies' that also had sites in New York City (n=200; N=873). C3 participants are diverse by socioeconomic status (SES), race, ethnicity, gender, health literacy, and comorbidity.

Now as an ongoing, NIA/NIH-sponsored cohort study, 8 of 13 planned C3 survey waves have been completed (83-94% retention), tracking pre/peri/post-pandemic patient experiences through 5-years after the onset of COVID-19 in the U.S. C3 findings reveal a high prevalence of sustained, high stress and social isolation due to COVID-19 that impacts lifestyle, treatment adherence, and healthcare use.

In this symposium, late-breaking findings from the C3 study will be shared, highlighting longitudinal investigations that characterize the psychological well-being of adults with complex care needs, from before COVID-19 and throughout the pandemic, and its impact on social engagement, self-care capacity, treatment adherence, healthcare utilization, and ultimately clinical outcomes. A specific focus will be placed on identifying adults who demonstrate resilience, those who experience trauma and psychological distress but recover, and individuals demonstrating prolonged, persistent mental health symptoms. An interactive discussion will explore how C3 findings might best inform communities and health systems to identify risk factors for pandemic-related adverse psychological outcomes and deploy behavioral health services.

CORRESPONDING AUTHOR: sarah R. Lowe, PhD, Yale School of Public Health, New Haven, CT; sarah.lowe@yale.edu

Abstract citation ID: kaad011.1111

1: ASSOCIATIONS BETWEEN COVID-RELATED POSTTRAUMATIC STRESS, PANDEMIC-RELATED STRESSORS AND HEALTH BEHAVIORS

Andrea Russell, PhD[1], Rebecca Lovett, PhD[1], Sophia Weiner-Light, MS[2], Stephanie Batio, MS[1], sarah R. Lowe, PhD[3], Michael S. Wolf, PhD, MPH, MA[1]

[1]Feinberg School of Medicine, Northwestern University, Chicago, IL; [2]Northwestern University Feinberg School of Medicine; [3]Yale School of Public Health, New Haven, CT

Introduction: The COVID pandemic is a significant global stressor with a myriad of psychiatric impacts, including posttraumatic stress (PTS). Adults with chronic medical conditions may have increased vulnerability to PTS given their heightened risk for severe COVID-related health outcomes. However, few studies have examined PTS among diverse populations of adults with chronic illness and studies which have examined PTS have limited data on other aspects of behavior and functioning. We aimed to describe the rate of elevated PTS in adults with chronic conditions 1.5 years into the pandemic and examine associations with pandemic-related stressors, comorbid mental health symptoms, health behaviors, and barriers to medication adherence.

Methods: The COVID-19 & Chronic Conditions (C3) study is a cohort study of adults with 1+ chronic conditions treated in Chicago-area clinics. Wave 7 interviews were conducted between September and December 2021. Pandemic stressors (e.g., job loss, testing positive) and health behaviors (e.g., sleep, physical activity) were assessed via self-report. Validated measures assessed depression and anxiety (PROMIS) and medication adherence barriers (ASK-12). Pandemic-related PTS was assessed using the 4-item PTSD Checklist for DSM-5 (PCL-5). Scores of 4 or were categorized as elevated PTS. Logistic regression models controlling for relevant demographic and health-related covariates were conducted.

Results: At baseline, participants were 65.3 years old (SD=11.3), 63% were female, and half were non-White (51%). Data from 670 participants was collected at Wave 7. Nearly a third of participants (34.0%) had elevated PTS. Compared to their healthier counterparts, these participants were more likely to be engaged in psychotherapy (19.3% vs 8.5%, p< .001), to have tested positive for COVID (24.3% vs 16.1%, p=.01), and to have experienced job loss (15.4% vs 6.6%, p=.04). In multivariable models, perceiving COVID as a greater threat (aOR: 1.19, 95% CI 1.07, 1.33), worse depression (aOR: 1.12 95% CI 1.09, 1.15) and anxiety (aOR: 1.15 95% CI 1.12, 1.19), poor sleep (aOR: 1.87, 95% CI 1.12, 3.10), decreased physical activity (aOR: 2.56, 95% CI 1.69, 3.90), and more medication adherence barriers (aOR: 1.08 95% CI: 1.04, 1.11) were associated with elevated PTS.

Conclusions: Posttraumatic stress was common among adults with chronic health conditions 1.5 years into the pandemic and was associated with pandemic-related stressors, comorbid mental health symptoms, maladaptive health behaviors, and barriers to medication adherence. Despite higher rates of psychotherapy engagement among those with elevated PTS, in general, rates of treatment were low. Therefore, efforts to improve detection and treatment of PTS in this population are warranted.

Abstract citation ID: kaad011.1112

2: LONGITUDINAL TRAJECTORIES OF PSYCHOLOGICAL DISTRESS DURING THE COVID-19 PANDEMIC AMONG MIDDLE TO OLDER ADULTS WITH CHRONIC CONDITIONS

Rebecca Lovett, PhD[1], Andrea Russell, PhD[1], Sophia Weiner-Light, MS[2], Esther Yoon, MS, MPH[1], Michael S. Wolf, PhD, MPH, MA[1]

[1]Feinberg School of Medicine, Northwestern University, Chicago, IL; [2]Northwestern University Feinberg School of Medicine

Introduction: There has been widespread concern regarding the impact of the COVID-19 pandemic on the psychological functioning of older adults, who have shouldered significant risk to health and disruption of daily routines. However, few studies have examined patterns of change in psychological distress among this population as the pandemic has continued to evolve. The objective of this study was to identify distinct trajectories of depressive and anxiety symptoms and their determinants among a cohort of middle to older adults with chronic health conditions, spanning from a pre-COVID baseline to peri-COVID Summer 2022.

Methods: 'Peri-COVID' data are from Waves 3-8 (May 2020 - June 2022) of the COVID-19 & Chronic Conditions (C3) study, leveraged from 5 existing NIH-sponsored studies. 'Pre-COVID' data was derived from the most recent parent study interview prior to the pandemic onset. Psychological distress was assessed using Patient-Reported Outcomes Measurement Information System (PROMIS) short-form measures of depression and anxiety. Group-based trajectory models with censored normal distributions were used to separately examine longitudinal trajectories of depressive and anxiety symptoms. Associations between demographic characteristics and assigned trajectory groups were examined using multivariable generalized linear models.

Results: Six distinct trajectories of depressive symptoms (n = 629) were identified: 1) Persistently minimal (37.3%), 2) Minimal worsening (13.1%), 3) Mild improving (7.4%), 4) Low peaking (22.3%), 5) Persistently moderate (16.6%), and 6) Moderately-high tapering (3.4%); four anxiety symptom trajectories (n = 322) were also apparent: 1) Persistently minimal (39.3%), 2) Low tapering (22.6%), 3) Persistently moderate (30.9%), and 4) Moderately-high tapering (7.1%). Female gender (RR 1.54, 95% CI 1.02-2.34), lower educational attainment (RR 2.06, 95% CI 1.27-3.32), and living below the federal poverty line (RR 1.68, 95% CI 1.10-2.58) were associated with more adverse (i.e., elevated or increasing) depressive trajectories. No significant associations between adverse anxiety trajectories and demographic characteristics were observed.

Conclusion: The psychological sequela of the COVID-19 pandemic varied among middle and older adults with chronic medical conditions. Individuals at higher risk for adverse symptom courses, including women, the socioeconomically disadvantaged, and those with elevated premorbid symptoms, should be considered targets for more intensive screening and interventional efforts.

Abstract citation ID: kaad011.1113

3: EXPLORING PATIENT EXPERIENCES OF TELEHEALTH DURING THE COVID PANDEMIC

Esther Yoon, MS, MPH[1], Scott Hur, MPH[2], Laura M. Curtis, MS[1], Michael S. Wolf, PhD, MPH, MA[1], Marina Serper, MD, MS[3]

[1]Feinberg School of Medicine, Northwestern University, Chicago, IL; [2]Center for Applied Health Research on Aging, Feinberg School of Medicine, Northwestern University; [3]Division of Gastroenterology and Hepatology, University of Pennsylvania Perelman School of Medicine

Background: The COVID-19 pandemic dramatically increased the availability of telehealth services. Despite continued utilization of these remote services, there has been limited research evaluating access and patient experiences with telehealth.

Methods: The COVID-19 & Chronic Conditions (C3) study is an ongoing, longitudinal, telephone-based study tracking the experiences of middle age and older adults, through the pandemic. To evaluate patient experiences of telehealth, we examined data from the 5th wave of the C3 study that was conducted between December 2020 and March 2021 (N=718). Within the survey, participants self-reported whether they had a telehealth visit in the past 4 months, and if yes, a previously validated set of items assessed their satisfaction with their telehealth visit compared to an in-person visit, and whether they reported any difficulties during their remote encounter. Bivariate and multivariate analyses were conducted to determine whether any differences were found in terms of telehealth access and satisfaction by participant factors.

Results: Of the 718 participants, 342 (47.6%) reported having a telehealth visit within the past 4 months. Participants who had a recent telehealth visit were younger, reported worse overall health and chronic illness burden, and living below poverty level (all $p< 0.05$). Among participants who had a telehealth visit, 66.7% reported telephone visits and most participants (57.6%) rated telehealth quality as better or equal to in-person visits. Majority also reported overall usefulness and ease of navigating telehealth. However, sociodemographic disparities were notable in perceived telehealth quality and utility. Those with lower health activation (adjusted odds ratio (AOR) 0.19, 95% Confidence Interval (CI) 0.05, 0.59) and limited English proficiency (AOR 0.12, CI 0.03, 0.47) were less likely to report telehealth as being better than in-person visits. Lower health activation (AOR 0.06, 95% CI 0.003, 0.41) and income below poverty level (AOR 0.36, CI 0.13, 0.98) were also associated with difficulty remembering telehealth information.

Conclusion: The COVID pandemic has accelerated the adoption of telehealth, however disparities in healthcare access and utilization have persisted, and perhaps have been exacerbated with telehealth. In particular, patients with lower SES, limited English proficiency, and low activation may have poorer quality visits and have difficulties retaining instructions and information discussed during their telehealth visit.

Abstract citation ID: kaad011.1114

4: EARLY COVID-19 ATTITUDES AND BEHAVIORS AND THEIR ASSOCIATIONS WITH LATER INFECTION: A LOCAL PERSPECTIVE FROM ONE U.S. CITY

Sophia W. Light, MS[1], Lauren Opsasnick, MS[2], Stacy C. Bailey, PhD, MPH[1], Julia Yoshino Benavente, MPH[1], Morgan Eifler[1], Rebecca Lovett, PhD[1], Andrea Russell, PhD[1], Esther Yoon, MS, MPH[1], Kirsten McCaffery, PhD[3], Michael S. Wolf, PhD, MPH, MA[1]

[1]Feinberg School of Medicine, Northwestern University, Chicago, IL; [2]Feinberg School of Medicine, Northwestern University; [3]The University of Sydney

Background: COVID-19 misinformation and a slow government response led to poor public awareness and inaction at the onset of the pandemic; it is less known whether this translated to subsequent infections. We aimed to explore whether adults who perceived COVID-19 as less a threat and who weren't taking actions early were more likely to become infected over the following year.

Methods: Survey data from an ongoing cohort, the COVID-19 & Chronic Conditions (C3) study, were used. Attitudes and behaviors regarding COVID-19 were assessed in March to April 2020, and participants' COVID-19 infection status was captured at survey waves conducted between May 2020 and January 2021. Bivariate and multivariable analyses examined associations between early perceptions and behaviors with later infection.

Results: Approximately 7% reported infection with COVID-19 (N=46). Adults who perceived the threat of COVID-19 less seriously at the initial outbreak were more likely to test positive over the following year (Odds Ratio (OR) 0.82, Confidence Interval (CI) 0.71-0.95; $p=0.009$). Those who were less likely to believe their actions would affect whether they would become infected were also more likely to test positive (OR 0.88, CI 0.79-0.99; $p=0.04$), as were adults who reported not changing their routines (OR: 0.47; CI: 0.25, 0.90; $p=0.02$).

Conclusion: Adults with delayed responses in acknowledging the threat of COVID-19 and in changing behaviors were more likely to contract the virus. While exploratory, this investigation provides insight into the consequences of the erratic public health communication on public understanding and response to COVID-19 and helps identify sub-groups to target for enhanced health communication.

Abstract citation ID: kaad011.1115

SYMPOSIUM 36: REMOTE ASSESSMENT OF PHYSICAL PERFORMANCE IN OLDER CANCER SURVIVORS: CHALLENGES, LESSONS LEARNED, AND RESEARCH APPLICATIONS

Cindy K. Blair, MPH, PhD[1], Kerri M. Winters-Stone, PhD[2], Laura Q. Rogers, MD, MPH[3], Wendy Demark-Wahnefried, PhD, RD[3]

[1]University of New Mexico, Albuquerque, NM; [2]Oregon Health & Science University, Portland, OR; [3]University of Alabama at Birmingham, Birmingham, AL

Physical function is a key outcome in lifestyle behavior interventions among older cancer survivors. Prior to the COVID-19 pandemic, physical performance testing for objective measurement of physical function was primarily assessed in-person. Low-cost, valid, and reliable methods to conduct such testing in the home-setting were limited. The pandemic accelerated the use of videoconferencing to remotely administer physical performance testing. Videoconferencing has the potential to expand the reach, scalability, and dissemination of interventions to cancer survivors who may not otherwise have access, especially those residing in rural areas. In this symposium, researchers will provide new methodology for the conduct of remote physical performance testing among older cancer survivors using video conference technology and provide data on the validity, concordance, reliability, acceptability, and safety of this approach. Researchers will also provide strategies to overcome the challenges of assessments in a highly variable setting (i.e., participant homes) and with variable resources.

The first presenter will provide an overview of the considerations and challenges of remote assessment of physical performance in the home setting. Feasibility, acceptability, and safety will be addressed and validity data from simultaneous testing (in-person vs. remote assessor) presented.

The second presenter will relay experiences and findings from two exercise trials among middle-aged to older cancer survivors who performed the assessments unaided. This presentation will focus on technical considerations and address the reliability of remote testing, sensitivity to change, and concordance with in-person testing.

The final presenter will detail lessons learned from conducting physical performance testing on a dyadic-based lifestyle intervention among cancer survivors and their partners in which the survivor-partner pair assisted with recording and conducting testing on one another.

This presentation will focus on training (of participants and staff) and fidelity, and report data on reliability and concordance between repeated remote assessments and in-person assessments in the home setting. The symposium will conclude with a discussant who will discuss the acceptability, safety, and advantages and disadvantages of using videoconferencing technology for remote administration of physical performance tests in the home setting.

CORRESPONDING AUTHOR: Cindy K. Blair, MPH, PhD, University of New Mexico, Albuquerque, NM; CiBlair@salud.unm.edu

---

Abstract citation ID: kaad011.1116

1: THE VALIDITY AND RELIABILITY OF REMOTE ASSESSMENT OF FUNCTIONAL MOBILITY AND STRENGTH IN OLDER CANCER SURVIVORS.

Cindy K. Blair, MPH, PhD[1], Wendy Demark-Wahnefried, PhD, RD[2], Anita Y. Kinney, PhD[3], Tawny Boyce, MS, MPH[4], Claire Pestak, MPH[4], Sally Davis, PhD[4], Shane Pankratz, PhD[4]

[1]University of New Mexico, Albuquerque, NM; [2]University of Alabama at Birmingham, Birmingham, AL; [3]Rutgers, New Brunswick, NJ; [4]University of New Mexico

Older cancer survivors, faced with both age- and treatment-related morbidity, are at increased risk of physical function limitations. Physical performance is an important predictor of disability, quality of life, and premature mortality, and thus is considered an important outcome of interventions designed to improve physical functional. In-person assessment of physical performance offers a standardized setting and equipment; however, it poses a travel burden, limiting the reach, scalability, and dissemination of interventions. Prior to the COVID-19 pandemic, we initiated a study to evaluate the validity, reliability, acceptability, and safety of remote assessment of physical performance via videoconferencing. Two standard gerontologic performance tests were evaluated: the 30-second Chair Stand and Timed Up & Go (TUG) tests. Simultaneous in-person and remote assessment of physical performance tests were conducted to eliminate intraparticipant variation. Validity of the videoconference assessment, compared to in-person assessment, was evaluated by estimating the limits of agreement between the two methods. Inter-rater reliability of the videoconference assessment was measured via intraclass correlation coefficients (ICC) and 95% confidence intervals (95% CI). Acceptability was assessed using the System Usability Scale. Thirty-three participants completed the study. The mean age was 73.8 years (SD=5.4), 67% were female, and 61% reported one or more comorbidities that limited their general activity. For the 30-second chair stand test, the scores (number of stands) differed between the remote and in-person assessors about one-third of the time, with the remote assessor counting one fewer chair stands (mean= -0.33 stands; SD=0.63). For the TUG test, the score (number of seconds [s]) from the remote assessor always exceeded the in-person assessor (mean=1.27s; SD=0.51). Both performance tests had excellent reliability (30-second chair stand ICC = 0.98, 95% CI = 0.96-0.99; TUG ICC = 0.93, 95% CI = 0.82-0.97). Acceptability of this methodology was very good with a mean overall score of 84.6 (SD=15.7; out of 100 points). No adverse events were reported. We conclude that remote assessment of physical performance among older cancer survivors in the home setting is feasible, acceptable, and safe. Inter-rater reliability is excellent. However, validity appears to be affected by audio/video lag, especially for shorter-timed tests, such the TUG test.

Abstract citation ID: kaad011.1117

2: REMOTE ADMINISTRATION OF PHYSICAL PERFORMANCE TESTS AMONG PERSONS WITH AND WITHOUT A CANCER HISTORY: ESTABLISHING RELIABILITY AND AGREEMENT WITH IN-PERSON ASSESSMENT

Kerri M. Winters-Stone, PhD[1], Carolyn Guidarelli, MPH[2], Christopher Chalmers, MS[2], Sydnee Stoyles, MBST[3]

[1]Oregon Health & Science University, Portland, OR; [2]Oregon Health & Science University; [3]Oregon Health and Science University, Portland, OR

Due to COVID-19 related adaptations to our clinical trials, we had an opportunity to conduct an ancillary study to estimate the measurement properties of physical function tests conducted by remote assessment using videoconferencing technology. We estimated the intra- and inter-rater reliability of remotely assessed short Physical Performance Battery (SPPB), 5-timed sit-to-stand (5XSTS), 4m usual walk (4mWT), and timed up-and-go (TUG) tests in middle-aged and older adults with and without cancer. We also estimated the agreement between tests administered remotely to those administered in-person. Participants from two ongoing clinical exercise trials in cancer survivors, one that included partners without cancer, comprised the available sample (n = 176; mean age 62.5 ± 11.5 years.). Remote tests were administered on two separate days by either the same or a different assessor to determine intra-rater and inter-rater reliability, respectively. We also compared tests conducted remotely and in-person using the same assessor and the same participant. Intraclass correlation coefficients (ICC) and 95% confidence intervals (95% CI) were used for all comparisons, except for the SPPB score, which used Cohen's kappa and Krippendorf's alpha for intra- and inter-rater reliability, respectively. Remote assessment of the TUG test had excellent intra-rater reliability (0.98, 95% CI 0.93-0.99), inter-rater reliability (ICC = 0.96, 95% CI 0.90-0.99), and good agreement with in-person tests (ICC = 0.88, 95% CI 0.74-0.94). The 5XSTS and 4mWT showed excellent (ICC = 0.92, 95% CI 0.84-0.96) and good (ICC = 0.87, 95% CI 0.71-0.94) intra-rater reliability, respectively, but somewhat lower inter-rater reliability (5XSTS: ICC = 0.65, 95% CI 0.34-0.83 and 4mWT: ICC = 0.62, 95% CI 0.30-0.81). Remote 5XSTS had moderate agreement (ICC = 0.72, 95% CI 0.62-0.80) and 4mWT had poor agreement (ICC = 0.48, 95% CI -0.07-0.76) with in-person tests. Remote assessment of common physical function tests in older adults, including those who have cancer, is feasible and highly reliable when using the same assessor. TUG may be the most methodologically robust measure for remote assessment because it is also highly reliable when using different assessors and correlates strongly with in-person testing. Remote administration of objective measures of physical function could significantly expand the reach of research and clinical practice to assess populations at risk of functional decline.

Abstract citation ID: kaad011.1118

3: REMOTE PHYSICAL PERFORMANCE TESTING AMONG CANCER SURVIVOR - PARTNER DYADS: TRAINING AND METHODS TO ENHANCE FIDELITY WITH AN ASSESSMENT OF TEST/RETEST RELIABILITY AND VALIDITY.

Wendy Demark-Wahnefried, PhD, RD[1], Teri Hoenemeyer, PhD[2], Robert Oster, PhD[2], Dorothy Pekmezi, PhD[1]

[1]University of Alabama at Birmingham, Birmingham, AL; [2]University of Alabama at Birmingham

To expand the reach of population-based research aimed at cancer prevention and control, there is a significant need to not only develop interventions that are scalable, but also refine remote methods by which they can be evaluated. These needs became highly apparent with the outbreak of COVID-19. Within the context of the Daughters, dUdes, mothErs and oThers (DUET) trial, a feasibility study of a web-based diet and exercise intervention, we had an opportunity to adapt in-person home-based physical performance assessments to remote means and evaluate them for feasibility, safety, reliability and validity. From an original list that included the following home-based tests: balance, 30-second chair stand, 8′ Timed Up and Go (TUG), 8′ walk, 2-minute step test, sit & reach, back scratch, arm curl and grip strength, the research team adapted all measures to remote means except the latter two (excluded because of excessive equipment costs and postage). A series of refinements was made to simplify procedures and increase visualization during the Zoom encounter. Training videotapes and printed instructions were created for staff and participants, and staff underwent evaluation and certification prior to conducting assessments. Cancer survivors and supportive partners (n=112) were approached to participate in three physical performance assessments (two remote and one in-person conducted on consecutive days with the dyad pair), and results compared. There was 98% uptake and no adverse events. Intraclass correlation coefficients (ICC) along with 95% Confidence Intervals (95% CI) for remote assessments ranged from moderate (8′ walk=0.47 [0.27-0.63]), strong (TUG=0.74 [0.62-0.83]), to very strong (30-second chair stand=0.80 [0.69-0.87]; sit & reach=0.86 [0.78-0.91]; 2-minute step test=0.87 [0.80-0.92]; and back scratch=0.90 [0.84-0.93])(p-values< 0.001). For balance, 100% concordance was found for side-by-side and semi-tandem stances, and 87.5-90.3% for tandem stances. No differences between remote and in-person assessments were found for the 8′ walk and TUG; whereas, significant differences were found for the 30-second chair stand, the back scratch, sit & reach, and 2-minute step tests (p< 0.01). Differences were attributed to practice effects and limitations in the study design, rather than threats to validity. Remote physical performance assessments are reliable, valid, acceptable, and safe among cancer survivors and supportive partners.

Abstract citation ID: kaad011.1119

SYMPOSIUM 37: USING POSITIVE PSYCHOLOGICAL APPROACHES TO IMPROVE PHYSICAL AND MENTAL HEALTH

Emily Feig, PhD[1], Stephanie A. Hooker, PhD, MPH[2], Kate McDermott, PhD[3], Kevin S. Masters, PhD[4]

[1]Massachusetts General Hospital/Harvard Medical School, Jamaica Plain, MA; [2]HealthPartners Institute, Bloomington, MN; [3]Massachusetts General Hospital, Boston, MA; [4]University of Colorado Denver|Anschutz Medical Campus, Denver, CO

Research investigating the relationships between positive psychological constructs, such as optimism, positive affect, and meaning in life, and physical health outcomes has grown exponentially in recent years. These studies have demonstrated that increased positive psychological well-being prospectively predicts lower morbidity and mortality, even when controlling for negative psychological states such as depression. However, whether or not these constructs are modifiable in a way that leads to changes in health outcomes is not fully understood. There is an emerging literature on the use of positive psychological interventions to improve health and well-being outcomes in a number of populations of interest. These treatments use a variety of techniques with the unifying goal of building a meaningful life, rather than focusing primarily on reducing psychological suffering. This symposium presents three different positive psychological interventions, targeting different constructs and using varying modes of delivery, that aim to improve health. The first is a mHealth meaning-based intervention to promote physical activity in midlife adults; the second is a telephone-delivered positive psychology-motivational interviewing intervention targeting physical activity in adults with a recent bariatric surgery; and the third is a group-based mind-body resiliency intervention targeting coping and other psychological outcomes among individuals with neurofibromatosis. These presentations will demonstrate the different ways that positive psychological interventions can be applied, both in terms of positive psychology skills being taught and in terms of intervention modality (mHealth vs. individual counseling vs. groups). They will also discuss the process used to develop such interventions for specific health needs. By considering these different interventions together we hope to enhance the discussion around the best ways to implement positive psychology intervention techniques to effect meaningful change in both physical and mental well-being.

CORRESPONDING AUTHOR: Emily Feig, PhD, Massachusetts General Hospital/Harvard Medical School, Jamaica Plain, MA; efeig@mgh.harvard.edu

---

Abstract citation ID: kaad011.1120

1: DEVELOPMENT OF A POSITIVE EMOTION-FOCUSED INTERVENTION TO INCREASE PHYSICAL ACTIVITY AFTER BARIATRIC SURGERY – THE GAINING OPTIMISM AFTER WEIGHT LOSS SURGERY (GOALS) PROJECT

Emily Feig, PhD[1], Claire Szapary, BA[2], Lauren Harnedy, BA[3], Crystal Castillo, BA[4], Christina Psaros, PhD[5], Anne Thorndike, MD, MPH[5], Jeff C. Huffman, MD[4]

[1]Massachusetts General Hospital/Harvard Medical School, Jamaica Plain, MA; [2]Yale University; [3]Rutgers University; [4]MGH, Boston, MA; [5]Massachusetts General Hospital/Harvard Medical School

While bariatric surgery leads to significant, sustained weight loss along with reduction in associated cardiometabolic risk factors for many, this outcome is not universal. Physical activity (PA) promotes cardiometabolic health independent of weight loss. However, most people who have bariatric surgery do not meet recommended levels of PA after surgery. This population is likely to have negative associations with PA due to history of physical discomfort during exercise, weight stigma, and other factors. Positive psychological interventions show promise for enhancing psychological well-being as well as health behavior change, especially when combined with standard behavior change techniques. The Gaining Optimism After Weight Loss Surgery (GOALS) Project was developed to address emotional barriers that may be missing from existing exercise training programs designed for this population. Following the ORBIT model for behavioral treatment development, we first completed a qualitative study in 23 participants post-bariatric surgery to assess the emotional experiences related to PA. We used these results to modify an established positive psychology-motivational interviewing telephone intervention used to promote psychological well-being and PA in other medical populations. Modifications included focusing on building positive emotions during PA and addressing barriers identified by participants (e.g., positive reappraisal to respond to physical discomfort during exercise). We tested this adapted 10-week telephone plus Fitbit intervention in 12 participants (M age = 46 years, 58% female, 67% non-Hispanic white) in a single-arm proof-of-concept trial. The intervention was feasible (8.5/10 sessions completed on average) and acceptable (M ease and utility ratings of each session >8 on a 0-10 scale). When examining pre-post changes in PA and psychological outcomes, we found a medium effect size (ES) increase in accelerometer-measured moderate-to-vigorous PA (16 min/day increase, $d = 0.6$), a medium ES decrease in depressive symptoms ($d = 0.5$), and large ES improvements in internalized weight bias ($d = 0.9$), exercise identity ($d = 1.0$), and barriers to being active ($d = 1.0$). The intervention is now being tested in a pilot randomized controlled trial in comparison to a PA education control. If feasible and effective, the GOALS intervention will be tested in a fully powered efficacy trial and could substantially improve standard of care after bariatric surgery.

Abstract citation ID: kaad011.1121

2: DEVELOPMENT OF A MEANING AND THEORY-BASED MHEALTH PHYSICAL ACTIVITY INTERVENTION FOR MIDDLE-AGED ADULTS

Stephanie A. Hooker, PhD, MPH[1], Kevin S. Masters, PhD[2], Rebecca Rossom, MD, MS[3], Nico Pronk, PhD, MA[3], Jule M. Muegge, MPH[1], Lauren Crain, PhD[3], Dhavan Prasad Pasumarthi, BTech CSIT[3], Gopikrishna Kunisetty, MCA[3]

[1]HealthPartners Institute, Bloomington, MN; [2]University of Colorado Denver|Anschutz Medical Campus, Denver, CO; [3]HealthPartners Institute

A sense of meaning in life is one positive psychological factor that is positively associated with health, well-being, and longevity. People with a stronger sense of meaning engage in healthier behaviors, including physical activity, which may partially explain the meaning and health link. However, meaning has not been fully integrated into previous physical activity interventions; this integration would enable researchers to experimentally test whether meaning is efficacious as an intervention for increasing physical activity. The goal of this project was to develop and refine the Meaningful Activity Program (MAP to Health), a meaning-based mHealth physical activity intervention, grounded in self-determination theory, for insufficiently active middle-aged adults. Research team members outlined and created a web-based assessment based on theoretical determinants of behavior change including promoting awareness of meaning and supporting self-determination theory needs of autonomy, competence, and relatedness. The assessment guides participants through (1) identifying reasons for being physically active and sources of meaning; (2) making explicit connections between meaning and activity; (3) setting small, achievable activity goals from a comprehensive list of eligible activities; and (4) setting times for activity. Specific MAP to Health intervention techniques will be described during the presentation. Based on the personalized information from the assessment, MAP to Health utilizes algorithms to send personalized text messages at times planned for physical activity to keep meaning salient for participants and encourage physical activity. Middle-aged adults (ages 40-64) who were insufficiently active (average moderate-vigorous physical activity between 10 and 149 min/week), interested in becoming more active, and physically able to participate in physical activity participated in three rounds of iterative user testing and feedback to rate the acceptability of the technological framework and fidelity of the intervention to the behavior change theory. Changes were made after each round to optimize the user experience and ensure fidelity to theory. In the next step, the team will test whether MAP to Health impacts hypothesized mechanisms of behavior change, including meaning salience, needs satisfaction, and internal motivation in a proof-of-concept pilot trial.

Abstract citation ID: kaad011.1122

3: EFFECTS OF A MIND-BODY PROGRAM ON RESILIENCY OUTCOMES IN INDIVIDUALS WITH NEUROFIBROMATOSIS

Kate McDermott, PhD[1], Alex Presciutti, MA, MSCS[2], Ethan Lester, PhD[2], Emily C. Woodworth, BA[1], Jonathan Greenberg, PhD[3], Jafar Bakhshaie, MD, PhD[2], Julia Hooker, MS[4], Ana Maria Vranceanu, PhD, FSBM[5]

[1]Massachusetts General Hospital, Boston, MA; [2]Massachusetts General Hospital/Harvard Medical School, Boston, MA; [3]Massachusetts General Hospital & Harvard Medical School, Boston, MA; [4]Massachusetts General Hospital; [5]Harvard Medical School, Boston, MA

Background: The neurofibromatoses (NF) are comprised of three disorders (NF1, NF2, and schwannomatosis) characterized by proneness to nerve sheath tumors. NF is progressive and incurable; symptoms include potentially disabling impairments, such as poor gait, loss of motor function, and chronic pain, which contribute to emotional distress and reduced quality of life. Resiliency factors may buffer against the negative emotional effects of NF, and increasing resiliency represents an important treatment target in this population. The present analyses evaluated the effects of an NF mind-body intervention on resiliency factors (gratitude, optimism, coping abilities, mindfulness, and perceived social support). We hypothesized that the intervention would lead to greater improvements in these factors compared to the control group.

Methods: This was a secondary analysis of a clinical trial (N = 228) evaluating the effects of a group-based Relaxation Response Resiliency Program (3RP-NF) compared to a health education control group tailored to NF (HEP-NF). 3RP-NF targeted relaxation, stress management, mindfulness, cognitive restructuring, positivity, social support, and acceptance, while HEP-NF focused on stress education, sleep, nutrition, exercise, and navigating the healthcare system. We used linear regressions to evaluate the effects of treatment group on resiliency factors, controlling for baseline levels of the resiliency variable. We ran paired samples t-tests to evaluate effects of time in both groups pre to post intervention.

Results: The 3RP-NF group demonstrated greater increases in coping relative to the HEP-NF group (β = -.22, p < .001). Although there were no effects of group on gratitude, optimism, mindfulness, or social support (ps > = .24), there were improvements from pre to post treatment for all outcomes across groups.

Conclusions: The 3RP-NF intervention increased ability to cope with stress relative to the HEP-NF control group. Across groups, there were increases in all resiliency factors, suggesting that resiliency may improve from NF group interventions even in the absence of treatment content targeting resiliency. These findings are promising given the crucial need for NF treatments that improve coping abilities among individuals with these incurable, disabling conditions.

Abstract citation ID: kaad011.1123

SYMPOSIUM 38: “MAKING AN IMPACT AFTER THE IMPACT”: OPTIMIZING RECOVERY AFTER TRAUMATIC BRAIN INJURY

Jonathan Greenberg, PhD[1], Sarah Bannon, PhD[2], Brenda C. Lovette, MS, CCC-SLP[3], Molly Cairncross, PhD[4], Andrée-Anne Ledoux, PhD[5]

[1]Massachusetts General Hospital & Harvard Medical School, Boston, MA; [2]Massachusetts General Hospital, Boston, MA; [3]MGH Institute of Health Professions, ARLINGTON, MA; [4]Simon Fraser University, Burnaby, BC, Canada; [5]Children's Hospital of Eastern Ontario, Ottawa, ON, Canada

Traumatic brain injuries (TBIs) are the most common neurological disorders and result in higher levels of disability and death than any other traumatic injury. Although outcome trajectories are heterogeneous and difficult to predict, many individuals experience persistent changes to their cognitive, emotional, and physical functioning. Traditional biomedical approaches have primarily addressed the physical, functional, sensory, and cognitive aspects of TBI; however, a growing body of evidence emphasizes the key role of psychosocial factors in coping with and recovering from TBI, including mindfulness and resilience. While some available psychosocial interventions show promise, many struggle to address the unique challenges faced by individuals with TBI.

This symposium delineates psychosocial factors, skills, and treatments for optimizing recovery after TBI, as well as important methodological considerations for capturing such recovery. Aligning with the theme of this year’s annual meeting (“translating science into impact”), our work will be presented within a translational framework, from basic science to clinical research and “real world” resources for individuals with TBI.

Sarah Bannon will review findings from qualitative studies identifying TBI survivors’ impressions of barriers and facilitators to resilience after injury and discuss the application of such findings to more patient-centered assessments of resilience following TBI. *Molly Cairncross* will discuss the relationship between various components of mindfulness and quality of life in adults with mild traumatic brain injury and will offer implications for interventions for this population. *Brenda Lovette* will review the current patterns in the measurement of outcomes of mindfulness-based interventions for people with TBI including the clinical domains most impacted by these interventions, and the most effective methods for capturing the breadth of potential benefits. *Andree-Anne Ledoux* will then place these findings in the broader context of psychosocial treatments for individuals with TBI and will discuss future directions.

CORRESPONDING AUTHOR: Jonathan Greenberg, PhD, Massachusetts General Hospital & Harvard Medical School, Boston, MA; jgreenberg5@mgh.harvard.edu

---

Abstract citation ID: kaad011.1124

1: A BROADER SENSE OF THE IMPACT: USING THEORY AND PATIENTS' PERSPECTIVES TO DEVELOP A NOVEL TBI RESILIENCE INTERVIEW

Sarah Bannon, PhD[1], Caitlin Rajala, MS[2], Camden Waterhouse, BS[2], Nathan Fishbein, BA[3], Joseph Giacino, PhD[2], Ross Zafonte, DO[2]

[1]Massachusetts General Hospital, Boston, MA; [2]Spaulding Rehabilitation Hospital; [3]Massachusetts General Hospital, Somerville, MA

Traumatic brain injury (TBI) is a major public health concern and a frequent cause of death and long-term disability. Clinical scientists are therefore interested understanding ways of cultivating *resilience* after TBI, defined in terms of the individual, social, and systemic components engaged in response to the stressors that allow individuals to “bounce back,” or move forward positively. Prior literature, including our own qualitative systematic review, highlights barriers and facilitators to resilience at individual (e.g., physical challenges, coping behaviors), interpersonal, (e.g., stigma and isolation) and systemic (e.g., access to resources, rehabilitation support) levels. Despite this evidence, there is currently no patient-centered assessment of factors influencing resilience, which is needed to develop tailored approaches to care and optimize patient outcomes. With the goal of developing such a measure, we conducted a qualitative study that aimed to comprehensively characterize perceptions of persons with TBI and use these findings to develop an item bank for a novel structured interview that would allow clinicians to assess patient-defined barriers and facilitators to resilience. We recruited individuals (n=8) within the first 3 years after moderate-severe TBI for a 60-minute focus group study. We used a social ecological model framework to identify subthemes deductively within domains and themes established a-priori by our systematic review. Findings highlighted specific ways in which participants engagement in resilient behaviors were influenced by their individual experiences of challenges and available resources and supports. For example, participants’ descriptions of specific challenges (e.g., difficulty participating in activities they did prior to TBI) had a differential impact on their sense of resilience based on their perception of their available social support (e.g., communities of individuals with experience with TBI) and a resources (e.g., rehabilitation services focused on support to overcome such challenges). We used the findings to develop the first iteration of the Resiliency Interview for TBI, which includes individual, interpersonal, and external resiliency domains. Further refinement is needed, , but this patient-centered interview is an important first step toward development of a tool that allows providers to more thoroughly assess and intervene on factors impacting resilience after TBI.

Abstract citation ID: kaad011.1125

2: HIDDEN GAINS? MEASURING THE IMPACT OF MINDFULNESS-BASED INTERVENTIONS FOR PEOPLE WITH MTBI: A SCOPING REVIEW

Brenda C. Lovette, MS, CCC-SLP[1], Jonathan Greenberg, PhD[2], Sarah Bannon, PhD[3], Ana Maria Vranceanu, PhD, FSBM[4], Millan Kanaya, BS[5]

[1]MGH Institute of Health Professions, ARLINGTON, MA; [2]Massachusetts General Hospital & Harvard Medical School, Boston, MA; [3]Massachusetts General Hospital, Boston, MA; [4]Harvard Medical School, Boston, MA; [5]Center for Health Outcomes and Interdisciplinary Research, Department of Psychiatry, Massachusetts General Hospital, Boston, MA, USA

Mild traumatic brain injury (mTBI) are common, and persistent symptoms can impact multiple domains of functioning, including cognition (e.g., processing speed and difficulty concentrating), physical and somatic symptoms (e.g., headaches, light/noise sensitivity, fatigue, dizziness/nausea), and psychological or emotional health (e.g., increased irritability, depressed mood, restlessness. These symptoms can cause devastating negative impacts on function, wellness, and life participation. Accumulating evidence suggests that psychosocial interventions, specifically mindfulness-based interventions, may facilitate recovery following mTBI. Mindfulness-based interventions can target multiple symptom and functional domains and may be particularly beneficial for addressing the diverse clinical presentations of individuals with mTBI. Although measurement is a key determinant of outcomes, there is no comprehensive assessment of measurement approaches used to capture outcomes of these programs. In this scoping review, we examine the domains targeted, measurement techniques used, and domains and techniques most affected by mindfulness-based interventions for mTBI. We conducted a scoping review. After screening and full-text review, we included 29 articles and extracted data related to measurement domains, techniques, and results. We identified 8 outcome domains, each with multiple subdomains. The most common domains were cognitive symptoms and general health/quality of life. No quantitative studies directly assessed sleep, physical-function, or pain-catastrophizing. Self-report was the most common measurement technique, followed by performance-based methods. Coping, somatic symptoms, emotional symptoms, stress response, and domains of cognition (particularly attention) were the most frequently improved domains. Qualitative results described benefits across all domains and suggested novel areas of benefit. Biomarkers did not reflect significant change. Our findings indicated that mindfulness-based interventions for mTBI impact a range of clinical domains and are best captured with a combination of measurement approaches. Using qualitative methods and expanding the breadth of outcomes may help capture underexplored effects of mindfulness-based interventions for mTBI

Abstract citation ID: kaad011.1126

3: THE ASSOCIATION OF MINDFULNESS, POST-CONCUSSION SYMPTOMS, AND QUALITY OF LIFE FOLLOWING CONCUSSION

Molly Cairncross, PhD[1], Andrée-Anne Ledoux, PhD[2], Jonathan Greenberg, PhD[3], Noah Silverberg, PhD[4]

[1]Simon Fraser University, Burnaby, BC, Canada; [2]Children's Hospital of Eastern Ontario, Ottawa, ON, Canada; [3]Massachusetts General Hospital & Harvard Medical School, Boston, MA; [4]University of British Columbia, Vancouver, BC, Canada

Little is known about the factors that may help improve quality of life in individuals with persistent post-concussion symptoms (PPCS). Mindfulness shows promise as a potential mechanism that could impact quality of life post-concussion. The objective of this study was to investigate the association between post-concussion symptom severity, mindfulness, and quality of life in individuals with PPCS, and to determine if the association between PPCS severity and quality of life was moderated by mindfulness. Understanding factors and mechanisms associated with improved quality of life is particularly important for developing effective behavioral interventions.

This study is a secondary data analysis of a randomized feasibility trial. Adults >1 month post-injury who reported at least three symptoms on the Rivermead Post Concussion Symptoms Questionnaire (RPQ), and seeking care at two outpatient concussion clinics were enrolled. At baseline, participants completed measures of concussion symptom severity (RPQ), mindfulness (FFMQ), and quality of life (QOLIBRI). Pearson correlations were performed to assess the association between the variables. A moderation analysis assessed if mindfulness moderated the relationship between post-concussion symptoms and quality of life.

A total of 94 adults with concussion [mean (SD) age= 41.3(11.9); 61% female] were included in the analysis. Individuals who endorsed lower trait mindfulness also endorsed worse quality of life ($r = -0.31$, $p < .01$) and more post-concussion symptoms ($r = -0.15$, $p = 0.16$). Regarding the individual mindfulness facets, reporting more severe post-concussion symptoms was associated with lower "describing" ($r = -.21$, $p = .02$), "awareness" ($r = -.20$, $p = .06$), and "non-judgment" ($r = -.26$, $p = .01$), and higher "observing" ($r = .24$, $p = .02$). A similar pattern for quality of life was found. Reporting lower quality of life was associated with worse "describing" ($r = .28$, $p = .006$), "awareness" ($r = .29$, $p = .006$), "non-judgment" ($r = .27$, $p = .01$), and "non-reactivity" ($r = .35$, $p =.001$). Trait mindfulness did not moderate the relationship between post-concussion symptoms and quality of life ($F(1,85) = 2.11$, $p = .65$).

Mindfulness may help improve quality of life and reduce persistent concussion symptoms among individuals with mTBI, but does not moderate the relationship between these factors. Implications for the application of mindfulness for the treatment of mild traumatic brain injury will be discussed.

Saturday
April 29th, 2023
11:00 AM – 11:50 AM
Poster Session E

Abstract citation ID: kaad011.1127

POSTER SESSION E: RACE-BASED CORRECTIONS IN COGNITIVE FUNCTION SCORES MAY OBSCURE DISPARITIES

Alana Hernandez[1], Mandy Wong, MS[2], Shaina Alexandria, PhD[2], Diana A. Chirinos, PhD[3], Thanh-Huyen T. Vu, MD, ScD[2], Kristen L. Knutson, PhD[2], Mercedes R. Carnethon, PhD[4]

[1]Stanford Unviersity, Stanford, CA; [2]Northwestern University, Chicago, IL; [3]Northwestern University Feinberg School of Medicine, chicago, IL; [4]Northwestern University Feinberg School of Medicine, Chicago, IL

Background: Cognitive function is lower in Black adults as compared with non-Hispanic White adults of a similar age. Differences by race in level of education attainment is a central factor in disparities in cognitive function scores. In response to these racial disparities, cognitive assessment toolkits used in population screening studies provide corrected scores that account for race, ethnicity, sex and education. However, corrected scores can obscure differences in cognitive function that are present by race even at the same age and with similar levels of educational attainment. Our objective was to describe differences in uncorrected cognitive function scores between Black and White community dwelling older adults and to test whether the presence of other correlates of cognitive function attenuate those differences.

Methods: We included 170 adults aged 65 years+ (128 white and 42 Black, 63% female) who participated in a cross-sectional study of the role of sleep on disparities in cognitive function using random sampling, through community engagement events and advertisements. Sociodemographic characteristics and medical history were self-reported and blood pressure and body mass index (BMI) were measured. Participants completed the NIH Toolbox assessment of the following cognitive domains: processing speed, working memory, episodic memory, and executive function (inhibition and attention). Fully corrected t-scores account for age, race, ethnicity, sex and educational attainment. We used multivariable linear regression to test the association of race with age corrected and fully corrected t- scores following adjustment for marital status, BMI, and hypertension.

Results: The mean age of study participants was 71.9 years old (SD=4.5), on average participants reported completing 16.5 (SD=2.5) years of education, 50.1% of participants were married, the prevalence of hypertension was 44% and average BMI was 29.3 kg/m^2 (SD=6.1). As expected, there were no differences by race in the fully corrected t-scores of cognitive function in any of the domains. However, when comparing age corrected scores, Black participants had significantly lower t-scores than White participants for processing speed (β= -15.5, SE = 4.5, p< 0.01), working memory (β= -8.1, SE= 3.0, p< 0.01), episodic memory (β= -8.4, SE=3.1, p< 0.01), and executive functioning (β= -10.3 SE=2.2, p< 0.01).

Conclusions: At a similar age, Black older adults had worse cognitive functioning scores than White participants across all of the NIH toolbox domains. Relying on fully corrected cognitive test scores that account for race may obscure these differences, and in doing so, miss opportunities to initiate additional screenings for cognitive impairment and to launch supportive interventions designed to extend independent living.

CORRESPONDING AUTHOR: Alana Hernandez, Stanford Unviersity, Stanford, CA; alanah16@stanford.edu

---

Abstract citation ID: kaad011.1128

POSTER SESSION E: DEMENTIA CARE PARTNER ENGAGEMENT AND PROBLEM/GOAL SELECTION ARE SIMILAR IN SIX AND THREE SESSION PROBLEM-SOLVING TRAINING

Chung Lin (Novelle) Kew, PhD, CRC[1], Alexandra Holland, LMSW[2], Kristin Wilmoth, PhD[2], Matthew Lee Smith, PhD, MPH, CHES[1], Shannon B. Juengst, PhD, CRC[3]

[1]Texas A&M University, College Station, TX; [2]UT Southwestern Medical Center, Dallas, TX; [3]TIRR Memorial Hermann, Houston, TX

Objectives: To compare dementia care partners' engagement and type of self-selected problems/goals by number of Problem-Solving Training (PST) sessions assigned in a randomized community trial.

Design: Secondary analysis of care partners' self-reported problems/goals in the Care Partner Problem Solving Training (CaDeS) trial (NCT04748666).

Setting: Community.

Participants: Eighty English- and Spanish-speaking care partners of persons with dementia, who were randomized to receive six (n=45) or three (n=32) PST sessions and completed the intervention as of October 2022.

Methods: Care partners self-selected problems/goals on which to focus, which were qualitatively categorized into: 1) care partner-focused; 2) care recipient-focused; 3) both care partner- and care recipient-focused; and 4) other (e.g., "fixing car a/c"). We calculated summary statistics for problems/goals categories to determine frequency and nature of care partner problems by randomized study arm (3 vs 6 PST sessions).

Main Outcome Measures: Care partner engagement measured using the Pittsburgh Rehabilitation Participation Scale (PRPS), ordinal rating 1-6, with higher scores indicating greater engagement.

Results: A total of 167 problems/goals were reported, with only one not being codable. Most problems/goals reported were care partner-focused (56%), followed by care recipient-focused (28%). Six percent of the problems/goals focused on both care partner and their care recipient, and 10% were other problems/goals. Of the 45 care partners with six sessions, 16% identified one problem/goal, 33% identified two problems/goals, 35% identified three problems/goals, and 16% identified four problems/goals for the intervention. Of the 32 care partners with three sessions, 42% identified one problem/goal, 45% identified two problems/goals, and 12% identified three problems/goals for the intervention. The median care partner engagement score was 5 for care partner-focused, care recipient-focused, and both care partner and care recipient focused problems/goals, while other-focused problems/goals had a median engagement score of 6. The median care partner engagement score was 5 for care partners who had three and six sessions.

Conclusions: In this trial, care partners focused on a mix of goals related to their care recipient as well as themselves and others, which indicates the diversity of their needs. Findings suggest that care partner engagement in PST sessions was similar across selected problems/goals and 3 vs 6 session PST. We demonstrate that care partner interventions should address a broad range of goals, not just those related to caregiving, and that PST can do so even with only three sessions.

CORRESPONDING AUTHOR: Alexandra Holland, LMSW, UT Southwestern Medical Center, Dallas, TX; Alexandra.Holland@UTSouthwestern.edu

Abstract citation ID: kaad011.1129

POSTER SESSION E: SITTING INTERRUPTION MODALITIES RESULT IN ACUTELY IMPROVED METABOLOME DURING PROLONGED SITTING TIME IN CROSSOVER PILOT TRIAL

Jeffrey S. Patterson, MS[1], Brinda K. Rana, PhD[2], Loki Natarajan, PhD[2], Dorothy D. Sears, PhD[1]

[1]Arizona State University, Phoenix, AZ; [2]University of California San Diego, La Jolla, CA

Background: Older adults are the least likely population to achieve physical activity (PA) recommendations and sit for most of the day. Accumulation of prolonged sedentary and sitting time is associated with increased risk for mortality and aging-related conditions such as cardiometabolic disease and cancer. Physical and environmental barriers to PA are prevalent in older adults. Modalities targeted to break up prolonged sitting time may serve to reduce disease risk.

Methods: Archival plasma samples from a randomized controlled, crossover pilot study of the P01 RISE for Health trial conducted in 10 overweight/obese postmenopausal women were analyzed. The trial tested four 5-hour conditions: three interrupted sitting conditions (frequent two-minute sit-to-stand transitions (STS), ten-minute stand each hour (IS), and two-minute walk every hour (Walk)) and a control continuous sitting condition. Participants consumed a liquid breakfast and lunch during each condition. Fasting baseline plasma and end point plasma (2 hours post lunch) samples were used for targeted metabolomic profiling of 18 acyl carnitines and 296 primary metabolites at the UC Davis West Coast Metabolomics Center.

Results: Paired t-tests comparing metabolite changes during the intervention vs. the control conditions showed 16 significant metabolites in the STS, 5 metabolites in the Walk, and 4 metabolites in the IS conditions. Significant shifts in amino acid, sugar, and fat metabolism were prominent in the STS vs. control conditions. Metabolic pathways centered on beta-alanine, phenylalanine, and arginine metabolism were highlighted, which are known to be associated with PA, aging, and insulin resistance. Enriched networks of serotonin and tryptophan exchange were identified, potentially indicating acute impacts on the gut microbiome. Cholesterol was significantly reduced in the STS condition and decreased across all interventions. Partial least squares-discriminant analyses (PLS-DA) demonstrated the between condition differences for the interventions and control. Distinct and tight clustering by condition was driven by amino acid, sugar, and fat metabolites with a VIP score ≥ 2.0.

Conclusions: The interrupted sitting conditions profoundly impacted the metabolome, particularly in the STS condition. This study suggests that brief, low-intensity modalities of sitting time interruption can acutely elucidate beneficial cardiometabolic changes in postmenopausal women.

CORRESPONDING AUTHOR: Jeffrey S. Patterson, MS, Arizona State University, Phoenix, AZ; jspatte5@asu.edu

---

Abstract citation ID: kaad011.1130

POSTER SESSION E: RECRUITING SOCIALLY DISCONNECTED MIDDLE AGE AND OLDER LATINOS CARING FOR A PERSON WITH ALZHEIMER'S DISEASE AND RELATED DEMENTIA

Maria Quiñones-Cordero, PhD[1], Caroline Silva, PhD[2]

[1]URMC School of Nursing, Rochester, NY; [2]URMC, Rochester, NY

Introduction: Latinos have the highest prevalence of dementia caregiving compared to other racial/ethnic groups and, consequently, experience greater caregiver burden. Latino caregivers report less family and healthcare system support, greater physical and mental health declines, and barriers to dementia care resources. These burdens place Latino caregivers at increased risk to become socially disconnected – isolated, lonely, and with low social support – which, can also worsen their health outcomes. Socially disconnected Latino caregivers face barriers to engage in behavioral intervention trials including limited social integration into their community and knowledge of research opportunities. Consequently, social disconnection remains understudied in Latino caregiving research. Here, we present our findings on recruiting socially disconnected dementia Latino caregivers during the COVID-19 pandemic using different approaches and challenges with screening for this construct.

Methods: Latino caregivers were recruited for 2 pilot studies aimed at culturally adapting 2 behavioral interventions to improve social and overall health outcomes. Recruitment methods included *online* (i.e., RsearchMatch, Alzheimer's Association TrialMatch) and *in-person* (i.e., senior center) efforts. Using the UCLA 3-item Loneliness Scale (LS), caregivers were identified as socially connected (total score ≤ 5) or disconnected (total score ≥ 6). Enrolled caregivers completed the longer UCLA LS 3 which contains the 3 items from the shorter version.

Results: *Online recruitment* resulted in 107 interested caregivers, of which 41 were eligible. 35% enrolled in a study (average age 52.43 years). 66.6% had a college degree or higher and 19% were monolingual Spanish speakers. *In-person* recruitment resulted in 18 interested caregivers, of which 33% enrolled in a study (average age 61.11 years). 30.8% reported having a college degree or higher and 28% were monolingual Spanish speakers. We encountered challenges identifying socially disconnected caregivers with the UCLA 3-item LS due to consistently low scores. A closer look at the longer UCLA LS 3 among those who completed both measures revealed that caregivers were endorsing other items not found in the 3-item scale that did elevate their total scores, categorizing them as socially disconnected on the longer UCLA LS 3.

Conclusions: The COVID-19 pandemic increased challenges in the recruitment of socially disconnected caregivers, particularly for those aged 60+. Social disconnection and how it is measured in Latino caregivers needs further exploration to better understand it in order to inform the development of culturally attuned interventions to improve Latino caregiver health. We present recommendations and methodological considerations to address these challenges in future research recruiting socially disconnected Latino caregivers.

CORRESPONDING AUTHOR: Maria Quiñones-Cordero, PhD, URMC School of Nursing, Rochester, NY; maria_quinones@urmc.rochester.edu

Abstract citation ID: kaad011.1131

POSTER SESSION E: A QUALITATIVE META-SYNTHESIS OF PSYCHOSOCIAL STRESSORS EXPERIENCED BY PERSONS WITH DEMENTIA AND CAREGIVERS DURING COVID-19

Ellen Y. Park, BA[1], Katina Massad, BA[2], Kaitlyn H. Lichstein, BA[3], Jeffery Zou, BS[4], Lara Traeger, PhD[5], Christine S. Ritchie, MD, MSPH[5], Sarah Bannon, PhD[2]

[1]Memorial Sloan Kettering Cancer Center, New York, NY; [2]Massachusetts General Hospital, Boston, MA; [3]Massachusetts General Hospital, Broad Brook, CT; [4]Massachusetts General Hospital, Somerville, MA; [5]Massachusetts General Hospital/Harvard Medical School, Boston, MA

Background: The COVID-19 pandemic represents an unprecedented global crisis with disproportionate impacts on those with chronic or progressive conditions such as dementia. Recent research documents the impacts on persons living with dementia (PWDs) and their caregivers, who were tasked with navigating pandemic risks and disruptions alongside dementia-related challenges. As a first step in identifying support needs in the pandemic era, this qualitative systematic review examined the existing literature to comprehensively characterize the psychosocial stressors experienced by PWD, family caregivers (FCGs), and professional caregivers (PCGs) during the COVID-19 pandemic.

Methods: We conducted a systematic search of 5 databases (PubMed, PsycINFO, Google Scholar, EBSCOhost, and MEDLINE) using keywords such as: dementia, qualitative, experiences, PWD, caregivers, and COVID-19. We included articles published between April 2020 and December 2021 that met the following five criteria: 1) written in English; 2) published in peer-reviewed journals; 3) included any type of qualitative method and qualitative analysis; 4) included PWDs, FCGs, or PCGs; and 5) included information on psychosocial needs, experiences, and challenges during the pandemic. We extracted and synthesized findings across included articles using taxonomic analysis.

Results: Of the 451 articles identified, 56 studies from over 6 countries met all inclusion criteria for review. We identified five main themes: 1) loss of normalcy and routines, 2) heightened loneliness, emotional distress, and co-occurring difficult emotions, 3) exacerbation of dementia-related stressors, 4) challenges maintaining quality formal and informal care and support, 5) lack of external (e.g., financial, community, government) support and resources to mitigate the dual impact of dementia and pandemic stressors. Studies highlighted the multi-faceted, synergistic, and interdependent effects of the pandemic for PWDs and FCGs.

Conclusion: The COVID-19 pandemic exacerbated existing stressors and produced a host of new challenges for those navigating dementia. More research is needed to understand the long-term impact of the challenges of the COVID-19 pandemic on dementia caregiving and to inform the development of interventions for future pandemics.

CORRESPONDING AUTHOR: Ellen Y. Park, BA, Memorial Sloan Kettering Cancer Center, New York, NY; parke5@mskcc.org

---

Abstract citation ID: kaad011.1132

POSTER SESSION E: SELF-EFFICACY, BARRIERS, AND FACILITATORS TO THE MIND DIET AMONG ADRD CAREGIVERS

Jacqueline Guzman, MS[1], Helena Salgado Bonilla, MS[2], Yuliana Soto, MS[3], Diana Morales, BS[2], Imani Canton, MS[4], Ana Laura Selzer Ninomiya, MS[2], Susan Aguinaga, PhD[2]

[1]University of Illinois at Urbana-Champaign, Berwyn, IL; [2]University of Illinois at Urbana-Champaign, Urbana, IL; [3]University of Illinois at Urbana-Champaign\, Urbana, IL; [4]University of Illinois Urbana-Chamapign, Champaign, IL

Introduction: About 16 million Americans provide unpaid care for people with Alzheimer's and related dementias (ADRD). Caregiving can have a negative impact on health including increased risk for depression and anxiety, stress-related cognitive dysfunction, and poorer quality of life. Diet interventions have the potential to reduce the negative health outcomes of caregiving. The Mediterranean-DASH diet intervention for neurodegenerative delay (MIND) is a diet that is comprised of food items that protect against neurodegeneration. The MIND diet has also been associated with fewer depressive symptoms over time, slower rates of cognitive decline, and decreased incidence of Alzheimer's disease. The purpose of this study was to assess self-efficacy, barriers, and facilitators to MIND diet adoption among caregivers of people with ADRD.

Methods: Participants were (n=299) female, unpaid caregivers (m_{age} = 37.7 ± 13.7) across the U.S. who completed an online survey. The majority of the caregivers were White (72%) and cared for someone with Alzheimer's disease (42.6%). Participants rated their self-efficacy with cooking and eating MIND diet foods as not confident at all, somewhat confident, or very confident. To assess barriers and facilitators, participants were instructed to select all items that applied to them from a list of 10 common barriers and facilitators to dietary patterns (access to food or stores, budget, cooking skills, transportation, time, season, family, friends, culture, and caregiving) or to enter other barriers or facilitators to the MIND diet.

Results: Caregivers (n= 201, 67.3%) reported feeling somewhat confident about cooking and eating MIND diet foods. The 3 most common barriers to the MIND diet were budget (28%), time (15%), and access to food or stores (11%). The 3 most common facilitators to the MIND diet were budget (22%), cooking skills (12%), and access to food and stores (11%) or family (11%).

Discussion: This study shows that ADRD caregivers report being somewhat confident to adopt the MIND diet. Budget and access to food and stores are both barriers and facilitators to the MIND diet. Future interventions should focus on budget planning and improving self-efficacy through cooking skills, as well as making MIND diet food items accessible to ADRD caregivers. Additionally, qualitative studies are needed to further understand barriers and facilitators of the MIND diet within the context of caregiving of people with ADRD.

CORRESPONDING AUTHOR: Jacqueline Guzman, MS, University of Illinois at Urbana-Champaign, Berwyn, IL; jguzma38@illinois.edu

Abstract citation ID: kaad011.1133

POSTER SESSION E: NAVIGATING NORMS AND EXPECTATIONS: COMMUNICATION AMONG LATINO COUPLES AFTER CANCER DIAGNOSIS

Gabriella Sanabria, MEd[1], Marangelie Velez, MA[2], Melody N. Chavez, MPH[1], Laura Perdiguero Munoz, PT[1], Janna Bastardo, MD[1], Audry Belen, MD[1], Isabela Solis, BA[1], Sejal Barden, PhD[2], Brian D. Doss, PhD[3], Dinorah Martinez Tyson, PhD[1]

[1]University of South Florida, Tampa, FL; [2]University of Central Florida, Orlando, FL; [3]University of Miami, Coral Gables, FL

Background: Communication efficacy is a salient predictor of both patients' and their intimate partner's (IPs) cancer management. IPs' perceived confidence in their ability to talk about cancer with the patient predicts both their own and patients' perceptions of their ability to manage cancer, which in turn influences patients' perceptions of general health. Cultural norms shape expectations within a relationship, how care is communicated, and what topics should be discussed within a relationship. Unfortunately, even though one in three Latinos receive a cancer diagnosis in their lifetime, cultural considerations are often not taken into account by interventions helping Latino couples navigate the cancer process together.

Methods: Five focus groups and five interviews were conducted with a purposive sample of Spanish-speaking Latina breast cancer survivors (LBCS) and IPs (N=26). In the focus group and interviews, LBCs and IPs were asked questions regarding the impact of cancer on their relationship, with specific questions centering on interpersonal communication. A rapid thematic analysis was completed using the rainbow visual framework to record repeated themes and identify cultural considerations.

Results: The cross-cutting cultural themes and considerations identified were: the influence of gendered and social norms on how couples manage their emotions and cope with the cancer diagnosis; difficulties navigating the discussion of cancer itself; and discomfort discussing how cancer impacts a couple's physical intimacy.

Conclusion: It is crucial to understand how couples cope with cancer and their interpersonal communication post-diagnosis within the context of Latino culture. Gaining this understanding will help strengthen the patient-partner dyad by facilitating positive interpersonal support, contributing to an improved quality of life for the dyad.

Future Research Implication: These findings will help providers, such as counselors and social workers, assist partner dyads in navigating the cancer journey and strengthen their relationship, helping to reduce interpersonal stress and tensions that can occur after a cancer diagnosis.

CORRESPONDING AUTHOR: Gabriella Sanabria, MEd, University of South Florida, Tampa, FL; flynng@usf.edu

---

Abstract citation ID: kaad011.1134

POSTER SESSION E: COPING EFFECTS ON QUALITY OF LIFE IN LOW VERSUS MODERATE-HIGH AREA DEPRIVATION INDEX AREAS AMONG WOMEN WITH BREAST CANCER

Paula Popok, BA[1], Ethel Kirabo Nalule[2], Estefany Saez-Clarke, PhD[3], Emily A. Walsh, MS[3], Molly Ream, MS[4], Rachel Plotke, BA[1], Michael H. Antoni, PhD, FSBM[5]

[1]University of Miami, Miami, FL; [2]Florida A&M University, Miami, FL; [3]University of Miami, Coral Gables, FL; [4]University Of Miami, South Miami, FL; [5]Sylvester Comprehensive Cancer Center, Coral Gables, FL

Background: Cancer health disparities in quality of life (QoL) can be observed throughout the cancer continuum. Cognitive-behavioral stress management (CBSM) is a promising intervention to help women with breast cancer (BC) cope with cancer-related stressors and has been shown to improve QoL. However, it is unclear whether the relationship between CBSM and QoL differs for women living in geographical areas of varied resources. Lower resource areas have been linked to worse health outcomes in cancer populations. This study aims to explore associations among ADI, perceived stress management skills (PSMS), and QoL in women beginning BC treatment.

Methods: Upon enrolling in a virtual-CBSM intervention trial, older women recently diagnosed with Stage 0 – III BC and post-BC surgery completed a baseline assessment before they began adjuvant treatment. Women were asked about PSMS (e.g., relaxation, coping) with the Measure of Current Status-A (MOCS-A) and QoL with the Functional Assessment of Cancer Therapy-General (FACT-G). Umbrellaed under the term Area Deprivation Index (ADI), social determinants (e.g., housing, poverty) are aggregated to create low versus moderate to high deprivation areas. The University of Wisconsin Neighborhood Atlas calculated ADI as low (1-3) or moderate to high (4-10).

Results: In our sample (N = 93), the majority of women lived in low deprivation areas (n = 62, 66.7%), were on average 61.15 years old (SD = 7.69), primarily White, non-Hispanic (n = 40, 43%) and White, Hispanic (n = 32, 34.4%), and married (n = 51, 54.8%). When controlling for age, marital status, ethnicity, race, and ADI, greater PSMS significantly predicted better QoL (β =.48, t(79) = 5.11, p< .001, R^2 = .348). However, controlling for covariates and PSMS, ADI did not significantly predict QoL (β = -2.94, t(79) = -.83, p = .41, R^2 = .342). Level of ADI did not significantly moderate the relationship between PSMS and QoL (β = -.01, t(79) = -.04,*p*v= .97, R^2 = .348). PSMS did not significantly differ by level of ADI.

Conclusion: ADI did not moderate the relationship between PSMS and QoL, though greater PSMS was associated with better QoL. PSMS may be a valuable asset for optimizing QoL during BC treatment across the socioeconomic gradient. Future research should continue to elucidate the relationships observed here particularly around what stress management skills contribute to higher QoL across cancer treatment and survivorship in a more diverse sample.

CORRESPONDING AUTHOR: Paula Popok, BA, University of Miami, Miami, FL; pjp95@miami.edu

Abstract citation ID: kaad011.1135

POSTER SESSION E: A LONGITUDINAL STUDY OF THE ASSOCIATION BETWEEN THE TEACHABLE MOMENT HEURISTIC AND TOBACCO USE OF HEAD AND NECK CANCER PATIENTS

Tia Borger, MS[1], Matthew Southward, PhD[1], Jessica Maras, MS[1], Abigayle Feather, BS[1], Jessica Burris, PhD[1]

[1]University of Kentucky, Lexington, KY

Introduction: The health consequences and risks associated with smoking after a cancer diagnosis include early mortality, new primary cancer, cancer recurrence, treatment failure, and poor quality of life. The Teachable Moment Heuristic (McBride et al., 2003) posits that change in its three components (i.e., affective response, risk perception, and social role or self-concept) could increase motivation for health promoting behavior change, such as smoking cessation. This intensive longitudinal study with head and neck cancer patients aimed to evaluate the link between Teachable Moment Heuristic constructs and key outcomes pertinent to the process of smoking cessation.

Method: The sample consisted of 42 newly diagnosed head and neck cancer patients (Age: M, SD = 57.64 ± 7.34; 71% male, 98% white, non-Hispanic, 24% employed) who reported smoking 12.35 (SD = 11.27) cigarettes per day at enrollment. Participants were recruited from an outpatient oncology clinic. A 20-item survey was administered via interactive voice response technology on 30 consecutive days. Participants answered single-item questions about their smoking, general distress, cancer worry, perceived benefits and risks of smoking, social support, and intention to abstain from smoking.

Results: Between-persons, only participants who perceived more benefits of smoking abstinence reported greater intention to abstain from smoking, $p < .01$. Participants who perceived more benefits of smoking abstinence and who reported less cancer worry smoked fewer cigarettes than those perceiving fewer benefits of abstinence or more cancer worry, $ps < .05$. Within-persons, less cancer worry than one's personal average predicted increases in next-day intentions to abstain, $p < .01$, whereas both perceiving greater benefits to abstaining and less cancer worry predicted decreases in the number of cigarettes smoked the next day, $ps < .02$. The other Teachable Moment Heuristic variables were not associated with the outcomes ($ps > .05$).

Conclusions: Some constructs derived from the Teachable Moment Heuristic (specifically, cancer worry, an aspect of affective response, and perceived benefits, an aspect of risk perception) are associated with favorable smoking cessation outcomes in adults recently diagnosed with head and neck cancer. Interventions to aid cancer patients with smoking cessation should focus on reducing cancer-related worry and capitalize on the benefits of abstaining.

CORRESPONDING AUTHOR: Tia Borger, MS, University of Kentucky, Lexington, KY; tia.borger@uky.edu

---

Abstract citation ID: kaad011.1136

POSTER SESSION E: WHAT MOTIVATED VOLUNTEER BREAST CANCER SURVIVORS TO DELIVER A PHYSICAL ACTIVITY INTERVENTION TO OTHER BREAST CANCER SURVIVORS?

Victoria R. DeScenza, PhD[1], Madison M. Kindred, PhD, MS[2], Sheryl Mitchell, DNP, APRN, FNP-BC, ACNP-BC, FAANP[3], Shira Dunsiger, PhD[4], Bernardine M. Pinto, PhD, FSBM[1]

[1]University of South Carolina, Columbia, SC; [2]Augusta University, Augusta, GA; [3]University of South Carolina College of Nursing, Columbia, SC; [4]Brown University, Providence, RI

Introduction: Community organizations rely heavily on volunteers as an integral part of program delivery and organization success. Evidence highlights the importance of social support in healthy behavior change, such as physical activity (PA). Implementation of peer-based interventions using volunteers can be a unique approach to scaling up efficacious interventions. Thus, harnessing peer support among existing community-based organizations could be valuable for dissemination and implementation of PA interventions.

Purpose: The purpose of this mixed-methods study is to explore the motivational factors for volunteering among breast cancer survivors (BCS) and the satisfaction they experienced as a coach in Moving Forward Together 3, a PA intervention for BCS.

Methods: Volunteers were recruited from the American Cancer Society's Reach to Recovery Program to serve as peer mentors in the Moving Forward Together 3 trial. Peer mentors were physically active, female, BCS who were trained by research staff to deliver a physical activity intervention to inactive BCS over 12-weeks. The Volunteer Functions Inventory (VFI) was used to measure baseline motivations for volunteering such as values, understanding, personal development, community concern, esteem enhancement, and career. Volunteer satisfaction was measured at the end of study.

Results: Mentors (n=26) delivered the intervention to a mean of 6.50 (SD = 5.16) participants and volunteered for an average of 704 days (SD = 354.768). Mentors highly scored altruistic "values" in helping others (M= 5.67, SD = 1.0) and "community concern" (M = 5.33, SD = 1.15) as motivators to volunteering. There were modest scores for building "understanding" (M = 3.65, SD = 1.4) and "personal development" (M = 3.87, SD = 1.53) as motivations to volunteer. "Career" (M=1.34, SD = 1.14) and "esteem enhancement" (M= 1.85, SD = 1.22) motivations scored relatively low. End of study volunteer satisfaction revealed mentors were highly satisfied with "helping others" (6.48 SD 0.89), "challenging themselves" (M =5.70, SD = 1.37), and "feeling better about themselves" (M = 5.70, SD =1.48). A Spearman rank correlation yielded a significant positive correlation between the number of participants that were coached and satisfaction with helping others (r (24) = .52, p < 0.01), challenging themselves (r (24) = .45, p < 0.05), and overall volunteer satisfaction (r(24) = .50, p < 0.01).

Conclusions: As one of the first trials to recruit BCS volunteers to deliver a PA intervention, evidence suggests that women volunteered to serve as peer mentors because of their values in altruism and concern for their community of BCS. They were less motivated by the desire to improve their careers or increasing their esteem. Future research is warranted to better understand volunteer motivations and its impact on recruitment and retention of coaches and ultimately patient outcomes.

CORRESPONDING AUTHOR: Victoria R. DeScenza, PhD, University of South Carolina, Columbia, SC; descenza@mailbox.sc.edu

Abstract citation ID: kaad011.1137

POSTER SESSION E: COPING STRATEGIES AND PSYCHOLOGICAL OUTCOMES AMONG YOUNG AND OLD PATIENTS WITH CANCER.

DAVID P. LEE[1], ERROL J. PHILIP, PhD[2], CRISTIANE BERGEROT, PhD[3]

[1]University of New Mexico, Albuquerque, NM; [2]UCSF, Arcadia, CA; [3]Unity Oncoclinicas Group, Centro de Câncer de Brasília, Brasilia, Distrito Federal, Brazil

Objective: Anxiety and depression are common symptoms among patients with cancer and utilizing effective coping strategies can be a key factor in the emotional adjustment to a diagnosis. As such, it is critical that supportive care interventions align with patients preferred coping strategies. This study examined coping strategies among younger (< 64 years old) and older (≥ 65 years old) patients with cancer and explored the association between emotion and problem-based strategies and psychological outcomes over time.

Patients and Methods: A longitudinal study was conducted in a Brazilian cancer center. Patients were assessed at the start of their chemotherapy (T1), at the mid-point of therapy (T2) and on the last day of treatment (T3) for emotional symptoms (Hospital Anxiety and Depression Scale; HADS) and for use of coping strategies (Ways of Coping). Repeated measures analysis of covariance (ANCOVA) was employed to examine differences.

Results: 166 consecutive patients were enrolled. The majority were women (71%) and married (63%). The most prevalent cancers were breast (33%) and gastrointestinal (18%) and the majority possessed advanced stage disease (62%). At baseline, more than a third of patients reported clinically relevant anxiety, with higher rates among younger patients (38.5% vs. 34.3%). In contrast, higher rates of depression were noted among older patients (29.9% vs. 15.4%). Anxiety significantly decreased over time among both age groups (Young: M = 6.9 to 2.9, Old: 6.2 to 2.9), but not depression. Older patients who used an emotion-focused coping strategy had a significantly greater decrease in anxiety at T3 compared to those that used problem-focused coping (t = 2.94, p = 0.005). There was no association between coping strategies and anxiety among younger patients (t = 0.71, p = 0.48).

Conclusion: High rates of anxiety and depression were reported at the time of diagnosis among both young and older patients. Importantly, whereas anxiety symptoms decreased over time among both groups, older adults who utilized an emotion-based coping strategy experienced a significantly greater reduction in anxiety compared to those utilizing a problem-based strategy. Depression symptoms did not abate and suggests a need for further investigation and support. These longitudinal findings can help guide the development of tailored interventions, including the possible promotion of certain coping strategies among older patients to enhance psychosocial outcomes.

CORRESPONDING AUTHOR: DAVID P. LEE, University of New Mexico, Albuquerque, NM; davidpatricklee@gmail.com

---

Abstract citation ID: kaad011.1138

POSTER SESSION E: GENETIC TESTING USE AND INFLUENCES AMONG US BASED ADULTS AGES 18-75

Skylar McElwain[1], Aldenise Ewing, PhD, MPH, CPH[2], Altovise Ewing, PhD, LCGC[3], James B. Odei, PhD[4], Naa Korley[2], Sarah Chopko[2], Tasleem Padamsee, PhD[2]

[1]The Ohio State University, Grove City, OH; [2]The Ohio State University, Columbus, OH; [3]Genentech, South San Fransisco, CA; [4]The Ohio State Universirt, Columbus, OH

Background: Cancer is the second leading cause of death in the US. Hereditary genetic predispositions account for 5-10% of several cancers with the highest prevalence. Genetic testing, an underutilized but highly effective healthcare service, aids in the prevention, early detection, and treatment of some cancers. Known disparities genetic testing use based on race/ethnicity, knowledge, and healthcare access persist. This study was designed to examine current patterns of genetic testing use among US adults ages 18-75.

Methods: Cross-sectional data were analyzed from the Health Information National Trends Survey (HINTS) 5, Cycle 4 (2020). The outcome of interest was assessed by asking participants "Have you ever had any of the following type(s) of genetic tests?" The select all that apply question included options for ancestry, health risk, and cancer risk testing. Covariates of interest included sociodemographic, personal, and family history of cancer, general cancer genetic testing knowledge, knowledge of precision medicine, and online medical record use. Between group differences were examined via chi-squared tests with an alpha of 0.05 using R version 4.0.5 software.

Results: Our final analytic sample (N=2,932) excluded adults over 75 years of age and/or with incomplete responses for the outcome of interest (n=334). Participants who utilized genetic testing (n=641; 22%) were on average 54 years of age (SD=15), White (77%), female (65%), had at least a college degree (59%), were insured (98%) and reported annual earnings of more than $75,000 (50%). Ancestry testing (72%) and health risk testing (34%) were the most reported types of genetic testing. Cancer risk genetic testing (20%) was the least utilized. Compared to those who did not report use of genetic testing (n=2,291; 78%), those who had utilized genetic testing reported a family history of cancer (80%; $P< 0.01$), a personal history of cancer (20%; $P< 0.01$), scored higher on items related to knowledge of cancer genetic testing (79%; $P< 0.01$), had awareness of precision medicine (73%; $P< 0.01$), and utilized an online medical record (61%; $P< 0.01$).

Discussion/Conclusions: Genetic testing use was reported by nearly one in four participants in a nationally representative sample of adults 18-75. Understanding social determinants and patterns of influence for genetic testing use may facilitate effective design of interventions and ultimately cancer prevention and treatment related outcomes. To increase the utility of genetic testing, future interventions should prioritize education on its importance and influence on precision medicine for improving cancer-related outcomes—particularly among adults with a personal or family history of cancer. Additional multi-level strategies could include the facilitation of patient-centered education disseminated via online medical records.

CORRESPONDING AUTHOR: Skylar McElwain, The Ohio State University, Grove City, OH; mcelwain.35@osu.edu

Abstract citation ID: kaad011.1139

POSTER SESSION E: PROBING ASSOCIATIONS BETWEEN SYMPTOM BURDEN AND SELF EFFICACY IN MANAGING CHRONIC GRAFT VERSUS HOST DISEASE IN CANCER SURVIVORS

Zeba Ahmad, PhD, EdM, MA[1], Ashley M. Nelson, PhD[1], Annemarie D. Jagielo, BA, BS[2], Daniel Yang, BS[3], Areej R. El-Jawahri, MD[4], Lara Traeger, PhD[1]

[1]Massachusetts General Hospital/Harvard Medical School, Boston, MA; [2]PGSP-Stanford Psy.D. Consortium, Stanford University, Santa Clara, CA; [3]Department of Psychiatry, Cancer Outcomes Research, Massachusetts General Hospital, Boston, MA; [4]Massachusetts General Hospital, Boston, MA

Background and Aims: Chronic graft-versus-host disease (cGVHD) is an inflammatory syndrome that can impact more than 50% of long-term cancer survivors following allogeneic stem cell transplant. Symptoms may include painful, debilitating, and unpredictable effects on the skin, eyes and mouth, joints, gastrointestinal tract, and other organs. However, prior research provides little empirical understanding of modifiable factors that may protect survivors from cGVHD-related decrements in health-related quality of life (HRQoL), which is a prerequisite for the development of behavioral interventions to improve HRQoL in this population. In the present study, we examined associations between cGVHD symptoms and HRQoL. We also explored the extent to which self-efficacy for managing cGVHD interacted with these associations.

Method: We analyzed baseline data from a study designed to develop a coping skills intervention for cancer survivors with moderate to severe cGVHD, as documented in their electronic health record during treatment at an academic medical center. The current analysis included baseline assessments of symptom burden (Lee cGVHD Symptom Scale; Skin, Eyes & Mouth, Musculoskeletal), HrQoL (Functional Assessment of Cancer Therapy; FACT-BMT), and self-efficacy for cancer treatment management (Communication & Attitudinal Self-Efficacy Scale; CASE). We used linear regression to identify the associations between physical symptoms and HrQoL. We assessed for moderation of these associations by self-efficacy for cGVHD management.

Results: Participants (n=80, M age=62, 50% male) reported eyes/mouth, skin, and musculoskeletal systems as the most commonly affected areas of the body. Higher cGVHD-related symptom burdens for eyes/mouth and musculoskeletal systems were associated with worse HrQoL (B=-4.68, p=.006; B=-6.14, p< .001, respectively) and self-efficacy did not moderate these associations. Higher skin-related symptom burden was not associated with HrQoL (B=-.59, p=.69), but cancer-related self-efficacy was a significant moderator of this association (R2 change =.07, p=.003) such that greater skin-related symptom burden and higher self-efficacy interacted to contribute to worse HrQoL.

Discussion: These findings indicate that modifiable psychological variables, such as self-efficacy for managing cGVHD, may influence the negative association of certain cGVHD symptoms with HRQoL. Skin GVHD can be relatively intractable compared to eyes/mouth and musculoskeletal GVHD symptoms. The combination of high self-efficacy and intractable symptoms therefore may be related to worsened psychosocial adjustment to cGVHD. Future work should explore these relationships longitudinally, including the extent to which targeted use of emotion-focused coping (e.g., acceptance of the uncontrollable) may benefit this highly symptomatic yet understudied population.

CORRESPONDING AUTHOR: Zeba Ahmad, PhD, EdM, MA, Massachusetts General Hospital/Harvard Medical School, Boston, MA; zahmad2@mgh.harvard.edu

---

Abstract citation ID: kaad011.1140

POSTER SESSION E: PILOT TRIAL OF "PATHWAYS," A HOPE-BASED INTERVENTION FOR PATIENTS UNDERGOING TREATMENT FOR ADVANCED LUNG CANCER

Vilma Bursac, MS[1], Jennifer S. Cheavens, PhD[2], Jessica Burris, PhD[3], Amy Peterman, PhD[4], Jamie L. Studts, PhD[5], Brent J. Shelton, PhD[1], Susanne Arnold, MD[1], Laurie E. McLouth, PhD[1]

[1]University of Kentucky College of Medicine, Lexington, KY; [2]The Ohio State University, Columbus, OH; [3]University of Kentucky, Lexington, KY; [4]UNC-Charlotte, Charlotte, NC; [5]University of Colorado School of Medicine, Aurora, CO

Background: Patients with advanced stage lung cancer suffer high rates of distress and impaired social and role function, yet few interventions have been designed for these patients. Previous research shows patient "hope," a positive psychological construct reflecting goal-directed determination and planning, is associated with decreased distress and better function among patients with advanced stage lung cancer, making it a promising intervention target. The aim of this research was to test the feasibility and acceptability of "Pathways," a brief, hope-based intervention delivered during routine lung cancer care.

Methods: Between September 2020 and July 2022, patients with advanced stage lung cancer were recruited from an academic cancer center to participate in a single-arm pilot of Pathways. Pathways consists of five sessions (two in-person; three phone sessions) in which patients discuss personal values, goals, and goal pathways with a nurse or occupational therapist. Patients completed measures pre- and post-intervention. *A priori* we defined feasibility as ≥60% of eligible patients enrolling, ≥70% of patients completing three or more sessions, ≥70% completing post-assessments, and mean acceptability ratings ≥7 out of 10 on intervention relevance, helpfulness, and convenience.

Results: Of 98 eligible patients, 53 enrolled (54%), 52 completed baseline (98%), 48 started the intervention (91%), 37 completed at least three intervention sessions (77% adherence), and 40 completed post-assessments (77% retention). Participants were on average 61 years-old (SD = 10.7); 40% were male and 52% had a high school degree or less. Participants completed an average of 4.2 (SD = 1.36) sessions; 69% completed all 5 sessions. Participants rated Pathways highly in terms of convenience (*M* = 8.79, SD = 1.17), helpfulness (*M* = 8.54, SD = 1.55), relevance (*M* = 8.46, SD = 1.67).

Conclusion: Pathways, a brief hope-enhancing intervention designed to overcome patient access barriers through delivery at the point of lung cancer care by a range of healthcare providers, is feasible and acceptable. A phase II efficacy trial is needed test the effects of Pathways on advanced stage lung cancer patient distress and function.

CORRESPONDING AUTHOR: Vilma Bursac, MS, University of Kentucky College of Medicine, Lexington, KY; vbu222@uky.edu

Abstract citation ID: kaad011.1141

POSTER SESSION E: THEORETICAL AND CULTURAL CORRELATES OF HUMAN PAPILLOMAVIRUS VACCINE ACCEPTANCE (HPV-VA) IN A HISPANIC COMMUNITY

Gabriel A. Frietze, PhD[1], Margie Padilla, PharmD[1], Jacquelin Cordero, MA[2], Kristen Gosselink, PhD[3], Eva Moya, PhD, LMSW[1]

[1]University of Texas at El Paso, El Paso, TX; [2]University of Texas Health Science Center at Houston, El Paso, TX; [3]Burrell College of Osteopathic Medicine, Las Cruces, NM

Background: The human papillomavirus (HPV) is the most common sexually transmitted infection (STI) in the United States and is associated with many types of cancers including cervical, anal, vaginal, oropharyngeal, vulva, and penile. An HPV vaccine is recommended for individuals ages 9 - 45 that can prevent up to 90% of HPV-associated cancers. Despite numerous advances in vaccine development and delivery, HPV vaccine uptake and HPV-associated cancer rates vary among Hispanic youth and adult populations.

Methods: A cross-sectional study design using an online questionnaire survey was used to collect data from a community sample of adults between the ages 18-65 who live in a U.S./Mexico border city, El Paso, Texas. Theoretical (e.g., the Health Belief Model) and cultural (e.g., familism) factors associated with HPV-Vaccine Acceptance (HPV-VA) and HPV-Vaccine Uptake (HPV-VU) were examined in a predominately Hispanic population.

Results: A total of 602 community members ($M_{age} = 34.65$, $SD = 9.79$) who mostly identified as female (79.6%) and reported to be parents (72.6%) completed the survey. Linear regression models revealed that HPV-VA was associated with *household size*, *primary language*, *engagement in organizational activities*, *government trust* and the HBM theoretical predictors: *perceived effectiveness, perceived harm,* and *perceived severity.* Logistic regression analyses revealed that HPV-VU was associated with *household size*, *engagement in non-organizational activities*, *trustworthy HPV informational sources*, and the Health Belief Model (HBM) theoretical predictor *perceived safety.*

Conclusions: Adequate HPV vaccination uptake among all vaccine-eligible Hispanics is an important step to lessen the HPV-attributed cancer burden. Our hypothesis that cultural and theoretical factors would be associated with HPV-VA and HPV-VU was supported. Although theory-based factors (i.e. HBM) have demonstrated generalizability, to fully understand the depth and breadth of vaccine uptake and acceptance in vulnerable populations (i.e., Hispanics), other factors should be explored (i.e., local norms, attitudes, beliefs) to better develop targeted health communication strategies to promote the HPV vaccine. Our findings have implications for designing theory-based, culturally sensitive health messages and interventions aimed at increasing HPV-VA and HPV-VU in minority underrepresented communities.

CORRESPONDING AUTHOR: Gabriel A. Frietze, PhD, University of Texas at El Paso, El Paso, TX; gafrietze@utep.edu

---

Abstract citation ID: kaad011.1142

POSTER SESSION E: THEORETICAL AND CULTURAL CORRELATES OF HUMAN PAPILLOMAVIRUS VACCINE ACCEPTANCE (HPV-VA) IN A HISPANIC COMMUNITY

Gabriel A. Frietze, PhD[1], Margie Padilla, PharmD[1], Jacquelin Cordero, MA[2], Kristen Gosselink, PhD[3], Eva Moya, PhD, LMSW[1]

[1]University of Texas at El Paso, El Paso, TX; [2]University of Texas Health Science Center at Houston, El Paso, TX; [3]Burrell College of Osteopathic Medicine, Las Cruces, NM

Background: The human papillomavirus (HPV) is the most common sexually transmitted infection (STI) in the United States and is associated with many types of cancers including cervical, anal, vaginal, oropharyngeal, vulva, and penile. An HPV vaccine is recommended for individuals ages 9 - 45 that can prevent up to 90% of HPV-associated cancers. Despite numerous advances in vaccine development and delivery, HPV vaccine uptake and HPV-associated cancer rates vary among Hispanic youth and adult populations.

Methods: A cross-sectional study design using an online questionnaire survey was used to collect data from a community sample of adults between the ages 18-65 who live in a U.S./Mexico border city, El Paso, Texas. Theoretical (e.g., the Health Belief Model) and cultural (e.g., familism) factors associated with HPV-Vaccine Acceptance (HPV-VA) and HPV-Vaccine Uptake (HPV-VU) were examined in a predominately Hispanic population.

Results: A total of 602 community members ($M_{age} = 34.65$, $SD = 9.79$) who mostly identified as female (79.6%) and reported to be parents (72.6%) completed the survey. Linear regression models revealed that HPV-VA was associated with *household size*, *primary language*, *engagement in organizational activities*, *government trust* and the HBM theoretical predictors: *perceived effectiveness, perceived harm,* and *perceived severity.* Logistic regression analyses revealed that HPV-VU was associated with *household size*, *engagement in non-organizational activities*, *trustworthy HPV informational sources*, and the Health Belief Model (HBM) theoretical predictor *perceived safety.*

Conclusions: Adequate HPV vaccination uptake among all vaccine-eligible Hispanics is an important step to lessen the HPV-attributed cancer burden. Our hypothesis that cultural and theoretical factors would be associated with HPV-VA and HPV-VU was supported. Although theory-based factors (i.e. HBM) have demonstrated generalizability, to fully understand the depth and breadth of vaccine uptake and acceptance in vulnerable populations (i.e., Hispanics), other factors should be explored (i.e., local norms, attitudes, beliefs) to better develop targeted health communication strategies to promote the HPV vaccine. Our findings have implications for designing theory-based, culturally sensitive health messages and interventions aimed at increasing HPV-VA and HPV-VU in minority underrepresented communities.

CORRESPONDING AUTHOR: Gabriel A. Frietze, PhD, University of Texas at El Paso, El Paso, TX; gafrietze@utep.edu

Abstract citation ID: kaad011.1143

POSTER SESSION E: MODALITY SHIFTS IN PSYCHOSOCIAL ONCOLOGY CARE AMID THE COVID-19 PANDEMIC

Alyssa L. Fenech, BA[1], Hillary L. Howrey, PhD[2], Nicole M. Duffy, PhD[3], Megan McMahon, PsyD[3], Shannon M. Myers Virtue, PsyD[2]

[1]University of Delaware, Newark, DE; [2]ChristianaCare Helen F. Graham Cancer Center and Research Institute, Newark, DE; [3]ChristianaCare Helen F. Graham Cancer Center & Research Institute, Newark, DE

Background: The coronavirus pandemic (COVID-19) shifted psychosocial oncology (PSO) practices to primarily telehealth allowing continuation of care. As COVID-19 restrictions have eased, a return to in-person services is increasing and telehealth remains a vital option that may be beneficial to those immunecompromised, in need of 'in-home' care, or with reduced access (e.g., rural areas, transportation issues, financial burden). Previous research demonstrated engagement in telehealth during the height of COVID-19 in 2020. Little research has examined PSO telehealth engagement as the pandemic has progressed. The current study examined usage of video, telephone, and in-person options and associated patient characteristics following COVID-19.

Methods: A retrospective chart review was conducted on practice data from a PSO clinic in a large community-based cancer center. Patient referral, scheduling, and attendance data were collected. Patient demographics such as age, sex, marital status, race, ethnicity, insurance, and zip code were extracted from the electronic health record. Descriptive and comparative analyses were conducted.

Results: 1232 patients were newly referred to a PSO clinic January 2021-June 2022. Of those referred, 43% scheduled services, 9% were referred to appropriate services, 30% did not respond, and 18% declined services. Of the 530 who scheduled services, patients were mostly middle aged (M=56.80, SD=13.5), female (73%), and White (70%). Of the scheduled initial appointments, 64% were telehealth (58% video-based; 6% phone-based) and 36% in-person. Patients who scheduled telehealth services were significantly younger (M=55 years), $t(521)=3.34$, $p < .001$ than patients who scheduled in-person services (M=59 years). The telehealth patients who scheduled phone-based services were significantly older (M=62 years), $t(330) = -2.8$, $p=.003$ than video-based services. No significant differences based on sex, race, or ethnicity were observed. Attendance to initial appointments was good (83%) with comparable rates across modalities. The rate of those with a history of at least one no-show to the department (26%) increased from 2020 (18%). Among video-based appointments there was a significantly greater history of no-shows (31%) ($\chi 2$ (4) = 9.9, $p = .04$) compared to in-person or phone-based.

Conclusions: This study demonstrates the continued uptake and usage of telehealth in PSO practices. Patients may prefer telehealth even with the option of in-person services and age may be a factor in this preference. No-shows have increased, particularly for video-based services. PSO clinics should continuously assess patient preference for treatment, engagement in telehealth, and maintain multiple modality options to best serve the needs of patients and their families.

CORRESPONDING AUTHOR: Alyssa L. Fenech, BA, University of Delaware, Newark, DE; afenech@udel.edu

---

Abstract citation ID: kaad011.1144

POSTER SESSION E: A CANCER SURVIVORSHIP MULTIDISCIPLINARY LIFESTYLE MEDICINE CLINIC: DESCRIPTION OF PROGRAM AND BASELINE PATIENT POPULATION

Rachel A. Millstein, PhD, MHS[1], Loren Winters, NP[2], Carol Sullivan, RD[2], Samantha Bateman, RD[3], Elizabeth Frates, MD[4], Amy Comander, MD[5], Shirly Ramchandani, MD[3], Jeffrey Peppercorn, MD, MPH[6], Elizabeth O'Donnell, MD[7]

[1]Massachusetts General Hospital, Boston, MA; [2]MGH Waltham, Waltham, MA; [3]MGH, Boston, MA; [4]MassGeneral Brigham, Boston, MA; [5]MGH Cancer Center, Boston, MA; [6]Massachusetts General Hospital/Harvard Medical School, Boston, MA; [7]Dana-Farber Cancer Institute, Boston, MA

Background: Lifestyle Medicine (LM) incorporates six pillars of wellness: physical activity, healthy eating patterns, sleep, stress management, avoiding substance use, and social connections. Cancer survivorship guidelines emphasize healthy weight maintenance, diet, and physical activity; this population is a key target for LM interventions. We describe the development of a multidisciplinary LM clinic in oncology and a description of the patient population.

Methods: The multidisciplinary LM clinic launched virtually in 2020, at two sites within our hospital system. Patients had same-day consults with an oncologist or nurse practitioner, nutritionist, and psychologist. Patients completed a one-time online survey assessing demographics, cancer-related quality of life, physical activity, diet, sedentary time, substance use, sleep, anxiety, and depression. Descriptive statistics were used to analyze this baseline data, determine the population's needs, and help tailor the clinic's development.

Results: Sixty-six patients took the online survey from March 2020-June 2022. Eighty-nine percent of patients were non-Hispanic White, 89% were female, and 48% had a college or higher education. A majority (85%) reported that their cancer was stages I-III, and 73% were breast cancer patients or survivors. Almost half of patients (48%) reported gaining weight due to cancer treatment, 75% reported trying to lose weight, and 72% reported being dissatisfied with their body size. Twenty-two patients (33%) reported meeting CDC/ACSM physical activity recommendations and reported limitations due to physical condition and time as their most common barriers (34% and 29%, respectively). Participants ate a median of 1 serving of fruit/day, 2 servings of vegetables/day, and 1 serving of red meat/week. Almost half (48%) reported difficulty sleeping, and 20% of patients reported an elevated anxiety or depression score.

Discussion: This baseline data analysis describes the population and highlights the needs of cancer survivors seeking LM consultation. We found that these survivors are commonly dissatisfied with their weight due to cancer treatment-related weight gain, are not meeting physical activity/nutrition guidelines, and experience sleep disruptions and distress. This LM clinical model has potential to improve quality of life for survivors.

CORRESPONDING AUTHOR: Rachel A. Millstein, PhD, MHS, Massachusetts General Hospital, Boston, MA; ramillstein@mgh.harvard.edu

Abstract citation ID: kaad011.1145

POSTER SESSION E: COLLABORATIVE DEPRESSION CARE TAILORED FOR UNDERSERVED PATIENTS WITH CANCER: FEASIBILITY, ACCEPTABILITY AND OUTCOMES

Sarah N. Price, PhD[1], Heidi Hamann, PhD[2], Laila Halaby, MA[2], Juanita Trejo, MPH[2], Fernanda Rogers, MA, LAC[2], Karen L. Weihs, MD[2]

[1]Wake Forest University School of Medicine, Winston Salem, NC; [2]University of Arizona, Tucson, AZ

Purpose: A single-arm trial was conducted to evaluate COPE-D, a collaborative care intervention tailored to the needs to underserved patients with cancer in southern Arizona.

Methods: Fluently bilingual (English/Spanish) depression care managers (DCMs) received referrals from practice-based depression screening. DCMs provided in-person or telehealth behavioral activation, along with support for medication management and counseling based on patient preference and in consultation with a psychiatrist and patients' medical providers. DCMs assessed depression (PHQ-9) and anxiety (GAD-2) at each visit; research assistants collected demographic, clinical, and psychosocial data via surveys pre-intervention and 12 weeks after treatment initiation. Feasibility was assessed through rates of recruitment and retention of patients from underserved groups (Hispanic/Latino, Spanish-speaking, low socioeconomic status (SES)). Primary outcomes were *treatment improvement* ($\geq$ 5-point reduction in PHQ-9), *treatment response* ($\geq$ 50% reduction in PHQ-9 scores), mean changes in PHQ-9 scores, and resolution of suicidal ideation from baseline to treatment termination. Secondary outcomes were changes in anxiety, sleep quality (PSQI), global health (PROMIS Global-10), and social isolation (PROMIS social isolation) from baseline to week 12. Qualitative feedback was also collected from participants 12 weeks after initiating treatment to assess acceptability.

Results: 193 patients consented and 165 initiated treatment (45% of 365 referred). Thirty one percent were Hispanic/Latino, 8% received the intervention entirely in Spanish, 65% had educational attainment less than a bachelor's degree, 46% had annual household incomes < $50,000. Of note, 71% had advanced cancer. Eighty five percent of patients who initiated treatment completed the study; patients from underserved groups were equally likely to complete and benefit from treatment. Rates of suicidal ideation (31.3% vs. 9.0%; $\chi^2(1, 132) = 14.44$, $p < .001$) and mean PHQ-9 scores decreased from pre-intervention (M=13.71 [12.68, 14.74]) to treatment termination (M=5.36 [4.60, 6.11], $p < .001$); 65% achieved treatment improvement, 56% demonstrated treatment response. Social isolation, sleep quality, and generalized anxiety also improved; participant feedback was largely positive.

Conclusion: COPE-D was feasible and acceptable and produced clinically significant improvements in depression and quality of life among underserved patients, highlighting the importance of tailoring depression care to the local population's needs (e.g., options for telehealth and delivery in multiple languages).

CORRESPONDING AUTHOR: Sarah N. Price, PhD, Wake Forest University School of Medicine, Winston Salem, NC; sarahpr@wakehealth.edu

---

Abstract citation ID: kaad011.1146

POSTER SESSION E: THE ROLE OF HEALTH BELIEFS IN COVID-19 PROTECTIVE BEHAVIORS AMONG LUNG CANCER PATIENTS

Marcia F. Burns, BS[1], Ellen F. Krueger, MS[1], Catherine E. Mosher, PhD[1]

[1]Indiana University-Purdue University Indianapolis, Indianapolis, IN

Lung cancer patients are at increased risk for severe illness and death from COVID-19. The CDC recommends that cancer patients engage in protective behaviors (e.g., social distancing, hand hygiene, mask wearing) to mitigate against COVID-19. Variables based on the Health Belief Model (HBM) have predicted COVID-19 protective behaviors in the general population. The present study examines associations between HBM variables (i.e., perceived risk and severity of COVID-19, perceived barriers to and efficacy of mask wearing) and engagement in COVID-19 protective behaviors among lung cancer patients.

Patients (N=191) were recruited from an academic medical center in the midwestern U.S. from August 2021 to April 2022 to participate in this one-time survey. Patients were primarily non-Hispanic White (89%) and female (62%), with an average age of 66 years (SD=9.9). Forty-two percent were diagnosed with advanced-stage lung cancer.

Three hierarchical regression analyses were conducted to examine associations between HBM variables and COVID-19 protective behaviors, controlling for demographic and medical factors correlated with each outcome. Results showed that greater perceived severity of COVID-19, but not perceived risk of COVID-19, was significantly associated with greater social distancing (b=.15, $p < .01$, partial r=.24). Neither of these HBM variables were significantly associated with hand hygiene. Additionally, greater perceived risk of COVID-19 and fewer perceived barriers to mask wearing were significantly correlated with more frequent mask wearing (perceived risk: b=.15, $p < .05$, partial r=.16; perceived barriers: b=-.43, $p < .001$, partial r=-.61). In the same regression model, the perceived severity of COVID-19 and efficacy of mask wearing were unrelated to mask wearing.

Findings converge with evidence from general population studies that greater perceived severity of COVID-19 is correlated with increased social distancing and that HBM variables are unrelated to hand hygiene. In contrast to findings on the general population, perceived risk of COVID-19 was correlated with lung cancer patients' mask wearing. Our findings also suggest that perceived barriers to mask wearing, such as difficulty breathing, may be especially important factors to consider when promoting mask wearing in this population. Next steps include longitudinal designs to determine targets for intervention research to reduce risk of COVID-19 in lung cancer patients.

CORRESPONDING AUTHOR: Marcia F. Burns, BS, Indiana University-Purdue University Indianapolis, Indianapolis, IN; burnsmar@iu.edu

Abstract citation ID: kaad011.1147

POSTER SESSION E: SLEEP DURATION AND HEALTH AMONG YOUNG ADULT SURVIVORS OF CHILDHOOD CANCER

Marcie D. Haydon, PhD[1], Julia Stal, PhD(c)[2], Sunmin Lee, ScD[1], Kimberly Miller, PhD, MPH[2], Wendy Cozen, DO, MPH[1], David R. Freyer, DO, MS[3], Joel Milam, PhD[4]

[1]University of California, Irvine, Orange, CA; [2]University of Southern California, Los Angeles, CA; [3]Children's Hospital Los Angeles, Los Angeles, CA; [4]University of California, Irvine, Irvine, CA

Background: Both short (< 7 hours) and long (> 9 hours) sleep duration are associated with poor mental and physical health. Yet, to date, little is known about the prevalence and correlates of sleep duration in young adult survivors of childhood cancer. Using a diverse, population-based cohort study, we examined associations between sleep duration, participant characteristics, and health in this population.

Method: Participants self-reported average sleep duration in a 24-hour period and completed questionnaires on demographic, cancer, and treatment characteristics and mental (i.e., well-being, depressive symptoms) and physical health outcomes (i.e., self-rated general health, comorbidities including heart problems, secondary cancer, sexual dysfunction). One-way ANOVA and Chi-squared tests were used to assess correlations between sleep duration and participant characteristics. Linear and Poisson regressions were used to determine associations between sleep duration and mental and physical health, controlling for current age, sex, education, and employment.

Results: Participants (N = 1,106, M_{age} = 26.2, 51% female, 52% Hispanic, 33% Non-Hispanic White, 10% Non-Hispanic Asian, 5% Non-Hispanic Black) were, on average, 14 years (range: 5-22 years) post-diagnosis. Thirty percent reported short sleep duration, and 7% reported long sleep. Short sleep was associated with older age, full-time employment, higher socioeconomic status, and having a child (*ps* < .04). Long sleep was associated with younger age, female sex, being unemployed, and lower educational attainment (*ps* < .02). Cancer and treatment characteristics were not associated with short or long sleep. Relative to healthy sleep, both short and long sleep were associated with lower well-being (*ps* < .004), greater depressive symptoms (*ps* < .001), poorer self-rated general health (*ps* < .003), and a higher number of comorbid conditions (*ps* < .001). Effects of short and long sleep on physical health remained significant when controlling for depressive symptoms (*ps* < .036), except for short sleep and self-rated general health (*p* = .24).

Conclusions: Our results highlight unique demographic correlates of short and long sleep duration among a diverse, population-based cohort of young adult survivors of childhood cancer. Analyses revealed associations with poorer mental and physical health when comparing both short and long sleep duration to healthy sleep. Sleep duration is a modifiable behavior and understanding the correlates of sleep duration can inform intervention development for this underserved population.

CORRESPONDING AUTHOR: Marcie D. Haydon, PhD, University of California, Irvine, Orange, CA; mdhaydon@hs.uci.edu

---

Abstract citation ID: kaad011.1148

POSTER SESSION E: FINANCIAL DISTRESS IN COUPLES COPING WITH METASTATIC BREAST CANCER: AN EXAMINATION OF INDIVIDUAL AND INTERPERSONAL CORRELATES

Juliet Kroll, PhD[1], Morgan Jones, MA[2], Grace Smith, MD, PhD, MPH[1], Mariana Chavez-MacGregor, MD, MSC[2], Kathrin Milbury, PhD[1]

[1]The University of Texas MD Anderson Cancer Center, Houston, TX; [2]The University of Texas M.D. Anderson Cancer Center, Houston, TX

Background: Risk factors and sequelae of financial distress are increasingly acknowledged in patients with cancer, yet the specific impact on the caregiver and the patient-caregiver dyad, the romantic relational context in which financial decisions and coping are most intimately navigated, is largely unexplored. Methods: Patients diagnosed with metastatic breast cancer (MBC) in the past year and their romantic partner separately completed four open-ended questions about financial concerns and self-report measures of financial distress (COST), psychological wellbeing (CESD, GAD-7) and dyadic wellbeing (DAS-7, SPS, emotional intimacy). Additionally, patients and caregivers reported on symptom (MDASI-total) and caregiving burden (CRA), respectively. Together, patients and caregivers each verbally identified financially salient topics to discuss for 10-min with the goal of problem solving.

Results: In the sample of 90 dyads (n=180) (51% female (n=2 same sex couples), mean age=66 yrs, 72% non-Hispanic white, 76% college educated, 65% >$100,000/yr income), greater financial distress captured by the COST (M=24.3, SD=10.4, 25%≤17.5) was associated with poorer psychological wellbeing (CESD: *r*=-.53 *p*< .001; GAD-7: *r*=-.48 *p*< .001), and some components of dyadic wellbeing (SPS: *r*=.31 *p*< .001; emotional intimacy: *r*=.28 *p*=.02). Patient and caregiver COST scores were related (*ICC*=.54, *p*< .001).

At an individual level, greater financial distress was associated with greater patient symptom burden (MDASI-tot: *r*=-.46, *p*< .001) and caregiving burden (CRA: *r*=-.54, *p*< .001). Qualitative reports paralleled these associations. Patients most frequently identified concerns regarding future financial stability, impact of treatment on work productivity, management of medical costs, and shift in financial decision making to discuss with their partner. Caregivers most frequently selected concerns regarding future financial stability and managing changes in work schedule.

Conclusions: In addition to financial distress being associated with poorer psychological wellbeing in patients and caregivers, we now observe this association at an interpersonal level with the relational wellbeing of the patient-caregiver dyad. As patients continue to live longer with metastatic disease, patients and caregivers most frequently identify concerns about future financial stability within the first year of diagnosis. Continued longitudinal study is warranted to explore relations and key moderators over time.

CORRESPONDING AUTHOR: Juliet Kroll, PhD, The University of Texas MD Anderson Cancer Center, Houston, TX; JLKroll@mdanderson.org

Abstract citation ID: kaad011.1149

POSTER SESSION E: YOUNG ADULT HEMATOPOIETIC STEM CELL TRANSPLANTATION PATIENTS AND HEALTHCARE PROVIDERS' VIEWS OF TELEHEALTH

Rachel Sauls, BA, BS[1]

[1]Moffitt Cancer Center, Tampa, FL

Objective: The COVID-19 pandemic shifted the healthcare field from in-person clinic visits to virtual-based telehealth appointments. This study explores young adult (YA) hematopoietic stem cell transplantation (HSCT) patient and physician communication preferences and quality of life implications for telehealth.

Methods: One researcher conducted semi-structured interviews with n=10 YA HSCT patients and n=10 healthcare providers (HPs). HPs included physicians (n=5) and APP (nurses, nurse practitioners, and physician assistants) (n=5). Interviews lasted approximately 10-15 minutes, were held over Zoom ®, and audio recorded. Interviews were professionally transcribed verbatim, and two independent researchers conducted Braun and Clarke thematic analysis using Dedoose®.

Results: Common themes that emerged included: 1) convenience; 2) improved communication; 3) technology issues; and 4) quality of life (QOL). Most patients (n=7) preferred in-person visits over telehealth, stating they preferred the "social connection" and "engagement" associated with in-person visits. However, patients (n=5) indicated desiring telehealth visits for check-in or follow-up visits, reporting a hybrid design for healthcare. Physicians (n=4) preferred telehealth visits stating it was "convenient," "timesaving," and improved "compliance." In contrast, APP staff (n=5) preferred in-person visits, stating telehealth improved "relationships" with patients and was more "convenient" than setting up their electronic devices for a telehealth visit.

Conclusion: Providers differed in their preferences, with APP personnel preferring in-person visits compared to telehealth and HSCT physicians selecting telehealth appointments. In addition, YA HSCT patients preferred in-person or hybrid clinic visits. Future research needs to focus on designing individualized clinic visit types per patient needs.

CORRESPONDING AUTHOR: Rachel Sauls, BA, BS, Moffitt Cancer Center, Tampa, FL; rsauls@usf.edu

---

Abstract citation ID: kaad011.1150

POSTER SESSION E: EXCESS RISK OF CHRONIC HEALTH CONDITIONS IN HISPANIC SURVIVORS OF ADOLESCENT AND YOUNG ADULT CANCERS

Eunju Choi, PhD, MSN, RN[1], Amy Berkman, MD[2], Qian Lu, PhD, MD[3], Michael Roth, MD[4]

[1]The University of Texas at MD Anderson Cancer Center, Austin, TX; [2]Department of Pediatrics, Duke University School of Medicine, Durham, NC; [3]MD Anderson Cancer Center, Houston, TX; [4]UT MD Anderson Cancer Center, Houston, TX

Background: Adolescent and young adult cancer survivors (AYACS, ages 15 to 39 at diagnosis) are at increased risk for treatment-related late effects, including chronic health conditions. While studies have reported that Hispanic older adult and childhood cancer survivors experience poor health outcomes compared with White survivors, little is known about the risk of developing chronic health conditions among Hispanic AYACS compared with Hispanic individuals without a history of cancer. The purpose of this study is to investigate the associations between sociodemographic factors and chronic health conditions among Hispanic AYACS and controls.

Methods: We used a cross-sectional, matched case-control design. National Health Interview Survey (2009-2018) data were used to identify Hispanic AYACS and age- and sex-matched non-cancer controls of Hispanic ethnicity. Risk of chronic health conditions based on sociodemographic factors (age, sex, marital status, education, income, and insurance) were determined within and between survivors and controls using t-tests, chi-square tests, and multiple logistic regressions.

Results: 539 Hispanic AYACS and 5,390 matched controls were included (median age: 42 for both groups). Hispanic AYACS were less likely to be married, more likely to have a higher education, more likely to have lower income, and more likely to be insured than their matched controls. Hispanic AYACS were more likely than their matched controls to have at least one chronic condition (63.7% vs. 18.7%, aOR: 6.22, 95% CI: 5.33-8.22). The percentage of AYACS with three or more chronic conditions was also significantly higher compared with controls (17.1% vs 3.9%, $p < .001$). Compared to controls, every chronic health condition was significantly more frequently reported among Hispanic AYACS (OR: 3.89-8.93); hypertension was the most prevalent, followed by arthritis, asthma, and diabetes. Among Hispanic AYACS, older age at survey completion, female sex, and family income < 25K/year were all associated with increased odds of chronic health conditions compared with younger age at survey completion, male sex, and family income >45K/year.

Conclusions: Hispanic AYACS were more likely to report chronic health conditions compared to age- and sex-matched Hispanic controls. Sociodemographic factors, including age, sex, and income were associated with increased odds of chronic health conditions in Hispanic AYACS. Further studies are needed to reduce long-term morbidity in this population at high risk for poor health outcomes.

CORRESPONDING AUTHOR: Eunju Choi, PhD, MSN, RN, The University of Texas at MD Anderson Cancer Center, Austin, TX; EChoi3@mdanderson.org

Abstract citation ID: kaad011.1151

POSTER SESSION E: ATTACHMENT IN COUPLES COPING WITH CANCER: ASSOCIATIONS WITH OBSERVED COMMUNICATION AND LONG-TERM PHYSICAL WELL-BEING

Katherine Ramos, PhD[1], Karena Leo, PhD[1], Joan M. Romano, PhD[2], Laura S. Porter, PhD[3], Shelby Langer, PhD, FSBM[4]

[1]Duke University, Durham, NC; [2]University of Washington School of Medicine, Seattle, WA; [3]Department of Psychiatry and Behavioral Sciences, Duke University School of Medicine, Durham, NC; [4]Arizona State University, Phoenix, AZ

Attachment theory underscores the importance of early social connections on life-long patterns of emotional regulation and response to stress. The experience of cancer is a highly disruptive, threatening life event that activates the attachment system; research indicates that patients and caregivers with insecure (i.e., avoidant and anxious) attachment have poorer psychosocial adjustment and health status. It is unknown, however, how attachment styles are associated with actual patient-caregiver interactions around cancer-related concerns, and the extent to which attachment styles predict longer-term physical well-being. We sought to describe the behavioral correlates of attachment styles as observed from recorded couple conversations about cancer, and to examine the extent to which attachment styles predict physical well-being at 1-year follow-up. The sample consisted of 267 patients diagnosed with breast (46%), colorectal (42%) or lung (12%) cancer and their partners. Participants' mean age was 53.9 (*SD*=13.4). 86.2% were Caucasian. 66% of patients and 36% of partners were female.

During a 15-minute baseline cancer-related conversation, we employed two systems of behavioral coding, the Asymmetric Behavior Coding System (ABCS, a measure of positive and negative approach and avoidance behaviors) and the Relational Affective Topography System (RATS, a measure of affective expression). Patient and partners completed self-report measures of attachment styles using the Adult Attachment Scale and physical well-being assessed by the FACT-G 12months later.

Patients and partners with higher anxious and avoidant attachment used more negative approach behaviors ($B = .11, p < .01$; $B = .16, p < .01$, respectively) and hard negative affect (e.g., angry) ($B = .12, p < .01$; $B = .19, p < .01$ respectively). Those higher in anxious attachment used more soft negative affect (e.g., sad) ($B = .1, p < .01$), while those higher in avoidant attachment used less positive affect directed towards the partner ($B = -.24, p < .001$) and about self ($B = -.17, p < .05$). In addition, attachment style predicted lower physical well-being for both patients and partners 12 months later; $F (1, 438) = 6.49$ $p < 0.01$ for anxious attachment and $F (1, 438) = 14.13$ $p < 0.01$ for avoidant attachment.

Overall, these findings indicate that attachment styles may manifest themselves in overt behaviors with implications for couples' communication and health. Anxious and avoidant attachment styles may be a risk factor for less adaptive communication and physical well-being. To our knowledge, this is the first study that has examined associations between attachment and objective measures of couple communication within the cancer setting. These data have potential to inform the assessment of couples at risk and for the development and refinement of dyadic clinical interventions in cancer.

CORRESPONDING AUTHOR: Katherine Ramos, PhD, Duke University, Durham, NC; katherine.ramos@duke.edu

---

Abstract citation ID: kaad011.1152

POSTER SESSION E: AN SMS PILOT INTERVENTION TO PROMOTE NUTRITION AND PHYSICAL ACTIVITY GUIDELINES IN HISPANIC CANCER SURVIVORS AND CAREGIVERS

Melissa Lopez-Pentecost, PhD, RDN[1], Sophia Perkin, BS, MPH[2], Grey Freylersythe, BS, NBC-HWC[3], Paola Rossi, MD, MSEd[4], LaShae D. Rolle, MPH, CPH[5], Tracy E. E. Crane, PhD, RDN[6]

[1]Sylvester Comprehensive Cancer Center, University of Miami Miller School of Medicine, Miami, FL; [2]University of Arizona, Tucson, AZ; [3]University of Miami, Miami, FL; [4]Sylvester Comprehensive Cancer Center, Fort Lauderdale, FL; [5]Department of Public Health Sciences, Miller School of Medicine, University of Miami, Miami, FL; [6]Miller School of Medicine, University of Miami, Miami, FL

Background: Hispanics are diagnosed at later stages and haver poorer outcomes including cancer-specific and overall survival compared to non-Hispanic Whites (NHW). Hispanic cancer survivors are less likely to meet American Cancer Society (ACS) nutrition and physical activity guidelines, which when followed reduce the risk of cancer recurrence and mortality, and improve quality of life. Utilizing a remote delivery approach and including social support for participants are strategies that may increase the relevancy and efficacy of interventions targeted at improving lifestyle behaviors in this population. The aim of this pilot intervention trial was to evaluate the acceptability and feasibility of a two-week ACS nutrition and physical activity short messaging service (SMS) text intervention in a predominantly Hispanic sample of cancer survivors and their informal caregivers.

Methods: Participants received 26 messages over a two-week period; one nutrition and one physical activity message per day followed by a polling message assessing acceptability. Survivors and caregivers received the same text messages, which were translated to Spanish and tailored for cultural relevance. Participants completed a semi-structured exit interview by telephone that assessed feasibility, acceptability, adherence, dosing, and cultural relevance of the intervention. Telephone recordings were transcribed and analyzed using a thematic approach. Analyses used a mixed method approach for quantitative and qualitative analyses.

Results: A total of 14 cancer survivors and six caregivers (N=20) participated in this pilot study; 78% self-identified as Hispanic. Mean time since treatment completion for survivors was 11.9 years (SD 8.4) and 67% had received a diagnosis of breast cancer. Overall, the intervention was found to be feasible (92%, based on number of messages responded) and acceptable (90%, based on messages labeled as "useful" through follow-up polls). Cancer survivors had a higher acceptability rate for physical activity compared to nutrition messages (94% vs 86%, respectively), whereas equal acceptability rates were observed for both types of messages among caregivers (91%). Results from the exit interview supported the quantitative results with the following themes identified: 1) intervention was convenient and non-burdensome, 2) content was culturally relevant and easy to understand, 3) re-referencing SMS content was advantageous, and 4) physical activity messages were most popular.

Conclusion: SMS interventions are a feasible, acceptable, and cost-effective strategy to promote lifestyle behavior change among Hispanic cancer survivors and caregivers. Such intervention delivery methods have important implications for the scalability and efficacy of future trials seeking to reduce the cancer burden in this population.

CORRESPONDING AUTHOR: Grey Freylersythe, BS, NBC-HWC, University of Miami, Miami, FL; g.freylersythe@miami.edu

Abstract citation ID: kaad011.1153

POSTER SESSION E: THE EFFECT OF YOGA-BASED INTERVENTIONS ON DIURNAL CORTISOL REGULATION AMONG CANCER PATIENTS: A SYSTEMATIC REVIEW

Megan E. Vaughan, PhD[1], Maricarmen Vizcaino, PhD[2], Dorothy D. Sears, PhD[2]

[1]University of Arizona College of Medicine-Phoenix, Phoenix, AZ; [2]Arizona State University, Phoenix, AZ

Introduction: Prolonged activation of stress hormones – such as cortisol – increase inflammation and suppress immune activity, promoting tumor development. Given that psychological distress is prevalent among cancer patients and has been associated with worse prognosis and increased mortality rate, stress management is critical for this population. The purpose of this systematic review was to examine the efficacy of yoga-based interventions, known to decrease psychological distress, in improving cortisol regulation among cancer patients.

Methods: Search was conducted using four databases (PubMed, Google Scholar, Scopus, PsychINFO) from inception until October 31st, 2022 with a combination of the keywords 'cancer,' 'yoga,' 'circadian,' and 'cortisol.' PICO criteria included: any type of cancer patients (adults with active disease or survivors), any type of yoga-based intervention (excluding meditation only and mindfulness interventions), any type of control condition, and any outcome related to diurnal cortisol assessment (e.g, CAR, slope). No exclusions were made based on language and/or country of publication.

Results: A total of 99 articles were identified. From these, 38 duplicates were removed, and 48 records were excluded for a variety of reasons (e.g., reviews, unrelated topic). Thus, only 13 records were sought for retrieval. An additional six records were excluded; four were available only as conference abstracts and two were published twice in different journals. As a result, only 7 articles were included in the review. Four studies were conducted in the US and three in India. All participants were women diagnosed with breast cancer (stage 0-IV); majority were Caucasian (US studies). Most yoga interventions varied between 6-12 weeks in length, and 60-90 minutes/2-3 times per day in frequency. Type of control condition included wait-list, supportive therapy, education, and stretching. Specimen collection (saliva or blood) for cortisol assessment varied considerably between studies (1-5 samples/day for 1-5 days), as well as cortisol calculations (e.g., slope, AUC, single time points). Overall, results were inconsistent between studies and included either no changes or decreases in the diurnal cortisol response (slope, AUC, morning cortisol).

Discussion: Evidence from current body of literature does not consistently support the efficacy of yoga interventions for regulating diurnal cortisol rhythm. More rigorous studies are needed to explore the potential of this mind-body approach, which include standardization of procedures for cortisol assessment and yoga protocols. In addition, there is an urgent need to include minority populations to examine the value of mind-body approaches on different populations.

CORRESPONDING AUTHOR: Megan E. Vaughan, PhD, University of Arizona College of Medicine-Phoenix, Phoenix, AZ; meganvaughan@arizona.edu

---

Abstract citation ID: kaad011.1154

POSTER SESSION E: VETERAN PEER SUPPORT FOR HYPERTENSION, BARRIERS AND FACILITATORS TO IMPLEMENTATION IN A RANDOMIZED CONTROL TRIAL

C. Bradley Kramer, MPA[1], Mayuree Rao, MD[2], George G. Sayre, PsyD[3], Jennifer L. Williams[2], Tiffanie Fennell, PhD, ABPP, CDE[2], Karin Nelson, MD, MSHS[4]

[1]University of Washington, Vashon, WA; [2]Veterans' Affairs Puget Sound Healthcare System, Seattle, WA; [3]VHA, Seattle, WA; [4]VA Puget Sound Health Care System, Seattle, WA

Objectives: Veteran peer Coaches Optimizing and Advancing Cardiac Health (VetCOACH) was a randomized controlled trial of a peer support intervention to reduce blood pressure among Veterans with hypertension and one or more cardiovascular risks. Veteran coaches provided education and support through home and phone visits to facilitate health behavior change. We studied perceptions of facilitators and barriers of program implementation among intervention recipients.

Methods: We conducted semi-structured interviews with intervention participants 3-6 weeks after completing the VetCOACH intervention. Two researchers (CBK, MR) performed inductive-deductive content analysis of interview transcripts, leading to consensus-based themes. Deductive codes included the study conceptual model and the Theoretical Domains Framework (TDF), which presents mechanisms for behavior change. All participants were recruited and interviewed until reaching thematic saturation.

Results: Interview participants (n=29) were 60 years of age on average (SD 8.6), 71% male, and 55% White, Non-Hispanic. They had mean systolic blood pressure of 138 (SD 18) at baseline. There were 4 themes related to participation: 1) Scheduling was generally a facilitator with participants noting logistical ease and flexibility; 2) Communication modality, with most participants enjoying in-person visits but acknowledging that phone visits were productive and convenient; 3) Life circumstances were often a barrier to full participation in visits; and 4) Coach turnover was a barrier to sustaining supportive rapport. There were 3 themes related to the relationship with the coach: 1) Coach's professional role, distinct from friend and clinician was a facilitator for most but a barrier for one who questioned the coach's qualifications; 2) Shared life experiences, e.g. Veteran status, helped to build trust; and 3) Social support provided by coaches was a facilitator for most. There were 4 themes related to behavior change: 1) Coaches helped participants reprioritize and refocus on previous health knowledge; 2) Skills and knowledge facilitated healthier choices; 3) Environment and resources were both facilitators and barriers based on individual participants' life circumstances; and 4) Goal setting, a key focus of the intervention, was a particularly rich and complex theme and largely a facilitator of behavior change. These themes aligned with recommendations from the research team for future programming.

Conclusions: A peer coach intervention designed to reduce blood pressure among Veterans with hypertension was mostly well received. Many of the barriers can be easily addressed to improve future programs. These findings support the acceptability of the intervention to Veterans and the continued development of peer health interventions.

CORRESPONDING AUTHOR: C. Bradley Kramer, MPA, University of Washington, Vashon, WA; cbkramer@uw.edu

Abstract citation ID: kaad011.1155

POSTER SESSION E: POSTTRAUMATIC GROWTH IN PATIENTS WITH CARDIOVASCULAR DISEASES: A SYSTEMATIC REVIEW AND META-ANALYSIS

Amy L. Ai, PhD, FSBM[1], Guang Qiu[2], Beren C. Sabuncu, MSW[2], Thomas Knobel

[1]FSU, TALLAHASSEE, FL; [2]Florida State University, Tallahassee, FL

Objective: Cardiovascular diseases (CVD) are the leading cause of death with their significant public health impact worldwide. To date, most behavioral health studies on CVD have primarily focused on pathological outcomes. Posttraumatic growth (PTG) is defined as the experience of positive change following the trauma, which can happen in CVD events. But there has been no systematic review/meta-analysis on PTG in this population. The aim of this study was to estimate the association of PTG for CVD.

Method: Data Sources Articles were identified by searching Ovid MEDLINE, PsycINFO, Cochrane Library, Academic Search Complete, and PubMed Related Articles, and through a manual search of reference lists (1948-present). Study Selection All studies that assessed PTG in categorized CVD. Three investigators independently extracted estimates of the association of PTG with CVD, as well as study characteristics. Odds ratios were converted to hazard ratios (HRs), and a random-effects model was used to pool results. A secondary analysis including only studies that reported estimates adjusted for a mental health diagnosis was conducted.

Results: A total of 24 studies around the globe were investigated in these analyses, including myocardial infraction (MI or a heart attack; n = 11; 1, 554 aggregated cases), various non-MI-related heart conditions (e.g., congestive heart failure/CHF; n = 7; 4,028 aggregated cases), stroke (n = 4; 325 aggregated cases), and cardiac procedures (n = 2; 566 aggregated cases) Over twenty studies met our inclusion criteria (e.g., original empirical research; use of medical indices; PTG assessed with established scales). Majority of the studies examined psychological factors (e.g., optimism, coping styles, spirituality, and social support). The most investigated studies were from MI patients.

Conclusion: The preliminary findings suggest the significance of examining PTG in patient-centered era for cardiac health. PTG is somewhat associated with psychosocial and behavioral factors in CVD patients. The final magnitude in the pooled HR concerning the relationship between PTG and CVD will be revealed in April. Future research should focus on improving research designs in this topic (e.g., large sample size, prospective design, adequate adjustment for medical and cardiac indices) and identify the mechanisms of the association between CVD and PTG in order to inform and improve behavioral health and medical care for this population.

CORRESPONDING AUTHOR: Amy L. Ai, PhD, FSBM, FSU, TALLAHASSEE, FL; amyai8@gmail.com

---

Abstract citation ID: kaad011.1156

POSTER SESSION E: LONG-TERM CONSEQUENCES OF PARENTAL ADVERSE CHILDHOOD EXPERIENCES (ACES) ON OFFSPRING HEALTH: A SCOPING REVIEW

Natalie Grafft, MSW[1], Brian K. Lo, PhD[2], Scott Easton, PhD[3], Maria Pineros-Leano, PhD[3], Kirsten Davison, PhD[3]

[1]Boston College, Boston, MA; [2]University of Guelph, Chestnut Hill, MA; [3]Boston College, Chestnut Hill, MA

Background: Adverse childhood experiences (ACEs) are common, often co-occur, and are associated with poor health outcomes across the life course. Emerging research has emphasized the lasting consequences of ACEs across generations, suggesting parental ACEs are associated with poor physical and mental health outcomes in children. While there is robust literature on the impact of maternal ACEs on offspring outcomes, the effects of fathers' ACEs and pathways of transmission remain unclear. A scoping review was conducted to summarize the current knowledge base of the intergenerational consequences of maternal and paternal ACEs on offspring health, clarify pathways of transmission, understand how ACEs are operationalized in the intergenerational literature, and identify gaps in knowledge.

Methods: Six electronic databases were searched for articles published in English from 1995-2022 relating to the long-term consequences of parental ACEs on offspring physical and mental health. Articles underwent title, abstract, and full text review by two investigators. Content analysis was performed to integrate findings across the included studies.

Results: The search yielded 14,542 unique articles; 49 met inclusion criteria and were included in the review. Thirty-six articles focused exclusively on mothers, one solely on fathers, and 12 included both mothers and fathers in their analyses. Two of the 12 studies that included fathers disaggregated the results for mothers and fathers in their analyses. There was wide variation in how ACEs were conceptualized and measured; 6 studies used an expanded definition of ACEs, including indicators of adversity that occur both in the home (i.e., abuse, household dysfunction) and community environments (i.e., community violence, discrimination). Content analysis indicated that parental ACEs are associated with low birth weight, developmental delay, poor physical health, and internalizing and externalizing behaviors in offspring. Both direct associations between parental ACEs and poor offspring outcomes and indirect associations, primarily through biological and psychosocial pathways, were identified.

Discussion: Findings underscore the importance of and dearth of research on fathers and need to solidify a unified definition and measure of ACEs. Importantly, this review identified modifiable pathways of transmission (i.e., parental mental health and parenting), having important implications for family-focused intervention development.

CORRESPONDING AUTHOR: Natalie Grafft, MSW, Boston College, Boston, MA; grafftn@bc.edu

Abstract citation ID: kaad011.1157

POSTER SESSION E: DISPARITIES IN ACCESS TO MENTAL HEALTH SERVICES AMONG CHILDREN WITH MENTAL HEALTH DISORDERS IN THE UNITED STATES

Asos Q. Mahmood, MD, PhD, MPH[1], Satish K. Kedia, PhD, MPH, MS[2], Hassan Arshad, BS[3], Xichen Mou, PhD, MS[2], Patrick J. Dillon, PhD[4]

[1]Department of Medicine-General Internal Medicine, College of Medicine, University of Tennessee Health Science Center, Memphis, TN; [2]The University of Memphis School of Public Health, Memphis, TN; [3]University of Memphis School of Public Health, Memphis, TN; [4]School of Communication Studies, Kent State University at Stark, North Canton, OH

Background: Child and adolescent mental health is a public health concern in the US. Overall, 20% of US children have a reported mental health condition while an estimated 40% will meet the criteria for one by age 18. Rates of anxiety and depression among children 3 to 17 years increased by 29% and 27%, respectively, between 2016 and 2020. Despite these concerns, little is known about factors associated with access to mental health services among US children/adolescents.

Methods: We analyzed data from the 2019 and 2020 waves of the National Survey of Children's Health (NSCH); the sample included 5,192 children (aged 6 to 17 years, males = 47.8%, non-Hispanic White = 58.1%) who had a caregiver- or parent-reported diagnosis of either anxiety or depression. We conducted a multivariable logistic regression analysis to examine predisposing, enabling, and need factors of caregivers' perceived difficulties in accessing mental health services for their children.

Results: Over 90% of children had anxiety and slightly more than half (51.8%) had depression. Approximately 46% of caregivers perceived obtaining mental health services for their children to be somewhat difficult/very difficult/impossible. Regression analysis revealed that children receiving care in a medical home in the past year had about 67% lower odds of experiencing such difficulties (aOR: 0.33; 95% CI: 0.22, 0.47; $P < 0.001$.). Consistent health insurance coverage was associated with 64% lower odds of experiencing access difficulties (aOR: 0.36; 95% CI: 0.17, 0.75; $P = 0.01$). Mothers reporting excellent or very good physical and mental health had 32% lower odds of encountering access challenges (aOR: 0.68; 95% CI: 0.47, 1.0; $P = 0.05$). Those reporting their children were in excellent or very good general health had 50% lower odds of experiencing difficulties accessing care compared to those in fair or poor health (aOR: 0.50; 95% CI: 0.29, 0.85; $P = 0.01$). Children with depression had 110% higher odds of experiencing access difficulties compared to children without depression (aOR: 2.10; 95% CI: 1.45, 3.04; $P < 0.001$).

Conclusion: The results indicate several predisposing, enabling, and need predictors of perceived access to mental health services—highlighting potential structural barriers to care access. Efforts to address access challenges should have a multifaceted approach and be tailored to families living in poverty, those with limited health coverage, and children in poor general health.

CORRESPONDING AUTHOR: Asos Q. Mahmood, MD, PhD, MPH, Department of Medicine-General Internal Medicine, College of Medicine, University of Tennessee Health Science Center, Memphis, TN; asos.mahmood@fulbrightmail.org

---

Abstract citation ID: kaad011.1158

POSTER SESSION E: DISPARITIES IN PREVENTIVE HEALTHCARE UTILIZATION AMONG CHILDREN WITH MENTAL, BEHAVIORAL, AND DEVELOPMENTAL DISORDERS IN US

Satish K. Kedia, PhD, MPH, MS[1], Asos Q. Mahmood, MD, PhD, MPH[2], Hassan Arshad, BS[3], Xichen Mou, PhD, MS[1], Patrick J. Dillon, PhD[4]

[1]The University of Memphis School of Public Health, Memphis, TN; [2]Department of Medicine-General Internal Medicine, College of Medicine, University of Tennessee Health Science Center, Memphis, TN; [3]University of Memphis School of Public Health, Memphis, TN; [4]School of Communication Studies, Kent State University at Stark, North Canton, OH

Background: Over 17% of US children between ages 2-8 years have at least one mental, behavioral, and developmental disorders (MBDD). Children with MBDD generally have greater healthcare needs yet often struggle to access necessary healthcare services. These elevated risks underscore the importance of preventive healthcare services; at present, however, little is known about disparities in preventive service utilization among children and adolescents with MBDD. The present study's aims are twofold: to assess disparities in preventive healthcare service utilization among children with MBDD and examine contributing factors to preventive service utilization in this population.

Methods: We analyzed data from the 2019 & 2020 waves of the National Survey of Children's Health, which included a sample of 61,614 children aged 3-17 years (male = 51.3%, non-Hispanic White = 50.1%). We conducted multivariable logistic regression analysis to generate adjusted odds ratios (aOR) and their associated confidence intervals (CIs) for various predictor variables.

Results: Our regression model suggests that children with MBDD had higher odds of reporting preventive health checkups in past 12 months compared to children without MBDD (aOR=1.87; 95% CI: 1.57, 2.23; $P < 0.001$). Children with MBDD aged 12-17 years had lower odds (aOR=0.28; 95% CI: 0.14, 0.56; $P < 0.001$) of past year preventive health checkups than those aged 3-5 years. Children from households with less than high school education (aOR=0.36; 95% CI: 0.14, 0.92; $P=0.032$) had lower odds of preventive checkups than children from households with a college degree or more. Those from higher income families were more likely to have past year checkups; those with incomes at 200-399% FPL (aOR=1.63; 95% CI: 1.01, 2.63; $P=0.045$) and those at ≥400% FPL (aOR=1.93; 95% CI: 1.16, 3.20; $P=0.011$) had higher odds of reporting that children with MBDD received checkups compared to households at 0-99% FPL. MBDD children with anxiety (aOR= 1.77; 95% CI: 1.28, 2.43; $P < 0.001$) and behavioral problems (aOR=1.46; 95% CI: 1.04, 2.05; $P=0.03$) had higher odds of preventive checkups.

Conclusion: Children with MBDDs had greater likelihood of receiving preventive health services; however, children from households with lower income/education had less access to preventive services. Interventions should address social determinants of health to overcome structural barriers to preventative healthcare access.

CORRESPONDING AUTHOR: Satish K. Kedia, PhD, MPH, MS, The University of Memphis School of Public Health, Memphis, TN; skkedia@memphis.edu

Abstract citation ID: kaad011.1159

POSTER SESSION E: ROLLERBLADING, READING, AND REPAIRING CARS: ADOLESCENT COPING AND RESILIENCE DURING THE COVID-19 PANDEMIC

Rebecca Feinstein, MPH, LCSW, PhD[1], Amanda Knepper, PhD, MSW[2]

[1]University of Illinois - Chicago, Chicago, IL; [2]University of Illinois Chicago/College of Medicine, Chicago, IL

Background: The Covid-19 Pandemic has disrupted many aspects of daily living for adolescents, including school, social activities, and family life. Recent increased prevalence of depression and suicidality validates adolescents' vulnerability to the mental health and social consequences of the pandemic. Theories of risk and resilience highlight the role of positive adaptation in the context of adversity and disadvantage. This study explores newly developed coping behaviors and strategies by adolescents during the pandemic between March 2021-June 2022.

Methods: 50 adolescents from Illinois and Kentucky, ages 13-19, enrolled in a depression prevention study were interviewed by phone or telehealth with a semi-structured, open-ended, interview guide about coping during the pandemic and their participation in the study interventions. Interviews were audio-recorded and professionally transcribed. Interview recordings and transcripts were analyzed by a multi-member research team using various methods of inductive coding and thematic analysis.

Results: The socio-demographic characteristics of the sample include: 72% female, 17% Hispanic/Latino; 32% White; 32% African American; 2% Native American; 10% Asian; and 10% more than one race. The average Distressed Community Index score was 64 (at-risk). 14% of adolescents were concerned about food security and 78% were concerned about family financial difficulties.

Most adolescents (N=45) reported participating in a new recreational or self-care activity during the pandemic. Adolescents reported engaging in different types of exercise (N=9) (i.e., "I started rollerblading again," and "I got abs during the pandemic."), arts and music (N=7) (i.e., I started to listen music a lot more than before. Our family is a very musical family, all of us know how to play at least one instrument, but I feel like music has–I think it's a mental thing."), and reading books (N=10) (i.e., "I started reading more often. In 2020, I read at least 30 books."). Other interests included car repair (i.e., "Ever since COVID started, something I've been focusing on is working on cars.") and spending time with pets (i.e., "I read and draw. I spend time with my animals. That helps too.").

Discussion: Despite multiple challenges, most adolescents reported participating in a new hobby, skill, or other recreational activity to pass time and cope with pandemic-related stressors. According to resilience research, the presence of adaptive behaviors, such as hobbies, during difficult life experiences indicate that positive resources can counterbalance the negative effects of high adversity. While many adolescents have indeed experienced significant loss and adversity over the course of the pandemic, strengths-based research on positive adolescent coping and resiliency offers insight on how adolescents have persisted and even thrived during this lived experience.

CORRESPONDING AUTHOR: Rebecca Feinstein, MPH, LCSW, PhD, University of Illinois - Chicago, Chicago, IL; rfeinst@uic.edu

---

Abstract citation ID: kaad011.1160

POSTER SESSION E: "UNDERSTANDING IS HARD TO FIND": COMMUNITY BASED PARTICIPATORY RESEARCH PRACTICES IMPROVE AFTERSCHOOL PROGRAM FEASIBILITY

Lenora Goodman, MPH, RDN[1], Adrianna Bell, BSN, RN, PHN[2], Nancy E. Sherwood, PhD[1], Barbara McMorris, PhD[2], Katherine R. Arlinghaus, PhD, RD[1]

[1]University of Minnesota School of Public Health, Minneapolis, MN; [2]University of Minnesota School of Nursing, Minneapolis, MN

Background: Schools are often settings for behavioral health interventions because they reach youth. However, schools are also unique communities comprised of individual and group roles, dynamics, cultural influences, communication styles, and values. Community Based Participatory Research (CBPR) methodology appreciates communities as unique and can improve program efficacy and sustainability. We used CBPR to develop a University-K12 school partnership and to create and implement a health-focused, mentoring afterschool program called DiscoverU. Named by a high school student, DiscoverU uses a tiered, cross-age mentorship model in which young adults (e.g., college students) are trained to mentor high school and middle school students, and to empower high school students to be role models to middle school students. This structure provides social support for hands-on practice of techniques to improve self-esteem, emotion regulation, interpersonal skills, mindful eating, and physical activity self-efficacy.

Objective: The aim of this study was to identify factors essential to program revision and feasibility in an afterschool setting.

Methods: We collected qualitative data on stakeholder experiences with DiscoverU through a series of interviews, focus groups, and reflective journaling activities from October 2021 – August 2022. Stakeholders represented in data collection included University research team members (n=7), K12 school staff (n=11), young adult mentors (n=12), and high school and middle school students (n=12). Data were analyzed using thematic analysis.

Results: Four factors key to program feasibility were identified: 1) Building from shared values strengthened the University-K12 partnership; 2) Fostering relationships within and across *all* stakeholder groups was critical to engaging stakeholders and informing program revisions and refinement; 3) Programming needed to be timely and adaptive to stakeholder needs both within and between program sessions; and 4) Clear communication was necessary to develop agreed upon roles for each stakeholder.

Conclusions: The four factors identified were necessary to the feasibility of this afterschool program and demonstrate the importance of stakeholder involvement at every stage of the research process. Best practices of CBPR methodology lend themselves to addressing the four identified factors and are important considerations when working with multiple levels of stakeholders from diverse backgrounds.

CORRESPONDING AUTHOR: Lenora Goodman, MPH, RDN, University of Minnesota School of Public Health, Minneapolis, MN; goodm315@umn.edu

Abstract citation ID: kaad011.1161

POSTER SESSION E: PROMOTING RECRUITMENT OF VULNERABLE WOMEN AND FAMILIES WITH HEALTH DISPARITIES USING GEOTARGETING AND MAPPING STRATEGIES

Abigail M. Pauley, PhD[1], Jenna Sassaman, MS[2], Brendan Ostlund, PhD[2], Lisa D. Bailey-Davis, DEd, RD[3], Rina D. Eiden, PhD[2], Jenae Neiderhiser, PhD[2], Danielle Symons Downs, PhD[4]

[1]Pennsylvania State University, Hollidaysburg, PA; [2]Pennsylvania State University, University Park, PA; [3]Population Health Sciences and Obesity Research Institute, Geisinger, Danville, PA; [4]The Pennsylvania State University, University Park, PA

Ample evidence documents health disparities related to geographic location (e.g., rurality/urbanicity, spatial segregation) that overlap with co-occurring health vulnerability factors. Geotargeting (e.g., delivery of content based on location) and mapping strategies (e.g., visual representation of populations by state counties) may be useful for targeting recruitment strategies – however, little is known about utilizing these methods for successfully recruiting marginalized and/or vulnerable populations that are historically underrepresented in research. Our goals were to explore methods of geotargeting and mapping and explore feasibility of their use in identifying vulnerable maternal, newborn, and families with co-occurring health disparities. We used a twofold mixed method approach. First, we conducted a comprehensive review of the literature on recruitment methods with vulnerable populations to identify best practices for geotargeting and mapping. Second, to explore feasibility, we used publicly available software to map counties in Pennsylvania with low access to health care and overlapped these maps with indicators of maternal, newborn, and family health problems and disparities, such as high rates of maternal-fetal morbidity and mortality, substance use, and obesity. Twenty studies published between 2008-2022 were identified and reviewed. Of these, 12 (60%) studies focused on recruitment strategies (e.g., understand needs of participants, engage community and stakeholder support, use multi-modal approaches), 4 (20%) studies used geotargeting, 3 (15%) studies used mapping, and 1 (5%) study used theories/models for recruitment strategies (e.g., Theory of Planned Behavior to improve attitudes about participation). Of the 7 studies utilizing geotargeting and mapping, 4 (57%) were successful in oversampling minority populations and 3 (43%) were successful in meeting recruitment goals. Mapping was used for tailored community recruitment (e.g., targeting locations for personalized ads, flyers, in-person contact). Regarding feasibility, we were easily able to use the mapping strategies to identify zip codes/counties of families in Pennsylvania with high risk factors and modify/tailor our recruitment strategies and outreach in these targeted communities. These exploratory findings suggest: 1) geotargeting and mapping strategies may allow researchers to successfully oversample underserved populations and meet recruitment goals; and 2) geotargeting and mapping software are publicly available, easy to use, and feasible for identifying zip codes/counties of women and families with high risk for maternal-fetal morbidity and mortality residing in underserved communities across Pennsylvania. Future research is needed to explore feasibility of using these methods to oversample and target recruitment of other diverse and high-risk populations.

CORRESPONDING AUTHOR: Abigail M. Pauley, PhD, Pennsylvania State University, Hollidaysburg, PA; amp34@psu.edu

---

Abstract citation ID: kaad011.1162

POSTER SESSION E: USING BEHAVIORAL THEORY TO UNDERSTAND PARTISAN DIFFERENCES IN COVID-19 VACCINATION INTENTIONS

Gregory M. Pavela, PhD[1], Tamika Smith, PhD[1], Tori McDonald, MPH[1], Leah Bryan, MPH[1], Robin Riddle, DPT[1], Ashley Cisco[1]

[1]University of Alabama at Birmingham, Birmingham, AL

Background: Political partisanship is an important predictor of COVID-19 vaccination status. Throughout the COVID-19 pandemic, Republicans were less likely to report being vaccinated than Democrats. A commonly used theory of behavioral intentions to explain and predict vaccination intentions is Protection Motivation Theory (PMT), which indicates that partisan differences in vaccination intentions stem from underlying differences in key theoretical constructs, including perceived susceptibility, severity, and self-efficacy.

Purpose: To test the hypothesis that partisan differences in intention to receive a COVID-19 vaccine are explained by the theoretical constructs of Protection Motivation Theory.

Methods: Data come from an online panel survey of US adults that used quota sampling to achieve demographic representation equal to the US national population (n=1,845). We used covariate-adjusted multivariable linear regression and mediation analyses to test whether the association between party affiliation and vaccination intentions was explained by the seven key theoretical constructs of PMT: perceived susceptibility, perceived severity, maladaptive response benefits, response efficacy, response costs, self-efficacy, and perceived control.

Results: A smaller percentage of Republicans (29%) reported being vaccinated than Democrats (71%). On a seven-point scale assessing vaccination intentions (1=extremely unlikely, 7=extremely likely), vaccination intentions among Republicans were 1.6 units lower than Democrats (2.1 versus vs. 3.6, respectively, $p< 0.000$), translating to an average response of "very unlikely" to get vaccinated among Republicans. A mediation analysis indicated that party affiliation indirectly affected vaccine intentions via its association with three theoretical constructs. Specifically, Republicans reported lower perceived susceptibility to COVID-19 ($b=-1.7$, $p< 0.000$), perceived the vaccine to be less effective ($b=-2.1$, $p< 0.000$), and had greater perceived costs ($b=1.1$, $p< 0.000$). In turn, perceived susceptibility ($b=0.26$, $p< 0.000$), vaccine effectiveness ($b=0.13$, $p< 0.0000$, and costs $b=-0.08$, $p< 0.0011$) were associated with vaccine intentions. Results from a bootstrapped confidence interval for the indirect effects based on 5,000 samples indicated that the indirect effects of party affiliation through susceptibility, response efficacy, and response costs were statistically significant.

Conclusion: Compared to Democrats, Republicans may be less likely to get vaccinated due to perceptions that they are less susceptible to COVID-19, the vaccine is less effective, and comes with greater disadvantages related to safety and side effects.

CORRESPONDING AUTHOR: Gregory M. Pavela, PhD, University of Alabama at Birmingham, Birmingham, AL; pavela@uab.edu

Abstract citation ID: kaad011.1163

POSTER SESSION E: CULTURAL DISSONANCE AND MORAL DISTRESS AMONG MULTICULTURAL PRACTITIONERS CARING FOR SOUTH ASIAN BREAST CANCER PATIENTS

Veena Manja, MBBS, MSc, PhD[1], Nainwant Singh, MD[2], Ambri Pukhraj, MS[3], Shreya Desai, MS[4], Akanksha Jain, BS[5], Lidia Schapira, MD[6], Dolores Gallagher Thompson, PhD[7], Karl Lorenz[8], Ranak B. Trivedi, PhD, FSBM[9]

[1]VA Palo Alto Health Care System and Stanford University, Gold River, CA; [2]VA, Santa Clara, CA; [3]Department of Psychiatry and Behavioral Sciences, Stanford University, Menlo Park, CA; [4]Tilman J. Fertitta Family College of Medicine at the University of Houston, Sugar Land, TX; [5]Center for Innovation to Implementation (Ci²i), VA Palo Alto Health Care System, Menlo Park, CA; [6]Stanford University, Redwood City, CA; [7]Stanford Univ. School of Medicine, Los Altos, CA; [8]Stanford School of Medicine, Palo Alto, CA; [9]Stanford University/VA Palo Alto, Menlo Park, CA

Introduction: Providing culturally concordant care that aligns with patient and family values is essential to effective patient care. However, when cultural expectations and practices are incongruent with physicians' abilities to provide patient-centered care, clinicians may experience moral distress. Moral distress is caused when clinicians' professional (not personal) values conflict with care that they have to prescribe, and may cause burnout, poor retention rates, and worse patient care. The South Asian Family Approaches to Disease (SAFAD) study aims to understand cultural considerations of caring for and supporting South Asian (SA) breast cancer survivors and their caregivers.

Objective: To elucidate factors that may contribute to moral distress for multidisciplinary clinical providers involved in breast cancer care of South Asians.

Methods: 14 clinicians from Stanford University completed semi-structured video interviews about their interactions with SA patients and caregivers, cultural dynamics in clinical practice, and perceptions of culturally concordant care. Participants were physicians (8), nurse practitioners(2), social workers(2), a physician assistant(1) and a clinical psychologist (1). Participants identified as White(7), SA (4), African American(1), Chinese(1) and mixed race(1). Interviews were professionally transcribed and independently coded by two raters using Atlas.ti. Data were analyzed using qualitative description.

Results: Physicians, but not other participants, highlighted themes around moral distress. SA cultural norms that conflicted with their values were: (1) caregivers' advocacy for continuing ineffective intensive treatment at end of life, (2) differences in expectations of patient autonomy, such as non-disclosure of diagnosis and treatment details to survivors, (3) differences in gender roles and hierarchy in healthcare decision-making resulting in decreased input from women survivors, (4) differences in family cultural values and recommended treatment, such as withholding pain medications to limit adverse effects and reluctance to consider hospice care. Physicians expressed distress navigating this cultural dissonance. Female physicians experienced added distress due to preferences for male physicians by survivors/caregivers.

Conclusions and Impact: Discordance between survivor/caregiver cultural values and physicians' professional values may result in moral distress. Acknowledging this phenomenon is necessary both to appreciate the challenges to providing patient-centered care and to identify resources that may be lacking in a multicultural environment. Opportunities to explore value systems that enable broader conversations with patients, caregivers and families from different cultures are needed, as well as system level resources and supports to address moral distress among clinicians.

CORRESPONDING AUTHOR: Veena Manja, MBBS, MSc, PhD, VA Palo Alto Health Care System and Stanford University, Gold River, CA; veena.manja@va.gov

---

Abstract citation ID: kaad011.1164

POSTER SESSION E: THE ACCEPTABILITY OF A BEHAVIORAL INTERVENTION TO PREVENT FOOT LESIONS IN VETERANS WITH DIABETIC NEUROPATHY

Kelsey Liu[1], Preethi Kumar[1], Leah Haley[1], Yunika Khamcha Magar[1], Emily N. DeGeorge, BA[2], Avani Sharma[3], Sundar Natarajan, MD, MSc[4], Andrew Nicholson, MSPH[5]

[1]New York University, New York, NY; [2]New York University/VA New York Harbor Healthcare System, New York, NY; [3]New York University/VA New York Harbor Healthcare, New York, NY; [4]VA New York Harbor Healthcare System/NYU Grossman School of Medicine, New York, NY; [5]NYU Grossman School of Medicine/VA New York Harbor Healthcare, New York, NY

Objectives: Amputation is the most distressing complication of diabetes. It is usually preceded by a diabetic foot ulcer (DFU), which is associated with poor foot care practices and inadequate medical adherence. A novel approach to prevent DFU is by plantar thermometry and proactive care. We combined existing knowledge to develop a personalized behavioral intervention (PBI) to prevent the occurrence of a DFU and tested it. Since intervention acceptability is critical to long-term use, we evaluated acceptability at the end of randomized clinical trial (RCT) participation.

Methods: Participants were randomized to either the PBI or control arm. Individuals in the PBI arm received personalized monthly counseling calls and dermal thermometry while participants in the control arm received general monthly counseling calls focused on other health conditions. At the end of the 12-month study, both arms completed the validated 8-item treatment acceptability questionnaire (TAQ) (score range 8 to 48). We compared PBI and control items using the Wilcoxon rank-sum test.

Results: We obtained completed surveys from 278 of the 316 eligible participants (88% response rate). The mean age of the sample was 73.2 (97.5 % were men, and 50% were African-American and White 41%; ethnicity was 15.5% Hispanic). The mean body mass index (BMI) was 31.3 with 57.9% having a BMI ≥ 30, and 16.2% were current smokers during the study. For each of the 8 TAQ items, the PBI mean (range 5.05 to 5.59) was greater than the control mean (range 4.54 to 5.17) with 7 items being statistically significant ($p < .05$). The mean PBI acceptability total score (41.5 ± 5.2) was significantly greater than the mean of the control (39.1 ± 7.0), p-value for comparison being < 0.005.

Conclusions: The higher degree of acceptance for the PBI indicates the benefits of engaging participants and personalizing the behavioral intervention. A tailored treatment like the PBI in PATRIOT tackles the important challenges individuals with diabetes face in a patient-centered manner potentially contributing to higher acceptability. This study demonstrates the acceptability of a novel remote intervention that can be implemented in clinical settings by healthcare systems to further improve on and successfully achieve better self-care.

CORRESPONDING AUTHOR: Kelsey Liu, New York University, New York, NY; kl3617@nyu.edu

Abstract citation ID: kaad011.1165

POSTER SESSION E: "STEP UP KEPT ME ON MY TOES": PATIENT EXPERIENCES OF A TAILORED INTERVENTION AIMED TO PREVENT ULCER RECURRENCE IN DIABETES

Yunika Khamcha Magar[1], Preethi Kumar[1], Leah Haley[1], Valentyna Lysetska[2], Kelsey Liu[1], Sundar Natarajan, MD, MSc[3], Andrew Nicholson, MSPH[4], Sahnah Lim, PhD, MPH[5]

[1]New York University, New York, NY; [2]VA NY Harbor Health System, New York, NY; [3]VA New York Harbor Healthcare System/NYU Grossman School of Medicine,, New York, NY; [4]NYU Grossman School of Medicine/VA New York Harbor Healthcare, New York, NY; [5]NYU Grossman School of Medicine,, New York, NY

Objectives: Veterans with diabetic foot complications have as high a risk for mortality as those with cancer or cardiovascular disease. Despite advances, foot self-care remains suboptimal in diabetes. Tailored interventions lead to better self-care for many serious chronic conditions, and other researchers have reported promising results using dermal thermometry. To understand participants' experiences of a comprehensive TI aimed at lowering ulcer recurrence among individuals with previous diabetic foot ulcers, we conducted a nested qualitative study within a randomized clinical trial.

Methods: Key components of the TI were regular counseling calls, plantar thermometry feedback, and daily checklists to enhance self-care. Using semi-structured interviews at 6 and 18 months of the TI, we assessed participant experience, received feedback, elicited suggestions for improvement, and obtained input on helping future patients. Through open coding and conventional content analysis using Atlas.ti software, we discovered common themes clustered around three domains: *Impressions and Perceptions, Other Factors Impacting Adherence,* and *Behavior Sustainability.*

Results: We interviewed 25 of the 120 TI participants (21%), selected by maximum variation sampling based on participants' study adherence. All were men, mean age was 69.1 (±7.4), 13 were African-American (52%) and 11 White (44%). A majority (52%) were obese, and 40% were current smokers. In general, participants found the program resources (counselors, checklists, logbook, and thermometer) helpful in improving self-care and reported that the program brought a new sense of awareness and attention to foot care practices. The most common facilitator to behavior change was establishing a routine while the most prevalent barrier was a lack of time. Most were satisfied with the simplicity of the program and felt that alterations in their behavior such as habitually observing feet were easy additions to daily care routines. In the context of sustainability of behaviors, participants reported a decline in the use of the foot thermometer but a continuation of other learned foot self-care behaviors even after their program had ended.

Conclusions: We gained an enhanced understanding of the complex, multidimensional issues patients with advanced diabetes face. The TI was helpful to participants and seemed to increase their adherence to foot self-care. The key to new behavior acquisition was the establishment of a routine and the ability to easily use the thermometer and checklists. A challenge was sustaining foot temperature monitoring behaviors. This study illustrates the feasibility and acceptance of theory-based TI targeting crucial behaviors that can reduce foot complications in diabetic patients. This work could help inform future implementation research and for clinical translation.

CORRESPONDING AUTHOR: Yunika Khamcha Magar, New York University, New York, NY; yk2419@nyu.edu

---

Abstract citation ID: kaad011.1166

POSTER SESSION E: WHAT ARE THE POTENTIAL PROFILES OF DIABETES BURNOUT?

Samereh Abdoli, RN, PHD[1], Clea McNeely, PhD[1]

[1]University of Tennessee, Knoxville, TN

Aim: The study aimed to identify latent profiles of diabetes burnout and examine if there are significant differences in psychosocial wellbeing (i.e., diabetes distress and depressive symptoms) and glycemic control between individuals with varying profiles of diabetes burnout.

Background: Diabetes burnout is an important emerging psychosocial concept associated with adverse diabetes outcomes. Recent dimensional conceptualization of diabetes burnout (i.e., exhaustion, detachment, loss of control) can quantify burnout and situate individuals on a continuum. Individuals may experience a combination of different burnout dimensions which can form different burnout profiles, presenting various burnout symptoms.

Methods: A national sample of adults with T1D (n=1099) completed an online cross-sectional survey across the U.S. We used Diabetes Burnout Scale (DBS) to collect data on diabetes burnout. We also measured self-reported diabetes distress, depressive symptoms, and hemoglobin A1c. We used latent profile analysis and latent class regression to identify profiles and their correlates.

Results: Based on theory and fit statistics (AIC, BIC, LMRT), the 5-class model fit the data best. We named the classes as follows: Exhausted (31% of respondents), Non burnout (24%), Dissociated (23%), Overextended (13%), and Fully burnout (9%). Respondents in Overextended and Fully burnout reported substantially more symptoms of depression and distress and poorer glycemic control compared to the other groups. However, the low entropy value (E=0.38) indicated low separation between classes. Four of the five classes (all but Fully burnout) are not clearly separated.

Discussion: Five latent classes fit the data and are related to symptoms of depression and anxiety as predicted. This analysis informs the theoretical understanding of diabetes burnout. However, latent classes may not have practical utility for designing and testing interventions due to the overlap between classes.

CORRESPONDING AUTHOR: Samereh Abdoli, RN, PHD, University of Tennessee, Knoxville, TN; sabdoli@utk.edu

Abstract citation ID: kaad011.1167

POSTER SESSION E: DOES HABIT STRENGTH FOR SELF-MONITORING OF BLOOD GLUCOSE (SMBG) PREDICT HBA1C LEVELS IN A SAMPLE OF TYPE 2 DIABETES PATIENTS?

Kathryn Pluta, PhD[1], L. Alison Phillips, PhD[2]

[1]University of Florida, Gainesville, FL; [2]Iowa State University, Ames, IA

Approximately 34 million Americans have Type 2 Diabetes (T2D), which can lead to heart disease, stroke, or death if not managed successfully. Current clinical guidelines encourage self-monitoring of blood glucose (SMBG) at least three times daily for T2D management, in addition to adhering to medications, engaging in physical activity, and eating a healthy diet. More frequent engagement in SMBG is associated with better glycemic control, however, barriers to SMBG exist (e.g., not knowing when to test or forgetting, avoiding testing if anxious about results). A possible way to mitigate these barriers is to have a habit for SMBG. Stronger habits for treatment behaviors such as medication adherence or physical activity tend to be related to greater behavioral engagement and better health outcomes. However, little is known about whether having a habit for SMBG would be beneficial for T2D management. We hypothesize that having a stronger habit for engaging in SMBG more frequently will be associated with lower HbA1c levels. 93 patients (62.4% female, 64.52% ethnic minority) with T2D were recruited from clinics in Washington, DC (M_{age} = 57.47, *SD* = 11.61). Mean habit strength was 3.02 (*SD* = 1.16), and mean SMBG frequency was 5.90 (*SD* = 2.21). Simultaneous regression analysis revealed that SMBG habit strength (β = .06, *t* = .51, *p* = .61) and SMBG frequency (β = .18, *t* = 1.55, *p* = .12) did not significantly predict HbA1c, R^2 = .05, *F*(2,90) = 2.19, *p* = .12. Thus, our hypothesis was not supported. We also ran this model while controlling for diabetes knowledge, and the overall model significantly predicted HbA1c, ΔR^2 = .07, *F*(2,89) = 3.55, *p* = .03. Diabetes knowledge and HbA1c were negatively related (β = -.22, *t* = -2.17, *p* = .03). SMBG frequency was only marginally significant (β = .19, *t* = 1.71, *p* = .09) and SMBG habit did not significantly predict HbA1c (β = .12, *t* = 1.05, *p* = .30). Habit for SMBG may not have been significantly related to HbA1c because individuals may have automatized testing but did not know what to do with the information. Thus, individuals may not be taking appropriate action in response to high HbA1c readings despite frequent testing, resulting in poor glycemic control. Additionally, those most successful at SMBG test frequently, are active problem solvers in response to high readings, and use trial error until they find a pattern of behaviors that work for them. Thus, it is possible that patients in our sample had a lot of experience with SMBG, had an understanding of which behaviors facilitate lower HbA1c, and resultantly did not need to test often to maintain glycemic control. Therefore, habits for SMBG may be more important in the initial phases of SMBG, and less important once the individual understands factors that affect their HbA1c levels. This study lays the groundwork to further examine factors associated with successful SMBG and glycemic control, with the goal of improving health outcomes for individuals with T2D.

CORRESPONDING AUTHOR: Kathryn Pluta, PhD, University of Florida, Gainesville, FL; k.bunda@ufl.edu

---

Abstract citation ID: kaad011.1168

POSTER SESSION E: COMBINING AMBULATORY ASSESSMENT METHODS IN VETERANS WITH TYPE 2 DIABETES: ACCEPTABILITY, FEASIBILITY, AND LESSONS LEARNED

Jennalee S. Wooldridge, PhD[1], Niloofar Afari, PhD[2]

[1]University of California San Diego/VA San Diego, SAN DIEGO, CA; [2]VA San Diego Healthcare System and University of California San Diego, San Diego, CA

Type 2 diabetes (T2D) is a major problem affecting 25% of Veterans. T2D is generally asymptomatic; as such, the long-term consequences of inadequate self-management and benefits of consistent self-management are not salient in the short-term. Further, self-management behaviors occur in the context of Veterans' daily routines and social environments. Thus, ambulatory assessment methods, such as ecological momentary assessment (EMA), accelerometry, and continuous glucose monitoring (CGM) are needed to understand the dynamics of daily self-management and identify potential intervention targets. The current study evaluated the feasibility and acceptability of combined EMA, accelerometry, and CGM among Veterans with T2D. Five Veterans with T2D (Mage=65 years, MHbA1c=6.6%, 20% female, 60% White) were asked to respond to random EMA surveys during pre-programmed intervals 5 times per day for 14 days. The 5 EMA surveys were delivered via a mobile application and assessed momentary physical location, activities, constructs of temporal self-regulation theory, social interactions, mood, stress, and pain. The last survey of each day included a daily survey assessing diabetes distress, social support, physical activity, self-management behaviors, and functioning. Participants were asked to wear accelerometers at least 20 hours a day and were provided with 2 CGMs to be worn throughout the 14 days. The first CGM was applied by a research assistant and the second was applied by the participant with phone assistance. Participants then completed interviews assessing their experience in the study and barriers to adherence. To date, the mean EMA response rate was 84% (range=74-95%), producing 294 data points; the mean adherence rate for accelerometer wear of at least 20 hours per day was 93% (range=71-100%), and CGM data was available for 90% of days on average (range=57-100%). The response rate for the EMA survey including daily items (62%; range=80-96%) was lower than the earlier shorter EMA surveys (88%; range=17-93%). Participants generally reported few barriers to completing EMA surveys but noted the random timing of questions made it difficult to plan around, and the end-of-day survey was long. Two participants reported accelerometers were uncomfortable at times and one participant's second CGM did not collect data. These pilot data suggest overall intensive ambulatory assessment designs are feasible and acceptable for Veterans with T2D and inform the design of future larger studies.

CORRESPONDING AUTHOR: Jennalee S. Wooldridge, PhD, University of California San Diego/VA San Diego, SAN DIEGO, CA; jewooldridge@health.ucsd.edu

Abstract citation ID: kaad011.1169

POSTER SESSION E: COMBINING AMBULATORY ASSESSMENT METHODS IN VETERANS WITH TYPE 2 DIABETES: ACCEPTABILITY, FEASIBILITY, AND LESSONS LEARNED

Jennalee S. Wooldridge, PhD[1], Niloofar Afari, PhD[2]

[1]University of California San Diego/VA San Diego, SAN DIEGO, CA; [2]VA San Diego Healthcare System and University of California San Diego, San Diego, CA

Type 2 diabetes (T2D) is a major problem affecting 25% of Veterans. T2D is generally asymptomatic; as such, the long-term consequences of inadequate self-management and benefits of consistent self-management are not salient in the short-term. Further, self-management behaviors occur in the context of Veterans' daily routines and social environments. Thus, ambulatory assessment methods, such as ecological momentary assessment (EMA), accelerometry, and continuous glucose monitoring (CGM) are needed to understand the dynamics of daily self-management and identify potential intervention targets. The current study evaluated the feasibility and acceptability of combined EMA, accelerometry, and CGM among Veterans with T2D. Five Veterans with T2D (Mage=65 years, MHbA1c=6.6%, 20% female, 60% White) were asked to respond to random EMA surveys during pre-programmed intervals 5 times per day for 14 days. The 5 EMA surveys were delivered via a mobile application and assessed momentary physical location, activities, constructs of temporal self-regulation theory, social interactions, mood, stress, and pain. The last survey of each day included a daily survey assessing diabetes distress, social support, physical activity, self-management behaviors, and functioning. Participants were asked to wear accelerometers at least 20 hours a day and were provided with 2 CGMs to be worn throughout the 14 days. The first CGM was applied by a research assistant and the second was applied by the participant with phone assistance. Participants then completed interviews assessing their experience in the study and barriers to adherence. To date, the mean EMA response rate was 84% (range=74-95%), producing 294 data points; the mean adherence rate for accelerometer wear of at least 20 hours per day was 93% (range=71-100%), and CGM data was available for 90% of days on average (range=57-100%). The response rate for the EMA survey including daily items (62%; range=80-96%) was lower than the earlier shorter EMA surveys (88%; range=17-93%). Participants generally reported few barriers to completing EMA surveys but noted the random timing of questions made it difficult to plan around, and the end-of-day survey was long. Two participants reported accelerometers were uncomfortable at times and one participant's second CGM did not collect data. These pilot data suggest overall intensive ambulatory assessment designs are feasible and acceptable for Veterans with T2D and inform the design of future larger studies.

CORRESPONDING AUTHOR: Jennalee S. Wooldridge, PhD, University of California San Diego/VA San Diego, SAN DIEGO, CA; jewooldridge@health.ucsd.edu

---

Abstract citation ID: kaad011.1170

POSTER SESSION E: TRIAL OF THREE APPROACHES TO PROMOTING THE DPP: EFFECTS ON RISK PERCEPTIONS, SELF-EFFICACY AND INTEREST IN REFERRAL

Bryan Gibson, DPT, PhD[1], Sara Simonsen, MSN, PhD[2], David W. Wetter, PhD[3], Roger Altizer, PhD[1], Yue Zhang, PhD[4], Kelly Lundberg, PhD[1], Jon Barton, MS[1], Marta Valadez, DNP[1], Nancy valadez, BA[1]

[1]University of Utah, salt lake city, UT; [2]University of Utah, ALT LAKE CITY, UT 84112, UT; [3]Huntsman Cancer Institute/U of Utah, SALT LAKE CITY, UT; [4]University of utah, salt lake city, UT

Background: The National Diabetes Prevention Program (DPP) reduces the risk of developing type 2 diabetes (T2D) in at-risk adults who participate. However less than 0.4% of at-risk individuals have participated to date.

Methods: In this three-armed randomized trial we compared three mobile phone-based approaches to increase enrollment in the DPP amongst individuals identified as having prediabetes in the electronic health record. The three conditions were: a best practice condition (individuals were informed of their risk and informed about the DPP) (BP) vs. Best practice + 360° videos (intended to heighten risk perceptions for T2D) (VID) vs. Best practice + phone counseling based on motivation and problem solving (intended to increase self-efficacy for behavior change) (MAPS).

All surveys and interventions were delivered by mobile phone. All participants completed a baseline survey and 2 days later were sent a link to a website that explains risk for T2D and the DPP. Individuals in the VID arm received links to two three-minute 360° videos, four and six days after the baseline. All participants received a single-item survey asking if they would like a referral to the DPP 10 days after the baseline survey. Individuals in the MAPS arm received up to five phone calls with a health coach in the four weeks between baseline and follow-up. We measured self-efficacy using a 16-item scale adapted from Wilson and risk perceptions using an 18-item scale developed by Ferrer.

We compared the demographics of groups using ANOVA for continuous variables, Chi-Square for dichotomous variables and Fisher's exact test for categorical variables. We compared changes in self-efficacy and risk perception scores across groups using linear regression and post-hoc F tests. We compared the proportion of individuals interested in referral to the DPP across groups using Poisson regression and a post-hoc Z tests.

Results: A total of 327 individuals completed both the baseline and follow-up surveys. Demographically groups were similar in age, sex, race, ethnicity, family history of T2DM, and insurance status.

Changes in risk perception scores was small overall (-0.01/18) and there was no significant difference between groups. Changes in self efficacy scores was also small overall (-1.0/16) and there was no significant difference between groups. The likelihood of interest in DPP referral was 0.98 (95% CI 0.61-1.58, p=0.9) in VID vs BP, and 1.5 (95% CI 0.94-2.4, p=0.08) in MAPS vs BP.

Conclusion: In an RCT comparing three mobile phone-based approaches to promote the DPP, we found a positive trend of MAPS coaching increasing interest in referral to the DPP. There was no effect of Mobile 360° videos on interest in referral to the DPP. Our hypotheses regarding mechanisms of the interventions were not confirmed. We will discuss planned work to elucidate the mechanism(s) by which MAPS might improve interest in the DPP.

CORRESPONDING AUTHOR: Bryan Gibson, DPT, PhD, University of Utah, Salt Lake City, UT; bryan.gibson@utah.edu

Abstract citation ID: kaad011.1171

POSTER SESSION E: FOOD FUSSINESS AND PARENTING STRESS AS DETERMINANTS OF DIET QUALITY IN YOUTH WITH AN INTELLECTUAL DISABILITY: A PILOT STUDY

Brianne Richson, MA[1], Kelsie Forbush, PhD[2], Sarah Johnson, MA[2], Joseph Donnelly, EdD[3], Lauren T. Ptomey, PhD, RD, LD[3]

[1]Department of Psychology, University of Kansas, San Diego, CA; [2]Department of Psychology, University of Kansas, Lawrence, KS; [3]University of Kansas Medical Center, Kansas City, KS

Background: Food fussiness (e.g., low openness to new foods, limited diet variety) is common in youth with an intellectual disability (ID). Food fussiness may lead to low diet quality and may even warrant a diagnosis of avoidant/restrictive food intake disorder (ARFID). Food fussiness and associated parenting stress may make it difficult for parents to improve child diet quality, yet the extent to which both food fussiness and parenting stress contribute to diet quality in youth with ID is unknown. This study assessed whether parenting stress and youth food fussiness were associated with diet quality in youth with ID.

Methods: Youth with ID and overweight or obesity (N=20; 9 boys, 11 girls; M_{age}=15.90) and a parent (100% female, 100% white, 100% non-Hispanic/Latino) were recruited from a weight loss trial. Youth dietary intake was measured for up to three days using image-assisted food records and analyzed using Nutrition Data System for Research (NDSR) software to yield Healthy Eating Index (HEI)-2015 scores. Intake variables were averaged across days within each participant. Parents completed the Parenting Stress Index, Fourth Edition-Short Form and the Child Eating Behavior Questionnaire Food Fussiness scale. Separate multiple regressions tested food fussiness and parenting stress as predictors of HEI-2015 total, vegetable intake, and fruit intake.

Results: Parenting stress and food fussiness were positively correlated (r=.19, p>.05). The model predicting diet quality (i.e., HEI-2015 total) via food fussiness and parenting stress was nonsignificant (R^2=.12, F(2,17)=1.18, p>.05). Models predicting daily vegetable servings (R^2=.30, F(2,17)=3.62, p< .05) and the HEI vegetable component were significant (R^2=.34, F(2,17)=4.36, p< .05). Controlling for parenting stress, food fussiness was a significant negative predictor of daily vegetable servings (B=-.73, p< .05) and the HEI vegetable component (B=-.64, p< .05). Models predicting daily fruit servings (R^2=.01, F(2,17)=.11, p>.05) and the HEI fruit component (R^2=.14, F(2,17)=1.40, p>.05) were nonsignificant.

Conclusions: Food fussiness may contribute to lower vegetable intake in youth with ID. Studies with adequate statistical power and increased diversity are needed to clarify if parenting stress and food fussiness contribute to low diet quality in youth with ID. Studies should also clarify if interventions for diet quality and/or ARFID should be altered to better target both food fussiness and parenting stress.

CORRESPONDING AUTHOR: Brianne Richson, MA, Department of Psychology, University of Kansas, San Diego, CA; bri.n.richson@gmail.com

---

Abstract citation ID: kaad011.1172

POSTER SESSION E: INFORMING A TRADITIONAL MEXICAN DIET INTERVENTION FOR OBESITY-RELATED CANCER PREVENTION IN MEXICAN-ORIGIN HISPANIC ADULTS

Melissa Lopez-Pentecost, PhD, RDN[1], Jessica Ortega Guevara[2], Kristin Morrill, PhD[3], Rebecca Crocker, PhD[4], Maia Ingram, MPH[4]

[1]Sylvester Comprehensive Cancer Center, University of Miami Miller School of Medicine, Miami, FL; [2]School of Nutritional Sciences and Wellness, College of Agriculture and Life Sciences, University of Arizona, Tucson, AZ; [3]Community & Systems Health Science Division, College of Nursing, University of Arizona, Tucson, AZ; [4]Department of Health Promotion Sciences, Mel and Enid Zuckerman College of Public Health, University of Arizona, Tucson, AZ

Background: A traditional Mexican diet could serve as a more culturally relevant strategy to reduce obesity-related cancer rates among Mexican-origin (MO) Hispanic adults in the United States (US). A traditional Mexican diet pattern has been associated with lower risk for cancer-related risk factors including obesity, inflammation, and insulin sensitivity. However, no previous study has explored US-based MO Hispanic adults' attitudes and beliefs towards a traditional Mexican diet or identified key considerations to inform a future diet intervention for obesity-related cancer risk reduction in this population.

Methods: Participants included thirteen MO Hispanic adults (N= 10 women, N= 3 men) that had received a cancer diagnosis or were family members of an individual with a cancer diagnosis in the last five years. Semi-structured interviews were conducted in person or remotely and in the participant's language of preference (English or Spanish). Interviews explored attitudes and beliefs about food practices in Mexico and a traditional Mexican diet (upon receiving a description of this dietary pattern). The second part of the interview explored considerations for the development and delivery of future dietary interventions focused on consuming a more traditional Mexican diet. Interviews were analyzed using a thematic approach.

Results: The thematic analysis revealed that participants perceived several differences between the food quality in Mexico and the US. Participants reported the belief that foods in the US contained higher amounts of chemicals and were more processed than foods in Mexico, which were considered to be healthier, more natural, and nutrient dense. In regard to the adoption of a traditional Mexican diet pattern, a salient theme was the belief that consuming a traditional Mexican diet could reduce cancer risk. Participants reported relevant facilitators, such as access to knowledge and skills through family members, as well as barriers, such as accessing traditional Mexican foods and ingredients. Further considerations for future dietary interventions included participants' desire for education about the relationship between traditional Mexican food and ingredients and health, interest in cooking demonstrations for traditional Mexican dishes, and preference for the inclusion of friends and family who could also benefit from such a program.

Conclusion: Participants perceived a traditional Mexican diet pattern as being healthier than food practices in the US. Participants expressed interest in expanding knowledge and skills related to adopting a more traditional Mexican diet pattern to reduce their risk for cancer. Findings from this study will inform a future dietary intervention to reduce obesity-related cancer rates in Mexican-origin Hispanic adults.

CORRESPONDING AUTHOR: Melissa Lopez-Pentecost, PhD, RDN, Sylvester Comprehensive Cancer Center, University of Miami Miller School of Medicine, Miami, FL; mlopez-pentecost@miami.edu

Abstract citation ID: kaad011.1173

POSTER SESSION E: ADOLESCENTS' HEALTHY EATING SCORES ARE NOT ASSOCIATED WITH THEIR OBJECTIVELY-MEASURED PHYSICAL ACTIVITY

Yiqing (Skylar) Yu, BA[1], Katie McMahon, BS[1], Amanda N. Spitzer, BA[1], Katrina Oselinsky, MS[2], Matea R. Ramey, BS[1], Rachel G. Lucas-Thompson, PhD[1], Dan J. Graham, PhD[1]

[1]Colorado State University, Fort Collins, CO; [2]Colorado State University, Denver, CO

Background: Healthy eating (HE) and physical activity (PA) are vital for promoting and maintaining health throughout the lifespan. The development of these health behaviors is especially important during the transition period from middle adolescence to early adulthood. Many studies have examined HE and PA as two separate outcomes, but less is known about the relationship between these two health behaviors. Most evidence has suggested HE and PA should be positively correlated, but theories like compensatory health beliefs indicate a possibility of a negative correlation.

Purpose: The first aim of the present study was to measure whether adolescents and young adults met the recommendations for diet quality and physical activity from the 2015-2022 Dietary Guidelines for Americans (DGA), the 2015 Healthy Eating Index (HEI), and the 2018 Physical Activity Guidelines for Americans (PAG). The second aim was to understand the association between HE and PA in this population.

Methods: 81 participants (range 14-21 years, M = 18.07, SD = 2.04) wore a wrist-mounted accelerometer for one week to track PA. The participants also completed two 24-hour dietary recalls one week apart. We assessed if participants met recommendations by DGA, HEI, and PAG, and calculated correlations between HE and PA.

Results: On average, participants had 133.92 minutes of moderate-to-vigorous physical activity (MVPA) in a day (SD = 53.49) and received a score of 52.56 (out of 100) on the HEI (SD = 17.01). 100% of participants met MVPA recommendations (i.e., having over 60 minutes of accumulative MVPA in a day for participants under 18, and having over 150 minutes of accumulative MVPA in a week for participants aged 18 or above), but only 8.6% met the HEI recommendations (having an HEI score above 80). There was no correlation between HEI score and mean MVPA in a day (N = 81, r = -.06, p = .59). There were no significant differences between age, sex, and BMI groups.

Conclusions: Although some research has found that healthy behaviors, including diet and PA, cluster together among adults, that clustering was not present in this sample of adolescents among whom diet and PA were not related. The small number of adolescents meeting dietary recommendations suggests a need for targeted healthy eating interventions for this age group.

CORRESPONDING AUTHOR: Yiqing (Skylar) Yu, BA, Colorado State University, Fort Collins, CO; Skylar.Yu@colostate.edu

---

Abstract citation ID: kaad011.1174

POSTER SESSION E: A BRIEF DISSONANCE-BASED SOCIAL MEDIA INTERVENTION TO IMPROVE EATING BEHAVIORS IN CHILE

Katie McMahon, BS[1], Yiqing (Skylar) Yu, BA[1], Katrina Oselinsky, MS[2], Amanda N. Spitzer, BA[1], Matea R. Ramey, BS[1], Dan J. Graham, PhD[1]

[1]Colorado State University, Fort Collins, CO; [2]Colorado State University, Denver, CO

Background: Obesity rates are high in Chile, particularly among women and children, and consumption is lower than recommended for fruits and vegetables and high for sugar-sweetened beverages. Previous dissonance-based interventions have shown effectiveness in eating-disorder prevention, but less is known on whether inducing cognitive dissonance could improve healthy eating among non-clinical populations and if such effects extend to family members.

Purpose: The present study sought to discover if cognitive dissonance tactics would influence dietary behavior among Chilean women who viewed and/or shared content on Facebook about fruit and vegetable consumption (FV) or sugar-sweetened beverage consumption (SSB). Another aim was to understand if effects of the shared posts on dietary behaviors would extend to participants' children.

Methods: 211 mothers aged 15-40+ years old (median age 21-30), living in Chile, with ≥1 child (M=1.56) reported data for themselves and their children. Participants were randomized into one of three experimental conditions in which they were shown advertisements that described 1. FV upsides, 2. SSB downsides, or 3. Nothing (participants were not shown an advertisement). Follow up data were collected two-weeks later in which the participants were asked to self-report the same information from the baseline survey. A series of logistic regressions were fit to analyze the relationship between advertisement exposure and servings of FV and SSB consumed.

Results: The odds of increasing FV consumption or decreasing SSB consumption did not change from pre to post intervention for mothers or their children regardless of the advertisement shown. Although no statistically significant changes were identified, FV consumption did increase for all experimental conditions from pre (1.97 servings) to post (2.14 servings) intervention. Additionally, for those in the two experimental groups (i.e., those who saw an advertisement), SSB consumption decreased from pre (0.82 servings) to post (0.70 servings) intervention.

Conclusions: Considering no significant changes in dietary intake were reported in response to reading/sharing health-related Facebook posts, further research should examine the threshold needed for cognitive dissonance messaging styles and if effects may extend to family members when using more intensive strategies.

CORRESPONDING AUTHOR: Katie McMahon, BS, Colorado State University, Fort Collins, CO; Katie.McMahon@colostate.edu

Abstract citation ID: kaad011.1175

POSTER SESSION E: INFLUENCE OF A 9-WEEK PLANT-BASED CULINARY MEDICINE INTERVENTION ON MOOD, STRESS, AND QUALITY OF LIFE AMONG CARDIOLOGY PATIENTS

Andrea Krenek, RDN, LDN[1], Monica Aggarwal, MD[2], Anne Mathews, PhD, RDN[2]

[1]National Institute of Diabetes and Digestive and Kidney Diseases, Bethesda, MD; [2]University of Florida, Gainesville, FL

Background: Nutrition and behavioral factors are increasingly connected to psychological and cardiometabolic health. Plant-rich dietary patterns in addition to social support may influence stress and mood factors implicated in atherosclerotic cardiovascular disease (ASCVD). While implementing lifestyle changes, group culinary-based teaching kitchen (TK) interventions have demonstrated preliminary improvements in mental well-being. The psychosocial effects of culinary medicine (CM) and impact of nutrition habits through dietary interventions remain unclear.

Objective: To determine the influence of a virtual group TK intervention on perceived stress, positive and negative affect, and quality of life.

Methods: Adults with ≥ 5% 10-year ASCVD risk (defined by ASCVD Risk Estimator) were recruited from medical clinics to participate in weekly multimodal group cooking classes through a 9-week vegan CM randomized controlled clinical trial. Participants completed surveys including Perceived Stress Scale (PSS), Positive and Negative Affect Schedule (PANAS), Short-Form 36 (SF-36) health-related quality of life and additional validated positive affect questions before and after the intervention. Survey scores were compared by paired t-tests or Wilcoxon signed rank sum tests.

Results: Pre-post analyses of 40 participants (75% female, 64.4 + 8.6 years) indicated perceived stress significantly decreased (mean+se -2.28 + 0.71, p=0.002) after the intervention in contrast to baseline reports. Positive affect increased by +6.4% while negative affect decreased by -13% considering PANAS survey responses (p=0.044 and p=0.019, respectively; n=35). Separate positive affect questions progressively increased from 128.65 + 4.38 to 138.03 + 4.01 as sum values (p=0.012), along with improvements in energy/fatigue (p=0.006) and general health-related quality of life (p=0.020).

Conclusions: Participation in a group CM TK intervention increased positive affect and quality of life while reducing negative affect and perceived stress. Benefits may relate to social support, improved health, dietary factors, and emerging psychosocial benefits of culinary interventions. Coinciding nutritional changes warrant further research in larger studies with diverse populations.

CORRESPONDING AUTHOR: Andrea Krenek, RDN, LDN, National Institute of Diabetes and Digestive and Kidney Diseases, Bethesda, MD; andrea.krenek@nih.gov

---

Abstract citation ID: kaad011.1176

POSTER SESSION E: ETHNORACIAL IDENTITY, DISORDERED EATING, AND EMOTIONAL EATING AMONG ADOLESCENT MILITARY DEPENDENTS

Vivian Bauman, MPH, PhD[1], Tracy Sbrocco, PhD[2], Holly Spinner, BS[3], Isabel Thorstad, BS[4], Hannah Repke, MA[5], Katherine A. Thompson, PhD[5], Bethelhem Markos, MSc, RRT[6], Jason M. Lavender, PhD[7], Natasha A. Schvey, PhD[2], Brian Ford, MD[8], Caitlin Ford, DO[9], Denise E. Wilfley, PhD[10], Sarah Jorgensen, DO[11], David A. Klein, MD, MPH[12], Jeffrey Quinlan, MD, FAAFP[13], Mark Haigney, MD, FAHA, FACC[5], Jack A. Yanovski, MD, PhD[14], Marian Tanofsky-Kraff, PhD[2]

[1]Military Cardiovascular Outcomes Research (MiCOR) Program/Uniformed Services University of the Health Sciences, Washington, DC; [2]Uniformed Services University of the Health Sciences, Bethesda, MD; [3]Military Cardiovascular Outcomes Research (MiCOR) Program/Uniformed Services University of the Health Sciences, Bethesda, MD; [4]Military Cardiovascular Outcomes Research Program (MiCOR) Uniformed Services University of the Health Sciences, Bethesda, MD; [5]Military Cardiovascular Outcomes Research Program (MiCOR), Uniformed Services University of the Health Sciences, Bethesda, MD; [6]Military Cardiovascular Outcomes Research (MiCOR) Program Uniformed Services University of the Health Sciences, Bethesda, MD; [7]Uniformed Services University of the Health Sciences, Military Cardiovascular Outcomes Research Program (MiCOR), Bethesda, MD; [8]School of Medicine, Family Medicine, Uniformed Services University of the Health Sciences, Bethesda, MD; [9]General Family Medicine, Fort Belvoir Community Hospital, Fort Belvoir, VA; [10]Washington University School of Medicine, St Louis, MO; [11]Department of Family Medicine, University of Iowa, Iowa City, IA; [12]Uniformed Services University, Fairfield, CA; [13]Department of Family Medicine, University of Iowa Hospitals & Clinics, Iowa City, IA; [14]Eunice Kennedy Shriver National Institute of Child Health and Human Development/National Institutes of Health, Bethesda, MD

Introduction: Adolescent military dependents (children of military service members) from diverse racial/ethnic backgrounds are at elevated risk for disordered eating. Ethnoracial identity may serve as a protective factor against disordered eating for some marginalized youth, but this has not been examined in military dependents. This study compared adolescent military dependents identifying as White, Black, and Multiracial (i.e., those identifying with >1 ethnoracial group, and the largest growing demographic in the U.S.) on disordered and emotional eating, and explored whether ethnoracial identity moderated differences.

Methods: Adolescent military dependents at risk for adult obesity due to BMI ≥85th %tile, and reported loss-of-control eating or elevated anxiety symptoms were included. Participants self-identified race and ethnoracial identity. The Multigroup Ethnic Identity Measure-Revised (MEIM-R) assessed exploration of/commitment to ethnoracial identity. The Eating Disorder Examination was used to assess global disordered eating, and the Emotional Eating Scale-Children (EES-C) to assess negative mood-induced eating. Relationships between race, ethnoracial identity, and eating variables were examined using bootstrapped ANCOVAs with Bonferroni post-hoc testing; ethnic identity score was included as an interaction term. Covariates considered were BMI, sex, age, and parental military rank.

Results: Among 136 military dependents (female=55.1%, White=58.1%, Black=26.5%, Multiracial=15.4%; M±SD: age=14.4±1.6y; BMI %ile =96.3±3.3) White adolescents endorsed significantly lower ethnoracial identity compared to Black (*p*=.048) and Multiracial (*p*=.008) adolescents. Ethnoracial identity was not significantly related to global disordered eating (*p*=.23) nor emotional eating (*p*=.57). There was no significant difference between racial groups on global disordered eating, and no moderating effect of ethnoracial identity (*p*=.34). There was a significant main effect of race on emotional eating (F[2,128] = 7.9, *p*< .001), such that emotional eating was significantly higher in Black and White versus Multiracial adolescents (*ps*< .001). Ethnoracial identity did not moderate differences in emotional eating (*p*=.89).

Discussion: White adolescent military dependents had the lowest ethnoracial development of all groups, and Multiracial adolescents reported lower emotional eating compared to Black and White military dependent adolescents. Racial differences in emotional eating were not moderated by ethnic identity. Future studies should consider the role of military culture/lifestyle on development of ethnic identity and its impact on eating disorder risk.

CORRESPONDING AUTHOR: Vivian Bauman, MPH, PhD, Military Cardiovascular Outcomes Research (MiCOR) Program/Uniformed Services University of the Health Sciences, Washington, DC; vivian.bauman.ctr@usuhs.edu

Abstract citation ID: kaad011.1177

POSTER SESSION E: THE IMPACT OF FOOD INSECURITY AND ADVERSE CHILDHOOD EXPERIENCES ON EATING DISORDERED BEHAVIOR IN COLLEGE-AGE ADULTS

Brittany E. Canady, PhD[1], Penny Koontz, PsyD[1]

[1]Marshall University, Huntington, WV

Background: Research completed over the past few years has increasingly suggested that a history of food insecurity in childhood is linked to eating disordered behavior in adolescents and young adults. However, this research area is fairly new and has only begun receiving more attention in recent years, despite having significant implications for both clinical interventions and public policy regarding food access. The present study examines the link between food insecurity and eating disordered behavior as well as considering both within the broader context of adverse childhood experiences (ACEs).

Method: This study surveyed college students ($n = 346$) at a university located in Appalachia recruited via an email to university listservs. Participants completed a series of measures through Qualtrics, including demographics, the Four Domain Food Insecurity Scale (4D-FIS), the Adverse Childhood Experiences Questionnaire, and the Eating Disorder Examination Questionnaire (EDE-Q).

Results: Current ($R = 0.290$, $p < .001$) and childhood food insecurity ($R = 0.220$, $p < 0.001$) correlated with current eating disorder behavior, such that higher scores on the 4D-FIS were associated with higher scores on the EDE-Q. Further, food insecurity ($\beta = 220$) and ACE score ($\beta = 226$) together significantly predict eating disordered behavior ($F(2,288) = 21.581$, $p < 0.001$).

Conclusion: Consistent with prior literature, either past or present food insecurity appears to serve as a risk factor for eating disordered behavior. Of note, when considered in the context of other adverse childhood experiences, current food insecurity remains a predictor of eating disorder behavior. Assessment of food insecurity should be regularly incorporated when evaluating eating disordered behaviors to help connect patients with resources to address this risk factor.

CORRESPONDING AUTHOR: Brittany E. Canady, PhD, Marshall University, Huntington, WV; smith541@marshall.edu

---

Abstract citation ID: kaad011.1178

POSTER SESSION E: SCREEN MEDIA EXPOSURE AND OBESITY AS A PREDICTOR OF BODY MASS INDEX IN MIDDLE CHILDHOOD.

Diana Castillo Cabrera[1], Tyler B. Mason, PhD[1]

[1]University of Southern California, Los Angeles, CA

Pediatric obesity, physical inactivity, and screen media exposure have increased in recent decades and have both short-term and long-term health consequences. Screen media exposure is the driving catalyst of obesity in children and adolescents, likewise, obesity is the outcome of screen media exposure. Increased eating, greater calorie intake, and low nutrition food consumption are all the result of screen exposure. This paper described the longitudinal effects of how screen media exposure predicts body mass index (BMI), sleep patterns, and physical activity in early adolescence. Data for this study was drawn from the Population Assessment of Tobacco and Health Study. Participants aged 12-17 years completed a survey about a focus of a variety of health behaviors and related psychological characteristics. For this analysis, we used the measures of screen behaviors, internet use, smartphone, television, and social media use during a one-year study. Analysis for this study focused on participants that provided data for wave 1 and 2. Anthropometric measurements were provided by participants (i.e., height and weight), and BMI was calculated. Participants completed a survey focusing on the usage of tobacco products from tobacco users and non-users. To test the effects of screen media exposure and covariates predicting weight gain, a multinomial regression was conducted to measure BMI at wave 2 while controlling for wave 1. At baseline, adolescents who regularly used a smartphone (.202, 0.19 p) demonstrated a higher BMI at wave 2 compared to those who didn't. Similarly, adolescents who watched more hours of television (.111, .002 p) had a greater BMI score. The analysis showed an association between high BMI scores and obesity and a substantial duration of using smartphones and television ($p < 0.05$). By contrast, no significant associations were found between internet use (-.026, .304 p) and social media use(.016, .516 p) and BMI ($p > 0.05$). The current findings indicate a cross-sectional association between BMI score and increase weight gain at wave 2. The results suggest that lower screen media exposure would improve health behaviors and support the use of screen media reduction interventions for children and adolescents with obesity.

CORRESPONDING AUTHOR: Diana Castillo Cabrera, University of Southern California, Los Angeles, CA; dianacas@usc.edu

Abstract citation ID: kaad011.1179

POSTER SESSION E: PASSIVE SCREENING OF PSYCHIATRIC DISTRESS IN GLAUCOMA PATIENTS USING MACHINE LEARNING

Samuel Berchuck, PhD[1], Alessandro Jammal, MD, PhD[1], Felipe Medeiros, MD, PhD[1], Tamara J. Somers, PhD[2]

[1]Duke University, Durham, NC; [2]Department of Psychiatry and Behavioral Sciences, Duke University School of Medicine, Durham, NC

Purpose: In patients with glaucoma, psychosocial risk factors play an important role in morbidity and mortality. Proper and early psychiatric screening can result in prompt intervention and mitigate negative outcomes. Since screening is resource intensive, we developed a framework for automating screening using an electronic health record (EHR) derived artificial intelligence (AI) algorithm.

Methods: We performed a retrospective longitudinal study using the Duke Ophthalmic Registry (DOR). DOR consists of EHR data of over 100,000 patients seen at the Duke Eye Center (DEC) from 2009 to 2018. Our cohort included all encounters to the DEC glaucoma clinic from patients with primary open-angle glaucoma (POAG). At each encounter, distress was defined using a computable phenotype. Distress was considered new if the patient had no previous encounters to a mental health clinic. Risk factors included available EHR history: diagnostic and procedure codes, medical and encounter history, demographics (age, race, sex, ethnicity, marital status, income, education, and alcohol, smoking and illicit drug use), vitals (BMI, blood pressure), ocular measures (visual acuity, intraocular pressure, visual field, imaging) and problem list items. At each encounter, risk factors were used to discriminate patient distress status using the elastic-net classifier with 10-fold cross validation. Model performance was evaluated using the area under the receiver operating characteristic curve (AUC). Odds ratios (OR) were used for variable importance.

Results: Our cohort consisted of 18,997 encounters from 2,519 patients who were on average 69 years old with 8 encounters per patient over 3 years. Of the patients, 1,443 (57%) were white and 968 (38%) were black, 1,073 (43%) were male, and 1,099 (44%) were single. There were 417 (17%) patients with at least one encounter with distress. The AUC was 0.87±0.04. Top predictors included variables associated with psychiatric conditions, including a prior encounter to a mental health clinic (OR = 2.45) and psychotherapy (OR = 1.75). Also, present were conditions associated with high levels of distress, including malignant neoplasm (OR = 1.51), exploratory laparotomy (OR = 1.33), and thyroid disorders (1.04). At a specificity of 0.70, sensitivity for new and existing distress was 0.84±0.07 and 0.68±0.13.

Conclusions: Using EHR data, we passively identified psychiatric distress in POAG patients at a glaucoma clinic encounter. The algorithm showed promise in identifying new and existing distress. Our findings suggest that screening for distress in glaucoma clinics may be realistically implemented on a large scale, and as a consequence could lead to a reduction in negative health outcomes. To be effective, however, will require investment in a robust referral system and appropriate interventions, including vision and behavioral, that could improve patients' quality of life.

CORRESPONDING AUTHOR: Samuel Berchuck, PhD, Duke University, Durham, NC; sib2@duke.edu

---

Abstract citation ID: kaad011.1180

POSTER SESSION E: GAMIFICATION FOR A SYMPTOM MANAGEMENT APP IN OLDER ADULT USERS: SURVEY OF PREFERENCES

Kyle Nolla, PhD, MS[1], Laura M. Perry, PhD[2], David Cella, PhD[3]

[1]Northwestern Unviersity, Chicago, IL; [2]Northwestern University Feinberg School of Medicine, Chicago, IL; [3]Northwestern University, Chicago, IL

Background: To address patients' symptom needs efficiently and effectively, leading medical organizations in oncology and other severe illness care have called for routine monitoring of symptoms through patient-reported outcome (PRO) assessments. However, engaging patients to maintain regular use of remote PRO monitoring interventions can be a challenge. Decades of research on behavior change theory emphasizes the use of rewards to motivate individuals to maintain health behaviors. As technology has advanced, many mobile health (mHealth) interventions now target reward pathways by using *gamification* to incentivize specific behaviors. Past research in children and young adults suggests that health interventions using video game components (e.g., personal avatars, points, badges, leaderboards) can facilitate participation and engagement. We seek to establish the most appropriate and appealing mHealth gamification features for a target population of older adult users.

Methods: To survey preferences, we used an online clinical research matching service to recruit a sample of 214 adults ages 50 and older who have a health condition in need of symptom management. The sample reported frequent use of mobile devices.

Results: Participants reported great interest in an app to monitor their health (8.4 on a scale of 0 to 10) and mixed interest in an app using gamification features. In an open response prompt on interest in mHealth apps, three themes emerged: emphasis on function, concerns about data security, and use of existing health apps. For gamification features, participants reported great interest in *learning* and *points,* and additional interest in *challenges, quests, greater meaning, personal choice, difficulty levels,* and *tutorials.* Participants were disinterested in *leaderboards* and *avatars.* When given examples of app mascots or animated characters to guide them through app use, participants reacted ambivalently or negatively. When given examples of potential app designs, participants favored large and well-labeled buttons, prominently displayed health information, and monochromatic color schemes.

Conclusions: Several staple mechanisms of gamification such as learning components, structured progression, and personal autonomy show promise in engaging older adults users to complete symptom monitoring assessments. App designers should prioritize clear visual communication of health information above "fun" features such as app characters, bright and varied color schemes, or narratives and worldbuilding. Further work is needed to establish the long-term benefits and effects of identified gamification features, as well as whether such interventions are accessible to patients who are less familiar with mobile devices.

CORRESPONDING AUTHOR: Kyle Nolla, PhD, MS, Northwestern Unviersity, Chicago, IL; kylenolla@northwestern.edu

Abstract citation ID: kaad011.1181

POSTER SESSION E: ITERATIVE DEVELOPMENT OF A MHEALTH APP FOR HIV PREVENTION

Sylvia Caldwell, DHSc, MPH[1], Ava Lena Waldman, MHS[1], Rebecca Dillingham, MD, MPH[1], Karen S. Ingersoll, PhD[2]

[1]University of Virginia, Charlottesville, VA; [2]UVA School of Medicine, Charlottesvle, VA

Context: High rates of new HIV infection continue in some U.S. populations. Pre-Exposure Prophylaxis medication, PrEP, prevents transmission of HIV from sex. However, PrEP usage remains low, indicating a need for new interventions to encourage PrEP uptake and adherence.

Methods: *Development:* The concept of PrEP and features in an HIV care app were shown to a class of user experience engineering students, who created designs for apps to address PrEP uptake and adherence. Designs were refined and the *prep'd* app was developed for a pilot study. *Pilot Study:* We conducted a 6-month single arm pilot trial with baseline, 30 day, 3 month, and 6 month assessments among PrEP patients and medical providers in health department clinics in Virginia. Measures captured demographic characteristics, medication adherence, perceived stress, social support, QOL, and care provider empathy. Usage data was pulled from the backend, and users provided app feedback.

Intervention: App features included 3 daily "check-ins" querying *prep'd* users about their mood, stress, and medication adherence, an anonymous community board (CB) to assist with social support, private messaging to clinic staff, resources and FAQs, document uploading, and "How Am I?" that summarized check-in data.

Pilot Study Results: 42 patients and 22 providers from 7 clinics participated. Patients' response rate to daily check-ins was 64% at 30-days and 60% at 6-months. Medication adherence rate was 59% at 30-days and 55% at 6-months. Participants rated the app usability as 88.5/100(SD=10.1) on the System Usability Survey (SUS). Participants rated check-ins (n=22, 78.6%) as the most useful feature of the app, followed by private messaging to clinic staff (n=12, 42.9%). 17 (58.6%) participants reported that the app increased awareness of mood, stress, and medication adherence. 62.1% of participants disliked nothing about the app. Participants rarely used the CB and some noted they wished the board been more active.

Conclusion: The SUS score indicates a highly usable app. Most participants found the app easy to use and reported that the app provided personal health benefits. App usage was steady and moderate. After the *prep'd* pilot study, we developed a new version of the app, *PCheck*, tailored to increase STI prevention among Black MSM PrEP users in New Orleans. *PCheck* added a condom tracker and a sex diary in daily check-ins. The *PCheck* app is under investigation for usage and impact.

CORRESPONDING AUTHOR: Sylvia Caldwell, DHSc, MPH, University of Virginia, Charlottesville, VA; sab6ce@virginia.edu

---

Abstract citation ID: kaad011.1182

POSTER SESSION E: HEART ATTACK AND STROKE KNOWLEDGE AND CARDIOVASCULAR DISEASE RISK FACTORS AMONG BISEXUAL BLACK, INDIGENOUS, AND PEOPLE OF COLOR

Dylan G. Serpas, MS[1], Kemesha Gabbidon, PhD, MPH[1]

[1]University of South Florida, Tampa, FL

Background: Cardiovascular diseases (CVD) are the leading cause of morbidity and mortality nationwide. Separate bodies of research indicate that lesbian, gay, and bisexual (LGB) and Black, Indigenous, and people of color (BIPOC) demonstrate a high risk for CVD. Bisexual individuals face unique subjugation and alienation within sexual minority communities that may magnify existing disparities in CVD health knowledge and risk. BIPOC and LGB compared to their White and heterosexual counterparts show lower CVD health knowledge, yet whether differences exist between lesbian/gay and bisexual BIPOC is largely unknown.

Method: Lesbian, gay, and bisexual participants (N=414) from the 2014 and 2017 National Health Interview Survey (37% bisexual; 58% female; 44% Hispanic; 41% Black) aged 18 to 85 (M=39.07, SD=14.61) reported CVD risk factors (diabetes, hypertension, obesity, high cholesterol, current CVD diagnosis) and their knowledge of and the appropriate action to take during heart attack and stroke symptoms. Correctly identifying all five symptoms of each heart attack and stroke symptom inventory was considered knowledgeable. Binary logistic regressions computed adjusted odds ratios (AORs) to compare the likelihood of CVD risk factors and heart attack and stroke knowledge among bisexual BIPOC participants compared to their lesbian or gay counterparts.

Results: Findings showed that in models adjusted for sociodemographic and healthcare factors, bisexual BIPOC showed greater odds of obesity (BMI > 29; AOR 1.76, 95% CI: 1.02-3.04), and had similar odds for all other CVD risk factors compared to their lesbian/gay counterparts. Bisexual participants also showed greater odds of heart attack (AOR 5.71; 95% CI: 2.56,12.72) and stroke knowledge (AOR 6.68; 95% CI: 2.73, 16.33) and identifying calling 911 as the appropriate action to take if symptoms manifest.

Conclusion: Findings signify the importance of investigating within-group variation across sexual minority individuals in the context of cardiovascular health. Results suggest that with a lesbian/gay reference group, bisexual BIPOC do not possess higher rates of CVD risk factors, with exception of obesity in this national sample. Bisexual participants demonstrating greater health knowledge suggests that previously reported CVD disparities among bisexuals might be unrelated to health literacy. Healthcare professionals and behavioral medicine scholars should consider optimal behavioral interventions to reduce the prevalence of obesity among bisexual BIPOC. The role of psychosocial stress including discrimination as a potential mechanism to explain the discrepancy between health knowledge and obesity should also be considered in future health research and promotion efforts for bisexual BIPOC.

CORRESPONDING AUTHOR: Dylan G. Serpas, MS, University of South Florida, Tampa, FL; dserpas@usf.edu

Abstract citation ID: kaad011.1183

POSTER SESSION E: ACCEPTABILITY, USAGE, AND PERCEIVED EFFECTIVENESS OF THE BRIGHTMIND MINDFULNESS APP AMONG COLLEGE STUDENTS: A PILOT STUDY

Liva G. LaMontagne[1], David C. Diehl, PhD[1], Jennifer L. Doty, PhD[2], Sarah A. Bottari[1], John B. Williamson, PhD[1], Nayha Kumbkarni[1], Tamar S. Deletis[1], Myooran Sivarupan[1], Peighton J. Stypinski[1]

[1]University of Florida, Gainesville, FL; [2]University of Oregon, Eugene, OR

Background: Mindfulness apps have shown promise to reduce stress among college students by improving mood but the extent to which app usage correlates with application of mindfulness skills has not been studied. We examined the relationships between usage, mindfulness application, and perceived improvement in stress, mood, and sleep. In addition, we explored relationships between acceptability and usage.

Method: Participants were 19 healthy undergraduate college students from the intervention group of a pilot RCT. *M* age 19.95, *SD*=1.73; 47% male; 45% Caucasian, 40% Latino, 25% Asian, 10% multiracial, 5% African American.

Students used the app for 4 weeks, daily before bed, no less than 4 times a week. Sessions were 10–13 minutes long. Usage was measured by the number of sessions completed.

Post-intervention, students rated acceptability, feasibility, appropriateness of the app on a scale of 1–5, and mindfulness application (decentering, emotion regulation, self-transcendence). Students also reported to what extent their stress, mood, and sleep worsened or improved due to the intervention, and responded to open-ended questions about the app.

Results: Mean acceptability, feasibility, and appropriateness were 3.68 (SD=.93), 4.36 (SD=.47), and 3.97 (SD=.63), respectively. Most students (70%) agreed/strongly agreed with "I like this system"; 70% agreed/strongly agreed with "This system seems like a good match". Only 53% agreed/strongly agreed with "I think I would like to use this system frequently".

On average students completed 10.6 sessions (SD=9.12); modal usage was 2-3 sessions/week.

Most (65%) perceived their stress and sleep *improved a little*; 60% said their mood *improved a little* due to the intervention.

There was no association between acceptability, feasibility, or appropriateness and usage.

Acceptability was positively related to improved stress (ρ=.73, *p*< .001).

There was no association between usage and mindfulness skills, improvements in stress, sleep, or mood.

Self-transcendence was positively related to improvement in mood (ρ=.60, *p*< .01).

Conclusion: The app was acceptable and most students reported slight improvements in outcomes. However, the optimal dose question remains to be answered in larger sample studies. Though usage was not related to mindfulness application in our study, self-transcendence was related to improved mood, highlighting the need to measure mechanisms of action in mHealth studies.

CORRESPONDING AUTHOR: Liva G. LaMontagne, University of Florida, Gainesville, FL; liva.lamontagne@ufl.edu

---

Abstract citation ID: kaad011.1184

POSTER SESSION E: USING BIOLOGICAL FEEDBACK TO MOTIVATE HEALTH BEHAVIOR CHANGE IN ADULTS: A SCOPING REVIEW

Kelli M. Richardson, BS, RDN[1], Michelle R. Jospe, PhD, RD[2], Ahlam A. Saleh, MD, MLS[3], Yue Liao, MPH, PhD[4], Susan M. Schembre, PhD, RD[5]

[1]University of Arizona, Tucson, AZ; [2]Georgetown University, Queenstown, Otago, New Zealand; [3]Arizona Health Sciences Library, Tucson, AZ; [4]University of Texas at Arlington, Arlington, TX; [5]Georgetown Lombardi Comprehensive Cancer Center, Washington, DC

Background: Recent advances in personal biosensing technologies have supported a shift from standard interventions to personalized interventions that incorporate feedback about biological markers of health (biological feedback). Nonetheless, the use of biological feedback to motivate health behavior change in behavioral interventions has not been comprehensively reviewed.

Objectives: A scoping review was conducted to (1) map the domains of research where biological feedback has been used as a behavior change technique and (2) describe how biological feedback is implemented in behavior change interventions.

Methods: A comprehensive search of multiple research databases and relevant review articles was conducted with >200 keywords in June 2021. Studies eligible for inclusion were randomized controlled trials published as primary research that used biological feedback to motivate health behavior change in adults. Articles were screened and data were extracted (in duplicate) by trained reviewers using DistillerSR.

Results: After removing 49,500 duplicates, 50,287 articles were screened, and 767 articles were included. The included studies were published between 1972 and 2021 with a notable increase in publication rate after 2000. Biological feedback was mainly used for preventing or managing diabetes (n = 233, 30.4%), cardiovascular disease (n = 175, 22.8%), and obesity (n = 115, 15.0%). Studies often provided feedback on more than one biomarker and targeted changes in multiple health behaviors. The biomarkers most often used were anthropometric measures (n = 297, 38.7%), blood pressure (n = 238, 31.0%), and glucose levels (n = 227, 29.6%). The commonly targeted health behaviors were diet (n = 472, 61.5%) and physical activity (n = 417, 54.4%). The frequency and mode of delivering biological feedback was linked to how the biomarker was measured, such that feedback on self-measured vs. non-self-measured biomarkers (n = 493, 59.8%) was delivered multiple times vs. once during the intervention (n = 567, 73.9%) using either two-way communication alone (n = 190, 24.8%) or in combination with direct feedback from the biosensor (n = 152, 19.8%).

Conclusions: Biological feedback has predominantly been used in the prevention or management of lifestyle-related chronic diseases with biomarkers that can be readily obtained and communicated. An interactive visualization of these data can be found here: https://viz.datascience.arizona.edu/biofeedback_sankey/.

CORRESPONDING AUTHOR: Kelli M. Richardson, BS, RDN, University of Arizona, Tucson, AZ; kellirichardson@arizona.edu

Abstract citation ID: kaad011.1185

POSTER SESSION E: THE EFFECT OF CHANGES IN SLEEP ON WHOLE-PERSON HEALTH: MENTAL HEALTH OUTCOMES IN A 12-MONTH LONGITUDINAL STUDY

Eldin Dzubur, PhD[1], Sravanthi Dama, MD[2], Bobbie James, MStat[2], Jessica Yu, PhD[2]

[1]Teladoc Health, Chicago, IL; [2]Teladoc Health, Purchase, NY

Background: Abnormal sleep is known to be a risk factor for chronic diseases, such as diabetes and hypertension. Moreover, poor sleep is thought to disrupt management of chronic diseases, thereby detrimentally affecting medication adherence, lifestyle changes, and consistent measurement of biomarkers. Further, management of chronic disease is affected by anxiety, depression, and other mental health disorders that, themselves, are mediated by sleep. The purpose of this study was to understand how sleep changes over time in the context of a digital mental health program, and the relationship between sleep and anxiety and depression with real-world data.

Methods: Participants (N = 1,239) in the study were enrolled as part of a digital mental health program (myStrength) with a combination of evidence-based content, activities, and asynchronous coaching. Participants were queried about their sleep multiple times a month with a single-item measure and answered depression (PHQ-9) and anxiety (GAD-7) questionnaires at fixed intervals over 12 months. Mixed effects models were used to test the effect of month in program on self-reported sleep, adjusting for demographics, and additional models tested the interaction of change in self-reported sleep and time on program on GAD-7 and PHQ-9 scores.

Results: Adjusting for covariates, sleep improved (B=0.02) at each measurement period (t = 1.96, $p< 0.05$). Overall, individuals with higher depression or anxiety scores had a lower sleep score (B=-0.06 and B=-0.01) at each measurement period (t=-11.61, t=-2.58, ps < 0.01). Interactions of sleep and time on anxiety (B=-0.17) and depression (B=-0.15) found that sleep had a greater effect on mental health outcomes scores at each subsequent measurement period (t=-4.44, t=-3.85, ps < 0.001).

Discussion: Results from the study confirm that the relationship between sleep and mental health outcomes found elsewhere in the literature are present in real-world digital health interventions. Despite a limited single-item sleep measure, the study revealed improvement in sleep over time for participants, and subsequently greater improvement in mental health outcomes among individuals with continued increase in sleep scores. While future studies may seek to establish temporal causality, the study highlights the importance of sleep management in digital mental health interventions, including those embedded in broader chronic disease management programs.

CORRESPONDING AUTHOR: Eldin Dzubur, PhD, Teladoc Health, Chicago, IL; eldin.dzubur@teladochealth.com

---

Abstract citation ID: kaad011.1186

POSTER SESSION E: ASSOCIATIONS OF SMARTPHONE USAGE WITH AVERAGE DAY LEVEL AND DAY-TO-DAY VARIABILITY OF MOOD IN EMERGING ADULTS

Wei-Lin Wang, PhD[1], Shirlene D. Wang, PhD(c)[2], Chih-Hsiang Yang, PhD[3], Jixin Li[4], Stephen S. Intille, PhD[4], Donald Hedeker, PhD[5], Genevieve F. Dunton, PhD, MPH, FSBM[2]

[1]University of Southern California, South Pasadena, CA; [2]University of Southern California, Los Angeles, CA; [3]University of South Carolina, Columbia, SC; [4]Northeastern University, Boston, MA; [5]University of Chicago, Chicago, IL

Background: Smartphone ownership among emerging adults (ages 18-29) has been over 95 percent since 2021, and the increasing usage of smartphones for entertainment, communication, and social media apps has become a significant part of daily life in this age group. Prior research has found that problematic smartphone usage can hinder an individual's social and mental health. However, it is unclear whether increased smartphone usage could have a negative impact on daily affective states. This study examined the associations of day-level smartphone usage with the mean levels of, the slope, and the day-to-day variability of positive and negative affect.

Methods: The sample included 6,499 day-level observations nested within 226 emerging adults (mean=23.6 years; 57% female) from the Temporal Influences on Movement and Exercise (TIME) study. The TIME study was a prospective within-subject intensive longitudinal observational study across 12 months. In this analysis, we included the first two months of data. A daily evening EMA survey assessed overall positive affect (PA) and negative affect (NA) experienced that day. The daily smartphone usage (SU) was automatically collected from their smartphone (i.e., total time [hours] that participants interacted with the phone during the 10-hour window before they went to sleep). The SU variable was further decomposed into within-subject (WS) and between-subject (BS) effects. We employed a mixed-effect multiple location scale model to simultaneously investigate the effects of WS SU, BS SU, and covariates (i.e., weekend, gender, and age) on the mean level, the slope (with WS SU) and the within-subject variance (i.e., day-to-day variability) in affective states. The outcomes PA and NA were analyzed in separate models. The analyses were conducted using the statistical program MixWILD.

Results: Both BS and WS SU were negatively associated with the mean-level of PA (b=-0.05, $p< 0.05$; b=-0.03, $p< 0.001$), indicating that on days when SU was higher than usual, participants reported lower PA. Also, participants with higher SU, compared to others, reported lower PA. Furthermore, WS (but not BS) SU elevated mean levels of NA (b=0.007, $p< 0.05$), indicating that on days when SU was higher than usual, participants reported greater NA. Participants differed from each other in their association between WS SU and PA as well as WS SU and NA (ps< 0.05). However, neither WS nor BS SU was directly associated with day-to-day variability in affective states.

Conclusions: Findings suggest that daily SU has a negative impact on average mood levels. On days when emerging adults interacted more with their smartphone, they reported lower positive affect and higher negative affect. As a result, regulating smartphone usage and time could play a key role in improving daily mood in emerging adults.

CORRESPONDING AUTHOR: Wei-Lin Wang, PhD, University of Southern California, South Pasadena, CA; weilinwa@usc.edu

Abstract citation ID: kaad011.1187

POSTER SESSION E: SOCIAL COMPARISON AND SUPPORT MESSAGES TO PROMOTE PHYSICAL ACTIVITY AMONG MIDLIFE ADULTS: A MICRO-RANDOMIZED TRIAL

Danielle Arigo, PhD[1], M. Cole C. Ainsworth, PhD[2], Laura E. Travers, MS, MA[3], Kristen Pasko, MA[1], Kiri Baga, BA[1], Kainaat Anwar, MA[1], Kristen Edwards, BA[1], Daniela Hernandez, BA[4], Leah M. Schumacher, PhD[5], Jacqueline Mogle, PhD[6]

[1]Rowan University, Glassboro, NJ; [2]Noom, Inc., Glassboro, NJ; [3]Rowan University, Conshohocken, PA; [4]Tulane University, Glassboro, NJ; [5]Temple University, Philadelphia, PA; [6]Clemson University, Clemson, SC

During midlife (ages 40-60), adults experience increased risk for cardiovascular disease (CVD) due to aging and related processes such as weight gain. Regular physical activity (PA) can mitigate this risk, but existing PA interventions are only minimally effective for this group. Emerging evidence indicates that better harnessing the power of the social environment could be a way forward, particularly if adults are exposed to social information in daily life (vs. only in the context of group intervention meetings). As such, there is need for innovative resources that can effectively engage social influences on PA and reach midlife adults in their natural environments. This pilot study employed an ecological momentary assessment design with embedded micro-randomization to test the effects of social prompts (i.e., opportunities for PA-related social comparisons or social support) on PA behavior over 7 days. Midlife adults with 1 or more CVD risk conditions (e.g., hypertension, hyperlipidemia) were recruited from the general community. Participants (n=30, M_{Age}=51, M_{BMI}=31.5 kg/m^2, 34% men, 43% non-White) completed 4 mobile surveys per day for 7 consecutive days, while wearing a PA monitor to capture their steps per day. After 3 days of observation only, participants were randomized at each survey to receive 1 of 3 types of comparison prompts for 2 days (i.e., leaderboards with 4 users, information about 1 other user). These prompts were then withdrawn and participants were randomized to see 1 of 3 types of support prompts for 2 days (i.e., tips, encouragement, accountability). Distribution of prompt types as intended demonstrated successful randomization of intervention content. Multilevel models showed that leaderboard prompts and support messages were perceived as equally helpful, whereas information about just 1 other user was perceived as less helpful (*sr*=0.38). Within-person, motivation to exercise was higher at times when prompts were perceived as more helpful than usual (*sr*=0.34). At the moment level, both PA motivation and behavior increased from baseline in response to leaderboards, but not in response to other types of prompts (*sr*s=0.38 and 0.10, respectively). All participants indicated that they would be interested in continuing to receive socially focused prompts at the end of the study. Thus, ambulatory assessment of response to PA-based experimental manipulation of social information is feasible and acceptable to midlife adults, and reveals potential manipulation effects on PA motivation and behavior in daily life. Findings support larger-scale testing of this approach to inform a digital, socially focused PA intervention for midlife adults.

CORRESPONDING AUTHOR: Danielle Arigo, PhD, Rowan University, Glassboro, NJ; arigo@rowan.edu

---

Abstract citation ID: kaad011.1188

POSTER SESSION E: MESSAGE APPEAL AND MESSENGERS FOR COVID VACCINE UPTAKE: SURVEY RESULTS FROM INDIA, INDONESIA, KENYA, NIGERIA, AND UKRAINE

Gretchen Schulz, MSPH[1], Alexandra Michel, MPH[1], Rupali Limaye, PhD, MPH, MA[2]

[1]Johns Hopkins Bloomberg School of Public Health, Baltimore, MD; [2]Johns Hopkins Bloomberg School of Public Health, Annandale, VA

Effective strategies to encourage COVID-19 vaccination should consider how health communication can be tailored to specific contexts. Our study aimed to evaluate the influence of three specific messaging appeals from two kinds of messengers on COVID-19 vaccine acceptance in diverse countries using SurveyMonkey.

Each participant viewed six ads, which were broadly composed of two elements: a distinct messenger and a distinct appeal. The messengers included a healthcare provider image, which depicted a medical provider talking to a patient, and a peer image, which depicted two people speaking to each other. We included the following appeals: health outcome, which focused on the risk of COVID-19 disease and the protective effect of vaccination against disease; economic benefit, which focused on loss of work time and income due to COVID-19 infection and the protective effect of vaccination against economic loss; and social norms, which focused on how most people have received the COVID-19 vaccine and the protective effect of vaccination for the community. We chose these appeals after conducting a scoping review to determine which appeals may be most effective in nudging an individual to accept a vaccine.

We surveyed 953 online participants in five countries (India, Indonesia, Kenya, Nigeria, and Ukraine). We assessed participants' perceptions of three messaging appeals of vaccination - COVID-19 disease health outcomes, social norms related to COVID-19 vaccination, and economic impact of COVID-19 - from two messengers, healthcare providers (HCP), and peers. We examined participants' ad preference and vaccine hesitancy using multivariable multinomial logistic regression. Participants expressed a high level of approval for all the ads. The healthcare outcome – healthcare provider ad was most preferred among participants from India, Indonesia, Nigeria, and Ukraine. Participants in Kenya reported a preference for the health outcome – peer ad. The majority of participants in each country expressed high levels of vaccine hesitancy.

These findings suggest that appeals related to health outcomes, economic benefit, and social norms are all acceptable to diverse general populations, while specific audience segments (i.e., mothers, younger adults, etc.) may have preferences for specific appeals over others. To increase vaccine acceptance, identifying preferences for appeals and messengers is paramount. Tailored approaches, or approaches that are developed with the target audience's concerns and preferences in mind, will be more effective than broad-based or mass appeals. To ensure global vaccine uptake remains adequate, it is important to meet people where they are and to respond to their concerns through trusted messengers relevant to specific audiences and appeals that are salient and relevant.

CORRESPONDING AUTHOR: Gretchen Schulz, MSPH, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD; gschulz2@jhu.edu

Abstract citation ID: kaad011.1189

POSTER SESSION E: BEYOND TRANSPHOBIA: POLITICAL IDEOLOGY PREDICTS SUPPORT FOR TRANSGENDER-INCLUSIVE HEALTHCARE POLICIES

Catherine S. Wall[1], Shelby Smout, PhD[2], Steph L. Cull, BS[3], Mari o'Neil[1], Mary A. Carrico, BS[1], Eric G. Benotsch, PhD[1]

[1]Virginia Commonwealth University, Richmond, VA; [2]University of Richmond, Richmond, VA; [3]Virginia Commonwealth University, Chester, VA

Background: Policies requiring equitable treatment for transgender and gender diverse (TGD) individuals, both in and outside the context of gender affirming care, have been shown to yield increased healthcare seeking behaviors and decreased psychological distress among TGD individuals. Despite this, there have been numerous legislative and policy-based efforts to limit or ban access to equitable healthcare for TGD adolescents and adults. While previous research has suggested that reducing transphobia is a reliable mechanism to increase public support for TGD rights, numerous potential mechanisms might influence support for TGD-inclusive healthcare policies.

Methods: To explore how both attitudes and political orientation may interact to influence support for accessible inclusive healthcare for TGD individuals, data assessing transphobia, political orientation, and policy support were collected from a cross-sectional sample of undergraduate students (N=390). Using principles of decomposition, a mediation model was constructed to examine direct effects of political orientation on policy support once accounting for the indirect effects of transphobia.

Results: Initial bivariate analyses showed a significant relationship between political orientation and policy support such that more conservative individuals were less likely to support policies intended to increase equitable healthcare access for TGD individuals (r = -0.51, p < .001). Mediation analyses suggested a significant total effect (b = -0.42, p < .001, 95% CI [-0.51, -0.35]) of political orientation on policy support. After accounting for the indirect effects of transphobia on the relationship between political orientation and such policy support (b = -0.20, p < .001, 95% CI [-0.27, -0.15]), a significant direct effect remained between the predictor and the outcome (b = -0.22, p < .001, 95% CI [-0.29, -0.13]).

Conclusion: These results are reflective of a partial mediation, suggesting that even after accounting for transphobia, political orientation influences support for policies that would yield increased access to equitable healthcare for TGD individuals. These results highlight the necessity of considering multiple individual and societal factors, including political ideology, when seeking to expand support for inclusive healthcare policies.

CORRESPONDING AUTHOR: Catherine S. Wall, Virginia Commonwealth University, Richmond, VA; wallcs@vcu.edu

---

Abstract citation ID: kaad011.1190

POSTER SESSION E: SEXUAL BEHAVIORS OF ADOLESCENT SEXUAL MINORITY MALES DIFFER BY THE GENDER OF THEIR SEXUAL PARTNERS

Emilio Loret de Mola, BA[1], Nicholas S. Perry, PhD[2], Samantha Haiken, MPH[3], Journey Simmons, BA Psychology[4], Kimberly M. Nelson, PhD, MPH[1]

[1]Boston University School of Public Health, Boston, MA; [2]University of Denver, Denver, CO; [3]Boston University School of Public Health, Brighton, MA; [4]Boston University, Denver, CO

Background: Sexual health research with adolescent sexual minority males (ASMM) often fails to assess sexual behaviors with partners who are not male. This study evaluates ASMM's sexual behaviors with both male and female partners.

Method: Cisgender ASMM (age 14-17 years) in the US were recruited in 2020 for an online sexual health pilot. Participants who reported lifetime voluntary sexual behavior (N = 118; gay=51%, bisexual=42%, heterosexual=4%; queer/another orientation=3%) were asked at baseline about their sexual behaviors (e.g., kissing, mutual masturbation, oral sex, vaginal sex, anal sex, condom use) with female and male partners in the past three months. Participants were also asked how likely they were to have sex, use a condom during vaginal sex, and use a condom during anal sex with a male partner in the next three months. Differences in frequencies of behaviors and intentions between those who had only male partners, only female partners, and female and male partners were assessed.

Results: Most (52%) participants had only male partners, 14% had only female partners, and 34% had female and male partners. Differences were seen in the number of participants who reported mutual masturbation with female partners (only female partners: 50%; female and male partners: 23%) and condomless vaginal sex (only female partners: 19%; female and male partners: 3%). Differences were also seen in the number of participants who reported mutual masturbation (only male partners: 39%; female and male partners: 25%) and oral sex (only male partners: 42%; female and male partners: 53%) with male partners.

When asked about their future sexual behaviors, almost half reported that they would be likely to have sex in the next three months (only male partners: 44%; only female partners: 44%; female and male partners: 51%). A majority also reported that they would be likely to use a condom during vaginal sex (only male partners: 85%; only female partners: 100%; female and male partners: 80%) and use a condom during anal sex with a male partner (only male partners: 74%; only female partners: 94%; female and male partners: 88%) in the next three months.

Conclusion: Sexual behavior and intentions differed depending on partner gender and participant's sexual history. Researchers and practitioners who do not ask ASMM about their sexual experiences with partners who are not male are systematically missing a substantial proportion of their sexual behaviors.

CORRESPONDING AUTHOR: Emilio Loret de Mola, BA, Boston University School of Public Health, Boston, MA; eldm@bu.edu

Abstract citation ID: kaad011.1191

POSTER SESSION E: SYSTEMATIC ADAPTATION AND PILOT TESTING OF TRAUMA-FOCUSED THERAPY WITH WOMEN EXPERIENCING HOMELESSNESS AND PTSD IN CHICAGO

Kirsten Dickins Aryee, PhD, AM, APRN, FNP-C[1]

[1]Rush University, Chicago, IL

Background: Exposure to traumatic events is near ubiquitous among women experiencing homelessness (WEH).Indeed, 90%-100% of WEH report enduring multiple lifetime traumatic events. Women exposed to traumatic events demonstrate elevated risk for and co-occurrence of physical, mental, and behavioral health conditions, and are two to three-fold as likely to develop posttraumatic stress disorder (PTSD) than men. Yet, WEH are less likely to receive a PTSD diagnosis or evidence-based, trauma-focused therapy than their counterparts. Narrative Exposure Therapy (NET) is a brief, human rights-informed trauma treatment approach that has demonstrated effectiveness with women facing complex traumatic stress outside of the US. NET, however, has not yet been adapted to the needs and preferences of WEH in the urban US.

Purpose: The purpose of this study is to systematically adapt a NET protocol to enhance intervention feasibility/acceptability with WEH in shelters in the urban US.

Methods: This study employed a qualitative descriptive approach. Questionnaires and in-depth semi-structured interviews were conducted with 7 WEH, 4 mental health professionals, and 5 homeless service organization staff(N=16). All data were collected from July 2022 through August 2022. A deductive-inductive content analysis approach was used, combining both deductive (theory-driven) and inductive (data-driven) techniques.

Theoretical Framework: The structured analytic matrix for this study was theoretically guided by the Framework for Reporting Adaptations and Modifications-Expanded (FRAME).

Results: Of the MHPs/staff, 1 identified as Asian, 4 Black/African American, 4 White. All had more than 1 year of experience working with WEH. Of the WEH, 5 identified as Black/African American, 1 Latina, 1 non-Latina White; mean age of WEH was 50 years. All WEH participants had experienced prior traumatic events (assessed via the Life Events Checklist for DSM-5). Inductively derived themes included: Physical and Emotional Trauma Among WEH, Trauma-Focused Resource Paucity. Deductively (FRAME)-derived themes included: Content Modifications; Contextual Modifications; Implementation and Scale-Up. Identified themes informed systematic NET protocol adaptations.

CORRESPONDING AUTHOR: Kirsten Dickins Aryee, PhD, AM, APRN, FNP-C, Rush University, Chicago, IL; kirsten_dickins@rush.edu

---

Abstract citation ID: kaad011.1192

POSTER SESSION E: ART AS AN EXPRESSION TOOL FOR PEOPLE WITH AUTISM AND SCHIZOPHRENIA.

Ana Karen Gonzalez Barajas[1]

[1]The University of Hong Kong, Hong Kong, N/A, Hong Kong

Expressing emotions and desires can be challenging for groups with language, emotional or cognitive barriers due to intellectual disability or mental illness. Art-based activities can improve well-being, self-esteem, and mental health. They can also involve aesthetic engagement, activating senses and imagination, conveying emotions, and stimulating cognition. These practices can benefit all populations; therefore, they can help the neurodivergent population.

Historically, the art created by neurodivergent individuals does not commonly have value in formal art institutions, is not included in the art history and studies with non-aesthetic or therapeutic-focused approaches remain under-researched. The majority of the art collected in this study was created in specialized art studios or art workshops that are also effective in reaching groups who are either less likely to engage in health care or experience more barriers to engagement. These practices can lead to increase people empowerment but also to have social support networks through collaborative engagement. The content in their artworks can indicate the necessity of expressing their thoughts and desires. This study adopted a qualitative and art-based approach, with 514 artworks from 25 artists that accomplished the criteria of neurodivergent. A scale was developed using The Formal Elements Art Therapy Scale (FEATS), and other variables were included to complement the analysis. This study aims to give value to these activities and use the data collected from diverse sources to better understand this population to observe their art as an expression tool. The research should contribute to the literature and understanding of this population group who may face marginalization and misconception about their lives.

CORRESPONDING AUTHOR: Ana Karen Gonzalez Barajas, The University of Hong Kong, Hong Kong, N/A, Hong Kong; anakarengbarajas@gmail.com

Abstract citation ID: kaad011.1193

POSTER SESSION E: CULTURAL BELIEFS AND PHYSICAL ACTIVITY AMONG BENGALI AMERICAN FAMILIES WITH UNCONTROLLED HYPERTENSION: QUALITATIVE FINDINGS

Liza Roychowdhury, BA[1], Johanny C. Mercedes, BA[2], Sugandha K. Gupta, MA[3], Tracey A. Revenson, PhD, FSBM[4]

[1]Hunter College, CUNY, New York, NY; [2]Hunter College, CUNY, yonkers, NY; [3]The Graduate Center, CUNY, New York, NY; [4]Hunter College & the Graduate Center, CIty Univ of NY, New York, NY

Background: To fully understand the lived-experiences of at-risk, understudied, and diverse populations, there is a need to identify systematic yet flexible methodological approaches. This study identifies key challenges and lessons learned when conducting a qualitative study exploring sociocultural predictors of physical activity among Bengali American families living in the United States, a demographic subgroup that is disproportionately affected by cardiovascular disease yet understudied.

Methods: We conducted family interviews with 10 Bengali American families with at least one family member who had participated previously in a culturally-tailored, community-led intervention for uncontrolled hypertension. Semi-structured interviews were conducted in English and Bengali.

Results: Employing a multi-lingual, multi-family approach involved many modifications from usual research practices, including: (1) balancing speaking time among participants to ensure equal participation of all family members; (2) switching between Bengali and English, depending on each family member's individual comfort with the languages; and (3) adapting translated interview guides to ensure they were appropriate for conversations with multi-generational families. By making these modifications, the impact of cultural values on engagement in physical activity were uncovered. Familial-level beliefs about physical activity were attributed to intersecting sociocultural characteristics, including family roles, gender disparities, immigration experiences, and generation gaps. Participants described their levels of engagement in physical activity based on who they defined as family, which included neighbors, distant relatives, and community members.

Conclusion: Conducting semi-structured, multi-lingual, multi-family interviews requires balancing a systematic, theory-driven exploration with an invitation for families to share their unique experiences. While challenging, we encourage the use of these methods as they shed light on important factors related to cultural factors that affect behavior change.

CORRESPONDING AUTHOR: Liza Roychowdhury, BA, Hunter College, CUNY, New York, NY; lc3135@columbia.edu

---

Abstract citation ID: kaad011.1194

POSTER SESSION E: THE INFLUENCE OF FAMILY AND FRIENDS CO-PARTICIPATION ON PHYSICAL ACTIVITY AMONG ADULTS WITH AUTISM

Annabel Nunez-Gaunaurd, PhD, PT[1]

[1]Florida International University, Miami, FL

Background: Physical inactivity is a critical concern for adults with autism as the challenges with social communication and behavior, have consequential health behavior implications, thus spending more time sedentary and engaging in less regular physical activity (PA). Disease prevention strategies addressing health disparities in minority youth are effective when incorporating and leveraging familial relationships and social processes for health behavior change. While social support and certain health-related parenting practices have been associated with PA in younger Hispanic children, less is known regarding these family-level social factors and their influence on health behaviors among Hispanic autistic adults. The purpose of this study was to examine the influence of family and friend co-participation in PA (co-PA), among a racial/ethnically diverse sample of autistic adults.

Methods: Data for this study were drawn from a harmonized study sample of 44 autistic adults. The primary outcome of interest was PA, derived from Fitbit step count. Co-PA was the primary independent variable derived from survey questions related to frequency of PA where the subject co-participated with either family or friends. Scores ranged from 5-25 for each family and friend PA, where higher scores are representative of more support. Co-variates included sex, age, race/ethnicity, BMI and waist-to-height ratio (WtHR). Logistic regression was conducted to estimate the independent effect of each demographic and presence of PA support on odds of physical inactivity as measured by steps/day (< 7,000 steps).

Results: The analytic sample had a mean age of 25.6, 72.2% male, 50% Hispanic, 69% overweight/obese, and 77% with a high-risk WtHR. Mean steps/day was 6723.33, with 59% averaging < 7,000 steps/day, indicative of physical inactivity. With the exception of adults who are underweight, averaging lower steps/day (5658.83), steps/day decreased accordingly from the normal (8589.87), to overweight (6490.23), to obese (6103.95) BMI classification, but theses differences were not statistically significant, p = .166. However, autistic adults with high WtHR, averaged less steps/day compared to peers with normal WtHR, (6110.05 vs. 9065.58, p=.033). Only 29.5% of autistic adults reported family co-participation at least sometimes in other-PA, of which (69.2%), averaged at least 7,000 steps/day, while individuals that reported no or seldom family co-participation were less likely to achieve this criterion (39.5%). The odds of achieving at 7,000 steps/day increased by 4.09 (95% CI, 1.020 to 16.403) for autistic adults that reported family co-participation in other-PA versus adults who did not.

Conclusion: These study results provide evidence that family and friends continue to have a substantial impact on physical activity, and influence tendency towards adiposity among autistic adults

CORRESPONDING AUTHOR: Annabel Nunez-Gaunaurd, PhD, PT, Florida International University, Miami, FL; annnunez@fiu.edu

Abstract citation ID: kaad011.1195

POSTER SESSION E: MENTAL HEALTH PROMOTION FOR MEXICAN IMMIGRANTS IN THE U.S. THROUGH THE VENTANILLA DE SALUD PROGRAM

Ines Gonzalez Casanova, PhD[1], Delia Lilian Martinez Rodriguez, MS[2], Julissa Ortiz Brunel, BS[3], Maria Gudelia Rangel Gomez, MS, PhD[4], Mary De Groot, PhD[5], Alicia Fernandez, MD[6]

[1]Indiana University, Bloomington, IN; [2]Salud Oaxaca, Oaxaca, Oaxaca, Mexico; [3]Universidad de Guadalajara, Guadalajara, Jalisco, Mexico; [4]Colegio de la Frontera Norte, Tijuana, Baja California, Mexico; [5]Indiana University School of Medicine, Indianapolis, IN; [6]University of California San Francisco, San Francisco, CA

Introduction: Mexican immigrants in the U.S. are at high risk for mental health illness especially after the COVID-19 pandemic. Due to language, socio-economic, and cultural barriers, access to preventive services for this population has been limited. The Ventanilla de Salud (VDS) program provides education and health promotion through the 50 Mexican Consulates in the U.S. The objective of this study was to assess capability, opportunity, and motivation to implement mental health programming through the VDS.

Methods: This was a qualitative study using the Capability, Opportunity, and Motivation for Behavior Change model (COM-B). We conducted 9 focus groups with VDS *promotores* and 6 semi-structured interviews with program stakeholders. Data were analyzed using inductive and deductive coding.

Results: Motivation is high with both *promotores* and the VDS leadership committed to implement mental health promotion; evidence of this is the available training for *promotores*, and the investment in depression screening and referral services. Through the training, *promotores* report feeling more capable to listen and refer VDS users, although some still feel limited capability to address mental health issues. Challenges include *promotores* not feeling sufficiently trained (low capability), some not feeling that providing these services is within their professional role, they report that providing these services has impacted their own mental health, and cultural barriers with VDS users not recognizing the importance of mental health (low opportunity). P*romotores* and stakeholders also report high staff turnover, limited economic compensation, excessive workload, and high administrative burden related to these services (low opportunity). Recommendations included continuing training *promotores* in mental health, providing additional self-care tools and mental health support for *promotores*, and reducing the paperwork associated with screenings and referrals.

Conclusion: VDS leadership and staff are motivated to implement mental health promotion and preventive services for Mexican Immigrants in the U.S. who otherwise have limited access to these services; however, *promotores* face limited capability and opportunity to do so. With appropriate investment, VDS can help alleviate mental health disparities for Mexican immigrants.

CORRESPONDING AUTHOR: Ines Gonzalez Casanova, PhD, Indiana University, Bloomington, IN; inegonza@iu.edu

---

Abstract citation ID: kaad011.1196

POSTER SESSION E: TRAUMA HELPS EXPLAIN THE ASSOCIATION BETWEEN PERCEIVED DISCRIMINATION AND PAIN INTERFERENCE IN BLACK ADULTS WITH CHRONIC PAIN

Emily C. Woodworth, BA[1], James Doorley, PhD[2], Jafar Bakhshaie, MD, PhD[2], Ana Maria Vranceanu, PhD, FSBM[3]

[1]Massachusetts General Hospital, Boston, MA; [2]Massachusetts General Hospital/Harvard Medical School, Boston, MA; [3]Harvard Medical School, Boston, MA

Introduction: Black individuals experience worse chronic musculoskeletal pain (CMP) outcomes than any other racial/ethnic group. Perceived ethnic discrimination may exacerbate negative outcomes, including pain interference, but the mechanisms through which this occurs are unclear. Compounding experiences of discrimination may increase risk for PTSD among Black individuals, and PTSD, in turn, may increase pain interference. The goal of this study was to examine the association between perceived discrimination and pain interference among Black individuals with CMP and the extent to which PTSD symptoms explain this association.

Methods: Black adults with CMP, opioid use, and reported exposure to at least one traumatic event (N=267) completed measures of perceived discrimination, DSM-5 PTSD symptoms, pain interference, and demographics (e.g., age, employment status) via Qualtrics. We constructed a mediation model in R using the lavaan package to test our hypothesis that PTSD would explain the positive association between perceived discrimination and pain interference, controlling for age and employment status.

Results: Mediation analyses revealed a significant total effect of perceived discrimination on pain interference (**path c:** β =.28, p< .001), controlling for age (β =.24, p< .001) and employment status (β =-.28, p=.06). Perceived discrimination was associated with PTSD symptoms (**path a:** β =.52, p< .001) and PTSD symptoms were associated with pain interference (**path b**: β =.15, p=.025). The indirect path from perceived discrimination to pain interference, through PTSD symptoms, was statistically significant (**path a*b:** β =.08, p< .030). After controlling for this effect, the association between perceived discrimination and pain interference remained (**path c′:** β =.20, p=.010), suggesting partial mediation.

Conclusion: PTSD symptoms may partially explain the association between perceived discrimination and pain interference among Black individuals with CMP who use opioids. While race-related trauma is common among this population, we cannot infer that PTSD symptoms were the direct result of discrimination. Nonetheless, Black individuals experiencing greater discrimination may have greater exposure to interpersonal traumas and greater vulnerability to their lasting psychological effects, making coping with CMP more challenging. Assessing perceived discrimination, PTSD symptoms, and potential links between the two may help uncover novel treatment targets for Black individuals with CMP.

CORRESPONDING AUTHOR: Emily C. Woodworth, BA, Massachusetts General Hospital, Boston, MA; ewoodworth@partners.org

Abstract citation ID: kaad011.1197

POSTER SESSION E: BARRIERS TO CARE AMONG LATINX CANCER PATIENTS AND SURVIVORS DURING THE COVID-19 PANDEMIC

Yessica Martinez Mulet, MS[1], Patricia Rodriguez Espinosa, PhD, MPH[1], Natalia M. Zamora Zeledon[2], Miriam L. Trigo[2], Eric Melendez[3], Ximena Sanchez Martinez[3], Darcie Green[4]

[1]Stanford School of Medicine, Palo Alto, CA; [2]Stanford University and Latinas Contra Cancer, Palo Alto, CA; [3]Stanford University, Palo Alto, CA; [4]Latinas Contra Cancer, San Jose, CA

Latinx adults face countless barriers to care due to the disproportionate burden of poverty and the lack of linguistically and culturally acceptable care. Using a community-based participatory research approach a mixed methods study was developed to better understand the unique experiences of Latinx adults accessing cancer-related care during the COVID-19 pandemic.

Data elements include focus groups with Latinx patients (N=4, 2 facilitated in English, 2 facilitated in Spanish), semi-structured interviews (N=15) with health providers, and a survey (N=250). Quantitative data was analyzed using descriptive statistics including chi-square tests in R programming software. Qualitative data was analyzed in NVivo with inductive coding and data elements categorized using thematic analysis.

Preliminary survey findings (n=239, 29% cancer patients and survivors, 84% female, 81% foreign-born, 79% yearly income ≤ $50,000, 11% uninsured) showed that cancer patients face barriers to care including financial concerns, low-moderate health literacy, comfort with technology, and preference for in-person care. Among cancer patients and survivors 42% endorsed concerns regarding paying for care compared to 25% of non-cancer patients, $X^2 = 5.17, df=1, p=0.02$. Comfort with technology interfering with access to care was endorsed by 56% of cancer patients and survivors. Health literacy was, on average, lower for cancer patients and survivors (*M= 13.2, SD=3.7)* compared to non-cancer patients (*M= 14, SD=3.77)*. Moreover, in-person care was preferred by 54% of cancer patients and survivors and by 68% of non-cancer patients. Similarly, focus group data revealed five major barriers including health insurance challenges, telemedicine difficulties, language barriers, visitor policies, and delays or cancellations. Provider interviews to date (n=6) further highlighted accessibility challenges, language, telemedicine, visitor policies, and delays or cancelations as major barriers.

Findings suggest persistent challenges to care experienced by Latinx adults, among whom cancer is the leading cause of death. Barriers identified in this study point towards the urgent need for solutions that reduce the financial burden to care and prioritize linguistically and culturally appropriate care practices. Addressing these and other barriers faced is vital to reducing the burden of morbidity and mortality among Latinx cancer patients and survivors and ameliorating widening health inequities.

CORRESPONDING AUTHOR: Yessica Martinez Mulet, MS, Stanford School of Medicine, Palo Alto, CA; yessicam@stanford.edu

---

Abstract citation ID: kaad011.1198

POSTER SESSION E: SEX-DRUG AND CONDOM USE AMONG BLACK SEXUAL MINORITY MEN AND TRANSWOMEN: A MULTILEVEL EGOCENTRIC ANALYSIS OF THE N2 COHORT STUDY

Cho-Hee Shrader, PhD, MPH[1], Dustin T. Duncan, ScD[2], Yen-Tyng Chen, PhD, MPH[3], Justin Knox, PhD, MSc, MPH[4], Ladectric Driver, PhD[2], Jonathan S. Russell, MPH[2], Raymond L. Moody, PhD[5], Mariano Kanamori, PhD, MA[6], Mainza Durrell, DrPH, MBA[7], Hillary Hanson, MA[7], Rebecca Eavou, LCSW[8], William Goedel, PhD, MA[9], John A. Schneider, MD, MPH[7]

[1]ICAP at Columbia University, New York, NY; [2]Columbia University, New York, NY; [3]Rutgers University, New York, NY; [4]Columbia University Irving Medical Center, New York, NY; [5]Columbia University, Brooklyn, NY; [6]University of Miami School of Medicine, Miami, FL; [7]University of Chicago, Chicago, IL; [8]University of Chicago Medicine, Chicago, IL; [9]Brown University, Providence, RI

Introduction: Black sexual minority men (SMM) and transgender women (TW) are subgroups with lower rates of substance use and comparable rates of condom use relative to White SMM and TW; yet experience heightened vulnerability to HIV infection. Further research is needed to explore whether substance use, including sex-drug use (i.e., drug use during sex), is associated with condomless sex among Black SMM and TW using more granular approaches, such as egocentric network analysis among sexual partners.

Methods: Data were from baseline of a longitudinal study of Black SMM and TW, Neighborhoods and Networks (N2) Cohort Study. Baseline data were collected between January 2018–December 2019 in Chicago, US. Using interviewer-administered computer-assisted assessments, participants (egos) provided information regarding their sociodemographic characteristics, HIV status, and PrEP/ART use, and 5 most recent sexual partners (alters) in the past 6 months (i.e., race, gender, HIV status, type of partner, sex-drug use to enhance sex with partners, and condomless anal sex with partners). We used multilevel modeling to identify associations of condomless sex among participants (level 2) and their sexual partners (level 1).

Results: A total of 353 egos reported information from 936 sexual partners (mean=2.7 sexual partners). Participants were mean age 26 years, and majority identified as cismen (88%) and reported HIV negative status (66%). Sexual partners were majority cismen (86%), Black (85%), casual sex partners (68%), and disclosed HIV negative status (63%). Approximately 12% of the variance of the outcome (condomless sex) is due to within ego effects. Participants had higher odds ratio of condomless sex with alters who were ciswomen (OR=2.49, 95% CI:1.35–4.57, p=0.003) or TW (OR=2.55, 95% CI:1.15–5.65, p=0.022) relative to cismen, when drugs or alcohol were used to enhance sex (OR=1.41, 95% CI:1.04–1.91, p=0.028), and who had HIV positive serostatus concordance (OR=2.25, 95% CI:1.30–3.89, p=0.004). At the alter-level, participants had lower odds ratio of condomless sex if the alter was either a casual partner (OR=0.41, 95% CI: 0.27–0.62, p< 0.001) or an exchange partner (OR=0.41, 95% CI:0.19–0.87, p=0.020), relative to a main partner. At the ego level, identifying as a TW relative to cisman had a 2.14 higher odds ratio (95% CI: 1.23 – 3.74, p=0.007) of condomless sex. Ego or alter's use of marijuana or cocaine/crack during sex were associated with condomless sex (p< 0.05).

Discussion: HIV prevention interventions for Black SMM and TW designed to reduce HIV transmission through egocentric sexual networks should address ego's drug use and ego/sexual alter drug use during sex. Future studies should analyze whether the use of long-acting biomedical prevention strategies (i.e., injectable PrEP, ART, and Doxy PrEP) changes the structures and dynamics in egocentric sexual networks.

CORRESPONDING AUTHOR: Cho-Hee Shrader, PhD, MPH, ICAP at Columbia University, New York, NY; cs4138@cumc.columbia.edu

Abstract citation ID: kaad011.1199

POSTER SESSION E: PERCEPTIONS OF HIV POST-EXPOSURE PROPHYLAXIS (PEP) AMONG YOUNG SEXUAL MINORITY MEN (YSMM) 17-24 YEARS OLD

Andrew M. O'Neil, MPH[1], Madeline Dang, MPH[1], Javier Lopez-Rios, PhD, MPH[2], Katherine G. Quinn, PhD[1], Steven A. John, PhD, MPH[1]

[1]Medical College of Wisconsin, Milwaukee, WI; [2]Drexel University, Philidelphia, PA

Background: HIV post-exposure prophylaxis (PEP) is an evidence-based strategy to reduce HIV seroconversion after potential HIV exposure. However, literature on PEP use among young sexual minority men (YSMM) is limited to data about awareness. As such, we sought to understand perceptions and decision-making about PEP use among YSMM 17-24 years old to help advance implementation efforts with this population.

Methods: Forty-one YSMM from the United States participated in synchronous online focus groups conducted from April to September 2020. Participants were recruited via social media and geosocial networking apps. On average, participants were 21 years of age (*SD*=2.5) and primarily identified as people of color (65.9%), gay (65.9%), and never having used PEP (92.7%). Data were analyzed using inductive and deductive thematic analysis with constant comparison.

Results: We identified three themes. First, participants described limited awareness and prior use of PEP. Second, appraisal of PEP need requires weighing perceived HIV risk and PEP costs, with most participants stating PEP is warranted only in situations with unanticipated HIV exposure, given substantial access and financial barriers. Third, participants described PEP as a link to HIV pre-exposure prophylaxis (PrEP) use for long-term HIV prevention.

Conclusions: YSMM in our sample had limited awareness of PEP but acknowledged the importance of PEP in emergencies or unanticipated scenarios. New strategies are needed to advance PEP use, including combined discussions of PEP and PrEP during HIV test counseling, making PEP freely available, distributing PEP starter packs in advance (PEP-in-pocket), and offering PEP within community-based settings to increase availability.

CORRESPONDING AUTHOR: Andrew M. O'Neil, MPH, Medical College of Wisconsin, Milwaukee, WI; aoneil@mcw.edu

---

Abstract citation ID: kaad011.1200

POSTER SESSION E: HIV TESTING DISPARITIES AND WAYS TO IMPROVE TESTING RATES AMONG BLACK AND HISPANIC MSM

Al-Hafis O. Adegun, BA, MD Candidate[1], Saffa Lamin, PhD[2]

[1]George Washington University School of Medicine and Health Sciences, Burtonsville, MD; [2]Maryland Department of Health, Baltimore, MD

Background: In 2019 the United States Department of Health and Human Services (DHHS) began the Ending the HIV Epidemic Initiative (EHE), a new national programmatic strategy to end the HIV epidemic once and for all by the year 2030. The Center for HIV Prevention and Services (CHPS) within the Maryland Department of Health (MDH) is taking steps to achieve this national goal by reducing the prevalence of the virus among the state's highest risk populations which are Black and Latino men that have sex with men (MSM). HIV testing is an important aspect of the HIV care continuum because it is estimated that 13% of HIV positive individuals in the United States are unaware of their status and they are play a role in 40% of all new infections annually. Awareness of serostatus is shown to reduce behaviors that contribute to spread of the virus. Given the importance of HIV testing in combating the HIV epidemic we conducted a review of the literature on the barriers Black and Latino MSM face to seeking HIV testing.

Methods: Barriers to HIV testing among Black and Latino MSM were identified by conducting a literature search of Cochrane, Embase, PubMed and Google Scholar between June 14 and July 9th, 2022. The search term “HIV Testing Barriers for Black and Latino Men'' was used. This generated 24 articles that were published between 2009 and 2022 for evaluation.

Results: The most frequent barriers across the selected articles were HIV stigma (17), perceived risk (13), cultural competence (9) and confidentiality (8).

Conclusion: HIV stigma contributes to the other HIV testing barriers and has a significant effect on the lives of MSM. It also contributes to HIV exceptionalism, the concept that HIV is an especially devastating disease and requires an extreme response. Confidentiality during testing is important as people do not want to be tested in settings where they may be recognized by people that they know. Perceived risk is not an effective method to encourage HIV testing and can lead to incorrect assumptions about one's health. Lastly, cultural competence is an important way for providers to foster an environment where marginalized populations will feel supported. HIV testing recommendations that can reduce the impact of the four barriers include standardizing routine HIV testing, disseminating testing information through relevant forms of media, educating patients on the differences between HIV tests and testing locations and promoting the delivery of compassionate care among HIV providers.

CORRESPONDING AUTHOR: Al-Hafis O. Adegun, BA, MD Candidate, George Washington University School of Medicine and Health Sciences, Burtonsville, MD; aadegun@gwu.edu

Abstract citation ID: kaad011.1201

POSTER SESSION E: ADAPTATION OF A CLINIC-AFFILIATED SMARTPHONE APP TO IMPROVE HIV TESTING AND PREP UPTAKE AMONG MEN WHO HAVE SEX WITH MEN IN MALAYSIA

Beverly-Danielle Bruno, BS[1], Francesca Maviglia, MPH[2], Jeffrey Wickersham[3], Frederick Altice[3], Antoine Khati[4], Zhao Ni, PhD[5], Iskandar Azwa[6], Adeeba Kamarulzaman[6], Mohd Akbar Ab Halim[7], Wan Mohd Ikhtiaruddin[7], Roman Shrestha, PhD[8]

[1]Emory University, Rollins School of Public Health, Atlanta, GA; [2]Yale School of Medicine, New Haven, CT; [3]Yale University, New Haven, CT; [4]University of Connecticut, Storrs, CT; [5]Yale University, West Haven, CT; [6]University of Malaya, Kuala Lumpur, Kuala Lumpur, Malaysia; [7]Centre of Excellence for Research in AIDS (CERiA), Kuala Lumpur, Kuala Lumpur, Malaysia; [8]University of Connecticut, South Windsor, CT

Background: HIV disproportionately affects men who have sex with men (MSM). Recent estimates report a high incidence and prevalence of HIV among Malaysian MSM. Insights into Malaysia's HIV prevention gap are multi-factorial. Both same-sex behavior and substance use are criminalized in Malaysia, making MSM dually bear the burden of social stigma and discrimination, including in healthcare. mHealth interventions, particularly smartphone apps, are a promising and cost-effective strategy to reach stigmatized and hard-to-reach populations, like MSM, and link them to HIV prevention services (e.g., HIV testing, pre-exposure prophylaxis; PrEP). This study aimed to adapt the HealthMindr app, developed with MSM in the United States, to improve HIV testing and PrEP uptake for MSM in Malaysia.

Methods: We conducted online focus group discussions between August and September 2021 with 20 MSM and 15 clinical stakeholders (e.g., doctors, nurses, pharmacists, NGO staff). Using in-depth semi-structured interviews, participants were asked questions to assess their preferences for functions and features in mHealth apps among MSM, and how to best adapt the HealthMindr app to the Malaysian context. Each session was digitally recorded and transcribed. Transcripts were inductively coded using Dedoose software and analyzed to identify and interpret emerging themes.

Results: MSM indicated stated preferences for interfacing with apps to access HIV testing, including self-testing, PrEP, and health and counseling services, as well as clinical stakeholders showing strong interest in using the app-based platform to deliver integrated care and health education. Key themes mostly focused on adaptation and refinement for the Malaysian context and were related to stylistic preferences (e.g., design, user interface), engagement strategies (e.g., reward systems, reminders), recommendation for new functions (e.g., enhanced communication options via chat, discussion forum), cost of services (e.g., PrEP), and legal considerations concerning certain features (e.g., telehealth, patient identification), minimizing privacy and confidentiality risks.

Conclusions: Our data suggest that a tailored HIV-prevention app would be acceptable for MSM in Malaysia. The findings further provided detailed recommendations for successful adaptation and refinement of the existing platform for optimal use in the Malaysian context.

CORRESPONDING AUTHOR: Beverly-Danielle Bruno, BS, Emory University, Rollins School of Public Health, Atlanta, GA; brunob@bu.edu

---

Abstract citation ID: kaad011.1202

POSTER SESSION E: DRUG USE STIGMA, RESILIENCE, AND POOR MENTAL HEALTH ON PUBLIC INJECTION DRUG USE AMONG PEOPLE WHO INJECT DRUGS IN KYRGYZSTAN

Angel B. Algarin, PhD, MPH[1], Eileen V. Pitpitan, PhD[2], Laramie R. Smith, PhD[3]

[1]Arizona State University, Phoenix, AZ; [2]San Diego State University, San Diego, CA; [3]University of California San Diego, La Jolla, CA

Background: In Kyrgyzstan, and other Eastern Europe and Central Asia countries, the HIV epidemic is rapidly expanding and concentrated among people who inject drugs (PWID). Public injection drug use is a stigmatized behavior and has been associated with greater risk of overdose and HIV transmission. Understanding factors and mechanisms that could serve as targets for intervention to decrease HIV risk behavior such as public injection drug use is critical among this population. We aim to examine a process involving internalized drug use stigma, resilience, and poor mental health to understand their associations with public injection drug use.

Methods: We analyzed cross-sectional data from n=172 PWID living in Kyrgyzstan between April-October 2021. We conducted a path analysis to test if resilience moderates the path between internalized drug use stigma and poor mental health, and between poor mental health and public injection drug use. The Johnson-Neyman technique was used to determine the range of values of resilience for which the association between internalized drug use stigma and mental health is significant.

Results: Our path analysis model had good fit (CFI/TLI:0.99/0.97, RMSEA=0.06, SRMR=0.02). Resilience was negatively associated with poor mental health, (β: -0.30, p< 0.001) while internalized drug use stigma was positive associated with poor mental health (β: 0.35, p< 0.001). In turn, the association between poor mental health and public injection drug use was also significant and positive (β: 0.13, p=0.007). Moreover, we found a significant interaction effect such that resilience buffered the association between internalized drug use stigma and poor mental health (β: -0.11, p=0.044). Johnson-Neyman results showed that a high degree of resilience (1.6 SD above the mean) was protective of the association between internalized drug use stigma on poor mental health.

Conclusion: Results will be discussed in light of the limitation of using cross-sectional data. Our findings help to generate new hypotheses that interventions that focus on improving resilience may buffer the impact of internalized drug use stigma on poor mental health, and ultimately on public injection drug use.

CORRESPONDING AUTHOR: Angel B. Algarin, PhD, MPH, Arizona State University, Phoenix, AZ; angel.algarin@asu.edu

Abstract citation ID: kaad011.1203

POSTER SESSION E: THE INTERPLAY BETWEEN PRE-EXPOSURE PROPHYLAXIS (PREP) AND TRANSGENDER STIGMA AS BARRIERS TO PREP IN TRANSGENDER WOMEN IN MEXICO

Eileen V. Pitpitan, PhD[1], Angel B. Algarin, PhD, MPH[2], Anthony Cirilo[3], Samuel Navarro, MD[4], Heather A. Pines, PhD, MPH[1], Laramie R. Smith, PhD[5]

[1]San Diego State University, San Diego, CA; [2]Arizona State University, Phoenix, AZ; [3]Herbert Wertheim School of Public Health and Human Longevity Science, UC San Diego, San Diego, CA; [4]Tijuana General Hospital, Tijuana, Baja California, Mexico; [5]University of California San Diego, La Jolla, CA

Background: HIV prevalence among transgender women (TW) in Tijuana, Mexico is estimated at 22%. Pre-exposure prophylaxis (PrEP) is a daily pill that reduces the risk of HIV acquisition by >90%, though availability in Mexico is limited. The interplay between PrEP and transgender stigmas may serve as a barrier to PrEP uptake among TW in Tijuana.

Methods: Experiences of gender- and PrEP stigma were assessed quantitatively (QUANT) among 152 TW on previously validated scales. We collected qualitative (QUAL) data on perceptions towards PrEP via semi-structured interviews with a subsample of 17 TW. The Health Stigma and Discrimination Framework guided thematic coding to contextualize stigma as a barrier to future PrEP uptake. QUAL findings were triangulated with QUANT data to inform factors important to a gender affirming PrEP-related stigma reduction in a parallel QUANT+QUAL fashion, weighting both equally.

Results: Participants reported greatest levels of gender stigma specifically associated with endorsing negative expectations from others (M=17.45), reflected in observed themes, "I frequently encountered that the transgender woman they take it as synonym for sex worker". Greatest levels of PrEP stigma were reported when endorsing negative stereotypes towards PrEP users for having poor judgment (M=29.66) and high personal attributes of risk (M=28.81), reflected in observed qualitative themes, "If you tell me that you take PrEP the first thing I am going to think is that you have multiple sex partners". While PrEP knowledge was low, participants identified stigma as a potential barrier to PrEP uptake. Experiences of intersectional PrEP and gender-related stigma emerged, where being both transgender and on PrEP would intensify negative experiences with others. The theme of resilience also emerged, "I see so much stigma in my life in respect to being transgender that… I do not care about PrEP [stigma] because I know that I am doing it for my health." Participants articulated how existing resilience skills used to buffer against gender-related stigma can also be leveraged to buffer against PrEP stigma.

Discussion: Based on participants' perspectives, efforts to build resilience skills at the intersection of gender- and PrEP stigma among TW could enhance efforts to reduce stigma as a barrier to PrEP prior to the scale-up of PrEP across Mexico.

CORRESPONDING AUTHOR: Eileen V. Pitpitan, PhD, San Diego State University, San Diego, CA; epitpitan@sdsu.edu

---

Abstract citation ID: kaad011.1204

POSTER SESSION E: PREDICTING THE TRANSITION FROM ACUTE TO CHRONIC DISABLING TINNITUS

Maria Kleinstaeuber, PhD[1], Karen Munoz, EdD, CCC-A[2], Grant Searchfield, AuD[3], Omer van den Bergh, PhD[4], Marta Walentynowicz, PhD[4], Karl White, PhD[2], Thomas Probst, PhD[5]

[1]Utah State University, Providence, UT; [2]Utah State University, Logan, UT; [3]University of Auckland, Auckland, Auckland, New Zealand; [4]Catholic University Leuven, Leuven, Vlaams-Brabant, Belgium; [5]Danube University Krems, Krems, Niederosterreich, Austria

Tinnitus is an auditory perception in the ears or head in the absence of an external stimulus. In 10-15% of the general population it presents as a chronic symptom. Whereas 80% of individuals with chronic tinnitus learn to adapt to their symptom, 20% develop a tinnitus disorder, characterized by serious symptom-related distress, disability, and poor symptom coping. Although the progress in neurophysiological research of tinnitus has helped us to understand neural correlates of acute and chronic tinnitus, it has not been sufficient to answer the question of *why* some individuals are more prone than others to develop chronic, disabling tinnitus. The central aim of our study was to determine psychological characteristics and psychobehavioral responses to the tinnitus that help us to identify individuals with acute tinnitus who are at risk to develop a persistent, distressing, and debilitating auditory symptom.

Applying a longitudinal study design, we examined 71 participants within 3 months of their tinnitus onset and followed them up three months and six months after their tinnitus started. We measured tinnitus intrusiveness at all three assessment points and various psychosocial variables at baseline that have been demonstrated to be related to tinnitus severity in previous cross-sectional studies.

Spontaneous remission of the tinnitus was low: 5.6% at the 3-month and 4.2% at the 6-month follow-up. Tinnitus intrusiveness at the 3-month follow-up was significantly predicted by symptoms of depression (r=.324, p=.010), report of other physical symptoms (r=.391, p.002), an external health locus of control (r=.338, p=.007), subjective stress experience (r=.289, p=.023), anxiety sensitivity (r=.297, p=.019), and individuals' tendency to seek medical help for minor health problems (r=.316, p=.012) at tinnitus onset. Symptom report (r=.267, p=.041), experience of stress (r=.292, p=.025) and external health locus of control (r=.286, p=.028) at tinnitus onset remained significant predictors of tinnitus intrusiveness six months post tinnitus onset.

Our results demonstrate that psychosocial variables play an important role in the transition from an acute to a chronic disabling tinnitus. Especially the experience of stress, the report of multiple somatic symptoms, as well as individuals' perceived dependence on a powerful external person (e.g., physician) to help with their tinnitus appeared to be potential predicting variables of long-term tinnitus intrusiveness.

CORRESPONDING AUTHOR: Maria Kleinstaeuber, PhD, Utah State University, Providence, UT; maria.kleinstaeuber@usu.edu

Abstract citation ID: kaad011.1205

POSTER SESSION E: AGE OF AUTISM SPECTRUM DISORDER DIAGNOSIS AND RECEIVING CARE IN A PATIENT-CENTER MEDICAL HOME

Christine Limbers, PhD[1], Emma Summers, MS[1], Grace Beuley, PhD[1], Tatum Zeleznik, BA[1], Anna Milliken, BA[1], Lindsey Hernandez, BA[1], Elizabeth Hernandez, BA[1], Michael Vinson, BA[1], Brigitte Madan, BA[1], Stacy Ryan-Pettes, PhD[1]

[1]Baylor University, Waco, TX

Early diagnosis of Autism Spectrum Disorder (ASD) is important to ensure children receive the supports necessary to be successful. The Patient-Centered Medical Home (PCMH) is a model of primary care delivery that involves centralized, accessible, team based, and coordinated care. This model of care is associated with greater primary care visits (Aysola et al., 2013) and decreased emergency room visits in children (Long et al., 2012). To date, no studies have investigated whether receiving care in a PCMH is associated with an earlier age of ASD diagnosis. The purpose of the current study was to evaluate the associations between receiving care in a PCMH and age of ASD diagnosis in a national sample. Participants were 544 children 17 years and younger with ASD from the 2020 National Survey of Children's Health. Low-income children who had continuous public health insurance coverage over the last 12 months were the focus of this study since the PCMH model has been widely implemented as part of these government assisted health insurance programs. Participants were predominantly male (77.2%). Over half of participants (55.9%) were receiving free or reduced lunch. With regard to race, 66.5% of the sample was White, 14.9% Latino, 6.6% Black, 2.9% Asian, and 9% Other/Multiracial. The mean age of ASD diagnosis for the sample was 4.71 years (SD = 3.27). One third of the sample (31.4%) had medical care that met the PCMH criteria. Hierarchical multiple linear regression analysis was used. Age of ASD diagnosis was the criterion variable in the regression model. Socio-demographic variables (child age, gender, race, receiving free or reduced lunch) and ASD severity were entered into Block 1 as control variables. In Block 2, receiving care in a PCMH was entered to determine if it incremented the variance explained in the final adjusted model. The variance explained by the total adjusted model for which age of ASD diagnosis was the outcome was significant ($p < .05$). In the final model after controlling for socio-demographic characteristics and ASD severity, receiving care in a PCMH was significantly correlated with the age of ASD diagnosis (standardized beta coefficient = -.09; $p < .05$). These findings indicate receiving care in a PCMH may be associated with a lower age of ASD diagnosis, which has implications for the provision of services for children in this population and their families.

CORRESPONDING AUTHOR: Christine Limbers, PhD, Baylor University, Waco, TX; Christine_Limbers@baylor.edu

---

Abstract citation ID: kaad011.1206

POSTER SESSION E: ASSOCIATIONS BETWEEN DAILY SPIRITUAL EXPERIENCES AND SELF-RATED HEALTH IN MIDUS: THE MEDIATING ROLE OF PURPOSE IN LIFE

Caitlyn L. Wilson, BS[1], Jennifer Morozink Boylan, PhD[1], Kevin S. Masters, PhD[2]

[1]University of Colorado Denver, Denver, CO; [2]University of Colorado Denver|Anschutz Medical Campus, Denver, CO

Introduction: Several aspects of religion and spirituality (R/S) are associated with better health outcomes. Daily spiritual experiences (DSE; i.e., everyday connections with and awareness of 'the transcendent') predict many health outcomes, including self-rated health (SRH). However, the psychological mechanisms (e.g., purpose in life (PiL)) through which DSE may affect SRH have not been thoroughly examined in large-scale studies. We examined cross-sectional and prospective associations between DSE and SRH in a national sample of adults and examined the extent to which PiL mediated these associations.

Methods: Data were from the second and third waves of the Midlife in the United States (MIDUS) study, a national longitudinal sample of middle-aged and older adults (Wave 2: n=4,378; Wave 3 (7-10 years later): n=3,155). DSE was measured at Wave 2 using 5 items from the Daily Spiritual Experiences Scale. PiL was measured at Wave 2 using the Purpose Subscale from Ryff's Scales of Psychological Well-Being. SRH was measured at both Wave 2 and Wave 3 (2013-2014). Linear regression models were used to examine cross-sectional and prospective associations between DSE and SRH. In the mediation analyses, indirect effects were examined using a percentile bootstrap estimation approach with 5000 samples.

Results: In cross-sectional models, higher DSE was associated with better SRH (B(SE)=.01(.01), p=.016). Further, prospective associations showed that higher DSE predicted better SRH 7-10 years later (B(SE)=.01(.01), p=.023). However, Wave 2 DSE and Wave 3 SRH were no longer associated when SRH at Wave 2 was added to the model. Mediation models revealed significant indirect effects from DSE to PiL to SRH in both cross-sectional and prospective analyses.

Discussion: Results support that DSE may be a protective factor for SRH among midlife and older adults, in part through its connection to PiL. Prior theory suggests that PiL involves cultivating self-transcendence (i.e., meaning making through shifting from an egotistic focus to that which is greater than oneself) which is related to DSE and may promote health via stress-buffering, better coping, and engaging in healthy behaviors. Most of the research on R/S and health focuses on service attendance, and future research should interrogate other aspects of R/S and the psychological pathways through which they may promote health.

CORRESPONDING AUTHOR: Caitlyn L. Wilson, BS, University of Colorado Denver, Denver, CO; caitlyn.wilson@ucdenver.edu

Abstract citation ID: kaad011.1207

POSTER SESSION E: PILOT STUDY OF TAI CHI EFFECTS OF MEDITATIVE MOVEMENT/BREATH FOCUS ON BLOOD PRESSURE, MOOD AND OXYTOCIN IN HYPERTENSIVE ADULTS

Dara James, PhD, MS[1], Linda K. Larkey, PhD[2], SeungYong Han[2]

[1]University of South Alabama, Mobile, AL; [2]Arizona State University, Phoenix, AZ

Background: Older adults (OAs), a rapidly growing population, increasingly experience loneliness and associated risk for hypertension. Endogenous oxytocin (the "cuddle hormone") is associated with lowering blood pressure (BP), suggesting that finding ways to increase oxytocin even in the absence of social connection, may be beneficial. Meditative movement emphasizing breath, meditative state and flow-inducing movements holds potential for increasing oxytocin and reducing BP.

Methods: In a single-group pilot study we exposed OAs (N=21; 19% Latinx; 76.2% female; mean age=66.76) with mild-moderate hypertension to a 50-minute Tai Chi Easy (TCE) (simplified Tai Chi/Qigong) session, collecting BP, saliva samples and psychosocial measures pre/post intervention.

Results: Baseline levels of oxytocin were positively correlated with baseline loneliness scores (N=14; r=.599; p=.023) while oxytocin changes from pre-to-post TCE intervention were negatively correlated (N=14; R= -.585; p=.028) with baseline loneliness. BP decreased slightly, non-significantly (systolic: 138.43 to 134.86; diastolic: 78.48 to 78.00). Reduction in BP was significantly associated with the experience of meditative movement flow (N=17; coef= -.58; p=.007) and the meditative breath focus of the intervention (N=17; coef= -1.78; p=.009). Total Mood Disturbance (TMD) and Connection (CN) scores significantly improved from pre- to post-intervention [TMD mean pre 19.598 (SD=4.496) to post 10.214 (SD=2.343), p=.009, and CN mean 2.007 (SD=.449) to post .999 (SD=.223, p=.005.).

Discussion: Although loneliness is usually associated with lower oxytocin levels, our results showed the opposite. We speculate those who were most lonely experience heightened emotional responses with our caring, nursing study staff compared tot the less lonely arriving from caring environments. Regardless, a minimal increase in oxytocin occurred for those less lonely, while lonelier participants' oxytocin declined (after initial baseline levels were already higher). With differences in response relative to baseline loneliness levels, no mean change in oxytocin levels was found in response to TCE practice. Our acute session only showed a small decrease in BP, but these minor changes in BP were strongly associated with greater experience of meditative movement flow and breath focus. CONCLUSION. TCE shows promise for improving mood and perceptions of connection in hypertensive OAs, with meditative movement flow and breath focus key to achieving BP effects. Multiple sessions over time may be required to achieve significant reduction in BP. Restructuring study design to find ways to prevent social cues and isolate the effects of practice on BP and oxytocin is necessary to more rigorously test predicted effects of TCE .

CORRESPONDING AUTHOR: Dara James, PhD, MS, University of South Alabama, Mobile, AL; darajames@southalabama.edu

---

Abstract citation ID: kaad011.1208

POSTER SESSION E: THE ROLE OF MEANING AND SPIRITUALLY-RELATED ACTIVITIES AND GOALS ON IMPROVING WELL-BEING OVER TIME AMONG VETERANS

David E. Reed, PhD[1], Charles Engel, MD, MPH[2], Roman Palitsky, MDiv, PhD[3], Barbara Bokhour, PhD[4], Steven Zeliadt, PhD, MPH[2]

[1]VA Puget Sound, Seattle, WA; [2]Center of Innovation at VA Puget Sound, Seattle, WA; [3]Emory University School of Medicine, Atlanta, GA; [4]Center for Healthcare Organization and Implementation Research, VA Bedford Healthcare System, Bedford, MA

Objective: Veterans Healthcare Administration's (VA) Whole Health is a transdiagnostic approach to care that focuses on "what matters most" to Veterans through goal-setting, self-care, and complementary and integrative health interventions. The objective of the current study is to determine whether self-rated progress toward meaning- and faith/spiritually-based goals and engaging in meaningful activities are associated with 6-month outcomes and whether these baseline variables moderate Whole Health treatment effects at 6-months.

Methods: VA electronic health records (EHR) were combined with survey data (baseline, 6 months) across 18 VA sites nationally. EHR data was used to divide Veterans into Whole Health (2 or more Whole Health encounters; n=1,053) or Conventional Care (n=3,150). Pain (PEG), physical and mental health functioning (PROMIS-PH and PROMIS-MH), and a1-item global meaning and purpose at 6-month were outcomes. Baseline levels of engaging in meaningful activities (Life Engagement Test), making progress toward faith/spirituality-related goals, and making progress toward meaning-related goals were included in regression models as moderators of the association between Whole Health and 6-month outcomes, controlling for sample characteristics.

Results: A significant interaction (-0.33, *95% CI:* -.64, -.02) indicated that the relationship between self-reported progress toward faith/spirituality-related goals at baseline and mental health functioning over time was present in the Conventional Care group (.43, 95% CI: .25, .62) but not the Whole Health group (.11, *95% CI:* -.18,.39). No other significant interactions emerged (*p*s >.05). Self-reported progress toward spiritually-related goals at baseline was associated with higher overall meaning and purpose (.11, *95% CI:* .07, .15) over time. Self-reported progress toward meaning-related goals at baseline was related to physical health functioning (.15, *95% CI:* .00, .30), mental health functioning (.39, *95%CI:* .21, .57), and global meaning and purpose (.17, *95% CI:* .13, .21) over time, but not pain. Veterans who engaged in more meaningful activities at baseline reported higher mental health functioning (.22, *95% CI:* .17, .27) and global meaning and purpose (.08, *95% CI:* .07, .10) over time. All other values were non-significant (*p*s< .05).

Conclusion: Providing relevant resources prior to their engagement with VA healthcare is likely to improve emotional well-being once treatment begins. Results suggest that VA Public Health messaging aimed at cultivating behaviors that give Veterans meaning may also improve emotional well-being. Results also suggest Veterans progress toward faith/spirituality plays less a role in mental health functioning if they are inclined to use Whole Health.

CORRESPONDING AUTHOR: David E. Reed, PhD, VA Puget Sound, Seattle, WA; david.reed7@va.gov

Abstract citation ID: kaad011.1209

POSTER SESSION E: INVESTIGATING THE IMPACT OF COVID-19 ON TEXAS HOSPITAL ENCOUNTERS FOR SUICIDAL BEHAVIORS IN CHILDREN AND ADOLESCENTS

Karishma Chhabria, PhD, MPH[1], Chau Truong, MPH[2], Trudy Krause, DrPH[1], Sudhakar Selvaraj, MD, PhD[1]

[1]University of Texas Health Science Center at Houston, Houston, TX; [2]UTHealth School of Pubic Health, Houston, TX

Background: COVID-19 pandemic and disease had a significant psychological impact on children and adolescents.

Objective: Investigating the impact of COVID-19 disease and pandemic year on Texas hospital encounters for suicidal behaviors (SB) in children and adolescents.

Methods: This observational study used Texas Healthcare Information Collection (THCIC) hospital encounters data from inpatient (IP) and emergency department (ED) admissions in the age group of 5-19 years during pre-pandemic (quarter (Q)2 of 2019-Q1 of 2020) during the pandemic (Q2 of 2020 – Q2 of 2021). We used the International Classification of Diseases, Tenth Revision diagnoses codes to identify discharges related to SB (including intentional self-harm, suicidal thoughts, and suicide attempt) and COVID-19. Age, race, ethnicity, along with disease severity, and risk mortality were evaluated. The analysis included descriptive statistics and multivariate logistic regression.

Findings: There were 309,119 IP and 3,116,909 ED discharges for the study period among 5-19-year-olds. Most patients were female, Hispanic, and 15-19-years old. The overall rate of SB was 24.10% and 1.77% for IP and ED. The overall rate of SB-related events decreased during the pandemic compared to pre-pandemic. Multivariate logistic regression revealed that SB-related hospital encounters were not significant for IP but the odds of having an SB-related ED encounter was 1.32 times higher (CI = 1.29–1.34) during the pandemic compared to the pre-pandemic period. The adjusted odds of having an SB-related hospital encounter were significantly more likely for females than males and more likely for the 10-14-year age group compared to the other age groups. Further, the adjusted model showed that Asians were 1.17 (CI = 1.01-1.35) and 1.54 (CI = 1.43–1.66) times more likely to have an SB-related IP and ED event during the pandemic compared to all other races, respectively. Moreover, having COVID-19 significantly increased the likelihood of an SB-related IP event by 57% (CI=1.35-1.82).

Conclusion: Although overall SB-related hospital visits decreased during the pandemic compared to pre-pandemic, the COVID-19 pandemic was significantly associated with ED SB-related hospital visits. SB-related discharges were more likely in females, the 10-14-year-old age group, and Asians after adjusting for all covariates. These results highlight the need for more research into the relationship between COVID and mental health including family history of SB and social determinants of health which are known to increase the risk of SB. which would help guide screening and preventative interventions for providers.

Clinical Implications: Results highlight the need to improve mental health screening in children and adolescents is essential to help guide preventative steps and early intervention.

CORRESPONDING AUTHOR: Karishma Chhabria, PhD, MPH, University of Texas Health Science Center at Houston, Houston, TX; Karishma.s.chhabria@uth.tmc.edu

---

Abstract citation ID: kaad011.1210

POSTER SESSION E: A LATENT CLASS ANALYSIS OF LGBTQ-RELATED MINORITY STRESS: EFFECTS ON PSYCHOLOGICAL DISTRESS AMONG LGBTQ YOUNG PEOPLE

Cho-Hee Shrader, PhD, MPH[1], John Salerno, PhD, MPH[2], Ji-Young Lee, PhD, MSc, MPH[3], Angel B. Algarin, PhD, MPH[4], Ariana Johnson, PhD, MPH[5]

[1]ICAP at Columbia University, New York, NY; [2]Columbia University, New York, NY; [3]University of South Florida, Sarasota, FL; [4]Arizona State University, Phoenix, AZ; [5]University of Miami, Miami, FL

Introduction: LGBTQ+ young people experience greater psychological distress relative to their heterosexual counterparts. LGBTQ-related minority stress may substantially contribute towards this mental distress; however, this relationship has yet to be investigated among LGBTQ young people. We sought to use latent class analysis (LCA) to identify classes of LGBTQ-related minority stress, and then explore the potential associations between LGBTQ-related minority stress classes and psychological distress among LGBTQ+ young people.

Methods: A nonprobability, cross-sectional online survey was conducted between May to August 2020 to explore the mental health and minority stress among LGBTQ+ university students. Operationally, LGBTQ-related minority stress included 31 binary items assessing internalized LGBTQ-phobia, and LGBTQ-related family rejection, and identity concealment. We conducted a multinomial regression to identify associations between LGBTQ-related minority stress classes and psychological distress.

Results: A total of 482 participants were included in the latent class models of LGBTQ-related minority stress. Participants reported a mean age of 22 years, and the majority of participants identified as female (53%), cis gender (91%), non-Hispanic (85%), White (70%), and single (51%). Most participants suffered from moderate or severe psychological distress (62%). Sample LGBTQ+ young people's minority stress could be characterized by a gradient of five latent classes: low (n=133), moderately-low (n=60), moderate (n=61), moderately-high (n=119), and high (n=119) LGBTQ-related minority stress. Membership in the moderately high minority stress class (ref=low minority stress class; OR=8.25; 95% CI: 2.49-27.29; *p=0.001*), and in the high minority stress class (ref=low minority stress class; OR=15.18; 95% CI: 3.64-63.23; *p< 0.001*) was associated with greater likelihood of experiencing severe psychological distress. Non-Hispanic multiracial or other race (ref=Non-Hispanic White; OR=8.70; 95% CI: 1.08-70.23;*p=0.042*), cis women (ref=cis men; OR=5.66; 95% CI: 2.51-12.73*; p< 0.001*), and trans/genderqueer people (ref=cis men; OR=9.17; 95% CI: 3.65-23.01; *p< 0.001*), were more likely to experience severe psychological distress. Participants' age (OR=1.08; 95% CI: 1.00-1.17; *p=0.047*) and social isolation (OR=6.00; 95% CI: 3.34-10.76; *p< .001*) were positively associated with severe psychological distress.

Discussion: Findings from our study may inform research, practice, and policies that could prevent and eliminate mental health challenges driven by minority stress among LGBTQ+ young persons. Preventive mental health interventions are needed to address sexual and gender minority psychological inequities among those suffering from higher levels of minority stress.

CORRESPONDING AUTHOR: Cho-Hee Shrader, PhD, MPH, ICAP at Columbia University, New York, NY; cs4138@cumc.columbia.edu

Abstract citation ID: kaad011.1211

POSTER SESSION E: AN EXAMINATION OF SOCIAL SUPPORT AS A MEDIATOR OF SELF-EFFICACY AND MENTAL HEALTH OUTCOMES AMONG USERS OF A MENTAL HEALTH APP

Teresa Walker, MA[1], Matthew Schurr, MA[1], Brenna N. Renn, PhD[1]

[1]University of Nevada, Las Vegas, Las Vegas, NV

Mental health apps (mHealth) hold great potential to improve outcomes for common conditions like depression and anxiety. A substantial literature links mental health to individuals' perceptions of self-efficacy and social support. Despite such evidence, little is known about these mechanisms in the context of mHealth and how social support may differentially influence mental health outcomes in digital compared to in-person interventions. This study examined whether social support mediates the relationship between self-efficacy and both depressive and anxiety symptoms among mHealth users. Data for the current cross-sectional study analyzed baseline data drawn from a larger randomized controlled trial of mHealth app use. Participants were 558 English-speaking U.S. adults (78.7% White; 84.8% female; $M_{age} = 32.67 \pm 9.7$ years) with clinically significant symptoms of depression and anxiety. An online survey assessed self-reported depression (PHQ-9) and anxiety symptoms (GAD-7), self-efficacy (GSE), and perceived social support (PROMIS item bank v2.0 Instrumental Support, Emotional Support, and Social Isolation measures). In linear regression models, self-efficacy was significantly associated with depression ($\beta = -.32$), anxiety ($\beta = -.16$), and facets of social support (Instrumental Support: $\beta = .20$; Emotional Support: $\beta = .18$; Social Isolation: $\beta = -.28$), all *p*s $< .001$. Mediation was tested using hierarchical linear regression and indicated that the relationship between self-efficacy and depression was partially mediated by *social isolation* ($b = -0.21$; 95% CI: -0.31, -0.14), *instrumental support* ($b = -0.28$; 95% CI: -.39, -0.22), and *emotional support* ($b = -0.27$; 95% CI: -.37, -0.21). Further, the relationship between self-efficacy and anxiety was partially mediated by *social support* ($b = -0.12$; 95% CI: -.20, -0.04). Self-efficacy had a negative indirect relationship with depression via decreasing social isolation and increasing instrumental and emotional support, which in turn were associated with less depressive symptoms. Similarly, self-efficacy had a negative indirect relationship with anxiety symptoms via decreasing social isolation. The results suggest that leveraging social support features of mHealth apps (e.g., peer support chat rooms) and targeting socially-relevant goals may be relevant to improving depressive and anxiety symptoms for mHealth users by providing social connection and instrumental and emotional support.

CORRESPONDING AUTHOR: Teresa Walker, MA, University of Nevada, Las Vegas, Las Vegas, NV; walket12@unlv.nevada.edu

---

Abstract citation ID: kaad011.1212

POSTER SESSION E: ASSOCIATIONS BETWEEN COVID-19 MENTAL IMPACT AND DISTRESS, RESILIENCE, BURNOUT AND WELL-BEING IN COMMUNITY ADULTS IN HONG KONG

Ted C.T. Fong, PhD[1], Kay Chang, PhD[2], Hao Fong Sit, MSc[3], Rainbow T.H. Ho, PhD[4]

[1]Centre on Behavioral Health, University of Hong Kong, Hong Kong, N/A, Hong Kong; [2]Department of Psychology, University of Macau, Macau, Macao, Macau; [3]Department of Psychology, The University of Hong Kong, Hong Kong, N/A, Hong Kong; [4]Centre on Behavioral Health, The University of Hong Kong, Hong Kong, N/A, Hong Kong

Introduction: The COVID-19 pandemic poses substantial risks to individuals' physical and mental health. Prolonged psychological responses to the pandemic could lead to emotional exhaustion. The present study aimed to examine the mediating role of COVID-19 related mental impact and distress in the relationship between resilience and burnout and well-being.

Research Design: The present study recruited a sample of 500 community adults in Hong Kong in autumn 2021. The online survey included the Mental Impact and Distress Scale: COVID (MIDc) and measures on resilience, burnout, and well-being. The direct and indirect effects of resilience on burnout and well-being via MIDc were examined via structural equation modeling.

Results: Confirmatory factor analysis supported a three-factor model of situational impact, anticipation, and modulation for the MIDc. Resilience showed significant and negative effects on the MIDc ($\beta = -0.69$, SE = 0.04, $p < 0.01$) and burnout ($\beta = 0.23$, SE = 0.06, $p < 0.01$). Burnout was positively associated with the MIDc ($\beta = 0.63$, SE = 0.06, $p < 0.01$) and negatively associated with well-being ($\beta = -0.47$, SE = 0.07, $p < 0.01$). Resilience showed a significant and positive indirect effect ($\alpha\beta\gamma = 0.20$, 95% CI = 0.13 to 0.29) on well-being via MIDc and burnout.

Conclusions: The present results support a potential mediating role of the psychological responses in the MIDc in the relationship between resilience and burnout and well-being. Further longitudinal studies could investigate the long-term effect of COVID-19 stressors on burnout and well-being and the protective role of resilience.

CORRESPONDING AUTHOR: Ted C.T. Fong, PhD, Centre on Behavioral Health, University of Hong Kong, Hong Kong, N/A, Hong Kong; ttaatt@hku.hk

Abstract citation ID: kaad011.1213

POSTER SESSION E: NEGATIVE PERCEPTIONS OF POLICING ARE ASSOCIATED WITH ANXIETY AND DEPRESSIONS SYMPTOMS AMONG AFRICAN AMERICANS

Brianna Fleshman, BS[1], Jordan Neil, PhD[2], Joseph Waring, MPH[3], Bishop Noble, BS[4], David Bradley, BA Psychology[2], Oluwakemi Olurotimi, PHD candidate[5], Jack Fronheiser, BS[1], Munjireen Sifat, PhD MPH[6], Laili K. Boozary, M.S., ABD[7], Julia McQuoid, PhD[2], Darla E. Kendzor, PhD[8], Adam Alexander, PhD[9]

[1]Tobacco Settlement Endowment Trust Health Promotion Research Center/ Stephenson Cancer Center/ University of Oklahoma Health Sciences Center, Norman, OK; [2]University of Oklahoma Health Sciences Center, Oklahoma City, OK; [3]Johns Hopkins Bloomberg School of Public Health, Baltimore, MD; [4]Oklahoma University Health Sciences Center, Edmond, OK; [5]Marquette University, Milwaukee, WI; [6]University of Oklahoma, OKLAHOMA CITY, OK; [7]University of Oklahoma, Oklahoma City, OK; [8]TSET Health Promotion Research Center, Stephenson Cancer Center, University of Oklahoma Health Sciences Center, Oklahoma City, OK; [9]TSET Health Promotion Research Center, Oklahoma City, OK

Background: The influence of police actions and practices on mental health is an emerging area of research. The present study investigated the association between perceptions of policing and symptoms of depression and anxiety among African Americans.

Methods: African American participants (*N*=304) were recruited for a survey study via social media. Mental health was assessed with the 4-item Patient Health Questionnaire (PHQ-4), which included items evaluating depression and anxiety symptoms over the past two weeks (scores range from 0 - 4; scores ≥ 2 indicated possible depression or anxiety disorder). The Perceptions of Policing Scale, a validated scale, was used to assess views of policing (scores range from 0 – 4, higher scores indicated more negative views about policing). Logistic regression analyses were conducted to evaluate the association between average scores on the perceptions of policing measures and screening positive for possible depressive or anxiety disorder on the PHQ-4. Sociodemographic characteristics (i.e., self-reported biological sex, age, household income, and education) and past criminal justice involvement (i.e., self-reported history of arrest, jail, prison, and/or prison) were included as covariates in the analyses.

Results: On average, participants were 41.9 (SD±13.5) years of age and predominately female (78.6%). Over half of the sample had completed at least a 2-year degree or attended professional school (58.1%), and the majority earned ≥ $50,000 per year (52.5%). More than one-quarter of participants (27.1%) reported that they had been arrested, booked, or charged for breaking the law, 21.5% had been to jail, 4.6% had been to prison, and 14.2% had been on probation since the age of 18 years. Participants, on average, were "undecided" about police and police practices (M = 2.6, SD±0.8). Notably, 22.0% of participants screened positive for depression symptoms, and 27.3% screened positive for anxiety symptoms. Bivariate analyses showed that more negative perceptions about policing were associated with greater odds of experiencing symptoms of depression (OR=1.80, [95% CI: 1.21, 2.68]) and anxiety (OR=1.70 [95% CI: 1.17, 2.46]). Significant associations persisted even after including sociodemographic characteristics and criminal justice involvement as covariates.

Conclusion: Study findings suggest that negative perceptions of police are associated with depression and anxiety symptoms among African Americans. Findings suggest that more positive forms of policing, such as community policing, should be explored to improve perceptions of policing and, potentially, symptoms of poor mental health.

CORRESPONDING AUTHOR: Brianna Fleshman, BS, Tobacco Settlement Endowment Trust Health Promotion Research Center/ Stephenson Cancer Center/ University of Oklahoma Health Sciences Center, Norman, OK; Brianna-Fleshman@ouhsc.edu

---

Abstract citation ID: kaad011.1214

POSTER SESSION E: DAILY CANNABIS USE AND DEMOGRAPHICS INTERACT TO EFFECT AFFECT AND OTHER SUBSTANCE USE

Danielle I. Walters, MS[1], Irene De La Torre, BS[1], Dingjing Shi, PhD in Quantitative Psychology[2], Emily T. Hebert, DrPH[3], Michael S. Businelle, PhD in Clinical Psychology[1]

[1]University of Oklahoma Health Sciences Center, Oklahoma City, OK; [2]University of Oklahoma, Norman, OK; [3]Department of Health Promotion and Behavioral Sciences, UT Health School of Public Health, Austin, TX, USA, Austin, TX

Background: As cannabis use becomes more prevalent, researchers are increasingly examining the consequences of its use. Ecological momentary assessment (EMA) has enabled researchers to examine the contextual factors, predictors, and proximal effects of cannabis at a granular level. The present study used EMA data to examine the effects of cannabis use on next day stress, happiness, and alcohol and cigarette use.

Methods: Daily EMA data from a nationwide randomized controlled trial examining factors related to EMA compliance (N=456) were used for this sub-study. Participants received 2-4 daily EMAs for 28-days. Those who reported using cannabis at least once during the EMA period were included in the analyses (n=96). During the morning EMA, participants were asked about cannabis, alcohol, and cigarette use "yesterday." During each EMA (2-4 per day) participants were also asked about their current level of happiness and stress using two different scales (i.e., for 14 days a slider-type scale from 0 (None) to 10 (High) was used and for 14 days a 5-point Likert-type scale was used (from 1 = Strongly Disagree to 5 = Strongly Agree). Affect items were aggregated separately by day for the current analyses. Multilevel analyses were conducted to examine relationships between yesterday's cannabis use and today's happiness, and stress; and multilevel time lag analyses were used to study the effect of yesterday's cannabis use on today's alcohol use and tobacco use. Covariates (i.e., age, race, sex) were added into the analysis.

Results: Participants (n=96) were on average 46.5 years old (SD=12.3), mostly White (69%) and female (71%) and reported using cannabis on 12.0 days (SD=9.0; range: 1-28 days). Prior day cannabis use was not related to stress on the next day. However, cannabis use days were related to lower levels of next day happiness on slider-type ($p< 0.05$), but not Likert-type questions. Results indicated that on days when cannabis was used, non-White participants consumed more alcohol the next day compared with White participants, $p< 0.05$. Furthermore, using cannabis was related to a greater increase in cigarettes smoked the next day for women compared with men, $p< 0.05$.

Conclusion: Cannabis use may be associated with lower next-day happiness. In addition, demographic variables (e.g., race and sex) may interact with cannabis use to influence next day alcohol and cigarette use. More research is needed to examine mechanisms for these relationships.

CORRESPONDING AUTHOR: Danielle I. Walters, MS, University of Oklahoma Health Sciences Center, Oklahoma City, OK; Danielle-Walters@ouhsc.edu

Abstract citation ID: kaad011.1215

POSTER SESSION E: PILOT EVALUATION OF BEHAVIORAL ACTIVATION TARGETING INCREASED PHYSICAL ACTIVITY IN DEPRESSION

Chad D. Rethorst, PhD[1], Joseph Trombello, PhD[2], Thomas Carmody, PHD[3], Patricia Chen, PhD[4], Madhukar Trivedi, MD[4]

[1]Texas A&M AgriLife Institute for Advancing Health through Agriculture, Dallas, TX; [2]Janssen, Dallas, TX; [3]UT Southwestern Medical Center, dallas, TX; [4]UT Southwestern Medical Center, Dallas, TX

Despite the potential benefits, clinicians rarely use exercise as a treatment for depression in real-world clinical settings. Clinicians note several barriers, including a lack of training in exercise prescription and a lack of resources available through the healthcare system. We are conducting a phased project, aimed at evaluating the feasibility, acceptability, and preliminary efficacy of behavioral activation (BA) therapy, adapted to emphasize engagement in physical activity. The project addresses the challenges noted above. The integration of a physical activity intervention within a reimbursable treatment regimen addresses the barrier of financial resources available within the healthcare system. By manualizing the intervention, we aim to overcome lack of training concerns while creating a scalable intervention to improve dissemination. In Phase 1, we conducted a pilot trial (n=15) of individuals with moderate to severe depressive symptoms, who engage in less than 90 minutes of weekly moderate-to-vigorous physical activity. Participants attended eight weekly sessions delivered over a maximum of 10 weeks, followed by 2 biweekly sessions, for a total of 10 sessions delivered over 12-14 weeks. Results supported the feasibility of the intervention; participants attended 100% of the BA sessions. Preliminary efficacy of the intervention was also demonstrated as the mean depressive symptom score on the PHQ-9 decreased from 14.93 at screening to 8.85 at the final visit, while self-reported physical activity using the Physical Activity Vital Sign increased from 65.00 minutes/week to 116.15 minutes/week. Acceptability of the intervention was evaluated through a post-intervention survey and focus groups. In the survey, participants indicated that they believed the intervention helped them increase physical activity, with an average response of 4.38 and decrease depressive symptoms with an average response of 4.46 on a 5-point Likert scale (1-Strongly Disagree, 5-Strongly Agree). Feedback from the focus groups also highlighted the perceived benefits of the intervention on both depressive symptoms and physical activity, noting the intervention provided accountability and resulted in an increased motivation and enjoyment for physical activity. Participants also noted that the intervention helped them to understand the link between physical activity and mood. Phase 2 of the project is underway, which aims to evaluate the efficacy of the intervention in a larger trial.

CORRESPONDING AUTHOR: Chad D. Rethorst, PhD, Texas A&M AgriLife Institute for Advancing Health through Agriculture, Dallas, TX; Chad.Rethorst@Ag.Tamu.Edu

Abstract citation ID: kaad011.1217

POSTER SESSION E: VALIDATION OF PROXY MEASURES TO CONTROL FOR THE EMERGENCE AND INFLUENCE OF COVID-19 IN POPULATION-BASED RESEARCH STUDIES

Jennifer M. Kreslake, PhD, MPH[1], Kathleen Aarvig, MPH[1], Hope Muller, MSc[1], Donna C. Vallone, PhD, MPH[1], Elizabeth C. Hair, PhD[1]

[1]Truth Initiative, Washington, DC

Background: The COVID-19 pandemic had wide-ranging systemic impacts with implications for social and behavioral factors in human health. These impacts may act as confounders in population-level research studies. Variables that control for the COVID-19 event in longitudinal study designs are needed. We sought to identify and validate an affordable, flexible measure to serve as a covariate in research that spans the COVID-19 pandemic period.

Methods: We used two data sources to construct and calculate the correlation between two measures: 1) a weighted cross-sectional, continuous tracking survey of youth and young adults (aged 15-24 years) in the United States (approximately 300 respondents/week, N= 45,080) and 2) the Transportation Security Administration (TSA) checkpoint travel numbers. Each dataset provided daily values spanning January 1, 2019 to May 31, 2022. For the first measure, a self-reported item on frequency of social distancing during the past week was added to the survey instrument on March 25, 2020, and remained throughout the study period. This variable was reverse-coded and dichotomized for the correlation analysis (0=at all times/usually, 1=sometimes/very little/not at all). An aggregated week-level variable was calculated as the proportion of respondents that week who did not practice social distancing. Respondents in weeks prior to March 9, 2020, were coded as "1" to reflect a lack of social distancing during the pre-COVID period. For the second measure, TSA maintains a count of travelers screened daily at TSA checkpoints. A weekly variable was constructed using the sum of daily passengers. The correlation of the two variables was calculated using Pearson correlation coefficients.

Results: The weekly proportion of survey respondents who did not practice social distancing ranged from 18.1% (week of April 15, 2020) to 70.9% (week of May 25, 2022). TSA data showed a similar trend, with the minimum weekly sum of travelers (668,719) occurring the week of April 8, 2020, peaking at nearly 15.5 million the week of May 18, 2022. The measures were strongly correlated from January 2019 to May 2022 (r=.83) and March 2020 to May 2022 (r=.86).

Conclusions: Self-reported estimates of social distancing frequency can be aggregated at discrete time intervals to serve as a proxy for the intensity of COVID-19 in the population. Daily TSA checkpoint travel numbers are a no-cost, flexible, publicly available exogenous option that serves a similar function.

CORRESPONDING AUTHOR: Jennifer M. Kreslake, PhD, MPH, Truth Initiative, Washington, DC; jkreslake@truthinitiative.org

---

Abstract citation ID: kaad011.1218

POSTER SESSION E: EXAMINING THE FEASIBILITY AND ACCEPTABILITY OF ECOLOGICAL MOMENTARY ASSESSMENT IN A CARDIAC REHAB PROGRAM

Amira Parker, BS[1], Matthew J. Murphy[2], Deanna M. Kaplan, PhD[3], Shira Dunsiger, PhD[4]

[1]Brown University, Cambridge, MA; [2]Brown University, Norwood, MA; [3]Emory University School of Medicine, Atlanta, GA; [4]Brown University, Providence, RI

Introduction: Cardiac rehabilitation is a leading, Medicaid-covered treatment for cardiovascular disease. However, 50% of patients who enroll do not complete the program. Retrospective studies of completers have found that only one third of patients obtain significant benefit to their cardiovascular health. The present study examined the acceptability and feasibility of Ecological Momentary Assessment (EMA) as an adjunctive component to rehab treatment that can potentially increase patient engagement and benefit through personalized recommendations.

Methods: In this pilot study, participants (n=17, Mage = 60.3) were recruited from a large cardiac rehabilitation program in Rhode Island, USA. Participants were provided with an Android smartphone during their first 7 days of rehab and again during their final 7 days of rehab. Devices were equipped with an EMA software application, Illumivu, which prompted them four times a day at random intervals to complete brief surveys about momentary affect, stress, and medical symptoms (28 surveys/week). Participants received a 30-minute individual training on the use of the phone and EMA application. On conclusion of the study, participants completed an acceptability questionnaire assessing their experiences and willingness to use EMA as a part of cardiac rehab care.

Results: Participants completed a mean of 2.2 surveys per day (SD=1.4) and a mean of 15.6 out of 28 possible surveys (SD = 7.4). On a scale of 0-10 (0=not at all inconvenient, 10=very inconvenient), participants provided a mean rating of 2.4. (SD=3.2). On a scale of 0-10 (0=not at all interested, 10=very interested), participants rated their interest in receiving personalized recommendations based on their assessments at a mean of 7.3. When asked how frequently they would be willing to respond to a survey for these purposes, the modal responses were once per day (5 participants) or 2-3 times per day (5 participants) (SD=4.1). Qualitative feedback was mixed: while several participants stated that they would find personalized recommendations based on their assessments to be "very helpful" or would support "maintaining interest in the program", others said they were disinterested or would find this "intrusive."

Discussion: These findings offer preliminary evidence for adherence and feasibility of EMA in cardiac rehab, but also suggest high levels of variability in acceptance and interest in EMA-based recommendations.

CORRESPONDING AUTHOR: Amira Parker, BS, Brown University, Cambridge, MA; amira_parker@alumni.brown.edu

Abstract citation ID: kaad011.1219

POSTER SESSION E: VIRTUAL CARE TECHNOLOGY EXPERIENCES OF VETERAN CAREGIVERS DURING THE COVID-19 PANDEMIC

Victoria Ngo, PhD[1], Sowmya S. Iyer, MD, MPH[2], Christine E. Gould, PhD, ABPP-Gero[2], Marika Blair Humber, PhD[2], Ranak B. Trivedi, PhD, FSBM[3]

[1]Stanford University/VA Palo Alto Health System, Menlo Park, CA; [2]VA Palo Alto Health Care System Geriatric Research Education and Clinical Center (GRECC), Palo Alto, CA; [3]Stanford University/VA Palo Alto, Menlo Park, CA

Introduction: During COVID-19 pandemic, the VA rapidly expanded virtual care for Veterans, with early studies showing increases in access especially among younger Veterans living in urban areas. In general, Veterans reported high satisfaction with VA virtual care. Many Veterans receive care and support from their informal caregivers, and they often accompany them at healthcare visits. Pre-pandemic studies showed that caregivers sought technology tools to improve care coordination, increase convenience, and to alleviate burden. Little is known about the experiences of informal caregivers with virtual care technology during the pandemic.

Objective: To describe the virtual care technology experiences of Veteran caregivers, and determine barriers to use during the pandemic.

Methods: Secondary thematic analysis was conducted on qualitative data collected from three studies, with the following foci: understanding the unmet home and community needs of adult caregivers (n=24), assessing caregiver experience with tele-dementia services (n=30), and determining caregiver comfort with geropsychiatry tele-consultation (n=7). In the combined dataset, 80% (49/61) of caregivers were women.

Results: Caregivers recognize a need for virtual care technology in ensuring access to care for their Veteran, especially during the pandemic. Some virtual care technology may not be compatible with personal values and abilities. For example, many participants shared that they felt comfortable with using personal electronic devices which also meant feeling comfortable using virtual care technology. However, for those who were unfamiliar with accessing the internet or other devices, preference of virtual care delivery formats varied. Learning challenges with using virtual care platforms include troubleshooting web connection and navigating software programs. Caregivers expressed virtual care technology needs should be tailored toward caregivers and not only to the Veterans. They noted using virtual care technology was often more convenient and efficient than attending in-person visits, especially if the Veteran had cognitive or physical disabilities. Although virtual visits were the main option available during the pandemic, caregivers expressed that they preferred a hybrid of in-person and tele-health component.

Conclusions: Caregiver generally welcomed virtual care technology as an option. Future work should address how current virtual care technology and virtual visits can be better tailored to caregivers.

CORRESPONDING AUTHOR: Victoria Ngo, PhD, Stanford University/VA Palo Alto Health System, Menlo Park, CA; vxngo@stanford.edu

Abstract citation ID: kaad011.1220

POSTER SESSION E: VIRTUAL CARE TECHNOLOGY EXPERIENCES OF VETERAN CAREGIVERS DURING THE COVID-19 PANDEMIC

Victoria Ngo, PhD[1], Sowmya S. Iyer, MD, MPH[2], Christine E. Gould, PhD, ABPP-Gero[2], Marika Blair Humber, PhD[2], Ranak B. Trivedi, PhD, FSBM[3]

[1]Stanford University/VA Palo Alto Health System, Menlo Park, CA; [2]VA Palo Alto Health Care System Geriatric Research Education and Clinical Center (GRECC), Palo Alto, CA; [3]Stanford University/VA Palo Alto, Menlo Park, CA

Introduction: During COVID-19 pandemic, the VA rapidly expanded virtual care for Veterans, with early studies showing increases in access especially among younger Veterans living in urban areas. In general, Veterans reported high satisfaction with VA virtual care. Many Veterans receive care and support from their informal caregivers, and they often accompany them at healthcare visits. Pre-pandemic studies showed that caregivers sought technology tools to improve care coordination, increase convenience, and to alleviate burden. Little is known about the experiences of informal caregivers with virtual care technology during the pandemic.

Objective: To describe the virtual care technology experiences of Veteran caregivers, and determine barriers to use during the pandemic.

Methods: Secondary thematic analysis was conducted on qualitative data collected from three studies, with the following foci: understanding the unmet home and community needs of adult caregivers (n=24), assessing caregiver experience with tele-dementia services (n=30), and determining caregiver comfort with geropsychiatry tele-consultation (n=7). In the combined dataset, 80% (49/61) of caregivers were women.

Results: Caregivers recognize a need for virtual care technology in ensuring access to care for their Veteran, especially during the pandemic. Some virtual care technology may not be compatible with personal values and abilities. For example, many participants shared that they felt comfortable with using personal electronic devices which also meant feeling comfortable using virtual care technology. However, for those who were unfamiliar with accessing the internet or other devices, preference of virtual care delivery formats varied. Learning challenges with using virtual care platforms include troubleshooting web connection and navigating software programs. Caregivers expressed virtual care technology needs should be tailored toward caregivers and not only to the Veterans. They noted using virtual care technology was often more convenient and efficient than attending in-person visits, especially if the Veteran had cognitive or physical disabilities. Although virtual visits were the main option available during the pandemic, caregivers expressed that they preferred a hybrid of in-person and tele-health component.

Conclusions: Caregiver generally welcomed virtual care technology as an option. Future work should address how current virtual care technology and virtual visits can be better tailored to caregivers.

CORRESPONDING AUTHOR: Victoria Ngo, PhD, Stanford University/VA Palo Alto Health System, Menlo Park, CA; vxngo@stanford.edu

Abstract citation ID: kaad011.1221

POSTER SESSION E: PREVALENCE AND HEALTH BURDEN OF RHEUMATOID ARTHRITIS AMONG U.S. VETERANS

Jessica L. Morse, PhD[1], Niloofar Afari, PhD[2], Sonya B. Norman, PhD[3], Monica Guma, MD, PhD[4], Robert H. Pietrzak, PhD, MPH[5]

[1]VA San Diego and University of California San Diego, San Diego, CA; [2]VA San Diego Healthcare System and University of California San Diego, San Diego, CA; [3]National Center for PTSD, San Diego, CA; [4]School of Medicine, University of California, San Diego, San Diego, CA; [5]Yale School of Medicine, New Haven, CT

Rheumatoid arthritis (RA) is an autoimmune disease characterized by painful inflammation that can lead to severe joint damage and disability. Military veterans have been underrepresented in RA research despite having more than a 2-fold increase in mortality risk relative to age-matched civilians without RA. RA has been linked to co-occurring medical conditions and psychiatric disorders that contribute to functional disability and excess mortality. To add to the limited literature, we analyzed data from a nationally representative sample of U.S. veterans to estimate the prevalence of RA and examine differences in sociodemographics, military characteristics, traumatic experiences, and medical and psychiatric conditions in veterans with RA relative to veterans with at least one medical condition other than RA. Participants (N= 4,069) were drawn from the 2019-2020 National Health and Resilience in Veterans Study and completed questionnaires about sociodemographic, military, and trauma history as well as standardized measures of psychiatric and medical conditions. Analysis of variance and binary and multinomial logistic regression analyses were conducted to examine independent associations between RA and medical and psychiatric conditions, adjusting for sociodemographic, military, and trauma variables that differed by RA status. A total of 227 veterans (weighted prevalence =5.3%) reported a diagnosis of RA, whereas 3,444 (weighted prevalence =82.3%) reported a diagnosis of at least one other medical condition (controls). Relative to controls, veterans with RA were significantly older (Mage = 65.8) and less likely to be white, non-Hispanic, married/partnered, or to have an annual household income ≥$60K. They were more likely to have served in combat and reported greater cumulative trauma burden. Veterans with RA had higher BMI and reported greater severity of somatic symptoms and more medical conditions relative to controls. In fact, veterans with RA had 1.4 to 12-fold greater odds of having a comorbid medical condition, with the highest increased odds for osteoarthritis, chronic pain, and respiratory conditions. Veterans with RA were more likely to report a lifetime diagnosis of an alcohol use disorder and to screen positive for an insomnia disorder and subthreshold post-traumatic stress disorder (PTSD). Results of the current study provide up-to-date information on the prevalence and medical and psychiatric burden associated with RA in a population-based sample of U.S. veterans. Results revealed an elevated medical and psychiatric burden associated with RA and highlight the importance of screening for comorbid medical conditions and monitoring symptoms of insomnia, substance use, and PTSD in veterans with RA. Further, implementing interventions (e.g., cognitive behavioral therapy for insomnia or pain) that target comorbid conditions and symptoms is crucial.

CORRESPONDING AUTHOR: Jessica L. Morse, PhD, VA San Diego and University of California San Diego, San Diego, CA; jmorse@health.ucsd.edu

---

Abstract citation ID: kaad011.1222

POSTER SESSION E: PILOT STUDY OF A SENIOR CENTER IMPLEMENTATION OF A NUTRITION EDUCATION WORKSHOP COMBINED WITH AN EDUCATIONAL EXERGAME

Amy Nichols, BS[1], Elizabeth M. Orsega-Smith, PhD[2], Laurie Ruggiero, PhD[3]

[1]University of Delaware, Cherry Hill, NJ; [2]University of Delaware, Newark, DE; [3]Behavioral Health and Nutrition, University of Delaware, Newark, DE

Background: Adults 65 and older represent 16% of the United States Population and are expected to continue to grow. Many will manage chronic conditions like heart disease, cancer, stroke, and diabetes, which can be managed with lifestyle changes. Therefore, there is a demand for health programs that promote these healthy changes. An interactive educational exergame based on My Plate was previously developed and tested in combinations with the workshop in independently living older adults. We further tailored the evidence-based healthy living workshop (Eat Healthy, Be Active) and game intervention for delivery in a senior center serving minority low-income older adults to encourage behavior change and enhance knowledge about healthy eating and physical activity. The purpose of this study is to describe changes in the stages of change and confidence to make behavior change, and knowledge within independently living older adults attending a senior center.

Methods: The workshop was coupled with the educational exergame for six sessions and content was reiterated by playing the exergame designed to provide knowledge related to healthy eating and physical activity. A pretest and posttest questionnaire were administered and included stages of change, healthy eating behaviors, and knowledge of healthy eating behaviors. T-tests, frequencies, and chi-square tests were used to examine differences.

Results: The population (n=8) was majority African American (63.5%), females (87.5%) with an age range of (64-80 years of age) and reported being diagnosed with the following: overweight (33.3%), diabetes (25%), high blood pressure (28.6%), or high cholesterol (57.1%). Differences were found in confidence and stages of change in three areas: eating at least half whole grains, avoiding high fat dairy foods and avoiding sugary drinks.. For whole grains, 5/8 participants were in the action/maintenance stage pre intervention versus 7/8 post intervention. Confidence increased from an average 2.2 to 3.0. For avoiding high fat dairy, 5/8 participants were in the action/maintenance stage versus all 8 post intervention. Confidence increased from 3.0 to 3.63. For avoiding sugary drinks, 3/8 participants were in action/maintenance versus 8/8 post intervention. Confidence increased from 1.83 to 3.38. The MyPlate knowledge questionnaire showed significant changes ($p < .001$) on type of milk, understanding composition of food, and exercise recommendations.

Conclusion: This study suggests a senior center implementation of an educational workshop and an exergame may result in changes in healthy living behaviors (e.g healthy eating and physical activity) in independently living older adults, which may promote successful aging. Further studies should be implemented on larger, more diverse populations.

CORRESPONDING AUTHOR: Amy Nichols, BS, University of Delaware, Cherry Hill, NJ; amynich@udel.edu

Abstract citation ID: kaad011.1223

POSTER SESSION E: PSYCHOLOGICAL CORRELATES OF ALCOHOL AND PHYSICAL ACTIVITY BEHAVIOR: APPLICATION OF AN INTEGRATED SOCIAL COGNITION MODEL

Danielle V. Simpson, BA[1], Martin S. Hagger, PhD[2], Krya Hamilton, PhD[3]

[1]UC Merced, TURLOCK, CA; [2]University of California, Merced, Merced, CA; [3]Griffith University, Mt Gravatt, Queensland, Australia

Social cognition constructs and environmental cues have been identified as candidate correlates of intention toward, and actual participation in, health behavior. Research identifying these correlates contributes to an evidence base of potentially modifiable targets for future intervention research aimed at health behavior change. The present study aimed to extend prior work examining these correlates by testing an integrated model based on the reasoned action approach (RAA) in a prospective study on two health behaviors: physical activity and drinking within safe limits. The model extends the RAA by incorporating cue frequency, cue consistency, habit, and past behavior as additional correlates. Specifically, we tested the unique effects of habit measured at different time points, cue frequency, and cue consistency on behavior, and the role of cue frequency and consistency as moderators of past behavior and habit effects on behavior. Undergraduate students completed self-report measures of model constructs at an initial data collection occasion (*N*=250) and completed followed up measures of habit and behavior four weeks later (*N*=154). Hypothesized relations among constructs were analyzed using structural equation modeling. For the model estimated in both behaviors, we found non-zero effects of injunctive norms, self-efficacy, and past behavior on intentions. We also found non-zero effects of descriptive norms and habit at the first data collection occasion on intentions exclusively for the model in drinking behavior, and effects of cognitive attitude and perceived control on intentions for the model in physical activity. For the model in both behaviors, we found non-zero effects of habit at the second data collection occasion on behavior, and non-zero indirect effects of habit at the first data collection occasion on behavior mediated by habit at the second data collection occasion. We also found non-zero effects of cue frequency and past behavior on behavior, and moderating effects of cue frequency and cue consistency on the effects of past behavior on behavior, exclusively for the model in drinking behavior. Contrary to hypotheses, we found a small, non-zero negative effect of intention on behavior in the physical activity model. The model contributes to knowledge by providing preliminary evidence that social cognition constructs and environmental cues are correlates of these health behaviors, and that cues may be implicated in past behavior effects in drinking alcohol but not physical activity behavior. Findings may inform future research on behavior change interventions.

CORRESPONDING AUTHOR: Danielle V. Simpson, BA, UC Merced, TURLOCK, CA; dsimpson5@ucmerced.edu

---

Abstract citation ID: kaad011.1224

POSTER SESSION E: SOCIAL COGNITION INTRA-PERSONAL AND SOCIO-POLITICAL CORRELATES OF HEALTH BEHAVIOR: APPLYING AN INTEGRATED THEORETICAL MODEL

Zoe Griffith[1], Martin S. Hagger, PhD[1]

[1]University of California, Merced, Merced, CA

Dispositional and trait-like constructs, particularly intra-personal personality traits and socio-political beliefs, have been consistently related to health behaviors, but the mechanisms have yet to be fully elucidated. Accordingly, the present study tested the extent to which effects of personality traits (conscientiousness and extroversion) and socio-political beliefs (political beliefs, locus of control, and free will beliefs) on health behaviors are mediated by the theory of planned behavior constructs. We tested a model specifying the mediation of the effects of the dispositional constructs on behavior by theory constructs for three health behaviors: physical activity, COVID-19 vaccination, and restriction of sugar-sweetened beverage (SSB) consumption. We adopted a prospective correlational design. Finnish residents completed measures of constructs from the proposed model for physical activity (*N* = 557), COVID-19 vaccination (*N* = 1,115), and sugar-sweetened beverage restriction (*N* = 558) at an initial time point and self-reported their behavior at follow-up. Hypothesized relations among constructs in the proposed model were tested separately using single-indicator structural equation modeling. We found a non-zero direct effect of intention on behavior, and a non-zero direct effect of social-cognition constructs on intention, across the three behaviors. There was also a non-zero indirect effect of health locus of control on behavior mediated by attitudes and intention in the model for physical activity. In addition, we found a non-zero indirect effect of conscientiousness on behavior mediated by theory constructs in the model for SSB restriction and in the model for physical activity behavior. There were notable indirect effects of political beliefs on behavior in the model of COVID-19 vaccination behavior and SSB restriction behavior. Specifically, trust in government had a non-zero indirect effect on behavior mediated by subjective norms and intentions in both COVID-19 vaccination behavior and SSB restriction behavior models. Further, there was a non-zero negative total effect of populist beliefs on behavior in the model for the COVID-19 vaccination behavior. The integrated model contributes to an evidence base of generalized intra-personal factors and social cognition correlates of health behaviors and may inform the development of optimally efficacious interventions to promote behavior uptake by identifying potentially modifiable targets.

CORRESPONDING AUTHOR: Zoe Griffith, University of California, Merced, Merced, CA; zgriffith@ucmerced.edu

Abstract citation ID: kaad011.1225

POSTER SESSION E: CHANGES IN DISORDERED EATING WITHIN AN ADOLESCENT OBESITY TREATMENT: EFFECTS OF TWO DISTINCT PARENT INTERVENTIONS

Madison Weinstock, MS[1], Laura M. Thornton, PhD[2], Hollie Raynor, PhD, RD, LDN[3], Suzanne E. Mazzeo, PhD[1], Jessica G. LaRose, PhD, FSBM[4], Laura J. Caccavale, PhD[5], Melanie K. Bean, PhD[1]

[1]Virginia Commonwealth University, Richmond, VA; [2]University of North Carolina at Chapel Hill, RICHMOND, VA; [3]University of Tennessee Knoxville, Knoxville, TN; [4]Virginia Commonwealth University School of Medicine, Richmond, VA; [5]Children's Hospital of Richmond at Virginia Commonwealth University, Richmond, VA

Background: Multicomponent lifestyle intervention that includes parents is the recommended treatment for adolescent obesity. Although adolescents with obesity are at heightened risk for disordered eating (maladaptive cognitions, behaviors, and attitudes regarding weight and its management), the impact of different approaches to parent involvement on disordered eating after obesity treatment is unknown. We examined differences in disordered eating across three time points (baseline, post, and 3m follow-up) in adolescents randomized to one of two distinct parent approaches within adolescent obesity treatment.

Methods: Participants were 62 parent-adolescent dyads (61% female; 60% underrepresented race/ethnic identity) who provided complete data. Families were randomized to either a parent weight loss treatment (TEENS+PWL) or parent skills training based on authoritative parenting (TEENS+PAC). All adolescents participated in TEENS+, a 4m multicomponent behavioral weight loss intervention. Adolescents completed the Eating Disorder Examination-Questionnaire (EDEQ) and Child Depression Inventory (CDI) at baseline, 4m (post), and 7m (follow-up). A repeated measures ANOVA evaluated differences in disordered eating (EDEQ total and subscales: eating, weight, and shape concern; restraint) and depression over time.

Results: Significant reductions were observed over time in shape (F = 16.13, p < .0001) and weight concerns (F = 8.84, p < .0003), with no group differences at any timepoint. The significant group by time interaction (F = 4.94, p = .009) and exploration of means indicated that reductions in shape concern were greater at post and follow-up for TEENS+PAC (M_{4m}= 1.80±1.5, M_{7m}= 1.75±1.4), compared with TEENS+PWL (M_{4m} = 2.58±1.6, M_{7m} = 2.35±1.7). Restraint scores were significantly different across the three time points (F = 11.17, p < .0001), such that scores were highest post-intervention, then lowered during maintenance. EDEQ total and eating concern did not change over time in either group. No other significant group differences or group by time interactions were observed for weight concerns, eating concerns, restraint, or EDEQ total. Significant reductions in depression were observed over time (F = 4.11, p = .019), with no group differences.

Conclusions: Both TEENS+PAC and TEENS+PWL participants reduced weight and shape concern and depression risk, with no change in EDEQ total or eating concerns. Thus, both parent approaches appear to offer some protection against disordered eating, with TEENS+PAC appearing to confer greater benefit for shape concerns. Dietary restraint increased post-intervention. Given observed reductions in depression, a construct typically comorbid with disordered eating, we posit that this change reflects healthy self-regulation of energy balance behaviors within supervised behavioral weight management.

CORRESPONDING AUTHOR: Madison Weinstock, MS, Virginia Commonwealth University, Richmond, VA; weinstockm2@vcu.edu

---

Abstract citation ID: kaad011.1226

POSTER SESSION E: THE MEDIATIONAL ROLE OF DEPRESSION SYMPTOMS ON PHYSICAL ACTIVITY AND WEIGHT AMONG BLACK MEN IN THE UNITED STATES

Ailton Coleman, PhD, MPH[1], Jerraco Johnson, PhD[2], Ahondju Holmes, PhD, RDN/LD[3], Roland Thorpe, PhD, MS[4], Elizabeth Heitman, PhD[5]

[1]James Madison University, Harrisonburg, VA; [2]University of North Texas, Aubrey, TX; [3]Langston University, Langston, OK; [4]Johns Hopkins Bloomberg School of Public Health, Baltimore, MD; [5]UT Southwestern Medical Center, Dallas, TX

Background: Black men have the lowest life expectancy of any racial group in the United States. Key contributors to this phenomenon include cardiometabolic risks factors such as low levels of physical activity, emergence of depression symptoms, and high rates of obesity. Siloed investigations of these factors contradict leading ecological frameworks and hinder the development of comprehensive evidence-based interventions that address high mortality rates among Black men.

Methods: This study investigated potential concomitant associations between physical activity, depression symptoms, and weight among adult Black males (18+ years old) using NHANES data from 2007 to 2018 (n=2328). The theoretical framework for this study included Glass and McAtee's Ecosocial model and the Cross-stressor Adaptation theory. We examined participants' responses to survey items on recreational activity, frequency of depression symptoms over the prior 2 weeks, and BMI as value of weight. Then, we used Barron and Kenny's approach to test the mediational role that depression symptoms have on physical activity and weight by conducting a series of regressions. All analyses included age, poverty level index, and current smoking status as covariates. SAS 9.4 SURVEY function was used in the analysis to account for NHANES' complex, multistage, probability sampling design.

Results: Among the NHANES' sample of Black men, more than a third did not meet DHHS' recommendation for physical activity, 1 in 5 reported mild to severe depression symptoms, and over two-thirds met the criteria for overweight or obese. As Black men's reported physical activity increased, reported depression symptoms (β=-0.003; *p*=.04; 95% CI: -0.01,-0.0002) and weight decreased (β=-0.06; *p*=.001; 95% CI:-0.09,-0.02) Physical activity's effect on weight remained statistically significant (β=-0.05; *p*=.0002; 95% CI:-0.09,-0.02) after accounting for the effect of depression symptoms (β=0.82, p=.01, 95%CI: 0.24,1.40). Collectively, these results indicated that depression symptoms partially mediate physical activity's effect on weight.

Significance: This study's novel theoretical framework describes physical activity's concurrent effect on depression symptoms and weight as well as depression symptoms' role as a mediator. Our results have a cross-disciplinary reach beyond clinical practice, including but not limited to the fields of psychology, kinesiology, and health promotion. The findings of this study suggests that interventions that seek to decrease BMI through physical activity among Black men should include mental health components that address depression symptoms to be more effective.

CORRESPONDING AUTHOR: Ailton Coleman, PhD, MPH, James Madison University, Harrisonburg, VA; colemaas@jmu.edu

Abstract citation ID: kaad011.1227

POSTER SESSION E: ACES AND WEIGHT TRAJECTORY IN ADULTHOOD: FINDINGS FROM THE HISPANIC COMMUNITY HEALTH STUDY/STUDY OF LATINOS (HCHS/SOL)

Manuela Jaramillo, MS[1], Maria M. Llabre, PhD[2], Patrice G. Saab, PhD[2], Denise C. Vidot, PhD[2], Qingyun Liu, MS[2], Neil Schneiderman, PhD[3], Linda C. Gallo, PhD[4], Martha L. Daviglus, MD, PhD[5], Carmen R. Isasi, MD, PhD[6], Krista M. Perreira, PhD[7], Frank J. Penedo, PhD, FSBM[3]

[1]University of Miami, Boca Raton, FL; [2]University of Miami, Coral Gables, FL; [3]University of Miami, Miami, FL; [4]San Diego State University, Chula Vista, CA; [5]University of Illinois College of Medicine, Chicago, IL; [6]Albert Einstein College of Medicine, The Bronx, NY; [7]University of North Carolina School of Medicine, Chapel Hill, NC

Introduction: Adverse childhood experiences (ACEs) are traumatic events that occur in childhood. In non-Hispanic White populations, ACEs are associated with young adult weight gain. United States (US)-residing Hispanics/Latinos (H/Ls) face multiple challenges such as acculturative stress, limited access to care, low socioeconomic status, and poor emotional wellbeing, including depression, which are compounded by ACEs; however, the relation between ACEs and the weight trajectory in adulthood among US H/Ls has not been assessed. This study investigated the relation between ACEs and adult weight trajectory in this population and whether the relation was mediated by depression.

Method: Participants were 5,244 adults (BMI 30.1+/-6.1 kg/m2; 62% women; mean age 46.5+/-13.7 yrs) self-identified as H/L in the Hispanic Community Health Study/Study of Latinos (HCHS/SOL) Sociocultural Ancillary Study. Participants represent Mexican, Puerto Rican, Cuban, Dominican, and Central and South American backgrounds, recruited in the Bronx, NY, Chicago, IL, Miami, FL, and San Diego, CA. At baseline, self-reported current body weight and retrospective body weight(s) at ages 21, 45, and 65 (as available) were collected. Participants completed the 10 item ACE questionnaire covering abuse, neglect, and household dysfunction. Depression was evaluated with the CESD-10. Self-reported current body weight was again collected 5-6 years after baseline. Latent growth quadratic models were tested in a multilevel modeling framework.

Results: Adjusting for sex, H/L background, birth cohort (born before or after 1980), and study site, ACEs significantly predicted weight gain in young adulthood (b=0.15 kg; CI=0.01-0.30) and depression mediated this relation (z=2.39, p=.02). ACEs also predicted weight in late adulthood (b=0.27 kg; CI=0.05-0.49), not mediated by depression. When also adjusting for US nativity or age at immigration, ACEs no longer predicted weight gain in young adulthood.

Conclusion: Among H/Ls in the US, ACEs predict young adult weight gain, partially mediated by depression, and late adult weight. However, US nativity or age at immigration confounds the relation between ACEs and young adult weight gain whereby when US nativity or age at immigration is accounted for, ACEs no longer predict young adult weight gain. Future work should elucidate the relation between challenges unique to US-residing H/Ls, ACEs, and adult weight trajectory to improve health outcomes in this population.

CORRESPONDING AUTHOR: Manuela Jaramillo, MS, University of Miami, Boca Raton, FL; manujara@miami.edu

---

Abstract citation ID: kaad011.1228

POSTER SESSION E: THE IMPACT OF ROLES AND NUTRITIONAL RESPONSIBILITIES WITHIN A DYAD ON WEIGHT LOSS OUTCOMES IN A COUPLES-BASED INTERVENTION

Amanda Montanari, MS[1], Talea Cornelius, PhD, MSW, MS[2], Tricia M. Leahey, PhD[3], Amy A. Gorin, PhD[3]

[1]University of Connecticut, Scituate, MA; [2]Columbia University Irving Medical Center, New York, NY; [3]University of Connecticut, Storrs, CT

Background: Weight status is often shared within couples, and the limited research that has explored couples-based weight-loss programs indicates couples who support each other are more successful in weight management. This study extends research on couples' weight management by evaluating the impact of couples' distribution of nutritional responsibilities during a 6-month weight-loss program on weight outcomes.

Methods: Couples enrolled in a couples-based weight-loss program (99 individuals, 52 dyads; *Mean Age* = 53.74 years, *SD* = 9.55; 50.5% female) reported on nutritional responsibilities (who shops for groceries, who decides on groceries, who decides on meals) at 6 months. Agreement in nutritional responsibilities was tested using Cohen's Kappa. The impact of nutritional responsibilities on weight outcomes was tested using mixed models with correlated residuals to account for dyadic interdependence. Two models were estimated for each nutritional responsibility, one examining main effects on percent weight change (3 categories: self, partner, together; planned contrast: self/partner v. together) and one including interactions with sex. Covariates included sex and intervention condition.

Results: The level of agreement within the dyads on all 3 nutritional responsibilities was statistically significant, ps < .001. Agreement that responsibilities were completed by the female partner, male partner, or together was 42.3%, 19.2%, and 21.2% (shopping for groceries), 26.9%, 9.6%, and 25% (deciding on groceries), and 34.6%, 11.5%, and 28.8% (deciding on meals), respectively. There was no evidence that nutritional responsibilities were associated with percent weight change at 6 months, *p*s > .22, nor were the planned contrasts comparing individual responsibilities to shared responsibility significant. There was a significant interaction between sex and deciding on meals, *p* = .047. For male partners, deciding on meals themselves was associated with significantly less percent weight loss at 6 months v. deciding on meals together, *B* = 4.32, 95% CI .32, 8.32, *p* = .035. For female partners, this association was not significant, *p* = .70.

Conclusions: Couples demonstrated significant agreement about the distribution of nutritional responsibilities. Nutritional responsibilities were largely not associated with weight outcomes at 6 months, with the exception that male partners had worse weight outcomes when deciding on meals themselves (v. together with their partner). Future research with larger sample sizes should identify mechanisms underlying this effect.

CORRESPONDING AUTHOR: Amanda Montanari, MS, University of Connecticut, Scituate, MA; amanda.montanari@uconn.edu

Abstract citation ID: kaad011.1229

POSTER SESSION E: EFFICACY OF MEDITERRANEAN DIET INTERVENTIONS ON METABOLIC RISK FACTORS IN CHILDREN AND ADOLESCENTS: A META-ANALYSIS

Aviana O. Rosen, MS[1], Sarah Anderson, RD[2], Ashley L. Holmes[3], Tania B. Huedo-Medina, PhD[4]

[1]University of Connecticut, Glastonbury, CT; [2]University of Connecticut, Storrs, CT; [3]The George Washington University, Storrs, CT; [4]University of Basque Country, Donostia, Murcia, Spain

Background: Pediatric obesity has developed into one of the most significant global health concerns of the 21st century. The Mediterranean Diet (MedDiet) has been proven protective against numerous obesity outcomes in adults; however, research examining its effects in pediatric populations is limited. Synthesis and analysis of existing MedDiet interventions in children and adolescents will provide a much-needed framework for the development of future pediatric MedDiet-style interventions to help curb pediatric obesity. This meta-analysis sought to determine the efficacy of MedDiet adherence interventions on metabolic risk factors in children and adolescents globally.

Methods: Four electronic databases (CINHAHL, PubMed, Scopus, Cochrane) were comprehensively searched utilizing key terms and population specifiers. Included studies provided pre- and post-intervention measurements of obesity outcomes (e.g., waist circumference (WC) and body mass index (BMI)), and reported MedDiet adherence among subjects. Data from 32 interventions were included. Weighted mean effect size was obtained and calculated as the standardized mean difference of pre- and post-intervention obesity outcomes specifically observing WC, BMI, and MedDiet adherence. Moderator analyses were run for country, study design, intervention duration, sample size, and intervention components.

Results: Included interventions were conducted across 14 countries (primarily Europe and North America) with a total sample size of N=4244. There was a negative and significant effect size for the MedDiet on BMI and WC favoring the interventions. Thus, compared to controls, the intervention groups which implemented the MedDiet had lower BMI and WC values. There was a positive significant effect size for MedDiet adherence favoring the intervention for the majority of studies. Moderator analyses showed significant results across all categories, particulalry longer duration interventions, use of a behavioral technique in the intervention, and small participant groups compared to one-on-one interventions.

Conclusions and Relevance: Across the interventions, there were significant beneficial effects in favor of the Mediterranean diet interventions on metabolic risk factors (BMI, WC) in children and adolescents in Europe and North America. These synthesized results yield promising potential for the development of future pilot MedDiet interventions, as we provide evidence of the types of interventions and specific intervention components that were most effective, and more studies are urgently needed to determine the efficacy of Mediterranean Diet adherence on obesity outcomes in children and adolescents on a global scale.

CORRESPONDING AUTHOR: Aviana O. Rosen, MS, University of Connecticut, Glastonbury, CT; aviana.rosen@uconn.edu

---

Abstract citation ID: kaad011.1230

POSTER SESSION E: INFLUENCE OF STRESS AND RESILIENCY ON BEHAVIORAL WEIGHT LOSS OUTCOMES

Kayla F. O'Connor, MS[1], Katherine E. McManus-Shipp, MA, MA[2], Kyrstyn Jenkins, BA[3], Julie Pham, BS[4], Zeely A. Denmat, BS[5], Jessica G. LaRose, PhD, FSBM[6], Amy A. Gorin, PhD[1], Tricia M. Leahey, PhD[1]

[1]University of Connecticut, Storrs, CT; [2]University of Connecticut, Providence, RI; [3]University of Connecticut, Vernon, CT; [4]UConn Weight Management Research Group, New Haven, CT; [5]University of Connecticut, Hartford, CT; [6]Virginia Commonwealth University School of Medicine, Richmond, VA

Background: Overweight and obesity is a major public health concern affecting two-thirds of American adults and increasing risk for type 2 diabetes, heart disease, and cancer. Stress is associated with excess adiposity, eating calorie-dense foods, weight gain, and reduced physical activity (PA). Due to discrimination, financial concerns, and multiple role strain, women, young adults, and individuals who identify as racial/ethnic minority have increased stress. Resiliency has been shown to mitigate the impact of stress on health outcomes. Despite these associations, stress and resiliency have not been well examined in the behavioral weight loss (BWL) literature. Elucidating the role of stress in BWL outcomes and identifying for whom these associations are most pronounced could lead to important intervention developments. Thus, this study examined whether stress was associated with weight loss, fast-food intake, snack intake, and weekly PA minutes among adults enrolled in an online BWL program. Additionally, we examined whether resiliency, sex, age, and race/ethnicity moderated these effects.

Methods: Participants (n=782, 83% female, 66.4% non-Hispanic White, age 50.7±12.0 years) enrolled in a 16-week online BWL program completed valid and reliable measures of stress, resiliency, fast-food intake, and snack intake and had their weight objectively assessed at both baseline and week 16. PA minutes were self-reported via the intervention website.

Results: Higher baseline stress predicted poorer weight loss outcomes ($p < .001$). Higher resiliency buffered the impact of stress on increases in fast-food intake during intervention ($p = .04$). Female sex buffered the impact of stress on increases in snack food intake ($p = .04$), while male sex buffered the impact of stress on increases in fast-food intake ($p = .05$) Age moderated the effects of stress on PA minutes (p's$< .003$); increases in stress during treatment had less of an impact on physical activity minutes for older individuals compared to younger individuals. Race/ethnicity was not a significant moderator of the impact of stress on weight-related outcomes (p's $> .16$).

Conclusion: Stress is negatively associated with BWL outcomes for all participants, with the relationship between stress and undesirable behaviors (i.e., fast-food intake and limited PA) most pronounced for women and younger adults. BWL programs that focus on coping with stress may improve BWL outcomes for all adults and for women and young adults in particular.

CORRESPONDING AUTHOR: Kayla F. O'Connor, MS, University of Connecticut, Storrs, CT; kayla.f.o'connor@uconn.edu

Abstract citation ID: kaad011.1231

MERITORIOUS AWARD WINNER

POSTER SESSION E: PATTERNS OF ENGAGEMENT IN AN ONLINE BEHAVIORAL WEIGHT LOSS INTERVENTION

Jared M. Goetz, BA[1], Richard Bannor, MPH[2], Ran Xu, PhD[2], Sherry Pagoto, PhD, FSBM[3]

[1]University of Connecticut, Dudley, MA; [2]University of Connecticut, Department of Allied Health Sciences, Storrs, CT; [3]University of Connecticut, Storrs, CT

Previous studies have found that engagement in online behavioral weight loss interventions is a strong predictor of weight loss. However, less is known about distinct patterns of engagement, characteristics of participants with different patterns of engagement, and the relationship between engagement pattern and weight loss. In this study, we identified trajectories of engagement over the first six months of an online behavioral weight loss intervention and compared these clusters on demographics and weight loss at 6 months.

This is a secondary analysis of the online intervention condition (n = 166, 82% female, 91% white) in a randomized controlled non-inferiority trial where adults (mean age = 45.4 years, SD = 11.4) with obesity or overweight (mean BMI = 35.0, SD = 4.6) were randomized to a behavioral weight loss intervention delivered either in-person or online (via private Twitter group). Engagement was defined as number of days per week a participant either tweeted or liked other tweets during the first 6 months of the study. We performed a time series clustering analysis using the 'tsclust' package in R to identify engagement patterns across participants. Chi square and Kruskal-Wallis tests were used to compare clusters by demographic characteristics and an ANOVA was used to determine whether percent weight change differed between clusters at 6 months.

We identified three clusters of engagement. High engagers (n=30; 18%) had consistently high activity with an average of 6.4 (SD = 1.4) days a week of activity at the beginning of the intervention and 5.6 (SD = 1.5) days a week at 6 months. Medium engagers (n=37; 22%) started engaging an average of 6.5 (SD = 1.2) days but gradually declined to 2.5 (SD = 1.9) days a week by 6 months. Low engagers (n=99; 60%) started engaging an average of 4.8 (SD = 2.0) days a week but rapidly decreased to an average of 0.4 (SD = 0.9) days a week at 6 months. Clusters did not differ by gender (p = 0.65), race/ethnicity (p = 0.75), age (p = 0.56) or baseline BMI (p = 0.48). Clusters differed in percent weight loss at 6 months (p < 0.001). High engagers lost a significantly higher percent of weight (mean = -6.0%, SD = 6.2; p < 0.001) than low engagers (mean = -1.2%, SD = 5.1) but not medium engagers (-3.0%, SD = 6.7, p = 0.11). Medium and low engagers did not differ in percent weight change at 6 months (p = 0.35).

Engagement patterns during the first 6 months of an intervention were related to weight loss at 6 months. Engagement patterns did not differ by demographics or baseline BMI, but they may serve as a beneficial tailoring variable in adaptive interventions.

CORRESPONDING AUTHOR: Jared M. Goetz, BA, University of Connecticut, Dudley, MA; jared.goetz@uconn.edu

---

Abstract citation ID: kaad011.1232

POSTER SESSION E: EFFECT OF PAIN COPING SKILLS TRAINING ON PAIN AND PAIN MEDICATION USE FOR WOMEN WITH BREAST CANCER

Hannah M. Fisher, PhD[1], Shannon N. Miller, BPH[1], Kelly A. Hyland, PhD[1], Joseph G. Winger, PhD[2], Grace H. Amaden, BS[1], Allison K. Diachina, BA[1], Sarah A. Kelleher, PhD[1], Tamara J. Somers, PhD[2]

[1]Duke University Medical Center, Durham, NC; [2]Department of Psychiatry and Behavioral Sciences, Duke University School of Medicine, Durham, NC

Introduction: Pain is highly distressing for women with breast cancer and medication may not provide full relief. Cognitive-behavioral pain management protocols improve pain self-efficacy and reduce pain severity. These interventions' impact on pain medication use is less clear. Intervention length and coping skills use might play a role in pain outcomes. We examined differences in pain severity, pain medication use, pain self-efficacy, and coping skill use after five- (PCST-Full) and one-session (PCST-Brief) Pain Coping Skills Training protocols. Pain self-efficacy and coping skills use were assessed as mediators of intervention effects on pain and pain medication use.

Methods: Women (N=327) with stage I-III breast cancer were enrolled in a randomized trial comparing PCST-Full and Brief. Pain severity, pain medication use, pain self-efficacy, and coping skills use were assessed at baseline (A1) and 5-8 weeks later (A2). Paired sample t-tests assessed within-group differences from A1 to A2 for the full sample, and PCST-Full and Brief groups. Independent sample t-tests assessed between-group (PCST-Full vs Brief) differences at A2. Using Hayes PROCESS Macro, pain self-efficacy and coping skills use at A2 were separately specified as mediators of the relationship between intervention group and pain severity and pain medication use at A2.

Results: Pain and pain medication use significantly decreased, while pain self-efficacy increased pre-post for women across both intervention groups (*p's*< .05). Women in PCST-Full demonstrated less pain ($t(309)=-2.20$, $p=.03$, $d=-.25$) and pain medication use ($t(304)=-2.04$, $p=.04$, $d=-.23$), and more pain self-efficacy ($t(304)=2.37$, $p=.02$, $d=.27$) and coping skills use ($t(304)=2.02$, $p=.04$, $d=.23$) at A2 compared to women in PCST-Brief. Only pain self-efficacy mediated the relationship of intervention group with pain (Indirect Effect: $B=.18$, 95% CI [.04,.35]) and pain medication use (Indirect Effect: $B=.20$, 95% CI [.03,.38]).

Discussion: Brief pain coping skills training reduced pain and pain medication use, and increased pain self-efficacy and coping skills use. Benefits were larger for 5-session PCST-Full yet women randomized to PCST-Brief still demonstrated improvements, suggesting a 1-session protocol may be a viable option for women with breast cancer and pain. Enhanced pain self-efficacy might underpin intervention effects on pain and pain medication use, highlighting this as a critical mechanism for improving pain outcomes.

CORRESPONDING AUTHOR: Shannon N. Miller, BPH, Duke University Medical Center, Durham, NC; shannon.n.miller@duke.edu

Abstract citation ID: kaad011.1233

POSTER SESSION E: PATIENT MOTIVATION TO TAPER OPIOIDS FOR CHRONIC PAIN: BARRIERS, SELF-EFFICACY, AND READINESS TO CHANGE

Taylor B. Crouch, PhD[1], Emily K. Donovan, MA[2], Dace S. Svikis, PhD[2], Zina Trost, PhD[2], Wally Smith, MD[2]

[1]Virginia Commonwealth University, Manakin Sabot, VA; [2]Virginia Commonwealth University, Richmond, VA

Background: This study aimed to better understand self-efficacy and motivation to change among patients using opioids for chronic pain (CP). The dual CP and opioid crises have led to multi-pronged efforts to reduce opioid prescribing and expand high-quality, non-opioid CP treatments. However, 13 million Americans remain on long-term opioid therapy (LTOT) for CP and utilization of non-opioid CP approaches remains low, especially among those on LTOT. A recent review noted mounting evidence that motivation is a significant concern among those with CP on LTOT, but there is little research systematically examining patient motivation, self-efficacy, and barriers to changing their opioid use.

Methods: *N* = 94 patients with CP currently taking prescription opioids were recruited from ResearchMatch.org. Patients completed a battery of electronic, self-report questionnaires and were compensated $15. Measures used for the current analyses included the Brief Pain Inventory (BPI), single-item readiness to change and confidence scales about reducing or stopping opioid use, and a brief measure of common opioid side effects, concerns, and barriers to stopping. Descriptive statistics were analyzed, and *t*-tests were utilized to compare levels of confidence and readiness to decrease versus stop use.

Results: The sample included 78% women. Most (74.8%) were Caucasian. Respondents reported on average 6.1 CP diagnoses, with back pain being most prevalent (24.4%). Average estimated daily morphine milligram equivalent was 54.9. Average pain severity was 5.8/10. Self-efficacy to decrease use (M=3.68, SD=3.43) was higher than self-efficacy to stop completely (M=2.87, SD=3.36), $t(93)$=3.44, $p<$ .001, and readiness to decrease (M=3.68, SD=3.32) was higher than readiness to stop (M=2.74, SD=3.30), $t(93)$=3.57, $p<$ .001. The majority (79.1%) reported at least some concern about opioid use. Most frequently endorsed concerns were tolerance (52.1%), addiction (43.6%), and lack of effectiveness (40.4%). Most frequently endorsed barriers to stopping or decreasing were fear of increased pain (80.5%) and lack of alternative treatment options (76.6%).

Conclusions: Among patients currently taking opioids for CP, the vast majority reported some concern about their use, with most common concerns being tolerance, addiction, and lack of effectiveness. Still, self-efficacy and readiness to stop were low. Self-efficacy and readiness to decrease use, rather than stop, were significantly higher, though still fairly low. These findings suggest that efforts to decrease opioid reliance need to prioritize ways to bolster patients' self-efficacy and motivation. The most common barriers to stopping or decreasing included fear of increased pain and lack of alternatives, highlighting the importance of improving patients' access to effective, non-opioid treatments.

CORRESPONDING AUTHOR: Taylor B. Crouch, PhD, Virginia Commonwealth University, Manakin Sabot, VA; taylor.crouch@vcuhealth.org

---

Abstract citation ID: kaad011.1234

POSTER SESSION E: ASSOCIATIONS BETWEEN RISK OF PAIN MEDICATION MISUSE, PAIN SYMPTOMS, AND ILLNESS PERCEPTION IN EMERGING ADULTS WITH CHRONIC PAIN

Tori Humiston, MS[1], Caroline Cummings, PhD[2], Nathan Hacker, BS[3], Amy Hughes Lansing, PhD[3]

[1]University of Vermont, South Burlington, VT; [2]Texas Tech University, Lubbock, TX; [3]University of Vermont, Burlington, VT

Introduction: Increased risk of pain medication misuse has been associated with a plethora of deleterious health outcomes, including cardiovascular disease and cognitive decline. It may be especially critical for emerging adults with chronic pain to intervene upon pain medication use, as behaviors routinized in this developmental period tend to persist into adulthood. There is a need for continued research that explores the factors underlying the risk of pain medication misuse in emerging adults with chronic pain that may be applied to prevent pain medication misuse. This study examined associations between the risk of pain medication misuse, illness perception, pain interference, and pain intensity to contextualize possible areas of behavioral health interventions to reduce the risk of pain medication misuse.

Methods: Emerging adults aged 18-26 with chronic pain (n=225; 70.2% White, 78.7% woman-identifying) completed an online survey. Participants completed measures of demographics, risk of pain medication misuse, illness perception, pain interference, and pain intensity.

Results: Bivariate correlations yielded significant associations between poorer illness perception and higher pain medication use risk score (r=.22, p=.02) and increased pain interference and higher pain medication use risk score (r=.22, p=.02). However, there was not a significant association between pain intensity and pain medication use risk score (r=.11, p=.27). Further, illness perception was significantly associated with pain intensity and pain interference (p's< .001).

Conclusion: Poorer illness perception and increased pain interference, but not pain intensity, may exacerbate the risk of pain medication misuse. These results highlight the need for increased access to evidence-based behavioral health interventions that focus on addressing illness perception and pain interference (e.g., using behavioral skills and cognitive restructuring to increase functioning while decreasing distress), thereby reducing the risk for pain medication misuse and its harmful health outcomes in this at-risk population.

CORRESPONDING AUTHOR: Tori Humiston, MS, University of Vermont, South Burlington, VT; tori.humiston@uvm.edu

Abstract citation ID: kaad011.1235

POSTER SESSION E: PSYCHOLOGICAL MEDIATIONAL MECHANISMS UNDERLYING PAIN INTERFERENCE IN SPANISH-SPEAKING MEXICAN AMERICANS

Cristian Garcia Alcaraz, MA[1], Scott Roesch, PhD[2], Rosa A. Cobian Aguilar, MA[3], Sara Gombatto, PhD[4], Kristen Wells, PhD, MPH[2]

[1]SDSU/UC San Diego Joint Doctoral Program in Clinical Psychology, San Diego, California, San Diego, CA; [2]San Diego State University, San Diego, CA; [3]SDSU/UCSD Joint Doctoral Program in Clinical Psychology, San Diego, CA, CA; [4]San Diego State University, San Diego State University, CA

Introduction: Little is known about the pain mechanisms that underly pain interference in Spanish-speaking Mexican Americans (SS-MAs), although pain has been connected to disability in this population. Pain interference is defined as the extent to which pain hinders one's engagement with social, cognitive, emotional, physical, and recreational activities. The present study explored if in SS-MAs, pain intensity had an indirect relationship with pain interference via pain-related anxiety, pain catastrophizing, and fear-avoidance as mediators. A direct relationship was also explored.

Methods: Convenience sampling was used to recruit 188 SS-MA adults (female = 57.4 %, male = 41.0 %, and non-binary = 1.6 %; mean age=37.20 years, SD=9.87) across the United States. Further, a third-party agency (Qualtrics Online Panels) collected and managed participant data. Path analysis was used to explore the proposed mediational model of pain interference. Bootstrapping was used to calculate bias-corrected 95% confidence intervals (CI) for indirect and direct effects. The correlations between mediators were also evaluated. The exogenous variable was assessed with the PROMIS Pain Intensity Short Form [PISF]; the mediators were assessed with the Pain Catastrophizing Scale [PCS], Pain Anxiety Symptom Scale [PASS], and the Fear Avoidance Belief Questionnaire [FABQ]; and the endogenous variable was assessed with the PROMIS Pain Interference Short Form 8a [PISF8a].

Results: The proposed path model was just-identified, leading to perfect fit due to zero degrees of freedom. This allowed for the interpretability of coefficients but not of fit statistics. Pain intensity had an indirect effect on pain interference via both pain catastrophizing (β = .204, p < .01, *95% CI* =.102, .308) and pain-related anxiety (β = .119, p < .01, *95% CI* =.052, .199). Moreover, pain intensity had first a positive relationship with pain catastrophizing (β = .615, p < .01, *95% CI* = .531, .685) and pain-related anxiety (β = .462, p < .01, *95% CI* = .369, .462), which then had a positive relationship with pain interference (respectively, β = .332, p < .01, *95% CI* = .159, .487; β = .258, p < .01, *95% CI* = .106, .258). Pain intensity also had a direct effect on pain interference (β = .356, p < .01, *95% CI* = .246, .462) and fear avoidance (β = .416, p < .01, *95% CI* = .314, .508) as indicated by positive relationships. The correlations between the mediators were all positive and significant: pain catastrophizing with fear avoidance = .292, p < .01, pain catastrophizing with pain-related anxiety = .668, p < .01, and fear avoidance with pain-related anxiety = .492, p < .01.

Conclusions: Evidence informs on possible psychological, pain-related treatment targets for the management of pain interference in SS-MAs. Future research with longitudinal designs is still warranted to establish the present psychological meditational mechanisms of pain interference in SS-MAs.

CORRESPONDING AUTHOR: Cristian Garcia Alcaraz, MA, SDSU/UC San Diego Joint Doctoral Program in Clinical Psychology, San Diego, California, San Diego, CA; cgarcia6034@sdsu.edu

---

Abstract citation ID: kaad011.1236

POSTER SESSION E: PHYSICAL ACTIVITY AND MENTAL HEALTH IN PATIENTS WITH MULTIMORBIDITY

Christian Schmidt, MS[1], Kristen Malecki, PhD[2], Ronald Gangnon, PhD[1], Amy Schultz, PhD[1], Paul Peppard, PhD[1], Lisa A. Cadmus-Bertram, PhD[1]

[1]University of Wisconsin-Madison, Madison, WI; [2]University of Illinois Chicago, Chicago, IL

Introduction: Patients with multimorbidity are at elevated risk for depression and anxiety. Previous studies in patients with multimorbidity have found an association between physical inactivity and more severe depressive symptoms, but these studies have relied on self-reported measures of physical activity. Studies using objective physical activity measurement methods, such as accelerometry, are needed.

Methods: Data were from the Survey of the Health of Wisconsin (SHOW), a statewide health survey. Analyses were restricted to subjects with multimorbidity defined as two or more self-reported chronic conditions (cancer, chronic obstructive pulmonary disease, coronary artery disease, diabetes, dyslipidemia, heart failure, hypertension, and stroke). Logistic regression models were used to assess the association between physical activity, measured using the ActiGraph wGT3X-BT, and moderate to extremely severe depression/anxiety assessed using the validated Depression Anxiety Stress Scales (DASS).

Results: 704 (33%) of the 2,142 SHOW participants had multimorbidity. Median age was 64 (IQR: 56, 71), and 336 (47.7%) identified as male. One additional hour (per week) of light-intensity physical activity was associated with a reduced odds of depression (OR: 0.97 [95% CI: 0.95, 0.996]) but not anxiety (OR: 0.98 [0.96, 1.00].) One additional hour (per week) of moderate to vigorous physical activity (MVPA) was associated with less anxiety (OR: 0.86 [0.75, 0.995]) but not depression (OR: 0.92 [0.80, 1.05].)

Conclusion: MVPA was associated with fewer anxiety symptoms among those with multimorbidity and light-intensity physical activity was associated with fewer symptoms of depression. Further studies examining the role of physical activity in patients with multimorbidity and its potential to improve mental health in this population are needed.

CORRESPONDING AUTHOR: Christian Schmidt, MS, University of Wisconsin-Madison, Madison, WI; cwschmidt@wisc.edu

Abstract citation ID: kaad011.1237

POSTER SESSION E: TESTING POTENTIAL MECHANISMS OF SELF SELECTED EXERCISE INTENSITY

Colin Lamb, BA[1], Austin S. Baldwin, PhD, FSBM[1]

[1]Southern Methodist University, Dallas, TX

Objective: Self-selecting exercise intensity has been shown to be an effective approach to increase physical activity (Baldwin et al., 2016[BA1]). Little is known, however, about potential mechanisms by which a self-selected intensity effect occurs. In these analyses, we examined two potential mechanisms of self-selected exercise intensity: affective attitudes and autonomous motivation.

Methods: Insufficiently active individuals (N=83) were randomly assigned to either self-select exercise intensity based on maintaining a positive affective response or to maintain intensity based on a target heart rate. Participants completed measures of affective attitudes and autonomous motivation at baseline and 1-week follow-up. Minutes of moderate-to-vigorous physical activity (MVPA) were assessed at baseline, 1-week, and 1-month follow-ups. Using an experimental medicine approach, we tested the effect of self-selected exercise intensity on two putative mechanisms, affective attitudes and autonomous motivation, and also tested the associations between changes in the mechanisms and MVPA.

Results: Self-selected intensity to maintain a positive affective response led to a marginally significant change in affective attitudes at 1-week compared to the target heart rate group (β= -0.21, t= -1.84, p= .07) but did not lead to a change in autonomous motivation (β= 0.11, t= 1.00, p= .32). Changes in affective attitudes (β= 0.27, t=2.46, p= .02) and changes in autonomous motivation (β= 0.23, t= 2.01, p= .05) were significantly associated with MVPA at 1-week. At 1-month, changes in autonomous motivation significantly predicted MVPA ((β= 0.27, t= 2.39, p= .02) whereas changes in affective attitudes no longer predicted (β= 0.06, t= .49, p= .63).

Conclusion: Both putative mechanisms were significantly associated with MVPA minutes after 1-week and changes in autonomous motivation significantly predicted MVPA after 1-month. Findings indicate that a self-selected intensity approach may be an effective way to target affective attitudes but not autonomous motivation. Alternative approaches are needed to successfully target autonomous motivation for exercise.

CORRESPONDING AUTHOR: Colin Lamb, BA, Southern Methodist University, Dallas, TX; colinl@smu.edu

---

Abstract citation ID: kaad011.1238

POSTER SESSION E: DEVELOPMENT AND VALIDATION OF PREDICTION ALGORITHMS TO ESTIMATE FUTURE WALKING BEHAVIOR: A RETROSPECTIVE COHORT STUDY

Junghwan Park, BS[1], Gregory Norman, PhD[2], Predrag Klasnja, PhD[3], Daniel E. Rivera, PhD, FSBM[4], Eric Hekler, PhD[5]

[1]University of California, San Diego, San Diego, CA; [2]Dexcom, Inc., Del Mar, CA; [3]University of Michigan, Ann Arbor, MI; [4]Arizona State University, Tempe, AZ; [5]UC San Diego, San Diego, CA

Background: Physical inactivity is associated with numerous health risks, including cancer, cardiovascular disease, type 2 diabetes, increased healthcare expenditure, and preventable, premature deaths. The majority of Americans fall short of clinical guidelines' goals (i.e., 8,000-10,000 steps per day). Behavior prediction algorithms could enable efficacious interventions to promote physical activity by facilitating delivery of nudges at appropriate times.

Objectives: To develop and validate algorithms that predict walking (i.e., >5 minutes) within the next 3 hours, predicted from the participants' previous five weeks' steps per minute data.

Methods: We conducted a retrospective, closed cohort, secondary analysis of a 6-week Micro Randomization Trial (MRT) of the HeartSteps mHealth physical-activity intervention conducted in 2015. The prediction performance of six algorithms was evaluated: logistic regression, radial-basis function support vector machine, eXtreme Gradient Boosting (XGBoost), multi-layered perceptron (MLP), decision tree, and random forest. For the MLP, 90 random layer architectures were tested for optimization. Prior 5-week hourly walking data, including missingness, was used for predictors. Whether the participant walked during the next 3 hours was used as the outcome. K-fold cross-validation (K=10) was used for the internal validation. The primary outcome measures are classification accuracy, Mathew's correlation coefficient (MCC), sensitivity, and specificity.

Results: The total sample size included six weeks of data among 44 participants. The majority of participants were female (70.5%), White (59.1%), had a high-school degree or higher (52.3%), and were married (34.1%). The mean age was 35.9 years old (SD=14.7). Participants who did not have enough data (number of days < 10, n=3) were excluded, resulting in 41 participants. MLP with optimized layer architecture showed the best performance in accuracy (82.0±1.1%), whereas XGBoost (76.3±1.5%), Random Forest (69.5±1.0%), Support Vector Machine (69.3±1.0%), Decision tree (63.6±1.5%) algorithms showed lower performance than logistic regression (77.2±1.2%). MLP also showed superior overall performance to all other tried algorithms in MCC (0.643±0.021), sensitivity (86.1±3.0%), and specificity (61.4±1.8%).

Conclusions: Walking behavior prediction models were developed and validated. MLP showed the highest overall performance of all attempted algorithms. A random search for optimal layer structure is a promising approach for prediction engine development. Future studies can test the real-world application of this algorithm in a 'smart' intervention for promoting physical activity.

CORRESPONDING AUTHOR: Junghwan Park, BS, University of California, San Diego, San Diego, CA; jup014@ucsd.edu

Abstract citation ID: kaad011.1239

POSTER SESSION E: HIGHER DAILY STEPS AND MORE EXPOSURE TO SPECIFIC OUTDOOR CONTEXTS ARE ASSOCIATED WITH HIGHER POSITIVE AFFECT IN EVERYDAY LIFE

Shang-Ti Chen[1], Chih-Hsiang Yang[2], Mengya Xia[3]

[1]Department of Tourism, Recreation, and Leisure Studies/National Dong Hwa University, Shoufeng, Hualien, Taiwan (Republic of China); [2]Arnold School of Public Health & Department of Exercise Science/University of South Carolina, Columbia, SC; [3]Department of Psychology/The University of Alabama, Tuscaloosa, AL

Background: Increased physical activity, including walking, and being exposed to outdoor environments are positively associated with psychological health. It remains unclear whether having greater exposure to specific environmental contexts and more steps on a given day independently link to psychological health outcomes (i.e., positive affect). The aim of this study was to examine the unique effects of specific outdoor contexts and accelerometry-assessed daily steps on positive affect using ecologically momentary assessments (EMA).

Methods: A total of 154 adults in Taiwan (female = 67.5%, age = 18-59, *M* = 24.9) completed randomly delivered EMA surveys three times per day for 7 days on their smartphones. They reported their current context and rated their positive affect in each EMA survey. They also wore the activPAL accelerometer during the study period to record their daily steps. *Environmental contexts* were first assessed by selecting outdoor or indoor context. Outdoor contexts included 10 options (i.e., park, streets, recreational facilities) and further categorized into three categories "nature or green space, walking trail or pathway, and urban infrastructure and facilities." Positive affect was calculated as the average from five EMA items (happy, enjoyable, contented, relaxed, energetic) using a 5-point Likert scale and aggregated at the day-level for analysis. Multilevel modeling was used to investigate the day-level associations between daily steps, specific outdoor contexts, and positive affect. A list of key covariates collected at baseline (age, gender, education, BMI, living alone, smoking, drinking, chronic disease, and depression levels) were included in the model to adjust for their impact on the study outcome.

Results: Study sample included 2,718 EMA occasions (EMA response rate = 84%) from 154 adult participants. Our models suggest that daily positive affect was positively associated with daily steps ($r = 0.19$, $p < .05$) and the frequency of exposure to nature/green space ($r = 0.20$, $p < .05$). In addition, participants with higher-than-usual daily steps ($b = 0.01$, $p < .001$), more-than-usual exposures to nature/green space or ($b = 0.96$, $p < .001$) walking trail or pathway ($b = 0.38$, $p < .001$) on a given day experience higher levels of positive affect, after adjusting for all covariates.

Conclusion: Individuals who are frequently exposed to outdoor contexts with better walkability and more natural settings may benefit psychological well-being in their everyday lives. Our EMA study indicates that this contextual benefit may be independent from engaging in higher activity level (assessed by daily steps in our study). Our findings provide practical implications for future EMA studies to investigate context-specific effects on mental health outcomes and for promoting emotional well-being through outdoor education.

CORRESPONDING AUTHOR: Shang-Ti Chen, Department of Tourism, Recreation, and Leisure Studies/National Dong Hwa University, Shoufeng, Hualien, Taiwan (Republic of China); svc5754@gms.ndhu.edu.tw

---

Abstract citation ID: kaad011.1240

POSTER SESSION E: FEASIBILITY OF USING FITBITS WITH EARLY CHILDHOOD EDUCATION PROFESSIONALS IN RURAL FAMILY CHILDCARE HOMES

Cynthia Lujan, BS[1], Danae Dinkel, PhD[2], Dana Dyksterhuis, BS[3], Jen Armstrong, MSc[3], Matthew Bice, PhD[4]

[1]University of Nebraska - Omaha, Omaha, NE; [2]University of Nebraska at Omaha, Omaha, NE; [3]Here For You For Them, Omaha, NE; [4]Baker University, Baldwin City, KS

Background: Early Childhood Education Professionals (ECEPs) possess risk factors for cardiovascular disease and high rates of stress which can lead to depression and/or burnout. Physical activity is one behavior that could help ECEPs to mitigate these challenges and improve physical and mental wellbeing. Unfortunately, ECEPs in rural family childcare homes (FCCHs) typically have access to fewer resources and trainings compared to their urban counterparts. Efforts are needed to support rural FCCH ECEPs' wellbeing by encouraging physical activity, but little is known about the feasibility of using strategies to help ECEPs monitor and improve their physical activity.

Objective: The purpose of this study is to explore the feasibility and acceptability of using Fitbits to impact physical activity among ECEPs in rural FCCH.

Methods: As part of a larger 16-week pilot study, ECEPs (n=27) received a Fitbit Charge 4 to track their physical activity levels throughout the intervention. The research team generated Fitbit accounts for each participant and downloaded step count data at the conclusion of each week. At the end of the intervention, feasibility and acceptability of using the Fitbits was collected through a survey and semi-structured interviews. Descriptive statistics were calculated for survey data and qualitative data were analyzed using a directed content analysis approach.

Results: Survey data revealed that 93% of ECEPs reported they became more aware of their physical activity levels by using the Fitbit, 86% found the Fitbit useful, and 78% believed the Fitbit was beneficial for improving their physical wellbeing. Similarly, in the semi-structured interviews, a majority of providers reported that the Fitbits helped them to monitor their behavior but also mentioned they used it for other health behaviors such as sleep. Providers main barriers to use or wear of the Fitbit centered around challenges syncing the device and experiencing discomfort or challenges with wearing the device. Overall, a majority of providers said they would continue using their Fitbit at the conclusion of the program.

Conclusion: This study suggests that Fitbits are an acceptable tool for monitoring physical activity levels as well as sleep by ECEPs but that additional troubleshooting by research staff may be needed. Future research should examine if Fitbit use as a part of an intervention can improve ECEPs physical activity and sleep.

CORRESPONDING AUTHOR: Cynthia Lujan, BS, University of Nebraska - Omaha, Omaha, NE; clujan@unomaha.edu

Abstract citation ID: kaad011.1241

POSTER SESSION E: THE IMPLEMENTATION AND EFFECTS OF AN EXERCISE REFERRAL SCHEME USING PHYSICAL ACTIVITY COUNSELING

Bryce Daniels, PhD[1], Erin Howie, PhD[2]

[1]Rush, Chicago, IL; [2]University of Arkansas, Fayetteville, AR

On college campuses, poor mental health symptoms are increasing, creating a rise in patients utilizing counseling and psychological services (CAPS). An exercise referral program within mental health services has the potential to greatly improve young adults' mental and physical health in higher education by increasing physical activity.

Objective: Assess the implementation and effectiveness of an exercise referral scheme (ERS) in a college's counseling and psychological services (CAPS) on physical activity (PA) and health outcomes.

Participants: 20 physically inactive, enrolled students at a US university participated from January–April 2022. Participants were supposed to be referred by CAPS if they were physically inactive. Due to the lack of CAPS patients, physically inactive students from the general campus population were recruited via electronic newsletter.

Methods: A randomized control trial utilized a treatment group (TG) (n = 10, n = 7 (70%) females) and a control group (CG) (n = 10, n = 8 (80%) females). The TG received weekly motivational interviewing (MI) sessions across four weeks, and the CG received a PA consultation. The primary outcome was device-based PA; secondary outcomes included fitness and mental health measures. These measures were assessed pre and post-intervention, and repeated measures ANCOVAs tested intervention effects (α = .05).

Results: 0/14 referred students via CAPS joined the ERS. Using physically inactive students from the general campus population, the TG showed beneficial group-by-time effects (changes) compared to the CG for percent body fat (change = -.05%, p = .006), Relative VO2max (change = 2.13 ml/kg/min, p = .004), muscular strength (change = 3.1 kg, p = .001), depression DASS-21 scores (change = -1.7, p < .001) , stress DASS-21 scores (change = -2.5, p = .007), and total DASS-21 scores (change = -5.1, p = .001) but not device-based PA (Vector Magnitude change = 52.6 counts/min, p = .296).

Conclusions: Patients were not motivated to join the ERS. More work is needed to overcome ERS implementation barriers in CAPS. However, MI sessions to increase physical activity positively affected fitness and mental health scores in a broader student sample, but not device-based physical activity. The TG indicated they were supportive of the intervention. However, interventionists must continue investigating effective behavioral change techniques for increasing college students' device-based physical activity.

CORRESPONDING AUTHOR: Bryce Daniels, PhD, Rush, Chicago, IL; bryce_daniels@rush.edu

---

Abstract citation ID: kaad011.1242

POSTER SESSION E: USING AN INTEGRATED SOCIAL COGNITION MODEL TO PREDICT ADOLESCENT PHYSICAL ACTIVITY INTENTIONS

Jessica Balla, MA[1], Martin S. Hagger, PhD[1]

[1]University of California, Merced, Merced, CA

Despite the documented physical and mental health benefits of participation in regular moderate-to-vigorous physical activity (MVPA) during adolescence, most adolescents worldwide do not meet official guidelines for MVPA. Therefore, interventions to promote MVPA in this population are needed. To optimize efficacy, interventions should target modifiable determinants of MVPA intention and behavior based on evidence from behavioral theory, while also accounting for influences of socio-structural and socio-environmental factors that may influence physical activity. The present study applied an integrated social cognition model to identify predictors of MVPA intention in samples of Finnish students recruited from 2018 and 2020. The 2018 sample (N=455) reported measures of social cognition constructs from the theory of planned behavior, self-discipline, habit, self-reported past and current MVPA, and accelerometer-based physical activity. The 2020 sample (N=3,878) completed the same measures as well as measures of socio-structural and socio-environmental factors, but not the accelerometer-based activity measure. Structural equation models showed that, in both samples, self-reported past behavior, attitude, perceived behavioral control, and habit predicted MVPA intention, and the relationship between self-reported past behavior and intention was partially mediated by the social cognition constructs. In the 2018 sample, accelerometer-based physical activity and subjective norm did not predict intention. In the 2020 sample, socio-structural and socio-environmental factors predicted all social cognition constructs and intention, subjective norm was a significant predictor of intention, and the relationships between socio-structural factors, socio-environmental factors, self-reported past behavior, and intention were partially mediated by social cognition constructs. Indirect effects for socio-structural and socio-environmental factors on intention were smaller than those for past behavior. Multi-group analysis revealed that the pattern of relationships was generally consistent across samples. Results support beliefs, past behavior, and habit as consistent predictors of MVPA intention. Discrepancies between self-report and accelerometer MVPA measures indicate potential implementation issues. Future research needs to test the generalizability of results by examining similar models in other populations and contexts.

CORRESPONDING AUTHOR: Jessica Balla, MA, University of California, Merced, Merced, CA; jballa@ucmerced.edu

Abstract citation ID: kaad011.1243

POSTER SESSION E: EFFECT OF INTERRUPTING SEDENTARY TIME ON COGNITIVE FUNCTION IN YOUTH: EXAMINING GLUCOSE METABOLISM AND FITNESS AS MODERATORS

Tiffany M. Chapman, MPH[1], Kelsey L. McAlister, MS[1], Kristen N. Moore, MS[1], Genevieve F. Dunton, PhD, MPH[1], Britni R. Belcher, PhD, MPH[1]

[1]University of Southern California, Los Angeles, CA

Background: Increased sedentary time may be associated to worse cognitive function in youth. Interrupting sedentary time with small exercise bouts may be an effective intervention strategy to improve cognition. However, the dose, frequency, and intensity of the exercise bout is unknown and research on factors that contribute to the variability in the impact of interrupting sedentary time on cognitive performance is limited. The study aims are: 1) examine the effects of prolonged versus interrupted sitting on cognitive function; 2) examine the effects of cardiorespiratory fitness (CRF) and glucose metabolism on cognitive function; and 3) investigate CRF and glucose metabolism as potential moderators in the experimental condition-cognitive function relationship.

Methods: Youth (N=46; mean age ± SD=13.94±1.11; 61% female; 57% Hispanic; 34% overweight/obese) participated in an in-lab randomized crossover trial with 2, 3hr experimental conditions: 1) continuous sitting and 2) sitting interrupted with 3min moderate-intensity walking bouts every 30 minutes. Pre- and post-test cognition measures were Flanker attention/inhibition, List Sorting Working Memory, and Picture Sequence Memory for episodic memory. T scores adjusting for age, gender, race/ethnicity, and parent's education were used in analyses. Glucose metabolism was assessed during each experimental condition via glucose area under the curve (AUC) with a 3hr oral glucose tolerance test. CRF was measured at baseline as maximal oxygen uptake (VO_2max, mL/kg/min) using a treadmill test. Paired t-tests assessed the differences in each cognitive outcome between experimental conditions and if glucose AUC and VO_2max moderated these differences.

Results: Post-test cognitive function did not differ by experimental condition (p's >0.05). There were positive relationships between CRF and attention/inhibition in the prolonged (r=0.39, p=0.04) and interrupted (r=0.54, p=0.004) sitting condition. Neither glucose AUC nor VO_2max moderated the relationship between experimental condition and cognitive outcomes (p's >0.05).

Conclusion: Interrupting sitting with short moderate-intensity walking did not improve cognitive performance. Higher CRF was associated with some aspects of cognitive performance in youth. Longer, more frequent, and/or higher intensity interruptions in sedentary time may be needed to improve cognition. Moreover, future studies should examine potential factors that may enhance the benefits of this strategy.

CORRESPONDING AUTHOR: Tiffany M. Chapman, MPH, University of Southern California, Los Angeles, CA; tmchapma@usc.edu

---

Abstract citation ID: kaad011.1244

POSTER SESSION E: PHYSICAL ACTIVITY IS ASSOCIATED WITH GREATER GRAY MATTER VOLUME AMONG POOR SLEEPERS

Sofia E. Gomez[1], Desiree C. Bygrave, PhD[1], Regina S. Wright, PhD[2]

[1]Benedict College, Columbia, SC; [2]School of Nursing/University of Delaware, NEWARK, DE

Poor sleep quality is common among older adults, and is associated with reduced gray matter (GM) volume – a critical factor linked to cognitive decrements and increased risk for dementia. Infrequent aerobic physical activity may further exacerbate both poor sleep and GM volume decline. Given that a physically active lifestyle can promote improved sleep and brain health, and, physical activity and GM volume among poor sleepers is underexplored, there is a critical need to understand the interactive effects of physical activity and sleep quality on GM volume. To address this need, we examined whether the relationship between aerobic physical activity and GM volume (global and regional) varied as a function of sleep quality among older adults. Data were analyzed from 165 participants (mean age = 68.48 years, 67% women, 41% African American) from the Healthy Heart and Mind Study, a cross-sectional examination of relations of subclinical and traditional cardiovascular risk factors to brain volumes and neurocognitive performance among community-dwelling older adults free of major disease. Participants completed the Pittsburgh Sleep Quality Index (PSQI) (PSQI global score ≤ 5 good sleepers [n =90]; PSQI global score >5 poor sleepers [n =75]) and the Rapid Assessment of Physical Activity self-reported questionnaires. MRI-assessed total GM volume and regional GM volumes (frontal, occipital, parietal, temporal and deep) were also ascertained. Linear regression analysis, adjusting for age, sex, mean arterial pressure, and depression, showed a statistically significant Aerobic Physical Activity x Sleep interaction for total brain GM volume (p=.03), frontal GM volume (p=.03), and parietal GM volume (p=.03). Further probing these interactions revealed that among poor sleepers, greater aerobic physical activity was associated with greater total GM volume (p=.03) and greater frontal GM volume (p=.02). These associations were not significant among good sleepers. Findings suggest that greater aerobic physical activity may be a protective factor against GM atrophy among older adults with poor subjective sleep quality. Future research should examine how interventions involving consistent aerobic physical activity may help to preserve brain and cognitive health among older adults who report poor sleep quality.

CORRESPONDING AUTHOR: Sofia E. Gomez, Benedict College, Columbia, SC; sofia.gomez38@my.benedict.edu

Abstract citation ID: kaad011.1245

POSTER SESSION E: ASSOCIATIONS BETWEEN MOVEMENT BEHAVIORS, SLEEP AND AFFECT IN OLDER ADULTS: AN ECOLOGICAL MOMENTARY ASSESSMENT STUDY

Jongwon Lee, MPH[1], Kasey Drayton, MS[1], Tyler W. Gheen[2], Krista L. Kicsak, MPH[3], Christine Pellegrini, PhD, FSBM[1], Chih-Hsiang Yang, PhD[1]

[1]University of South Carolina, Columbia, SC; [2]University of South Carolina, Fishers, IN; [3]Durham VA Healthcare System, Durham, NC

Introduction: Older adults generally have more autonomy to manage their time. The time spent on daily movement behaviors and sleep may be associated with daily mental health outcomes, such as positive and negative affect. This knowledge may benefit older adults to allocate their time to optimize their psychological well-being, but it has not been fully studied. This study aimed to determine the daily association between sleep (duration and quality), movement behaviors (sitting and stepping), and positive and negative affect among older adults using ecological momentary assessment.

Method: This study examined older adults' diurnal sleep time, sitting time, stepping time, sleep quality, and positive and negative affect for 14 days using sleep time logs, smartphones, and accelerometers. The smartphone collected the daily affect data through one self-initiative morning survey and four randomly beeped surveys. The morning surveys collected self-rated sleep quality (0-100 slider scale), and the beeped surveys collected momentary positive and negative affect (0-5 Likert scale). The activPAL collected daily sitting, standing, and stepping times (standing time was not included in the analysis to avoid collinearity). Positive and negative affect were regressed on the sleep and movement behaviors using two separate mixed-effects models.

Result: Ninety-three older adults were included in analysis: female (n=58 62%), white (n=74, 79%) age (*M*:68.7 yrs, *SD*: 7.25) BMI (*M*:27.3 kg/m2, *SD*:5.77) sitting (*M*:10.1 hrs, *SD*: 2.00) standing (*M*:3.74 hrs, *SD*:1.58) stepping (*M*:1.61 hrs, *SD*:0.64) sleep (*M*:8.25 hrs, *SD*:0.96). More sitting, stepping time, and better sleep quality than usual on a given day was associated with both lower negative affect (bs range = -0.20 – -0.01, *p*s range = 0.001 – 0.025) and higher positive affect (bs range = 0.05 – 0.16, $p < 0.001$). The longer sleep duration than usual on a given day was associated with lower negative affect (b = -0.09, p < 0.001) but not positive affect. Participants with overall higher sleep quality than others experienced lower negative affect (b = -0.26, p = 0.025) and higher positive affect (b = 0.39, p < 0.001) across the study period.

Conclusion: Our findings indicated that spending more time in any movements beyond daily routine may benefit older adults' psychological well-being by enhancing positive affect and reducing negative affect. Interventions that focuses on the time allocation of various movement behaviors within a day may help older adults to lead a mentally healthy life.

CORRESPONDING AUTHOR: Jongwon Lee, MPH, University of South Carolina, Columbia, SC; lee1125@sc.edu

---

Abstract citation ID: kaad011.1246

POSTER SESSION E: CORRELATES OF EXTRINSIC AND INTRINSIC MOTIVES FOR PHYSICAL ACTIVITY AMONG ADULTS WITH DEPRESSION

Marie Sillice, PhD[1], Lisa A. Uebelacker, PhD[2], Lidia Meshesha, PhD[3], Tosca Braun, PhD[4], Bradley Anderson, PhD[5], Ana M. Abrantes, PhD[2]

[1]CUNY SPH, New York, NY; [2]Brown University/Butler Hospital, Providence, RI; [3]UCF, Orlando, FL; [4]Butler Hospital and Brown University, Providence, RI; [5]Butler Hospital, Providence, RI

Self-Determination Theory (SDT) describes a continuum of motivations that include external and internal factors that influence long-term physical activity (PA) engagement. Types of motivation have been shown to be effected by body image concerns, gender and age. However, none of these relationships have been assessed in depressed individauls despite their low rate of PA. This study investigated correlates of STD-based motives using the Behavioral Regulation in Exercise Questionnaire – BREQ-3 among low-active individuals with elevated depressive symptoms.

The sample was 242 adults with elevated levels of depressive symptoms (88.4% female, mean age=45.33, SD) enrolled in a randomized clinical trial for PA. A series of linear regression models with were conducted where depression (PHQ-9), age, gender, BMI, predicted each of the six BREQ-3 subscales (amotivation, external regulation, introjected regulation, identified regulation, integrated regulation, and intrinsic regulation).

Age was a significant predictor of amotivation (t= -2.14, p=0.03, β=-0.1), identified regulation (t=3.09, p=0.002, β= 0.1), intergraded regulation (t=3.46, p=0.001), and intrinsic motivation (t=-4.48, p< 0.0001, β=.02). An inverse relationship was noted with amotivation (β=-.01); showing for any 1 unit increase in age, there is 0.1 decrease in the lack of intention to engage in exercise. Conversely, a positive relationship was noted with other subscales indicating that as age increases, more self-determined motives for exercise among this sample are expected. Depression was associated only with introjected regulation (t=3.24, p=0.001; β=0.5), showing increased depression symptoms are expected to be associated greater external factors as the driving motivator for PA. Similar to age, BMI was a significant predictor of most exercise motives; however, the nature of association was consistently negative, identified regulation (t=-2.64, p=0.009, β =-0.2), integrated regulation (t=-4.25, p< 0.0001, β=-0.1), and intrinsic motivation (t=-4.48, p< 0.0001, β =-0.3). Accordingly, any increase in BMI is expected to be associated with a decrease in more self-determined motives for exercise.

Findings demonstrate that age, BMI, and depression are related to types of exercise motives among low active adults with depressive symptoms. These results may help inform the development of future PA interventions for this population.

CORRESPONDING AUTHOR: Marie Sillice, PhD, CUNY SPH, New York, NY; marie.sillice@sph.cuny.edu

Abstract citation ID: kaad011.1247

POSTER SESSION E: NEGATIVE AFFECT AS A MODERATOR OF THE EFFECT OF EXERCISE ON SYMPTOMS OF DEPRESSION AND ANXIETY IN YOUNG ADULTS

Laura E. Laumann, MS[1], Cruess G. Dean, PhD[1]

[1]University of Connecticut, Storrs, CT

Exercise has been shown to reduce acute symptoms of depression and anxiety and is dependent upon several factors, such as negative affect (NA), a stable personality trait. This study investigates whether NA moderates the relationship between exercise and depression and anxiety symptoms in young adults.

Participants were 142 undergraduates (79.6% female; 55.6% White) age 18-22 (*M*= 18.87, *SD*= .96) attending a large public university. Participants completed the Patient Health Questionnaire (PHQ-8; Kroenke et al., 2001), the Generalized Anxiety Disorder-7 (GAD-7; Spitzer et al., 2006), and the Positive and Negative Affect Schedule (PANAS; Watson et al., 1988) and indicated if they regularly exercise. Participants then completed 14 consecutive daily surveys assessing their exercise each day, and completed the PHQ-8 and GAD-7 again at follow-up. Statistical analyses included an independent t-test, linear regression, and moderation analyses using Hayes (2017) PROCESS macro.

Almost 68% of participants (n = 96) self-identified as regular exercisers and they engaged in significantly more exercise (M = 362.26, SD = 319.17) than non-regular exercisers (M = 158.04, SD = 240.95) over the two-week period, (*t* (140) = 3.84, *p* = .013). Controlling for initial depression or anxiety, total hours of exercise was not significantly associated with depression or anxiety at follow-up. However, for regular exercisers, NA significantly moderated the relationship between exercise and depression and anxiety, respectively. At above average levels of NA, greater exercise predicted a significant increase in depression scores (*B* = .0057, *p* < .05, 95% CI [.0008, .0105]) and anxiety scores (*B* = .0050, *p* < .05, 95% CI [.0006, .0094]), controlling for initial levels. This effect was not observed for non-regular exercisers.

Young adult's exercise engagement was not significantly related to anxiety or depression symptom reduction across a very brief two-week time period. However, NA significantly moderated the relationship between exercise and depression and anxiety, suggesting that those with high negative affect are less likely to experience significant symptom relief from exercise, despite exercising regularly. Those with high NA may derive greater benefit from alternatives such as journaling or mindfulness. Future work might examine these relationships in an experimental design with a specific prescribed exercise regimen and a longer follow-up time frame.

CORRESPONDING AUTHOR: Laura E. Laumann, MS, University of Connecticut, Storrs, CT; laura.laumann@uconn.edu

---

Abstract citation ID: kaad011.1248

POSTER SESSION E: WHEN IT RAINS, IT POURS: COMPARING PHYSICAL ACTIVITY BEHAVIORS BETWEEN DIFFERENT PATTERNS OF CLUSTERING IN EVERYDAY STRESSORS

Meynard J. Toledo, PhD[1], Jillian A. Johnson, PhD[2], David Almeida, PhD[3], Martin J. Sliwinski, PhD[3], David Marcusson-Clavertz, PhD[4], Matthew J. Zawadzki, PhD[5], Joshua M. Smyth, PhD[6]

[1]University of Southern California, Los Angeles, CA; [2]The Pennsylvania State University, University Park, PA; [3]Pennsylvania State University, University Park, PA; [4]Linnaeus University, Växjö, Kronobergs Lan, Sweden; [5]University of California, Merced, Merced, CA; [6]The Pennsylvania State University, University Park, University Park, PA

Introduction: How individuals respond to everyday stressors is an important determinant of health. Most research treats stressors as independent events, yet, stressors may occur in clusters (i.e., in temporally proximity) which could increase coping burden and negatively influence behavior. This study used very dense ecological momentary assessment (EMA) to characterize the temporal clustering of everyday stressors and examine how these patterns are related to enactment of physical activity (PA).

Methods: Participants (N=54; mean age 48±9; 82% female; 94% White) responded to frequent (~30-minute intervals) EMA prompts for two consecutive days (2754 total; ~51 per person). Participants reported any stressors, and if so, how stressed they felt. Clustering was operationalized as consecutive EMAs with reported stressors. We isolated 5-period sequences of EMA moments with stressor clusters from zero to three (i.e., where 0= non-stressor and 1= stressor moments: 00000, 01000, 01100, and 01110). PA level was measured by the activPAL device. Differences in PA levels were evaluated in two time periods: during the entire 5-period sequence (~150 mins) and the 30-min period subsequent to the last stressor in the sequence; analyses were multilevel models controlling for time of day, weekend/weekday, age, and sex.

Results: An average of 8 (SD=6) stressor moments were reported across the 2-day period. About 33% of stressor moments occurred in isolation, 29% were clusters of 2 stressors, and 38% were clusters of 3+ stressors. Analysis of sequences included 201 5-moment long periods (1005 of 2754 total EMA moments). Mean stress did not differ between stressor cluster sizes (1, 2, 3) over the 150 min period, but 3 stressor clusters evidenced higher peak stress than did single stressors. Step counts and light PA time during the entire 5-period sequence were significantly lower in all stressors sequences relative to non-stressor periods [$M_{diff}(SE)$ = -559 (214), -574(291), and -1055(373) steps; -4.1 (1.8), -5.4(2.5), and -9.3(3.2) mins for light PA, respectively]. Sequences with 2 or 3 stressors had significantly lower step count [$M_{diff}(SE)$ = -195 (84) and -411(149) steps] and light PA time [$M_{diff}(SE)$ = -1.5 (0.6) and -3.1(1.1) mins] in the 30 mins following the last reported stressor compared to a reference 30-min period from non-stressor periods.

Conclusion: Stressors in everyday life often occur in temporal clusters. Despite broadly similar subjective stress levels across clustered versus unclustered stressors, the cumulation of multiple stressors is more strongly associated with less concurrent and subsequent physical activity behaviors.

CORRESPONDING AUTHOR: Meynard J. Toledo, PhD, University of Southern California, Los Angeles, CA; meynardj@usc.edu

Abstract citation ID: kaad011.1249

POSTER SESSION E: CHANGES IN PHYSICAL ACTIVITY OUTCOMES IN THE STRONG HEARTS, HEALTHY COMMUNITIES (SHHC-2.0) COMMUNITY-BASED RANDOMIZED TRIAL

Jay E. Maddock, PhD[1], Margaret Demment, PhD[2], Meredith Graham, MS[2], Sara C. Folta, PhD[3], David Strogatz, PhD[4], Miriam Nelson, PhD[5], Galen Eldridge, MS[6], Rebecca A. Seguin-Fowler, PhD, RDN, LD, CSCS[7]

[1]Texas A&M University, College Station, TX; [2]Texas A&M AgriLife Institute for Advancing Health through Agriculture, Dallas, TX; [3]Tufts University, Boston, MA; [4]Bassett Research Institute, Cooperstown, NY; [5]Newman's Own Foundation, Westport, CT; [6]Texas A&M AgrLife, College Station, TX; [7]Texas A&M AgriLife Institute for Advancing Health through Agriculture, College Station, TX

Background: Physical inactivity is a risk factor for numerous adverse health conditions and outcomes, including all-cause mortality. Aging rural women are at particular risk for physical inactivity based on environmental, sociocultural, and psychosocial factors. This study reports on changes in physical activity and associated factors from a multicomponent community-engaged intervention trial.

Methods: *Strong Hearts, Healthy Communities 2.0* **(SHHC-2.0)** was a 24-week cluster (community) randomized controlled trial building on the results from the previous trial of SHHC-1.0. Rural women (n = 182) aged 40 and over living in 11 rural communities in upstate New York were recruited. The intervention consisted of twice-weekly experiential classes focused on exercise, nutrition, and civic engagement. Physical activity outcomes included accelerometry and self-report as well as related psychosocial measures at a midpoint (12 weeks) and post-intervention (24 weeks). Data were analyzed using multilevel linear regression models with the community as the random effect.

Results: Compared to participants from the control communities, participants in the intervention communities showed a significant increase in objectively measured moderate to vigorous physical activity: at 12 weeks (increase of 8.1 minutes per day, P< 0.001) and at 24 weeks (increase of 6.4 minutes per day; P=0.011). Self-reported total MET minutes per week also increased: at 12 weeks (increase of 725.8, P=0.003) and 24 weeks (increase of 955.9, P=0.002). Several of the psychosocial variables also showed significant, positive changes.

Conclusions: The SHHC-2.0 intervention successfully increased physical activity level and related outcome measures. Modifications made based upon in depth process evaluation from SHHC-1.0 appear to have been effective in increasing physical activity in this at-risk population.

CORRESPONDING AUTHOR: Jay E. Maddock, PhD, Texas A&M University, College Station, TX; maddock@tamu.edu

---

Abstract citation ID: kaad011.1250

POSTER SESSION E: SIX MONTH OUTCOMES OF A RANDOMIZED TRIAL OF A THEORY- AND TECHNOLOGY-ENHANCED PHYSICAL ACTIVITY INTERVENTION FOR LATINA WOMEN

Lauren C. Bohlen, PhD[1], Shira Dunsiger, PhD[2], Britta Larsen, MA, PhD[3], Dorothy Pekmezi, PhD[4], Andrea S. Mendoza-Vasconez, MPH, PhD[1], Tanya Benitez, PhD[2], Bess H. Marcus, PhD[1]

[1]Brown University School of Public Health, Providence, RI; [2]Brown University, Providence, RI; [3]Herbert Wertheim School of Public Health & Human Longevity Science, San Diego, CA; [4]University of Alabama at Birmingham, Birmingham, AL

Background: Regular physical activity (PA) helps prevent several chronic diseases. Latinas are among the least physically active populations in the US, and are at higher risk for many chronic diseases and cancers which are positively associated with PA.

Aim: We evaluate 6-month outcomes of a randomized trial comparing a Spanish-language individually-tailored, website-delivered intervention (Original); to an enhanced version of the intervention (Enhanced); which further targets self-efficacy, enjoyment, and social support, and uses text messages and dynamic features to boost website use.

Methods: The sample consists of 195 Spanish-speaking Latinas aged 18-65. We examined main effects for Enhanced vs. Original on: min/week of accelerometer and self-reported PA at 6m using generalized linear models controlling for accelerometer wear time, and potential confounders (e.g., a time-varying indicator of pre vs during pandemic time). Of note, 68.7% participants reported no baseline PA (0 min/week; inactive), thus we examined potential conditional effects of the intervention as a function of baseline PA (inactive vs. not). We also examined intervention effects on the proportion of participants meeting PA guidelines (at least 150 min/week) at 6m (overall and conditional on baseline PA).

Results: Mean min/week of accelerometer-measured PA increased from 19.7 (SD=47.9, Median=0) at baseline to 46.9 (SD=66.2, Median=19.0) at 6m in the Enhanced arm vs. 20.6 (SD=42.7, Median=0) to 42.9(SD=78.2, Median=0) in the Original arm. Self-reported PA increased from 57.9 min/week (SD=260.3, Median=0) to 114.97 (SD=119.6, Median=75) for Enhanced, compared to 55.2 (SD=149.1, Median=0) to 87.9(SD=115.2, Median=52) for Original. There were no differences in 6m PA by group. Results suggest baseline PA (inactive vs. not) moderated treatment effects on 6m PA. For inactive participants, there were no differences between groups (b=7.1, SE=22.8, p=.75). For those reporting any baseline PA (low-active), we detected significant effects favoring Enhanced, for accelerometer (b=72.5, SE=27.9, p=.01), and self-reported PA (b=21.5, SE=8.3, p=.02). Overall, 30% of the Enhanced arm met PA guidelines at 6m, compared to 21% of the Original arm (OR=1.75, 95% CI: .87-3.55). For low-active participants, 45% of the Enhanced arm met PA guidelines at 6m, vs. 20% of the Original arm; OR=3.3, 95% CI:1.05-11.31). For those inactive, there were no differences by condition (24% vs. 21% for Enhanced vs. Original, OR=1.28, 95% CI: .54-3.06).

Discussion: At 6m, the results suggest the intervention effects were conditional on whether any PA was occurring at baseline. For low-active Latinas, the enhanced intervention was more effective at increasing PA, and helped a larger proportion of women meet PA guidelines within 6 months. Additional tailored intervention enhancements may be necessary to increase PA for inactive Latinas.

CORRESPONDING AUTHOR: Lauren C. Bohlen, PhD, Brown University School of Public Health, Providence, RI; lauren_bohlen@brown.edu

Abstract citation ID: kaad011.1251

POSTER SESSION E: POSITIVE VERSUS NEGATIVE INTRINSIC REWARDS AND EXERCISE HABIT STRENGTH DURING COVID-19 RESTRICTIONS

Lindsey A. Fremling, BS[1], L. Alison Phillips, PhD[1], Lindsay Bottoms, PhD[2], Katie Newby, PhD[2]

[1]Iowa State University, Ames, IA; [2]University of Hertfordshire, Hatfield, England, UK

Background: Having an exercise habit (i.e. an automatic impulse to go exercise as part of a daily routine) is a promising way to ensure consistent and maintained exercise, for optimal health benefits. Although research has shown that intrinsic rewards are a key component of exercise habit strength, it has yet to evaluate the relative importance of positive intrinsic rewards (e.g., enjoyment) versus negative intrinsic rewards (e.g., stress reduction). Negative rewards are much less studied, given the focus of Self-Determination Theory research on intrinsic motivation (positive intrinsic rewards).

Objective: We test the hypothesis that negative intrinsic rewards will be even more important than positive intrinsic rewards at maintaining exercise habit strength during a time of high stress and potential context disruptions (i.e., COVID-19 pandemic restrictions, or "lockdown").

Method: Employees of a university in the UK and members of the public (recruited via Twitter and Google adverts; N=578) during the beginning of the COVID-19 pandemic reported on their degree of experiencing positive and negative intrinsic rewards from exercising at the beginning of the COVID-19 pandemic, when the first set of government restrictions on activity were instituted. Their exercise habit strength was assessed weekly after that point. The current study evaluates habit strength over the first 5 weeks of pandemic restrictions.

Results: Multilevel modeling analyses determined that our hypothesis was not supported, in that only positive intrinsic rewards were a significant predictor of habit strength (fixed effect estimate=0.65, $t(362)=9.47$, $p< 0.0001$), equally strong at all timepoints; negative intrinsic rewards were unrelated to habit strength (fixed effect estimate=0.05, $t(362)=0.86$, $p=0.39$).

Conclusions: The degree to which individuals enjoy exercise predicted whether they maintained their exercise habits during times of high stress (early COVID-19 pandemic restrictions). Degree of stress reduction from exercise was not important, counter to hypotheses. Promoting positive intrinsic rewards from exercise is therefore a more promising strategy to help individuals maintain their exercise habits over time.

CORRESPONDING AUTHOR: Lindsey A. Fremling, BS, Iowa State University, Ames, IA; fremling@iastate.edu

---

Abstract citation ID: kaad011.1252

POSTER SESSION E: AFFECTIVELY-CHARGED MOTIVATIONS FOR PHYSICAL ACTIVITY AND THEIR RELATION TO PHYSICAL ACTIVITY ENGAGEMENT

Sarah C. Volz, MA[1], Shirlene D. Wang, PhD(c)[2], Jixin Li[3], Wei-Lin Wang, PhD[4], Genevieve F. Dunton, PhD, MPH, FSBM[2], Stephen S. Intille, PhD[3], Alexander J. Rothman, PhD[1]

[1]University of Minnesota, Minneapolis, MN; [2]University of Southern California, Los Angeles, CA; [3]Northeastern University, Boston, MA; [4]University of Southern California, South Pasadena, CA

Background: Research suggests that affectively-charged motivations for physical activity (e.g., excitement, dread) are associated with physical activity (PA) engagement. Affectively-charged motivation may change throughout the course of a day based on diurnal patterns and prior PA engagement. The present study examines how day-level PA engagement relates to affectively-charged motivations for PA over the course of that day.

Methods: The present study uses data from the 12-month intensive longitudinal TIME study in young adults (ages 18-29). Data from the first 90 days were included in the present analyses. Participants (N = 235) reported affectively-charged motivations for upcoming PA (i.e., how much they felt like exercising or taking a walk in the next hour, indicating "not at all", "a little", "quite a bit", "very much so", or "already walking/exercising right now"). Participants were surveyed via smartphone-based ecological momentary assessment (EMA) at approximately four random times per day across 4-day bursts that occurred every two weeks (M = 4.32 burst periods, SD = 1.58). At the same time, participants wore a smartwatch, which measured raw acceleration that was converted into Movement Independent Motion Summary (MIMS) units of physical activity engagement. To examine whether day-level MIMS predicted affectively-charged motivation for PA reported during that day, we assess the four, non-behavior, affectively-charged motivation responses in a random effects ordinal logistic regression, controlling for the between-person effect of average MIMS, as well as weekday v. weekend, time of day, and number of days enrolled in the study.

Results: Overall, there were 11068 responses for affectively-charged motivations across 235 participants. As people increased above their average day-level MIMS, they were more likely to report higher levels of affectively-charged motivation (beta = .049, OR = 1.05, p < .001). For an individual at the group-average MIMS, as they moved from 1 SD below their mean MIMS, to their average MIMS, to 1 SD above their average MIMS, predicted endorsement of "not at all" shifted from 75%, to 51%, to 27%; for "a little", this shifted from 20%, to 36%, to 44%; for "quite a bit", predicted endorsement shifted from 3%, to 9%, to 19%; for "very much so", this shift was from 1%, to 4%, to 10%.

Conclusions: Results suggest that people tend to have higher levels of affective motivation for PA on days that they are engaging in higher levels of PA. However, even on high PA days, endorsement tended towards lower affectively-charged motivation (e.g., "not at all" or "a little"), suggesting that over the course of a highly active day, individuals may still report lower levels of affective motivation at many points. Future work should examine temporal effects of PA and affective motivation within a day to determine how affectively-charged motivations impact and are impacted by PA engagement.

CORRESPONDING AUTHOR: Sarah C. Volz, MA, University of Minnesota, Minneapolis, MN; volz0013@umn.edu

Abstract citation ID: kaad011.1253

POSTER SESSION E: UNDERSTANDING ACTION CONTROL OF MEETING COMBINED AND INDEPENDENT PHYSICAL ACTIVITY GUIDELINES IN CANCER SURVIVORS

Linda Trinh, PhD[1], Allyson Tabaczynski, MSc[1], Golnaz Ghazinour, BKin[1], Natalie Cuda, BKin[1]

[1]University of Toronto, Toronto, ON, Canada

Background: Social cognitive correlates of physical activity (PA) in cancer survivors have focused on intention as the proximal determinant of behavior, but there is often a discordant intention-behavior profile. Several models exist to explain and account for the translation of intention into behavior, which is referred to as action control. The Multi-Process Action Control (M-PAC) is one framework used to understand intention-behavior discordance of PA. Therefore, the purpose of this study was to apply the M-PAC and examine the correlates of action control in meeting combined and independent PA guidelines in cancer survivors.

Methods: An online, cross-sectional survey was administered globally to adult cancer survivors. Questionnaires were used to assess the following: PA using the Godin-Leisure Time Exercise Questionnaire; M-PAC processes for instrumental attitudes, affective judgements, perceived capability and opportunity, self-regulation, habit, identity; and the PA environment (e.g., PA equipment/space availability). To assess PA action control, only those intending to be active ≥3 days/week were included in the analysis. A multinomial logistic regression was used to determine correlates of unsuccessful intenders vs. meeting aerobic-only, resistance training (RT)-only, or combined guidelines.

Results: Intenders (N=245; M_{age}=48.6±15.5) were primarily diagnosed with breast cancer (31.0%) and had a mean months since diagnosis of 87.8±81.4. Compared to unsuccessful intenders, (a) those meeting aerobic-only guidelines were more likely to have better self-regulation (OR=1.09; *p*=.02), stronger PA identity (OR=1.28; *p*< .001), and ≥2 pieces of PA equipment at home (OR=0.41; *p*=.03); (b) those meeting RT-only guidelines were more likely to have better self-regulation (OR=1.14; *p*< .01), stronger PA identity (OR=1.40; *p*< .001), and ≥2 pieces of PA equipment at home (OR=0.10; *p*< .01); (c) those meeting combined guidelines were more likely to have better self-regulation (OR=1.10; *p*=.049), stronger PA identity (OR=1.52; *p*< .001), and ≥2 pieces of PA equipment at home (OR=0.17; *p*< .01).

Conclusions: Self-regulation (e.g., planning, goal setting), reflexive processes (PA identity), and environmental factors such as access to PA equipment were important predictors of action control in cancer survivors. Interventions should strengthen PA identity and foster an environment conducive to PA for translating intentions into action in meeting PA guidelines in cancer survivors.

CORRESPONDING AUTHOR: Linda Trinh, PhD, University of Toronto, Toronto, ON, Canada; linda.trinh@utoronto.ca

---

Abstract citation ID: kaad011.1254

POSTER SESSION E: RELATIONSHIP BETWEEN PHYSICAL ACTIVITY AND STRESS IN TWO WEB-BASED INTERVENTIONS FOR LATINA WOMEN

Andrea S. Mendoza-Vasconez, MPH, PhD[1], Shira Dunsiger, PhD[2], Dorothy Pekmezi, PhD[3], Britta Larsen, MA, PhD[4], Tanya Benitez, PhD[2], Bess H. Marcus, PhD[1]

[1]Brown University School of Public Health, Providence, RI; [2]Brown University, Providence, RI; [3]University of Alabama at Birmingham, Birmingham, AL; [4]Herbert Wertheim School of Public Health & Human Longevity Science, San Diego, CA

Background: Despite the benefits of physical activity (PA) for health and wellbeing (e.g., chronic disease prevention, managing stress), Latina women are among the most sedentary demographic groups in the US; thus, they could greatly benefit from PA interventions. Given the potential bi-directional relationship between PA participation and stress documented in previous research, this study among Latina participants aimed to a) evaluate whether Latinas participating in two PA interventions experienced decreases in stress over time; and b) assess whether Latinas who decreased their perceived stress were more likely to meet national PA guidelines.

Methods: Data are from a randomized controlled trial of two web-based, individually tailored PA interventions for Latina women, an *Original* intervention and a theory- and technology-*Enhanced* intervention. PA and perceived stress were assessed via the 7-day Physical Activity Recall interview and the Perceived Stress Scale (PSS), respectively, at baseline and 6 months. Generalized linear models were run to examine the effects of treatment group on changes in perceived stress (baseline to 6 months) and the association between changes in perceived stress and the probability of meeting national guidelines for aerobic PA at 6 months (defined as at least 150 min/week MVPA).

Results: Participants (N=195) were 43.31 years of age on average (SD=10.29), predominantly Dominican (n=80 or 41%), with no differences in demographic characteristics between conditions at baseline. Participants in the Enhanced intervention were significantly more likely to meet PA guidelines (57% vs. 44% in the Original arm), and reported reductions in perceived stress from 19.41(SD=8.03) at baseline to 18.93 (SD=7.78) at 6 months, compared to 19.81 (SD=8.77) at baseline to 19.88 at 6 months (SD=8.86) among Original PA intervention arm. Although not statistically significant, point estimates point towards greater reductions in Enhanced vs. Original arm (p=.18). Controlling for treatment arm, greater reductions in PSS from baseline to 6 months were significantly associated with higher odds of meeting national PA guidelines at 6 months (OR=1.09, 95% CI: 1.03-1.15).

Discussion: Our results suggest that PA interventions could help Latina women with stress management. Additionally, PA interventions could benefit from addressing stress as a potential obstacle to PA engagement to help Latina participants achieve national PA guidelines.

CORRESPONDING AUTHOR: Dorothy Pekmezi, PhD, University of Alabama at Birmingham, Birmingham, AL; dpekmezi@uab.edu

Abstract citation ID: kaad011.1255

POSTER SESSION E: THE EFFECTS OF MENSTRUAL CYCLE PHASE ON EXERCISE TOLERANCE AND PSYCHOLOGICAL RESPONSES TO EXERCISE IN PREMENOPAUSAL WOMEN

Gabrielle M. Salvatore, PhD[1], Danielle Arigo, PhD[2], Jasmin Hutchinson, PhD[3]

[1]Clinical Health and Social Experiences (CHASE) Lab, Department of Psychology, Rowan University, Turnersville, NJ; [2]Rowan University, Glassboro, NJ; [3]Springfield College, Springfield, MA

Menstruation is a unique experience for female exercisers, yet little is known about the psychological impact of the menstrual cycle (MC) in an exercise setting. Hormonal fluctuations associated with the MC can impact exercise performance, though available evidence is both limited and inconclusive, and a number of misconceptions associated with the MC persist (e.g., physical and behavioral changes). The purpose of this study was to investigate the effect of MC phase on 1) mood and self-esteem, 2) psychological responses to exercise (specifically, self-efficacy, perceived exertion, and affective valence); and 3) exercise tolerance. Participants (N = 30) were pre-menopausal women (M_{Age}=25.93, M_{BMI}=24.64 kg/m^2), with no contraindications to exercise and not taking any form of hormonal birth control. Participants completed a graded exercise test (GXT) at three time points in their MC; the early follicular (during menstruation; EF), mid-luteal (ML), and late-follicular (LF) phase. Mood and self-esteem were measured pre-exercise at each time point. Task-specific self-efficacy, ratings of perceived exertion (RPE), and affective valence were taken at regular intervals during the GXT. Time to exhaustion was recorded for each test and used as a measure of exercise tolerance. Following the final testing session, a semi-structured interview was employed to explore the participant experience in more depth. No significant differences across MC phases were observed for state self-esteem, total mood disturbance, affective valence, or exercise tolerance. However, significant differences were found across phases in body weight (F(2,58)=9.74, p< 0.001, n_p^2=0.25), and total body water (F(2,58)=9.38, p< 0.001, n_p^2 =0.24). A significant phase x time interaction was found for RPE (F(4,116)=4.12, p=0.004, n_p^2=0.12); during the ML phase, women rated their exertion to be slightly higher in the beginning stages of the GXT (M=7.42±0.97) when compared to the EF (7.14±0.78; p=0.03) and LF phases (7.02±0.70; p=0.08), and slightly lower toward the end of the GXT (13.7±1.06) when compared to the EF phase (14.1±1.40; p=0.06). An increase in affective valence and decrease in total mood disturbance were observed post-exercise. The major themes of physical impact (e.g., physical MC symptoms, premenstrual syndrome), psychological impact (e.g., mood changes, irritability, feeling body-conscious), and behavioral impact (e.g., lethargy, amotivation) were evident in interview data. Quantitative findings indicate that MC phase did not influence exercise tolerance or psychological responses to exercise, though interview data suggest that premenopausal women experience differences in mood and exercise experience as a result of the MC. In sum, physical, psychological, and behavioral effects of the MC may be a factor in exercise adherence. More research is needed to understand the role of the MC in exercise.

CORRESPONDING AUTHOR: Gabrielle M. Salvatore, PhD, Clinical Health and Social Experiences (CHASE) Lab, Department of Psychology, Rowan University, Turnersville, NJ; salvatoreg@rowan.edu

---

Abstract citation ID: kaad011.1256

POSTER SESSION E: HAVING A PRIOR HABIT OF EXERCISING COULD BUFFER AGAINST DISRUPTED EXERCISE CONTEXT

Hyun Seon Esther Kim, BA[1], L. Alison Phillips, PhD[1], Lindsay Bottoms, PhD[2], Katie Newby, PhD[2]

[1]Iowa State University, Ames, IA; [2]University of Hertfordshire, Hatfield, England, UK

Background: Having a habit of engaging in exercise is associated with longer-term maintenance of exercise. Habits are automatic impulses to engage in a behavior, in the presence of context cues that have come to be associated with the behavior over time (with behavioral repetition in context). Others have found that individual-level context changes (e.g., moving house; change in schedule) can disrupt habits and exercise levels. Whether societal-level context changes can influence changes in habits at the individual level has not yet been evaluated.

Objective: We test the hypothesis that broad restrictions on activity during the COVID-19 pandemic (i.e., "lockdowns") would influence individuals' prior exercise habits, such that greater disruption to (variation in) exercise timing during restrictions would be associated with greater reductions in exercise habit strength over time. That is, we expect exercise timing consistency during COVID-19 restrictions will moderate the relationship between prior (to COVID) habit strength and habit strength (over time) during COVID restrictions.

Method: UK participants (N=578) retrospectively reported on exercise habit strength prior to COVID and within one week of the first lockdown in the UK university (18-78 years old, Mage = 40.06, 77.5% female, 90.6% White). They reported on exercise timing consistency and exercise habit strength (on the Self-Reported Behavioral Automaticity Index) weekly during COVID-19 restrictions.

Results: Multilevel modeling with 8 weeks of habit strength measurement indicated that the expected interaction between exercise timing consistency and prior-to-COVID exercise habit strength (over time) was significant (fixed effect estimate = 0.06, t(2100)= 2.94, p=0.003. As expected, habit strength during COVID-19 restrictions was highest for those with higher prior-to-COVID habit strength and who had consistent timing of exercise after restrictions were instituted. Consistency of timing itself was less important for maintaining exercise habits than was having a habit prior to COVID restrictions, however. Those with stronger pre-COVID habits were much more likely to have strong exercise habits during COVID restrictions (estimate = 0.51, t(400)=11.09, p< 0.0001.

Conclusions: Having an existing exercise habit seemed to provide a buffer against a major society-wide stressor that disrupted most individuals' exercise (and other) contexts. Exercise habits may be more resistant to major stressful events than theory and previous research would suggest.

CORRESPONDING AUTHOR: Hyun Seon Esther Kim, BA, Iowa State University, Ames, IA; estherk@iastate.edu

Abstract citation ID: kaad011.1257

POSTER SESSION E: OPTIMIZING AN ONLINE YOGA PROGRAM FOR YOUNG ADULTS WITH CANCER: FINDINGS FROM A QUALITY IMPROVEMENT PROCESS

Emma McLaughlin, MSc, BKinH[1], Nicole S. Culos-Reed, PhD[1], Anna Janzen, Diploma in Outdoor Recreation[2], Hannah Cripps, BSc[1], Julia T. Daun, BKin, MSc, CSEP-CEP[1], Harshpreet Ghotra, BSc[1], Mannat Bansal, MSc[3], Amy Chen[4], Paige A. Boklaschuk, BSc Kinesiology[1], Abby-Anne Hughes[1], Heather Molina[5], Lauren Cowley[6], Amanda Wurz, PhD[7]

[1]University of Calgary, Calgary, AB, Canada; [2]School of Kiniesiology, University of the Fraser Valley, Abbotsford, BC, Canada; [3]University of Calgary, Chestermere, AB, Canada; [4]University of Calgary - Faculty of Kinesiology, Calgary, AB, Canada; [5]Bloom Wellness Collective, Calgary, AB, Canada; [6]City University, Calgary, AB, Canada; [7]School of Kinesiology, University of the Fraser Valley, Abbotsford, BC, Canada

Background: Yoga offers physical and psychological benefits for young adults affected by cancer (YA). However, this evidence has not been translated to sustainable yoga programs for YA. We developed a 12-week yoga intervention for YA and are testing it via a hybrid effectiveness-implementation trial. Throughout the trial, we are engaging in iterative quality improvement (QI) cycles, as part of an ongoing QI process. The overarching purpose of the QI process is to enhance the likelihood that our yoga intervention will be optimized for translation to a sustainable program for this cohort at trial cessation.

Methods: Since the start of the trial (09/2021), we have collected QI-specific data covering trial recruitment (number of YA identified and enrolled), participant characteristics (personal and medical information), attendance (proportion of classes attended of 24), and participant perceptions of intervention acceptability (gathered via semi-structured interviews). All data is reviewed every 6 months by 2 study team members, shared with the larger team, and integrated (as appropriate) into the ongoing trial. Two QI cycles have been performed to date as part of the ongoing QI process.

Results: Of 43 YA who have expressed interest in the trial, 21 have enrolled (recruitment rate=49%). Participants (M_{age}=35; SD=6 years) have been diagnosed with mixed cancers (eg, breast, lymphoma), and primarily self-identify as female (90%), and of Eastern and Western European descent (76%). Attendance has varied from 20-100%, and the average attendance rate is 67%. Participants have shared that the yoga intervention is generally acceptable, though more flexibility is required to increase attendance.

Conclusions: Thus far, the QI process has provided invaluable feedback that has resulted in changes to recruitment efforts and intervention delivery. To increase recruitment, we have a greater number of cancer support organizations advertising our trial and have increased our social media presence. Concurrently, we have engaged in strategies to enhance participant diversity (eg, self-identified gender, ethnicity), which have resulted in promotional materials that include individuals with varied self-identified genders and ethnicities. While attendance has been lower than expected, participants have offered potential solutions (ie, recording classes to share with those who cannot attend and more class times). Findings for the QI process are informing changes to optimize the yoga intervention for YA. It is hoped this line of inquiry will provide insights to generate a sustainable yoga program for YA beyond trial cessation, and offer information for others seeking to improve online programming for this cohort.

CORRESPONDING AUTHOR: Emma McLaughlin, MSc, BKinH, University of Calgary, Calgary, AB, Canada; emma.mclaughlin1@ucalgary.ca

---

Abstract citation ID: kaad011.1258

POSTER SESSION E: TREATMENT AND PHYSICAL ACTIVITY EFFECTS ON UPPER EXTREMITY FUNCTION AFTER CHEMOTHERAPY FOR BREAST CANCER: RESULTS FROM WF 97415

Lindsey L. Page, PhD[1], Peter H. Brubaker, PhD[2], Heidi D. Klepin, MD, MS[3], Nancy E. Avis, PhD[3], Beverly J. Levine, PhD[3], W. Gregory Hundley, MD[4], Kathryn Weaver, PhD[3], Glenn Lesser, MD[3], Shannon L. Mihalko, PhD[5]

[1]Harvard T.H. Chan School of Public Helath, Brookline, MA; [2]Health and Exercise Science, Wake Forest Univ, Winston Salem, NC; [3]Wake Forest University School of Medicine, Winston-Salem, NC; [4]Virginia Commonwealth University, Richmond, VA; [5]Wake Forest University, Winston-Salem, NC

Background: Many breast cancer survivors (BCS) report upper extremity (UE) functional impairments after treatment. The short-term impact of chemotherapy on shoulder mobility and upper body strength remains unclear, and little is known about the effects of pre-treatment physical activity (PA) on the trajectory of UE declines.

Purpose: To (1) compare changes in UE function from baseline, i.e., pre-chemotherapy, to 3-month follow-up and (2) examine self-reported PA as a predictor of UE function changes across groups: BCS with chemotherapy, BCS without chemotherapy, healthy controls.

Methods: Participants were 163 BCS who had chemotherapy, 55 BCS who did not receive chemotherapy, and 145 healthy controls, drawn from the larger Understanding and Predicting Breast Cancer Events After Treatment study (N=403) in the NCI Community Oncology Research Program (NCORP). UE function was operationalized as shoulder range of motion (ROM) and grip strength. Shoulder ROM was assessed bilaterally as active shoulder flexion and abduction and measured using goniometry. Grip strength was measured bilaterally using isometric hand grip dynamometry and evaluated as the sum of the maximum strength on each side. Self-reported moderate to vigorous PA (MVPA) was assessed using the Godin Leisure-Time Exercise Questionnaire (GLTEQ). Data were analyzed using analysis of variance (unadjusted) and analysis of covariance (adjusted). Adjusted models included age at diagnosis and baseline UE function, comorbid conditions, BMI, and MVPA as covariates.

Results: At 3-month follow-up, there were no significant group differences in change in flexion or abduction, on either side, in either unadjusted or adjusted group means (all $p>0.2$). In contrast, there was a significant effect of group on grip strength change ($p< 0.01$) such that BCS treated with chemotherapy experienced declines in grip strength while health controls increased grip strength (MD=-4.108 kg, $p< 0.01$). This association remained significant after adjustment for covariates ($p< 0.001$). MVPA at baseline was not significantly associated with changes in flexion, abduction, or grip strength.

Conclusion: Major findings indicate that chemotherapy treatment likely leads to reduced UE strength. As the GLTEQ does not evaluate muscle strengthening activities, it may not adequately capture PA that would influence changes in grip strength across treatment. Efforts are needed to promote UE strength maintenance in BCS treated with chemotherapy.

Funding provided by 2UG1CA189824 & R01CA199167

CORRESPONDING AUTHOR: Lindsey L. Page, PhD, Harvard T.H. Chan School of Public Helath, Brookline, MA; Lindsey.page@nih.gov

Abstract citation ID: kaad011.1259

POSTER SESSION E: LIKERT- AND SLIDER-TYPE QUESTIONS MAY NOT BE EQUIVALENT IN ASSESSING RELATIONSHIPS BETWEEN DAILY SLEEP AND AFFECT

Jillian Robison[1], Jamie M. Gajos, PhD[2], Dingjing Shi, PhD in Quantitative Psychology[3], Krista M. Kezbers, PhD, DipACLM, ACSM-EIM[4], Meghan Neumann[1], Michael S. Businelle, PhD in Clinical Psychology[5]

[1]TSET Health Promotion Research Center, University of Oklahoma Health Sciences Center, OKC, OK; [2]Department of Human Development and Family Studies, University of Alabama, Tuscaloosa, AL, USA, Tuscaloosa, AL; [3]University of Oklahoma, Norman, OK; [4]TSET Health Promotion Research Center/Stephenson Cancer Center/University of Oklahoma Health Sciences Center, OKC, OK; [5]University of Oklahoma Health Sciences Center, Oklahoma City, OK

Background: Sleep duration and quality may be associated with daily affect, and health behaviors. Smartphone-based ecological momentary assessments (EMA) have been used to broaden knowledge of complex multilevel relationships. However, few studies have utilized EMA methods to examine day-to-day associations among sleep, affect, and health behaviors in the general population.

Methods: The current study used data that were collected as part of a 28-day randomized controlled trial that examined factors that may impact compliance with daily EMAs. EMAs assessed yesterday's soda, fruit and vegetable, alcohol, and cigarettes used/consumed, and combined physical activity. In addition, EMAs assessed current happiness and stress with both Likert (0=strongly disagree, 4=strongly agree) and slider type questions (0-10, representing none to high) for each affect item, respectively. Sleep duration (0-12 or more hours) and quality of sleep (Likert scale (0=very poor, 4=very good) or a slider scale (0-10, representing low to high)) were assessed daily. Generalized multilevel models estimated the relationships between aggregated daily happiness and stress and the previous night's sleep duration and quality. All models adjusted for sex, race, and age.

Results: Participants (N=452) were predominantly female (77.6%) and White (72.4%), with a mean age of 48.9. Sleep was not significantly related to next day health behaviors. Greater sleep duration was positively associated with next-day happiness and negatively related to next-day stress (all $p \leq 0.01$). The Likert-type sleep quality item was significantly related to the Likert-type affect items, such that greater sleep quality was related to greater next-day happiness, and lower next-day stress ($p \leq 0.01$). Moreover, the slider-type sleep quality item was significantly related to the happiness (positively) and stressed (negatively) slider-type items. No other analyses were significant.

Conclusion: Daily sleep quality and affect measured with Likert- versus slider-type items may not be equivalent when assessing the relationships between daily sleep and affect. Additional research is needed to determine if there is significant value in choosing specific types of questions (e.g., slider versus Likert-type) in behavioral research involving sleep and affect.

CORRESPONDING AUTHOR: Jillian Robison, TSET Health Promotion Research Center, University of Oklahoma Health Sciences Center, OKC, OK; jillian-robison@ouhsc.edu

---

Abstract citation ID: kaad011.1260

POSTER SESSION E: THE RELATIONSHIPS BETWEEN SLEEP HEALTH DOMAINS AND MENTAL HEALTH IN A PREDOMINANTLY HISPANIC SAMPLE

Miguel Garcia, BA[1], Ariana Cervantes, MA[1], Anna Drozdova, MA[1], Kevin Sandoval Medina, BA[1], Andrea Rodriguez-Crespo, BS[1], Theodore V V. Cooper, PhD[1]

[1]University of Texas at El Paso, El Paso, TX

Hispanics report shorter sleep duration and poorer sleep quality than their non-Hispanic white counterparts (Roncoroni et al., 2022) which may affect their mental health. Although the relationship between sleep health and mental health has been well-researched (Wickham et al., 2020), few studies have investigated how individual domains of sleep health associate with mental health in Hispanics. This study investigated how different sleep health domains relate with mental health in a predominantly Hispanic college student sample on the U.S./Mexico border.

Participants attending a Hispanic Serving Institution (n=292; Mage=20.86 years, SD=4.81; 77.1% female; 81.2% Hispanic) were recruited via a web-based recruitment platform. After providing consent, participants completed a survey assessing: sociodemographics, depression, anxiety, stress, and sleep quality. Three linear regression models assessed the relationships between depression, anxiety, stress, and sleep quality. All models controlled for age and sex.

The regression model assessing depression was significant, $F(8)=10.617$, $R^2=.266$, $p< .001$; depression was positively associated with daytime dysfunction ($\beta=.399$, $p< .001$) and less restoration after sleep ($\beta=.197$, $p=.007$). The regression model assessing anxiety was significant, $F(8)=7.963$, $R^2=.213$, $p< .001$; anxiety was positively associated with daytime dysfunction ($\beta=.345$; $p< .001$) and difficulty in falling asleep ($\beta=.201$; $p< .009$). The regression model assessing stress was significant, $F(8)=10.143$, $R^2=.256$, $p< .001$; stress was positively associated with sex ($\beta=.128$; $p=.029$), daytime dysfunction ($\beta=.346$, $p< .001$), and less restoration after sleep ($\beta=.148$; $p=.044$).

That daytime dysfunction was associated with depression, anxiety, and stress suggests that poor mental health combined with poor sleep may especially affect one's performance in daily tasks. That feeling less restored after sleep was associated with depression and stress indicates that less restoration may exacerbate negative affect. The finding that difficulty in falling asleep was associated with anxiety suggests that anxious thoughts/feelings may interfere with falling asleep which replicates past findings (Ghrouz et al., 2019). Future studies may investigate these observed relationships in longitudinal studies to determine temporality and/or how cultural constructs (e.g., discrimination) further affect these relationships.

CORRESPONDING AUTHOR: Miguel Garcia, BA, University of Texas at El Paso, El Paso, TX; magarcia72@miners.utep.edu

Abstract citation ID: kaad011.1261

POSTER SESSION E: SELF-REPORTED AND BEHAVIORAL PERSEVERANCE ASSOCIATED WITH THE MAINTENANCE OF HEALTH BEHAVIORS

Alivia Frazier, MS[1], Kevin T. Larkin, PhD[1]

[1]West Virginia University, Morgantown, WV

Research has shown that positive psychological traits, such as perseverance, may be associated with the maintenance of health behaviors aimed to prevent commonly fatal diseases (e.g., cardiovascular disease, stroke). The current study examined whether there was an association between self-reported perseverance, behavioral perseverance, and distress tolerance (DT) with various health behaviors (e.g., sleep, physical activity, nutrition, vaping, and alcohol use). A novel methodology was used for this study that employed using the online mirror tracing task as a measure of behavioral perseverance.

A sample of undergraduate students (*N*=763) enrolled at West Virginia University completed the perseverance of effort subscale from the Grit Scale, the Distress Tolerance Scale (DTS), Pittsburgh Sleep Quality Index (PSQI), and various items from the Behavioral Risk Factor Surveillance System (BRFSS) using an online survey. A subset of this sample (*N* = 48) participated in the second portion of this study in which they completed the online mirror tracing task and pre- and post- measures of the Positive and Negative Affect Schedule (PANAS). Multiple, ordinal, and logistic analyses were independently conducted with self-reported perseverance, behavioral perseverance, and DT as the predictor variables and health behaviors and positive and negative affect reactivity, as the criterion variables. Mediational analyses were conducted to examine the effect of perceived importance and difficulty of maintaining health behaviors as potential mediators for any significant associations.

Multiple regression analysis showed that DT significantly predicted global PSQI scores, such that participants with higher DT scores reported engaging in better sleep. The variables of self-reported perseverance and behavioral perseverance did not significantly predict any health behaviors. Since DT was found to predict sleep quality, this association was also examined in mediational models. One mediation model revealed significant indirect effects in that perception of difficulty in maintaining healthy sleep behaviors partially explained the association between DT and sleep quality. No other indirect effects were observed. This study highlighted the potential importance of DT as a factor in explaining whether young adults engage in some important health behaviors and suggest that future research is warranted in using this measure to explore topics of interest to health psychologists.

CORRESPONDING AUTHOR: Alivia Frazier, MS, West Virginia University, Morgantown, WV; akf0012@mix.wvu.edu

---

Abstract citation ID: kaad011.1262

POSTER SESSION E: EASY A: A SELF-PACED HEALTH AND WELLNESS TRAINING FOR EDUCATORS

Winston Kennedy, PT, DPT, MPH, PhD[1], Sharna Prasad, PT, DPT[2], Jasmine Berry, MPH[2]

[1]Merrimack College, North Andover, MA; [2]SOL4CE, North Andover, MA

Americans have experienced high rates of disease with limited health resources for decades. For example, non-communicable diseases account for 7 out of 10 deaths (40 million) annually in the United States. Long-standing poor health outcomes were exacerbated during the COVID-19 pandemic. Drug overdose deaths in the United States rose by more than 30% in 2020, likely connected to effects of the mental and emotional tolls of the COVID-19 pandemic and the sudden environmental changes that occurred. Throughout the COVID-19 pandemic, educators were called upon to continue to work, with little to no support or guidance on how to handle working in an unprecedented way (i.e., working remotely and relying on technology). Using the CDC's Whole School, Whole Community, Whole Child framework, the Easy-A curriculum was developed to support educators in managing their health and well-being. Easy-A was developed through an iterative process with health professionals across various backgrounds, with the goal of creating a holistic training module that supports the self-management of health, tailored specifically to educators.

The Easy-A curriculum was developed to address self-care, physical health, mental health, and behavioral health, while addressing pain and addictive behaviors in educators. Professionals in physical therapy, occupational therapy, education, counseling, and health promotion evaluated and provided feedback on a draft curriculum, led by the lead curriculum developer. The curriculum was designed to support participants in four key ways: 1) by promoting the ability to self-assess their physical, mental, and emotional health; 2) by exploring potential causes behind exhaustion, loss of motivation, and manifestation of physical pain; 3) by experimenting with different self-care practices to identify those most effective at healing participants physically, mentally, and spiritually; 4) and by creating a community of educators looking to improve their own well-being. Consensus was met when all professionals agreed the content was appropriate and clear.

After a month of feedback, the group of professionals created the new Easy-A curriculum using the guidance of the Whole School, Whole Community, Whole Child framework. It consists of 11 modules that address stress, physical activity, nutrition, sleep, social determinants of health, pain, and addiction. Each module includes educational materials and activities that are self-paced to support the hectic schedules of educators. In order to facilitate the self-paced nature of the curriculum, it is 100% online with opportunities to obtain support from a coach and opportunities to connect with others via social media. Preliminary feedback from educators indicated that the Easy-A curriculum is a timely and much needed asset to support educators as we transition to living with COVID-19 and prepare for future pandemics.

CORRESPONDING AUTHOR: Winston Kennedy, PT, DPT, MPH, PhD, Merrimack College, North Andover, MA; kennedyw@merrimack.edu

Abstract citation ID: kaad011.1263

POSTER SESSION E: POSITIVE AND NEGATIVE RELATIONSHIP QUALITY AND MENTAL HEALTH DURING THE COVID PANDEMIC

Cheryl M. Trask[1], Kharah Ross, PhD[2], Catherine Lowe, BA Psyc[3], Janine Keown-Gerrard, PhD[2], Trevor H. Gilbert, PhD[4], Cheuk Fan Ng, PhD[2]

[1]Athabasca University, Sainte-Marie-de-Kent, NB, Canada; [2]Athabasca University, Calgary, AB, Canada; [3]University of Calgary, Calgary, AB, Canada; [4]Athabasca University, Athabasca, AB, Canada

Background: Positive and negative aspects of close relationships are independent constructs that interact to predict health outcomes: indifferent (low positive, low negative) and ambivalent (high positive, high negative) relationships, specifically, predict worse health outcomes. Specific patterns that emerge could depend on how relationship quality is operationalized. The purpose of this study is to determine whether patterns of relationship quality associated with mental health differ by whether relationship quality is considered broadly (support, conflict) or specifically within support-seeking contexts (upsetting or helpful during support attempts).

Methods: A sample of 343 Canadian adults were recruited online Apr-Jul 2020 to participate in a study on COVID, close relationships, and mental health. Participants completed support-seeking help and upset, general support, and conflict questionnaires. Participants responded to questions thinking about their partner, other adults in the household (not partnered), or their closest friend or family member (not partnered, no other adults in the house). Participants concurrently reported anxiety and depressive symptoms. Four linear regression models tested associations between positive and negative relationship quality and positive-by-negative interaction terms and anxiety or depressive symptoms for general or support-seeking contexts. Covariates were socio-demographics and type of relationship (ie. partner).

Results: Different patterns of association emerged depending on how positive and negative aspects were operationalized. Support-seeking constructs were more consistently associated with mental health outcomes. Higher upset during support-seeking was associated with higher depressive symptoms, $b(SE) = 0.038(0.012)$, $p = 0.001$, and anxiety, $b(SE) = 0.050(0.011)$, $p < 0.001$. Higher helpfulness when support-seeking was not associated with depressive symptoms or anxiety, p's > 0.344. In contrast, general support was associated with lower anxiety, $b(SE) = -0.020(0.007)$, $p = 0.002$, but not depressive symptoms, $p = 0.352$. Conflict was not associated with anxiety or depressive symptoms, p's > 0.424. None of the interaction terms were associated with mental health, p's > 0.136.

Conclusions: Associations between positive and negative relationship aspects and mental health vary depending on whether a support-seeking context or general construct approach is used. Support-seeking contexts may be the stronger predictor of mental health, and research opportunities exist for how relationship type impacts mental health in support-seeking context.

CORRESPONDING AUTHOR: Cheryl M. Trask, Athabasca University, Sainte-Marie-de-Kent, NB, Canada; cherylmtrask@gmail.com

---

Abstract citation ID: kaad011.1264

POSTER SESSION E: ETHICS AND COVID-19 VACCINE HESITANCY AMONG HEALTH CARE PERSONNEL (HCP) IN ETHIOPIA

Rachel Gur-Arie, PhD, MS[1], Adamu Addissie, MD, MPH, MA, PhD[2], Yimtubezinash Woldeamanuel Mulate, MD, MSc, PhD[2], Svea Closser, PhD[3], Andrea Ruff, MD[3], Joseph Ali, JD[3]

[1]Arizona State University, Phoenix, AZ; [2]Addis Ababa University, Addis Ababa, Adis Abeba, Ethiopia; [3]Johns Hopkins Bloomberg School of Public Health, Baltimore, MD

Vaccine hesitancy in Ethiopia, and low- and middle-income countries (LMICs) generally, is largely under-researched. Additionally, there is limited examination of the *ethical* dimensions of vaccine hesitancy among healthcare personnel (HCP). Ethical considerations, which are often heightened in LMICs, include challenges with localizing professional ethics norms, conflicts between value frameworks (e.g., personal and professional), and the difficult choices that need to be made when presented with ongoing scarcity in vaccines and other resources to mitigate COVID-19. Vaccine hesitancy among HCP is deeply connected to social, cultural, professional, economic, political, and other factors that present uniquely in Ethiopia. Emerging quantitative data on COVID-19 vaccine hesitancy among HCP in Ethiopia suggest a serious challenge, but these data do not reflect the views of HCP, nor do they examine the ethical dimensions of hesitancy. We share the preliminary findings of a qualitative study involving HCP and policy and practice leaders in Ethiopia, which sought to understand factors contributing to COVID-19 vaccine hesitancy among HCP in Addis Ababa, with an emphasis on normative influences and understanding how different HCP conceptualize and operationalize their vaccine-related ethical obligations. The study, which also sought to explore the obligations of health systems towards HCP, was conducted collaboratively by bioethics and public health researchers at Addis Ababa University and Johns Hopkins University with support from the US National Institutes of Health. Consistent with global pandemic response priorities, we hope the findings from this work will contribute to development of effective and ethically-sensitive vaccination policies and practices, especially in low-resource contexts.

CORRESPONDING AUTHOR: Rachel Gur-Arie, PhD, MS, Arizona State University, Phoenix, AZ; rgurarie@asu.edu

Abstract citation ID: kaad011.1265

POSTER SESSION E: CAREGIVER PERCEPTIONS OF HOME, SCHOOL, & COMMUNITY ENVIRONMENTAL BARRIERS EXPERIENCED BY CHILDREN WITH TRAUMATIC BRAIN INJURY

Maura R. Kelleher, BS Neuroscience[1]

[1]Nationwide Children's Hospital, Long Grove, IL

Objectives: A traumatic brain injury (TBI) is defined as a bump, blow, or jolt to the head that disrupts brain functioning. Among young people, TBI is a large contributor to mortality and negatively impacts the mental and physical health, social skills, and cognitive abilities of children and adolescents. A significant proportion of young people with TBI report unmet medical and educational needs, and environmental characteristics of the family, school, and surrounding community impact access to supportive services. Engaging with caregivers of children with TBI is central to define areas of need and efficacy. This research examines caregivers' perspectives to identify common environmental barriers experienced by children with TBI and describe the relationship between environmental barriers and demographic/injury characteristics. The following research questions were asked:

- What are common home, school, and community environmental barriers experienced by children with traumatic brain injury?
- How do demographic and injury characteristics associate with environmental barriers that caregivers report?

Methods: Participants (n = 19) were caregivers who had a child sustain a TBI prior to age 18. Caregivers completed semi-structured phone interviews, and part of the interview included questions from the *Child & Adolescent Scale of Environment* (CASE; Bedell, 2011), a multidimensional scale that addresses physical, attitudinal, and emotional problems their child might experience across home, school, and community environments. Participants also provided demographic information and child injury characteristics. Using Spearman's Rank correlation, we identified injury and demographic characteristics that were significantly associated with environmental barriers listed by the CASE.

Results: Though participants indicated problems in all CASE categories, the most common barriers reported by caregivers included family stress (78.95%), inadequate school services (52.63%), and family finances (47.39%). Greater age at injury and injury severity correlated with fewer barriers to school and community support ($p < .05$). Caregiver age, education level, and household income were significantly associated with fewer problems in home, school, and medical settings.

Conclusion: As injury age and severity increased, caregivers were less likely to report problems within the community. Older caregivers and those with greater annual household income were less likely to report problems in school and community settings. This study confirms the importance for medical and educational providers to follow up with children with TBI and assess caregivers' material and emotional resources. This care is particularly important for younger caregivers and caregivers of lower SES, who are more likely to encounter environmental barriers to their child's needs.

CORRESPONDING AUTHOR: Maura R. Kelleher, BS Neuroscience, Nationwide Children's Hospital, Long Grove, IL; mkelleher0506@gmail.com

---

Abstract citation ID: kaad011.1266

POSTER SESSION E: THE EFFECTS OF HYPER-SURVEILLANCE ON THE HEALTH AND WELLBEING OF JUSTICE-INVOLVED FAMILIES: A STRUCTURAL VIOLENCE PERSPECTIVE

Yvonne Isom, PhD[1], Linda Weatherspoon, BA[2], Alana Gunn, PhD[1], Sage J. Kim, PhD[3]

[1]University of Illinois Chicago, Chicago, IL; [2]Roll Call, Chicago, IL; [3]UIC School of Public Health, Chicago, IL

Police surveillance and subsequent arrest have disproportionately affected already resource-poor communities of color and contributed to various mental health issues such as anxiety and post-traumatic stress disorder. Thus, it is critical to examine how residents make sense of police encounters and how they are treated in the context of high segregation, poverty, crime, and violence in these communities.

Our research team employed a photovoice method to explore issues of surveillance in ways that promote reflexive knowledge production on issues of health equity. We recruited 20 justice-involved individuals residing on the West Side of Chicago. We engaged 15 male and 5 female participants in photovoice and semi-structured interviews to discuss their perceptions of community, familial relationships, interactions with police, and how this shapes their health.

Findings reveal that participants navigate the duality of policing and community safety. First, participants experience tensions between needing police protection while fearing surveillance. Second, participants perceive the police as legal but at the same time their practices as extra-legal. Third, the prevalence of violence and gun in the community traumatized residents, especially young people, and many actually get a gun after trauma experience. In addition, participants discussed police inaction, "They just sit there", social disorganization, "There wasn't a store around- you couldn't buy milk and bread for at least a month" and "They going and killing, everywhere you go…They shot a boy yesterday!"

The findings suggest a great need for research into individuals and families navigating dual threats from social disorganization and hyper-policing; and policy to mitigate community violence while restoring police fairness.

CORRESPONDING AUTHOR: Sage J. Kim, PhD, UIC School of Public Health, Chicago, IL; skim49@uic.edu

Abstract citation ID: kaad011.1267

POSTER SESSION E: WHERE YOU LIVE MATTERS: EXAMINING THE RELATIONSHIP BETWEEN HISTORIC REDLINING AND PHYSICAL ACTIVITY

Marcus R. Andrews, MPH[1], Tiffany M. Powell-Wiley, MD, MPH[2]

[1]University of Michigan, Ann Arbor, MI; [2]National Institutes of Health: National Heart, Lung, and Blood Institute, Bethesda, MD

Background: Physical inactivity is of public health concern in the US. Evidence supports adverse neighborhood conditions as a contributor to low physical activity levels. However, historic redlining's impact on physical inactivity across US cities remains understudied.

Methods: 500 Cities Project data on physical inactivity (measured as the percentage of adults 18+ who self-reported not participating in any physical activity) by city were downloaded. We merged this data with historic redlining data from the Mapping Inequality Project and census tract-level American Community Survey demographic data. We used linear regressions to examine relationships between historic redlining scores and census tract-level physical inactivity, adjusting for census tract-level covariates.

Results: Data from 12 US cities were analyzed. After controlling for census tract-level racial composition and household income as covariates, these relationships' strength and significance varied by city and region. In the Northeast/Mid-Atlantic, living in formerly redlined areas was associated with higher physical inactivity in Baltimore (β= 6.00 p=0.00) and New York City (β= 4.45 p=0.00) but not Boston (β= 2.56 p=0.57). In the Midwest, living in formerly redlined areas was associated with higher physical inactivity in Detroit (β= 3.83 p=0.02) and Cleveland (β= 6.22 p=0.02) but was not significant in Chicago (β= 1.02 p=0.69). In the South, living in formerly redlined areas was associated with higher physical inactivity in Dallas (β= 5.77 p=0.00) and Miami (β= 5.89 p=0.00). Paradoxical relationships were seen in Atlanta, where living in formerly redlined areas was associated with higher physical activity, but these relationships were insignificant (β= -1.39 p=0.38). In the West, living in formerly redlined areas was associated with higher physical inactivity in Los Angeles (β= 5.46 p=0.00) and San Francisco (β= 5.28 p=0.00); relationships were not statistically significant in Seattle (β= 2.26 p=0.15).

Conclusions: This is one of the first studies to suggest a differential impact of historic redlining on physical inactivity across US cities. Additional research is needed to examine potential mechanisms that may explain these associations.

CORRESPONDING AUTHOR: Marcus R. Andrews, MPH, University of Michigan, Ann Arbor, MI; marcusan@umich.edu

---

Abstract citation ID: kaad011.1268

POSTER SESSION E: DIFFERENCES IN FACTORS EXPLAINING INTENTION TO GET THE COVID-19 VACCINE AND BOOSTER: A SURVEY OF ADULTS IN MISSOURI

Ricardo J. Wray, PhD[1], Mira Mohsen, MS[1], Sibelle Yemele, BS, MPH[1], Ashley Richards, BA[1], Tom Burroughs, PhD[1], Steve Rigdon, PhD[1], Lauren Trewyn, BS[1], Lynn Pham, BS candidate[1]

[1]Saint Louis University, St. Louis, MO

As of November 2022, over 98 million cases and 1 million deaths from COVID-19 have been recorded in the United States, and over 1.6 million cases and 21,940 deaths in Missouri. COVID-19 prevention has focused on effective COVID-19 vaccines and boosters. Over time a disparity between uptake of the vaccine and the booster has emerged. Missouri data show that 3.5 million people (< 60% of the population) are fully vaccinated (completed a primary vaccine series) but only 1.6 million (< 30%) have obtained a booster. As the pandemic becomes endemic, understanding how to successfully encourage booster uptake is essential.

To examine and compare factors associated with COVID-19 vaccination and booster intentions, we conducted a state-wide survey with a non-random (Qualtrics panel) sample of 1234 adults in June and July of 2022. The survey included questions about vaccination status and intention, demographics, health beliefs and media use. We used bivariate logistic regression to examine differences in factors associated with intention to get vaccinated among unvaccinated compared to vaccinated people, in contrast with factors associated with intention to get boosted among vaccinated (fully or partially) compared to boosted participants.

Increased age, education, income, health insurance, liberal political leanings, not being employed and media use were associated with greater vaccination and booster intentions. Associations were larger for the unvaccinated-vaccinated pair compared to vaccinated-boosted pairs for socio-economic factors (i.e. education, income and health insurance status), but smaller for age, employment, political leaning and media use. Gender and race/ethnicity were not associated with vaccination or boosted intention. Similarly, perceived susceptibility and severity, vaccine benefits, efficacy and trust, positive vaccine attitudes and normative beliefs were associated with intention to get vaccinated and boosted. Vaccine risk and misinformation were negatively associated with both vaccination and booster intention. The magnitude of the association for health beliefs diminished for intention to boost compared to intention to vaccinate. Our findings suggest that efforts to promote vaccines need to account for social determinants to a greater degree than those promoting boosters. Communication strategies may affect beliefs and intention to vaccinate, but must be coupled with efforts addressing access and other barriers low-income groups face.

CORRESPONDING AUTHOR: Ricardo J. Wray, PhD, Saint Louis University, St. Louis, MO; ricardo.wray@slu.edu

Abstract citation ID: kaad011.1269

POSTER SESSION E: COPING STYLE AS A POTENTIAL MEDIATOR FOR THE RELATIONSHIP BETWEEN STRESSFUL LIFE EVENTS AND POSTPARTUM STRESS IN AT-RISK MOTHERS

Josh Murillo, BA[1], Ellen Tatevosyan, MS[1], Guido Urizar, PhD[1]

[1]California State University, Long Beach, Long Beach, CA

Experiencing more stressful life events in early pregnancy has been associated with increased postpartum stress, with 51% of pregnant African American and Hispanic women experiencing more negative life events than their non-Hispanic white counterparts. Prior research has shown that among the various coping strategies aimed at reducing stress, problem-focused coping is associated with lower stress compared to other coping styles (e.g., emotional and avoidant). However, low-income and ethnic minority women have been shown to use less problem-focused coping to deal with stressful life events. Therefore, the present study sought to examine whether less use of problem-focused coping during pregnancy helped to explain why low-income, ethnic minority women who experience more stressful life events in early pregnancy may have more postpartum stress. Our sample comprised of 85 low-income pregnant women (71% Latina, 18% African American, 4% Asian American, 4% non-Hispanic White and 3% mixed ethnicity; 38% living below poverty) who reported their stressful life events (LES) in early pregnancy (< 17 weeks gestation) and their use of coping strategies (COPE) and perceived stress levels (PSS) at three months postpartum. Results revealed that women who experienced more stressful life events early in pregnancy experienced higher levels of postpartum stress (b=.67, *p*=.03). Additionally, increased use of problem-focused coping was associated with lower levels of postpartum stress (b=-.50, *p*< .01). However, problem-focused coping was not found to explain the relationship between life events and postpartum stress (b=-.03,95% CI [-.27,.17]). One explanation for these results may be that low-income, ethnic minority women may experience a higher number of stressful life events that may be perceived to be outside of their control (e.g., discrimination, food insecurity, death in the family) that may predispose them to using other forms of coping to manage their stress (e.g., distraction, avoidance). Additional research is needed to examine the unique life events and coping strategies used by low-income, ethnic minority women during pregnancy to inform public health efforts to improve health outcomes for both mothers and their families.

CORRESPONDING AUTHOR: Josh Murillo, BA, California State University, Long Beach, Long Beach, CA; Joshua.Murillo01@student.csulb.edu

---

Abstract citation ID: kaad011.1270

POSTER SESSION E: DYSFUNCTIONAL BREATHING ASSOCIATED WITH COVID19-RELATED STRESS AMONG COLLEGE STUDENTS

Courtney E. Kirsch, BA[1], Faiza Farooq, BA[2], Sonia Suchday, PhD[3]

[1]Pace University, Jersey City, NJ; [2]Pace University, Elmont, NY; [3]Pace University, New York, NY

Background: Dysfunctional breathing (DB) describes a class of breathing pattern disorders that cannot be sufficiently explained by organic disease or disorder. Hyperventilation syndrome (HVS) is a sub-category of dysfunctional breathing that occurs when over-breathing results in an excessive loss of carbon dioxide from the blood. Both are associated with affective distress.

Aim: The current study assessed whether students who reported clinically significant breathing complaints (DB & HVS) would experience more COVID-19 college-related stress compared to students not meeting cutoff scores.

Methods: Self-reports of DB (Self-Evaluation Breathing Questionnaire; SEBQ), HVS (Nijmegen Questionnaire; NQ) and college-related COVID-19 stress (COVID-19 Student Stress Questionnaire) were obtained from college students recruited through undergraduate psychology classes (*N*=154; *Mage* = 20.66, *SD* =4.59; Females = 83.8%) via Qualtrics. The NQ and SEBQ were used in conjunction to maximize the detection of dysfunctional breathing. As suggested by previous research, clinical significance was cut off at scores >19 for NQ and >24 for SEBQ. T-tests were computed to assess differences between DB/HVS groups and non-DB/HVS groups.

Results: Students who reported clinical DB (*M* = 14.60, *SD* = 6.04) reported significantly more stress compared to students who did not experience DB (*M* = 9.47, *SD* = 5.93), *t*(117) = -4.08, *p*< .001. Students who reported clinical HVS (*M* = 12.91, *SD* = 5.75) reported significantly more stress compared to students who did not experience HVS (*M* = 8.27, *SD* = 6.12), *t*(117) = -4.25, *p*< .001.

Discussion: Those with DB/HVS often have existing concerns about their breathing, which may be dismissed as "medically unexplained" when presented in healthcare settings. These data suggest that stress related to COVID-19, a respiratory virus, may be exacerbated by DB/HVS. Although the correlational nature of the data does not suggest causality, potential interventions aimed at ameliorating DB/HVS may also decrease COVID19-related distress.

CORRESPONDING AUTHOR: Courtney E. Kirsch, BA, Pace University, Jersey City, NJ; courtney.e.kirsch@gmail.com

Abstract citation ID: kaad011.1271

POSTER SESSION E: SLEEP DISTURBANCE AS A MECHANISM THROUGH WHICH TRAIT MINDFULNESS INFLUENCES ADJUSTMENT FOLLOWING BEREAVEMENT

Mariel Emrich, BS[1], Crystal L. Park, PhD[1], Adam B. David, BA[1], Lucy Finkelstein-Fox, PhD[2]

[1]University of Connecticut, Storrs, CT; [2]Massachusetts General Hospital/ Harvard Medical School, Boston, MA

Bereavement is a profound adverse life event that many young adults experience. Resulting psychological sequalae can manifest as cognitive (e.g., maladaptive thoughts) and somatic (e.g., disrupted sleep) symptoms, which can have deleterious effects on mental health and wellbeing. Identifying modifiable protective factors (e.g., mindfulness) is important to understand why some individuals are resilient in the face of bereavement while others develop lingering mental health concerns. This study aimed to determine whether trait mindfulness predicts better mental health adjustment (i.e., decreased distress and greater positive states of mind (PSOM)) in recently bereaved young adults and tested cognitive and somatic symptoms as possible underlying mechanisms of those relationships.

Recently bereaved undergraduate students (N=117; 78.5% female, 62.4% White) completed questionnaires of distress (anxiety, depression, and stress), sleep disturbance, PSOM, intrusive and deliberate thoughts, and mindfulness at three timepoints (T1: baseline, T2: 3 weeks, T3: 6 weeks). Longitudinal regression models controlling for baseline distress/PSOM, with estimates pooled across 5 imputed datasets, examined trait mindfulness at T1 predicting mental health adjustment at T3. Indirect effects of intrusive thoughts, deliberate thoughts, and sleep disturbance were estimated using 1,000 bootstrapped samples.

Controlling for baseline distress/PSOM, trait mindfulness significantly predicted reductions in distress including anxiety (B = -.34, p = .02), depression (B = -.43, p = .02), and stress (B = -.54, p = .01), as well as increased PSOM (B = .22, p = .01) at T3. While sleep disturbance was a significant partial mediator, intrusive and deliberate thoughts were not. Specifically, higher trait mindfulness was associated with less sleep disturbance (B = -.52, p < .001), which in turn was associated with decreased anxiety (B = .29, p = .03; ab = -.11, 95% CI [-.23, -.01]), depression (B = .28, p = .04; ab = -.10, 95% CI [-.22, -.01]) and stress (B = .34, p = .008; ab = -.13, 95% CI [-.26, -.02]), as well as increased PSOM (B = -.19, p = .001; ab = .08, 95% CI [.03, .15]), longitudinally.

Trait mindfulness predicts reductions in distress and improvements in PSOM following the death of a loved one, with sleep quality emerging as a potential intermediary of these effects. Interventions for bereaved young adults may thus emphasize mindfulness-based approaches for improved sleep and mental health to promote resilience.

CORRESPONDING AUTHOR: Mariel Emrich, BS, University of Connecticut, Storrs, CT; mariel.emrich@uconn.edu

---

Abstract citation ID: kaad011.1272

POSTER SESSION E: TREATMENT OUTCOMES OF BLACK AMERICANS WHO USE COCAINE: A SYSTEMATIC REVIEW AND CRITIQUE OF THE LITERATURE

Christopher Roundtree, MA[1], Jennifer Brown, PhD[2], Paula K. Shear, PhD[1], A. Kathleen Burlew, PhD[1]

[1]University of Cincinnati, Cincinnati, OH; [2]Purdue University, West Lafayette, IN

Cocaine use poses a major health crisis in the Black American community, contributing to the rising rates of cocaine-related overdose fatalities each year. Although several studies have been conducted that assess treatment outcomes in Black Americans who have completed treatment programs, there have been no systematic reviews that summarize and critique these findings over the past few decades. The purpose of this systematic review is to identify existing studies that analyze treatment outcomes, synopsize these studies' reported treatment outcomes, as well as review these articles' chosen treatment outcome measures, study characteristics, and types of treatments. This review also identifies potential biases that may emerge based on the studies' chosen approaches to examining and reporting treatment outcomes. Syndemics theory emphasizes the need to measure outcomes beyond urinalysis so that Black participants' experiences, in particular the adversities created by socioeconomic, environmental, and biosocial hardships post-treatment can be fully assessed. All methods in this review were conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) reporting guideline (Moher, Liberati, Tetzlaff, & Altman, 2009). Keywords mapped onto the subject heading Cocaine use, cocaine abuse, cocaine dependence, and cocaine use disorder were treatment outcomes, efficacy, effectiveness, and follow-up. Studies that featured racial or ethnic categories in addition to Black American clients were also included. Results of the review found that cocaine use treatment is generally associated with positive outcomes for Black participants; however, multiple studies relied on measures that can lead to potentially limited or biased results. Even so, programs that offered supplemental treatment such as contingency management or various pharmaceutical options were generally associated with more favorable treatment outcomes. However, there is evidence that Black participants are not successfully completing treatment programs at the same rates as White participants, and it is important to understand the reasons behind these trends when treating this population. Future studies should look to continue to explore different combinations of supplemental treatments and intensities, and also look to employ a wider range of outcome measures so that the experiences of Black participants can be more fully captured.

CORRESPONDING AUTHOR: Christopher Roundtree, MA, University of Cincinnati, Cincinnati, OH; roundtca@mail.uc.edu

Abstract citation ID: kaad011.1273

POSTER SESSION E: ALCOHOL EXPECTANCIES FOR SEXUAL ENHANCEMENT, DAILY ALCOHOL USE, AND LIKELIHOOD OF SEXUAL AGGRESSION PERPETRATION

Julia Hammett, PhD[1], Weiqi Chen, BSN[1], Cynthia A. Stappenbeck, PhD[2], Kelly Davis, PhD[1]

[1]Arizona State University, Phoenix, AZ; [2]Georgia State University, Atlanta, GA

Sexual aggression (SA) remains a significant public health problem, with the majority of sexual assaults involving alcohol. Founded upon alcohol expectancy theory, which posits that behaviors exhibited after drinking are likely to be consistent with previously held beliefs about the effects of alcohol (Jones et al., 2001), the present study examined event-level associations between alcohol expectancies for sexual enhancement (e.g., "I enjoy having sex more if I've had some alcohol"), alcohol use, and the likelihood of SA perpetration.

Participants were 636 non-problem drinking young adult men (*M*age = 24.6, *SD*age = 2.7) who have sex with women. First, men participated in a laboratory session in which they completed a background survey that included measures of alcohol expectancies. Then, they completed follow-up surveys 6-weeks and 3-months after the lab session in which they reported their sexual experiences each day during the intervening 6-week period. For each day they had sex, men were asked how much alcohol they consumed before sex and whether they used any of a series of tactics to obtain sex with their partner when she did not want to have sex. Of the 562 men who provided data during the 3-month follow-up assessment period, 430 men reported having sex at least once during that time and are included in the analyses.

Multilevel models in Mplus showed that men who reported greater alcohol expectancies for sexual enhancement at baseline were more likely to perpetrate SA during the 3-month follow-up period (B = .72, p = .03). Moreover, there was a significant alcohol expectancies X daily alcohol use interaction (B = .35, p = .04). Specifically, greater alcohol expectancies for sexual enhancement at baseline were associated with SA perpetration likelihood on days on which men consumed high amounts of alcohol (B = 1.37, p = .01) but not on days on which men consumed low (B = -.90, p = .29) or moderate (B = .24, p = .58) amounts of alcohol.

These findings are in line with alcohol expectancy theory and shed light on the types of alcohol expectancies that may be associated with SA perpetration and the amount of alcohol that needs to be consumed to see these effects emerge. Consequently, prevention programs that target alcohol expectancies for sexual enhancement and take into consideration that intervention efficacy may vary by intoxication state may prove particularly beneficial in reducing risk for SA perpetration.

CORRESPONDING AUTHOR: Julia Hammett, PhD, Arizona State University, Phoenix, AZ; jhammet2@asu.edu

---

Abstract citation ID: kaad011.1274

POSTER SESSION E: FEASIBILITY OF TELEPHONE COUNSELLING AND INSTANT MESSAGING IN REDUCING DRUG USE AMONG YOUTH: A PILOT RCT

Tingna Liang[1], Denise Shuk Ting CHEUNG, PhD[2], Wei Xia, PhD[3], Ho Cheung, William LI, PhD[4]

[1]the University of Hong Kong, Shenzhen, Guangdong, China; [2]the University of Hong Kong, Hong Kong, N/A, Hong Kong; [3]Sun Yat-sen University, school of Nursing, Guangzhou, Guangdong, China; [4]The Nethersole School of Nursing, Faculty of Medicine, The Chinese University of Hong Kong, Hong Kong, N/A, Hong Kong

Background: Drug abuse among youth can lead to various negative consequences, such as school failure and mental health problems. Common reasons for persistent drug misuse include lack of motivation to change, resistance to didactic education methods, and non-individualized interventional content. Motivational interviewing-based (MI-based) telephone counselling (TC) is a conventional strategy for reducing drug misuse. This study aimed to examine whether adding MI-based instant messaging (IM) to TC is feasible and potentially improves the sustainability of the intervention effect.

Methods: A pilot randomized controlled trial was conducted in youth aged 25 or below who reported drug misuse. Participants were assigned randomly (1:1) to the intervention (TC followed by individualized MI-based IM for 1 month) and control group (TC followed by general health IM messages for 1 month). Reduction in drug consumption, drug abstinence, and scores of contemplation stage (range 0-10, higher score indicated more decisive to change) was recorded at 1-month follow-up.

Results: A total of 20 drug users (85% male, mean age=18.3) were recruited, of which 95% completed the study. Recruitment, enrollment, and retention of participants were feasible and acceptable. Compared to the control group, The intervention group reported a higher proportion of drug reduction rate and abstinence rate at 1-week (80% and 70% respectively) than the control group (60% and 60% respectively). The effect was sustained at 1-month follow-up in the intervention group (80% and 70%.) Regarding the score of contemplation to change, the intervention group had a significantly larger increase than the control group (7.44 [*SD*=3.1] *vs* 3.40[*SD*=2.7], p=0.007).

Conclusions: The results provide preliminary evidence for the feasibility and potential efficacy of the intervention in reducing drug use, increasing drug abstinence, and improving contemplation to change among youth drug users. Findings from this study support a fully powered RCT.

CORRESPONDING AUTHOR: Tingna Liang, the University of Hong Kong, Shenzhen, Guangdong, China; u3005183@connect.hku.hk

Abstract citation ID: kaad011.1275

POSTER SESSION E: XYLAZINE PREVALENCE IN AN OPIOID DEPENDENT POPULATION

Benjamin J. Shook, MS2[1]

[1]Sidney Kimmel Medical College, Philadelphia, PA

Background: The rise of xylazine as an adulterant that prolongs short-acting synthetic opioids like fentanyl is a major obstacle in treatment of opioid use disorder (OUD). An α2 adrenergic receptor agonist, xylazine causes treatment-resistant skin ulcers and distinct withdrawal toxidrome. Co-ingestion of fentanyl and xylazine also renders overdoses resistant to naloxone reversal. Little is known about xylazine prevalence in the Philadelphia drug supply or the social, pharmacological, and clinical effects of human use. In response, the current study is designed to estimate the prevalence of xylazine exposure in a population of opioid-dependent individuals, as well as correlate xylazine exposure to specific drug use patterns.

Methods: We measured the prevalence of xylazine exposure in a 10% random sample of individuals receiving outpatient methadone maintenance treatment for OUD at Thomas Jefferson University's Narcotic Addict Rehabilitation Program (NARP). Urine specimens collected as part of treatment were tested on a predetermined random basis for the presence of xylazine by CLIA-approved Atlantic Diagnostic Labs (ADL) using LC-MS/MS. Sampling frames for testing were built by examining urine drug screen (UDS) results over the three months prior to July 2022; cohorts of patients abstinent, fentanyl-positive, non-fentanyl opiate-positive, and mixed fentanyl-opiate positive were created.

Results: Routine monthly UDS for the fentanyl-positive, non-fentanyl opiate-positive, and mixed cohorts (n=35) are tested for xylazine in July, August, and September 2022. Study participants have an average age of 49 (+/- 11.82 years), average methadone dose of 123 mg (+/- 71.3 mg) and is predominantly white (65.7%). The representativeness of this group to the NARP population indicates successful randomization. Preliminary results obtained from July (n=15) returned 6 fentanyl positive UDS (40%), with 3 of those 6 also xylazine-positive, indicating a 20% prevalence in the treatment population. All xylazine-positive UDS were therefore also fentanyl-positive. The preliminary Fisher exact test value is 0.044.

Conclusions: Recent years have seen a dramatic rise in the adulteration of illicit Philadelphia-area fentanyl supply with the veterinary anesthetic xylazine. Preliminary results from our prevalence study thus far are intriguing; the Fisher exact test suggests that xylazine exposure is highly correlated to fentanyl exposure. Interestingly, fentanyl use does not unequivocally predict for xylazine use: the anesthetic is only present in 50% of fentanyl-positive samples. This study will include a larger sample size, but at this point results suggest xylazine prevalence is not unsubstantial (20%) and xylazine is strongly linked to fentanyl use. It is therefore important for clinicians caring for OUD patients to consider sequelae of xylazine exposure when making treatment decisions.

CORRESPONDING AUTHOR: Benjamin J. Shook, MS2, Sidney Kimmel Medical College, Philadelphia, PA; shookb@gmail.com

---

Abstract citation ID: kaad011.1276

POSTER SESSION E: SEXUAL RISK AND THE IMPACT OF BEHAVIORAL AND SOCIOCULTURAL RISK FACTORS AMONG PREDOMINANTLY LATINX EMERGING ADULTS

Ariana Cervantes, MA[1], Miguel Garcia, BA[1], Austin Vernon[1], Anna Drozdova, MA[1], Angelica Aguirre[1], Theodore V V. Cooper, PhD[1]

[1]University of Texas at El Paso, El Paso, TX

Emerging adults are at increased risk for behavioral issues such as risky sex. Those between the ages of 15-24 account for 50% of all new yearly STI cases (CDC, 2018). Sexual risk behaviors may predispose certain populations to also engage in increased drinking (O'Hara & Cooper, 2015), and college students are at greater risk for alcohol use (Schulenberg et al., 2018). In addition, Latinxs who report higher sexual risk behaviors also report experiencing discrimination (Ertle et al., 2022). Stronger commitment to ethnic identity and family has been seen as a protective factor against sexual risk (Garcia-Reid et al., 2018), so a lack thereof in terms of intragroup marginalization may contribute to an increase in sexual risk behaviors. The present study assessed the relationships between sexual risk, alcohol use, and intragroup marginalization.

College students (n=292; M_{age}= 20.86 years, SD = 4.806; 77.1% female; 81.2% Hispanic) from a Hispanic Serving Institution were recruited via SONA, a web-based recruitment system. After signing an electronic consent form, participants completed an online questionnaire including: sociodemographics; the Sexual Risk Survey (SRS); Drug Use Frequency (DUF); and the Intragroup Marginalization Inventory (IMI*)*. A linear regression model assessed the relationships between SRS and sociodemographics, DUF, and IMI.

Results indicated that the linear regression model was statistically significant ($F(6,184)=7.237$, $p< .001$). Sexual risk behaviors were positively associated with alcohol use in the past month ($\beta=.523$, $p< .001$) and negatively associated with lifetime use ($\beta=-.481$, $p< .001$). Sexual risk behaviors were positively associated with friend intragroup marginalization ($\beta=.267$, $p=.001$).

The positive association between sexual risk behaviors and past month alcohol use is similar to what has been identified in other literature in which deleterious health behaviors may coexist. That sexual risk behaviors were negatively associated with lifetime alcohol use may be indicative of a substitution of one risk behavior for another as one ages. That sexual risk behaviors were positively associated with intragroup marginalization from friends but not from family or their ethnic group suggests that sexual risk behaviors may be used as a way to cope with social exclusion from friends. Future longitudinal studies are encouraged to identify the temporality of these relationships and include other substances and discrimination-based constructs.

CORRESPONDING AUTHOR: Ariana Cervantes, MA, University of Texas at El Paso, El Paso, TX; acervantes24@miners.utep.edu

Abstract citation ID: kaad011.1277

POSTER SESSION E: NOVEL PREDICTORS AND NEW APPROACHES TO THE PREVENTION OF POSTPARTUM CIGARETTE SMOKING RELAPSE

Alicia Allen, PhD, MPH[1], Samantha Werts, MPH[1], Emily Crose, BS[1], Uma Nair, PhD[2]

[1]University of Arizona, Tucson, AZ; [2]University of South Florida, Tampa, FL

Introduction: Postpartum cigarette smoking relapse (PCSR) is a persistent public health problem that has not significantly improved for over two decades. PCSR contributes to a wide-range of adverse health outcomes in mothers (e.g., cancer), infants (e.g., ear infections), and older children (e.g., obesity). Thus, the development of innovative and effective prevention interventions for PCSR are necessary.

Methods: We conducted a cross-sectional survey and, for a subsample, a follow-up qualitative interview. Respondents were recruited via Prolific, a professional survey panel. Those eligible for the cross-sectional survey were in the perinatal period (i.e., currently pregnancy or < 12 weeks post-childbirth) and self-reported smoking within the three months prior to pregnancy. For the purposes of this abstract, survey data were restricted to those who were currently pregnant. Independent variables were recent e-cigarette use and stressfulness of relationships. The outcome variable was postpartum smoking status goal (i.e., to stay quit versus to return to smoking or not sure). Associations were assessed with chi-squares and t-tests. Those eligible for the interview were those who completed the cross-sectional survey, expressed interest in completing the interview, and provided contact information. Qualitative data was evaluated by two independent reviewers for emergent themes.

Results: Survey respondents (n=221) were, on average, 29.7 years old and 46% were currently abstinent from smoking. Compared to those who did not have a goal of smoking abstinence after childbirth (n=76; 35%), those who did (n=144; 65%) were more likely to have used e-cigarettes within the past year (34% versus 51%, respectively; p=0.02) and relationships with people other than their spouse that were "not at all stressful" (15% versus 7%, respectively; p=0.03). Interviewees (n=10; 50% currently pregnant; 70% currently abstinent from smoking) expressed interest in using meditation, deep breathing, physical activity, and visual aids to support smoking abstinence. Self-help booklets, text messages, and a social support person were of less interest.

Conclusions: These preliminary data suggest that meditation, deep breathing, and physical activity may be useful for PCSR given the interest in these approaches, as well as the potential stress reduction effects. Additional research is needed to identify effect components to prevent PCSR.

CORRESPONDING AUTHOR: Alicia Allen, PhD, MPH, University of Arizona, Tucson, AZ; aliciaallen@arizona.edu

---

Abstract citation ID: kaad011.1278

POSTER SESSION E: SOCIAL NORMS AND NETWORK INFLUENCES ON ADOLESCENT E-CIGARETTE USE

Sarah E. Piombo, MPH[1], Thomas W. Valente, PhD[1]

[1]Keck School of Medicine, University of Southern California, Los Angeles, CA

Background: Electronic nicotine delivery systems (ENDS) use has increased rapidly in recent years and e-cigarettes are now the most commonly used tobacco product among adolescents. Preventing e-cigarette use by focusing on changing adolescent behaviors is difficult due to the complex influences of inter- and intra-personal factors. Social influence may be driven by perceived friend norms (an individual's beliefs or perceptions about the behaviors of friends in his/her social network) and the desire to conform to these norms. These perceived norms, however, are often not aligned with reality, as people often inaccurately estimate risk behaviors among friends, and actual e-cigarette use among friends may be much lower than people believe. The objective of this study is to evaluate the differential effects of perceived norms and friend use on individual e-cigarette use to understand the mechanisms of social influence that drive e-cigarette use among adolescents.

Methods: Survey data from 2,569 adolescents interviewed in the Spring semester of their 9th grade year, and the Fall and Spring semesters of the 10th grade year, were collected from students in eleven schools in Los Angeles County. Mixed effects logistic regression models were estimated to assess the relationship between perceived norms, network exposure to friend vaping, and individual e-cigarette use.

Results: Perceived pro-vaping norms in one's social network were significantly associated with e-cigarette use initiation over time ($p < 0.001$) while controlling for network exposure to vaping and demographic covariates. Hispanic/Latinx students were more likely to initiate vaping over time ($p< 0.001$). These results indicate that perceived norms may have a stronger effect on e-cigarette use even when controlling for actual network exposure to vaping. These data represent waves 1-3 of an 8-wave study to track network influences on vaping behavior. These results suggest that interventionists may need to address perceived vaping norms to slow vaping uptake.

CORRESPONDING AUTHOR: Sarah E. Piombo, MPH, Keck School of Medicine, University of Southern California, Los Angeles, CA; piombo@usc.edu

Abstract citation ID: kaad011.1279

POSTER SESSION E: PANDEMIC-RELATED LIFE CHANGES AND ADOLESCENT SUBSTANCE USE INITIATION

Shirin (Emma) Herzig, BA[1], Larisa Albers, MPH[1], Daniel Soto, MPH[2], Ryan Lee, BA[2], Carla M. Ramirez, MS[1], Tahsin Rahman, MPH[1], Jennifer B. Unger, PhD[3]

[1]University of Southern California, Los Angeles, CA; [2]University of Southern California, Los Angeles CA, CA; [3]USC, Los Angeles, CA

Background: The COVID-19 pandemic required the public to drastically alter their daily lives. For adolescents, school closures and social isolation added further challenges to a stage of life that is already defined by significant change, potentially increasing the likelihood of substance use initiation. Substance use in adolescence is linked to a range of adverse physical and psychological effects. Understanding the relationship between life changes due to large-scale stressors, such as the COVID-19 pandemic, and initiation of adolescent substance use is crucial for early intervention efforts and the development of healthy coping skills.

Methods: Participants were high school students in 9th to 12th grade from Los Angeles (L.A.) County, California that are part of an ongoing school-based longitudinal study called Trends in Tobacco Use Survey. Students at 6 high schools were enrolled and surveyed as 9th graders in the 2019-2020 school year. Students were surveyed each year for waves 2 and 3. In total, 2,478 high school students from 9 public high schools in L.A. County were enrolled in this study. Four logistic regression models were conducted to test hypotheses that negative life changes due to the COVID-19 pandemic increases the odds of initiation and the odds of increasing use of both tobacco/nicotine products and cannabis products.

Results: The final analytic sample included 959 adolescents across Los Angeles, California. The mean age of the sample was 16 years, and slightly under half identified as female (44.9%). A large percentage (34.4%) of students identified as Multiracial/Other race, followed by 23.7% Asian, 16.3% White/Caucasian, 14.6% Hispanic/Latinx, 5.8% Native Hawaiian/Pacific Islander, and 5.2% Black/African American. All models adjusted for sex, age, and race/ethnicity. Model results indicated that the odds of initiating cannabis use increases by 6.31% for every 1 unit increase in the COVID-19 daily life changes index. Further, the odds of increasing tobacco/nicotine use increases by 6.51% and increasing cannabis use increases by 6.02% for every 1 unit increase in the COVID-19 daily life changes index.

Discussion: Adolescents who experienced life changes due to COVID-19 are more likely to initiate cannabis use and increase both tobacco/nicotine and cannabis use. Results point towards the need for early intervention efforts to prevent substance use initiation and promote effective coping skills in diverse adolescent populations.

CORRESPONDING AUTHOR: Shirin (Emma) Herzig, BA, University of Southern California, Los Angeles, CA; sherzig@usc.edu

---

Abstract citation ID: kaad011.1280

POSTER SESSION E: THE BIDIRECTIONAL NATURE OF CAMPAIGN RECEPTIVITY AND CAMPAIGN-RELATED ATTITUDES AND THE IMPACT ON TOBACCO PRODUCT USE

Jessica M. Rath, PhD, MPH, CHES[1], Kenneshia N. N. Williams, PhD[1], Brenda S. Dimaya, MPH[1], Hope Muller, MSc[1], Donna C. Vallone, PhD, MPH[1], Elizabeth C. Hair, PhD[1]

[1]Truth Initiative, Washington, DC

Population level anti-tobacco education campaigns influence a range of youth and young adult public health behaviors and have been evaluated with a 6-item Perceived Message Effectiveness (PME) scale. Campaign receptivity is a key component of PME and has been measured using items from the PME scale (This ad… is convincing, grabbed my attention). While campaign receptivity has been revealed to impact campaign-related attitudes, the purpose of this study is to examine the bi-directional nature of campaign receptivity and campaign-related attitudes, while extending this work to include tobacco behavior as an outcome. We believe that higher campaign receptivity will be related to higher campaign-related attitudes and tobacco-related beliefs (i.e., anti-industry and social movement beliefs) will be associated with a lower likelihood of current tobacco use.

Data were drawn from the Truth Longitudinal Cohort, a nationally representative, probability-based cohort which includes youth and young adults (N=6,295; 15-24 years).

Campaign receptivity was calculated from 3 items over 5 waves 2015-2017 (i.e., this ad was convincing; this add grabbed my attention; this ad gave me good reasons not to smoke). Anti-industry beliefs were calculated from 4 items (i.e., I would like to see tobacco companies to go out of business; tobacco companies make me angry; tobacco companies try to get young people to start smoking; tobacco companies lie). Social movement beliefs were calculated from 3 items (i.e., I want my generation to be known as the one that ends smoking; I would be part of a movement to end smoking; taking a stand against smoking is important to me). Any current tobacco use was calculated at a follow up wave in 2018.

Findings indicated strong positive associations between campaign receptivity and campaign-related attitudes (anti-industry beliefs=.68, social movement beliefs=.80), even after controlling for the bi-directional relationship over time. There were strong negative associations between campaign-related attitudes and any current tobacco use (anti-industry beliefs=-.092, social movement beliefs=-.098).

This study raises awareness to the importance of understanding how campaign receptivity translates to a relationship with intended campaign-related attitudes and how this goes on to impact tobacco use behavior.

CORRESPONDING AUTHOR: Kenneshia N. N. Williams, PhD, Truth Initiative, Washington, DC; kwilliams@truthinitiative.org

Abstract citation ID: kaad011.1281

POSTER SESSION E: EMOTIONAL DISTRESS AS A PREDICTOR OF E-CIGARETTE USE IN A COLLEGE SAMPLE

James D. Morris, BA[1], Leslie A. Robinson, PhD[1], Clarke Shannon, BA[1]

[1]The University of Memphis, Memphis, TN

Introduction: Previous research has shown that poor mental health is associated with higher rates of cigarette smoking. More recently, emotional distress has been linked to e-cigarette use (i.e., vaping). The purpose of this study was to explore further the relations between vaping, anxiety, and depression in college students.

Methods: University undergraduates (*N*=486; female=73.2%; White=52.9% & African American=30.5%) completed an online survey of cigarette smoking, vaping, and affect. The Patient Health Questionnaire-8 served as a measure of depression. Students were subsequently classified as high on depression (coded 1 if total score $\geq$ 10) vs. low (coded 0 if score < 10). The Generalized Anxiety Disorder-7 was also completed, and students scoring at or above 10 were classified as anxious (coded 1), whereas those scoring lower were considered non-anxious (coded 0). Participants also reported whether they had ever vaped (coded 1), had vaped in the past 30 days (current vapers=1), or had vaped at least 100 times (established vapers=1). Students at each of these levels of e-cigarette use were compared with students who vaped less or not at all (coded 0).

Results: A series of logistic regressions were conducted, using one of the dichotomized measures of distress to predict vaping at each level of intensity. Our results showed that anxious students, in comparison with non-anxious ones, were *not* more likely to report ever vaping or current vaping. However, anxious students were 71% more likely to report established vaping than students without anxiety (*OR*=1.71; *p*< .03). Further, students scoring high on depression were significantly more likely than those without depression to report vaping at every level of consumption. Thus, depressed students were more likely than non-depressed ones to have ever used e-cigarettes (*OR*=1.64, *p* < .03), to be current vapers (*OR*=2.02, *p*=.001), and to have an established habit of vaping (*OR*=2.68, *p*< .001).

Conclusions: Our results are consistent with previous research showing an association between emotional distress and greater odds of vaping. The relationship between anxiety and e-cigarette use was evident only at the highest level of vaping. In contrast, depressive symptoms were associated with vaping at all the three levels of consumption examined in this study. These findings add to the growing evidence that emotional distress is related to an increased probability of vaping in college students.

CORRESPONDING AUTHOR: James D. Morris, BA, The University of Memphis, Memphis, TN; jdmrris6@memphis.edu

---

Abstract citation ID: kaad011.1282

POSTER SESSION E: PREDICTORS OF PATIENT ENGAGEMENT IN TELEHEALTH-DELIVERED TOBACCO CESSATION TREATMENT DURING THE COVID-19 PANDEMIC

Annemarie D. Jagielo, BA, BS[1], Amy Chieng, BA[2], Cindy Tran, MPH[3], Amy Pirkl, BA, CTTS[4], Ann Cao-Nasalga, MBA, CTTS[4], Ashley Bragg, BS[4], Rachelle Mirkin, MPH[4], Judith J. Prochaska, PhD, MPH[2]

[1]PGSP-Stanford Psy.D. Consortium, Stanford University, Santa Clara, CA; [2]Stanford Prevention Research Center, Department of Medicine, Stanford University, Palo Alto, CA; [3]Health Education, Engagement and Promotion, Stanford Healthcare, Palo Alto, CA; [4]Health Education, Engagement and Promotion, Stanford Health Care, Palo Alto, CA

Background: Smoking causes nearly 1 in 3 cancer deaths and may worsen COVID-19 outcomes. The Stanford Cancer Center provides evidence-based cessation treatment as a covered benefit for patients and their family members. During the COVID-19 pandemic, patients recently screened and identified as tobacco users were contacted by a tobacco treatment specialist and offered a variety of cessation services delivered via telehealth. Treatments include cessation medication management and individual, couples, and group counseling. We examined predictors of engagement in tobacco cessation telehealth treatment during the first 2.5 years of the COVID-19 pandemic.

Methods: Data were obtained via the Electronic Health Record (EHR) between 3/17/20 (at the start of the pandemic shelter in place in the Greater Bay Area) and 9/20/22. Patient sex, age, race, and ethnicity were abstracted, and patient disposition was coded as unreached, already quit, declined, or engaged in treatment, with treatment type recorded. Disposition date was coded as pandemic year 1, 2, or 3. A logistic regression model examined predictors of engagement. Patient reported importance of quitting was obtained in a subset (53%).

Results: During the first 2.5 years of the pandemic, 2595 patients were identified in the EHR as recently using tobacco (40% women, median age 62, 40% non-White, 13% Hispanic) and 1571 patients were contacted (61%). Of the 1313 patients still using tobacco, 448 (34%) enrolled in treatment. In the logistic regression, patient engagement was predicted by pandemic year, patient age and sex, and not race or ethnicity. Patient engagement was 42% in pandemic year 1, 28% in year 2, and 18.5% in year 3. Engagement was more likely among women (41%) than men (30%) and among patients aged 36-45 (39%), 46-55 (43%), 56-65 (37%), and 66-75 (33%) compared to patients aged 18-35 (18%) and >75 (21%). Among patients who engaged, 58% opted for medication only, 29% for counseling only, and 12% for both. Women were more likely to do counseling than men (34% v 23%), while men were more likely to use cessation medication (65% v 53%). On a 10-point scale, patient ratings of the importance of quitting tobacco were significantly lower in pandemic year 1 (6.61) than year 2 (7.54) or year 3 (7.76).

Conclusions: Among patients seen for cancer care and contacted by phone, about 1 in 3 engaged in telehealth cessation treatment during the COVID-19 pandemic. Engagement was greater earlier in the pandemic, among women, and among patients aged 36 to 75. Sheltering-in-place, rather than greater perceived risk, may have facilitated patient engagement in tobacco treatment.

Acknowledgement of Funding: NCI Moonshot Supplements 3P30CA124435-11S2/12S1; 3P30CA124435-13S

CORRESPONDING AUTHOR: Annemarie D. Jagielo, BA, BS, PGSP-Stanford Psy.D. Consortium, Stanford University, Santa Clara, CA; ajagielo@stanford.edu

Abstract citation ID: kaad011.1283

POSTER SESSION E: E-CIGARETTE EXPERIMENTATION AMONG CHILDREN FROM AN UNDERSERVED COMMUNITY: ANALYSIS OF RISKS AND IMPLICATIONS FOR PREVENTION

Mary Rose Yockel, BA[1], Marcelo Sleiman, BS[1], Tianyu Zheng, MS[1], Kenneth P. Tercyak, PhD[1]

[1]Georgetown University, Washington, DC

Background: The prevalence of e-cigarette use among youth from minority and underserved populations is not well understood. We investigated children's experimentation with e-cigarettes in a diverse community, analyzing how age, social determinants of health, and cognitions (anticipated health harms, addictiveness) may be associated with use.

Methods: English- and Spanish-speaking children (N=885; 38% Black, 68% Latino) ages 12-18 enrolled in a northeastern US Title I school district (at-risk of failure and living at/near poverty) completed an online survey during class (77% response rate). Correlates of lifetime e-cigarette use were tested in bivariate analyses and multivariable logistic regression models.

Results: The population's socio-linguistic acculturation was 38% English-speaking only, 5% Spanish-speaking only, and 57% bilingual: roughly 15% were born outside the US, originating from the Dominican Republic (47%), South America (44%), and Central America (9%). Among survey-takers, 19% endorsed experimenting with e-cigarettes: age, gender, and part-time employment were associated with children's use. Specifically, older children (43%), females (58%), and part-time workers (31%) were more likely to use such products (p's< .001). Frequency of e-cigarette use included up to 2 days/mo (27%), 5 days/mo (11%), and 30 days (15%). Those more likely to experiment also perceived that it takes longer for e-cigarettes to damage health (t=2.4, df=879, p< .01), and longer to lead to addiction (t=5.9, df=879, p< .001). In logistic regression models of e-cigarette experimentation, part-time employment (OR=2.8, 95% CI=1.79, 4.23, p< .001) and perceptions of more delayed health impairment (OR= 0.9, 95% CI=0.7, 1.0, p=.04) were significantly associated with higher odds of experimenting. Females (OR=1.5, 95% CI=1.0, 2.1; p=.04), part-time workers (OR=2.6, 95% CI=1.7, 4.1; p< .001), and those anticipating longer delays to addiction (OR=0.6, 95% CI=0.5, 0.7; p< .001) were also more likely to use e-cigarettes.

Conclusions: Children from marginalized communities are vulnerable to e-cigarette use, particularly those who perceive a more delayed onset of health harms and addiction potential. Older, female, and part-time workers are also more likely to experiment. Anti-vaping messaging by age, gender, and workplace in underserved communities may help to protect against e-product use. A deeper understanding of the relationship between e-cigarette use susceptibility and part-time employment outside of the home is also warranted.

CORRESPONDING AUTHOR: Mary Rose Yockel, BA, Georgetown University, Washington, DC; my585@georgetown.edu

---

Abstract citation ID: kaad011.1284

POSTER SESSION E: MEANING IN LIFE ASSOCIATED WITH CURRENT TOBACCO ABSTINENCE AMONG RESIDENTS OF RURAL ALABAMA

Kevin Madden[1], Karen Cropsey[1], Norma De Aguinaga[1], Amit Gaggar[1], Peter S. Hendricks[1], Isabel Scarinci[1]

[1]University of Alabama at Birmingham, Birmingham, AL

Background: Although U.S. rural counties have been shown to have high rates of tobacco use, little is known about protective factors that may decrease the likelihood of tobacco use in rural settings. The increased presence of a sense of meaning in life has been shown to be correlated with engagement in healthy behaviors, including abstinence from tobacco use. However, population-based comprehensive assessments of tobacco use and its association with meaning in life are needed, particularly among sub-populations underrepresented in research such as Black and White rural residents.

Objective: The purpose of this study was to determine if meaning in life would be associated with current tobacco use among rural residents. It was hypothesized that participants who endorsed greater presence of meaning (POM; personal sense that life is meaningful) and search for meaning (SFM; drive and inclination toward finding meaning in life) would be more likely to endorse abstinence from tobacco use.

Methods: A population-based in-person survey was conducted among 268 adults representing all census tracts in a rural county in Alabama (Marengo County) (Mean age 48.2; 60.8% female; 39.2% Non-Hispanic White). This county was selected due to its rurality (ranking as a "7" on a continuum from "1-9" using the Rural Urban Continuum Code) and its balanced racial distribution (46.5% White, 51.6% Black). Participants were provided with a comprehensive list of tobacco products accompanied by product photos and were asked to indicate all products they had used within the past 30 days. Participants who reported the use of any tobacco products in the past 30 days were considered current tobacco users. Meaning in life was assessed using the Meaning in Life Questionnaire (MLQ), a 10-item scale assessing both POM and SFM in life.

Results: A binary hierarchical logistic regression was conducted to examine demographic and meaning in life variables and their association with current tobacco use (no/yes). Male gender (AOR = 3.12, 95% CI: 1.73-5.60, $p < .001$) was associated with a higher odds of current tobacco use whereas increased age (AOR = .97, 95% CI: .96-.99, $p = .003$) and greater POM (AOR = .93, 95% CI: .88-.98, $p = .011$) were inversely associated with current tobacco use. Race, education, and SFM were not significantly associated with current tobacco use.

Conclusions: Greater POM was associated with a greater likelihood of abstinence from tobacco while controlling for several demographic variables. Future research should investigate specific factors that contribute to increased POM and interventions designed to boost this construct and examine if increased POM acts as a protective factor for other health behaviors.

CORRESPONDING AUTHOR: Kevin Madden, University of Alabama at Birmingham, Birmingham, AL; kmadden2@uab.edu

Abstract citation ID: kaad011.1285

POSTER SESSION E: TOBACCO/NICOTINE PRODUCTS USE AMONG HISPANICS/LATINX DURING THE COVID-19 PANDEMIC: FINDINGS FROM THE ALL OF US DATA

Coralia Vazquez-Otero, PhD, JD, MPH[1], Jusung Lee[1], Jacqueline Lucero[1], Alan Meca, PhD[1], Rogelio Saenz, PhD[1]

[1]University of Texas at San Antonio, San Antonio, TX

Background: During the COVID-19 pandemic, the unequal distribution of infections, deaths, and vaccinations highlighted structural racism in the US. Indeed, marginalized populations, such as Hispanic/Latinx (HL) communities, have continued to bear the weight of historical discrimination and economic deprivation that has led to pervasive health disparities. Due to stressors associated with COVID-19, such as social isolation and loss of employment, HL may be more inclined to use tobacco products as a coping mechanism. We examined the prevalence of and years associated with tobacco/nicotine product (i.e., cigarettes & e-cigs) use among HL using the *All of Us* data.

Methods: The *All of Us* program enrolls diverse participants from across the country. Surveys include questionnaires from previous cohort studies and validated instruments, available in English & Spanish. We used the Registered Tier dataset and delimited the sample to those who identified as HL (*n*=34,033). Adjusted multinomial and binary logistic regression modeling was used to estimate associations between cigarette use/e-cig use and the year the data were collected (2016-2021) controlling for age, sex, education, employment, income, and marital and insurance status. Analyses were conducted on the Researcher Workbench using R.

Results: Most participants were female (68%), married (39%), 34 years old or younger (35%), had an income of less than $25,000 (47%), were employed (54%) and had health insurance (89%). About 73% of participants were never smokers, 19% former smoker, and 8% are current smokers. Nearly one-fifth indicated they had used e-cigs at some point. After controlling for the sociodemographic variables, there was no association between year and cigarette use; however, compared to 2016, the adjusted odds of e-cigs use were significantly higher in 2020 (aOR:1.54, 95%CI:1.07-2.26) and 2021 (aOR:1.56, 95%CI:1.08-2.29).

Conclusion: Although our findings indicated no significant increase in cigarette use, there was an increased odds of e-cigs use among HL during the COVID-19 pandemic. These results are in contrast to previous research indicating a slight decrease in the prevalence of e-cig use between 2018 to 2020. Although preliminary, these findings may indicate the use of this type of nicotine product as a way to cope during those stressful times. Future research is needed to assess additional factors, such as social isolation and loss of employment, to further understand this relationship.

CORRESPONDING AUTHOR: Coralia Vazquez-Otero, PhD, JD, MPH, University of Texas at San Antonio, San Antonio, TX; coralia.vazquez-otero@utsa.edu

---

Abstract citation ID: kaad011.1286

POSTER SESSION E: TECHNOLOGY-ASSISTED MOTIVATIONAL INTERVIEWING FOR SMOKING CESSATION: FEASIBILITY AND ACCEPTABILITY PILOT OF THE TAMI COACH

John F. Layton, BA[1], Joannalyn Delacruz, PhD[1], Ahson Saiyed, MS[2], Karla Llanes, PhD[1], Jing Cheng, PhD[1], Brian Borsari, PhD[1], Tatyana Kanzaveli, MS[2], Maksim Tsvetovat, PhD[2], Jason Satterfield, PhD[1]

[1]University of California, San Francisco, San Francisco, CA; [2]Open Health Network, Mountain View, CA

Background: Evidence-based tools for smoking cessation are readily available but clinicians can utilize more resources to promote readiness and tailor treatment referrals. Scalable digital interventions could extend clinician reach and reduce clinical burden but prior attempts to "digitize" motivational interviewing (MI) have been disappointing.

Purpose: Using natural language processes and machine learning, this study developed an MI-capable chatbot (TAMI Coach) that promotes cessation readiness and creates tailored quit plans. Feasibility and acceptability (F&A) were tested with a 6-mo pilot RCT.

Methods: N=80 adult primary care patients who were daily cigarette smokers were randomized to either the TAMI intervention or usual care (UC). Both attended an initial "on-boarding" session and completed surveys at baseline, 3-mo, and 6-mo. TAMI participants were given a URL link to the TAMI Coach and asked to use the web app 12 times over 6 months. UC participants received a handout detailing local cessation resources.

Primary F&A outcomes included recruitment and retention, engagement, satisfaction, and MI fidelity. Preliminary clinical outcomes included changes in readiness for smoking cessation and cessation treatment initiation.

Results: N= 80 participants were recruited and randomized (n=39 TAMI; n=41 UC). Among TAMI participants not ready to quit smoking, 63% returned to the web app for a second conversation. However, overall TAMI engagement remained low with a mean of 3.11 (range=1 to 7) conversations over 6 months. All TAMI participants who reported readiness to quit smoking successfully created a quit plan and received a tailored referral. MI quality was given a 13/15 rating by MI experts. The TAMI Coach was given an average of 3.2/5 stars for user satisfaction.

12/39(31%) of TAMI and 9/41(22%) UC participants progressed to a higher stage of readiness to quit with 8% and 12% regressing respectively. 13/39(33%) of TAMI and 14/41(34%) UC participants reported use of any cessation resource.

Conclusion: These findings provide support for the feasibility and acceptability of the TAMI intervention and identify areas for future improvements. Although the majority of TAMI participants not ready to quit returned for a second conversation and MI quality was good, the overall number of conversations was low. Preliminary clinical outcomes demonstrated a positive trend for improving readiness and a possible need for more support around treatment initiation.

CORRESPONDING AUTHOR: Jason Satterfield, PhD, University of California, San Francisco, San Francisco, CA; Jason.Satterfield@ucsf.edu

Abstract citation ID: kaad011.1287

POSTER SESSION E: MISSISSIPPI MOMNIBUS: INNOVATIVE STRATEGIES TO IMPROVE BLACK MATERNAL HEALTH AND ADVANCE HEALTH EQUITY

Rolanda J. Buck, MS, BS - Certified Life Coach CCE[1], Sydney Morris-Hill, MS Population Health Candidate[2], Abigail Gamble, PhD, MS[2]

[1]The University of Mississippi Medical Center, Jackson, MS; [2]University of Mississippi Medical Center, Jackson, MS

The United States has the highest maternal mortality rate in the developed world and is the only rising rate. In Mississippi, the rate of maternal mortality at 22.1 per 100,000 live births exceeds the national average of 17.47 per 100,000 live births and Black women are disproportionately affected compared with other racial groups (51.9 deaths per 100,000 compared to 18 for White women). In February 2021, the **Black Maternal Health Momnibus Act** was introduced by Congresswoman Underwood, Congresswoman Adams, Senator Booker, and members of the Black Maternal Health Caucus to direct multi-sector efforts to advance maternal health equity. Momnibus called for critical investments in addressing social needs that influence maternal health outcomes and enhancing and diversifying the perinatal workforce to ensure culturally congruent maternity care and support. The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) is a federally funded, state-run public health service that provides nutritional counseling, health care referrals, and ancillary healthy foods to allay food insecurity in underresourced pregnant and postpartum women, infants, and children at nutritional risk. WIC is uniquely positioned as a public health resource to improve maternal health and reduce racial disparities. Since 2020, Mississippi's WIC program has grappled with significant staffing shortages leaving many qualifying mothers with unmet needs. In response, an evidence-based peer health coaching (PHC) intervention was developed to fill gaps in WIC staffing, diversify Mississippi's public health workforce, and address the social needs of young WIC mothers. In partnership with WIC and 3 other community partners, 17 WIC moms were referred (median age [IQR] = 21 [5] years) between October and November 2022. A project manager used a study mobile phone to make up to 4 attempts to contact referrals for formal screening, provide details about the program, answer questions, and schedule a convenient time for a brief interview. Interviews were scheduled with 10 of 17 referrals (58.8%), and 7 were unreachable. Of those scheduled, 4 interviewees did not show. Two additional attempts were made to reschedule but to no avail. Six interviews were conducted, all of whom were recruited into the PHC program (22.5 [5.5] years). Half of the PHCs were concurrently employed part-time, 1 was unemployed, and 2 were unemployed seniors in High School with graduation pending. Half had some college and 1 had a High School diploma. Paid ($14/hour) PHC training will begin in December 2022 and include a community health worker certification, lifestyle coach training, and protocols for coaching pregnant Black adolescents enrolled in WIC. This rapid communication poster will describe the academic-community partnership with WIC, the evidence-based PHC training details, and PHC recruitment strategies and outcomes.

CORRESPONDING AUTHOR: Rolanda J. Buck, MS, BS - Certified Life Coach CCE, The University of Mississippi Medical Center, Jackson, MS; rbuck@umc.edu

---

Abstract citation ID: kaad011.1288

POSTER SESSION E: A QUALITATIVE STUDY TO ASSESS CHILDCARE PROVIDERS' PERCEPTIONS OF PHYSICAL ACTIVITY BY GEOGRAPHIC LOCATION AND FACILITY TYPE

John P. Rech, MAE[1], Danae Dinkel, PhD[2], Priyanka Chaudhary, BS, MPH[3]

[1]University of Nebraska - Omaha, Omaha, NE; [2]University of Nebraska at Omaha, Omaha, NE; [3]UNO, Omaha, NE

Childcare providers' (CCPs) health and physical activity (PA) may be lower than the average American, with few resources tailored specifically to their needs. The contextual differences in the profession based on geographic location (urban vs rural) and childcare facility type (home- vs center-based) suggest that discrepancies in PA behavior may exist. Very little research has investigated such potential discrepancies and similarities between groups of CCPs for the design of interventions. The purpose of this study was to explore the practices and associations of PA among CCPs based on geographic location and facility type. A purposive sample of 25 CCPs (13 home-based & 12 center-based; 12 urban & 13 rural) participated in a semi-structured interview following the Theoretical Domains Framework. Interviews were recorded then transcribed verbatim and coded by three researchers (e.g., triangulation) following a code book. A directed content analysis approach was used to analyze the data. All participants resided from the same state and were non-Hispanic White females with a mean age of 44.1±13.6 years. Similarities included a lack of time as a barrier to PA, an agreement that other people play a role in improving their PA, and PA being impactful on whole health. Self-confidence to perform PA among urban CCPs was higher than rural CCPs who often stated poor health (e.g., musculoskeletal pain) as a barrier to PA. Home-based CCPs indicated more support from family and friends than center CCPs who indicated more support from coworkers. Rural CCPs more often stated having access to recreational amenities than urban CCPs, often due to safety concerns of leaving the home or childcare facility. All providers acknowledged the importance of PA to remain healthy and that PA could help reduce screen time; however, home-based CCPs more often mentioned the importance of PA for reasons related to their job than center-based CCPs. The similarities and differences among CCPs provide direction on modifiable intervention qualities depending on geographic location and facility type. Interventions implemented during the childcare day may help to mitigate CCPs' perceived lack of time. The involvement of others may be beneficial; however, family and friends may be more useful for family-based CCPs whereas coworkers may be more useful for center-based CCPs. Interventions targeting rural CCPs should consider the implications for relieving musculoskeletal pain related to their job demands to improve self-confidence. Intervention characteristics for urban CCPs may consider improving the safety to access available recreational amenities for personal use or for children during childcare. Further exploration of factors that are influential of CCPs' PA is warranted among a larger, more diverse sample to consider geographic location and facility type simultaneously for better design of wellbeing interventions.

CORRESPONDING AUTHOR: John P. Rech, MAE, University of Nebraska - Omaha, Omaha, NE; jprech@unomaha.edu

Abstract citation ID: kaad011.1289

POSTER SESSION E: PERCEPTIONS OF DIGITAL PHYSICAL ACTIVITY SUPPORT MESSAGES TAILORED FOR WOMEN IN MIDLIFE WITH ELEVATED CVD RISK

Kiri Baga, BA[1], Jonathan Lassiter, PhD[1], Kristen Pasko, MA[1], Andrea Lobo[1], Timothy Geutterman, MA, PhD[2], Danielle Arigo, PhD[1]

[1]Rowan University, Glassboro, NJ; [2]University of Michigan Medical School, Ann Arbor, MI

Women in midlife (ages 40-60) are at heightened risk for cardiovascular disease (CVD) as a result of age- and gender-related risk factors. Although physical activity (PA) engagement can reduce CVD risk, few women meet existing guidelines for PA; they cite insufficient social support as a key barrier, but existing interventions that employ social support show limited effectiveness. Digital PA support messages (i.e., brief, text-based messages delivered via smartphone or other device) may be a powerful method to meet social support needs in the moment. However, women's preferences for and responses to distinct types of messages are not well understood. To inform the refinement of digital PA interventions for an at-risk group of women, the aim of this study was to examine selections of and responses to digital social support messages among women with CVD risk conditions (e.g., hypertension; N=27, M_{Age}=53.2 years, M_{BMI}=32.6 kg/m2). Participants used a proprietary website that allowed them to select their preferred type of digital PA support message once per day for 7 days (i.e., informational, accountability, or emotional support), or users could indicate "no preference - choose for me" and receive a message selected randomly from one of these categories. Participants then rated the helpfulness of the message viewed for supporting their PA that day on a 1-5 scale (1=not at all, 5=very helpful). At the end of 7 days they completed a 1-hour semi-structured exit interview to gather their overall perceptions of support messages. Participants selected informational, encouragement, and accountability support on 23%, 21%, and 15% of days, respectively. Yet, the most common selection was no preference, chosen on 42% of days. Two-level multilevel models showed considerable within-person variability in message helpfulness ratings across days (ICC=0.37), which differed based on the types of messages selected and received. Participants perceived messages as most helpful when they let the system choose for them, relative to when they chose any specific category (p=0.03, sr=0.30). Exit interviews indicated that participants "trusted the research team" to deliver a helpful message or had faith that "the universe would provide them with the right support." With respect to the types of messages they received each day, participants rated accountability support as less helpful than informational or emotional support (p=0.03, sr=0.30). Insight from exit interviews indicated that participants found the idea of committing to a specific plan for PA overwhelming among other competing priorities (e.g., caregiving burden). Findings provide needed information about women's varying preferences for and responses to digital social support messages, and will inform further tailoring of digital PA interventions that use social support to address insufficient PA for this at-risk group.

CORRESPONDING AUTHOR: Kiri Baga, BA, Rowan University, Glassboro, NJ; bagaki72@rowan.edu

---

Abstract citation ID: kaad011.1290

POSTER SESSION E: FORMATIVE DEVELOPMENT OF A SOCIAL MEDIA PAGE WITH PRIVATE GROUPS FOR PREGNANT WOMEN LIVING IN RURAL APPALACHIA

Suzanne E. Vogler, MS[1], Lily Loughman, MS[1], Sarah Young, BS[1]

[1]West Virginia University, Morgantown, WV

Adverse pregnancy outcomes (APOs) disproportionately impact persons living in rural areas, particularly in the Appalachian region. APOs increase future cardiovascular disease risks and negatively impact the health of offspring. Lack of access to clinical care compound these inter-generational health risks. The purpose of this community engaged qualitative study was to describe social media use of persons living in rural Appalachian in order to gain input about a pregnancy support page for this population. A secondary purpose was to gain feedback about infographics, videos, and educational messages to be used in private Facebook groups. Semi-structured interviews were conducted on Zoom with pregnant persons living in rural areas in the Appalachian region. Interviews were also conducted with professionals working with pregnant persons. All interviews were transcribed automatically by Zoom and verified for accuracy. Two coders, plus a critical analyst, used inductive and deductive content analytic procedures to analyze the interview transcripts. Inductive analyses allowed the team to understand participant's use of and experiences with social media. The deductive phase of the analysis used a modified socio-ecological model for interpretation that focused on individual and interpersonal elements. The results showed that social media pages which included information about what to expect during pregnancy and detailed health information were desired features (individual level of analysis). Social media apps that provided positive community forums and information about others' pregnancy journeys were another observed theme (social level of analysis). Suggestions about the social media to make the content to be more rural in appearance with outdoor scenes lead to several page modifications. The participants also suggested ways to build social connectedness on the social media page. These results informed the development of a conceptual model that considers the social determinants of health among rural pregnant persons that will guide the continued development and testing of this Facebook page.

CORRESPONDING AUTHOR: Suzanne E. Vogler, MS, West Virginia University, Morgantown, WV; sv00008@mix.wvu.edu

Abstract citation ID: kaad011.1291

POSTER SESSION E: PRELIMINARY FINDINGS OF SINGLE-SESSION SLEEP INTERVENTION WITH SERVICE MEMBERS IN TECHNICAL TRAINING

Rosemary E. Estevez Burns, PhD[1], Jordan M. Ellis, PhD[2], Indika Mallawaarachchi, M.S.[3], Xin-Qun Wang, M.S.[4], Andrea E. Krunnfusz, PhD[5], Chase A. Aycock, PsyD[6], John Jones, Ph.D.[5], Daniel G. Cassidy, PhD[1], Gerald W. Talcott, PhD[7]

[1]Wilford Hall Ambulatory Surgical Center, San Antonio, TX; [2]Wilford Hall Ambulatory Surgical Center, SAN ANTONIO, TX; [3]University of Virginia, Dept PH, Charlottesville, VA; [4]University of Virginia, Charlottesville, VA; [5]United States Air Force, San Antonio, TX; [6]Air Force, San Antonio, TX; [7]University of Virginia, Charlottesvile, VA

Introduction: The Department of Defense has prioritized adequate sleep amongst service members (SMs) given known detriments of insufficient sleep on military operations. A negative correlation exists between sleep loss and cognitive abilities, marksmanship, and moral reasoning compromising the safety and performance of the individual and one's unit. Early sleep problems may precipitate development of chronic sleep disorders. A longitudinal study showed subjective poor sleep quality increased attrition and decreased promotion rates, pay grade, and re-enlistment recommendations. Limited research exists regarding sleep behaviors early in a SM's career. Current study explored if a 50-min single-session intervention (SSI) for sleep using motivational interviewing encouraged SMs to engage in healthy sleep behaviors during technical training.

Methods: A survey including sleep-related (SASS-Y) and motivation questions (e.g. 'How important is sleeping well to you') was completed by 824 Air Force SMs pre- and immediately post-SSI. Variables fell on a Likert-scale from 0-10 (minimal-extremely) and included perceived sleep importance, readiness for behavior change, confidence for change, and action consideration. Pre- to post-changes between sleep-SSI and control groups (tobacco-SSI) were compared by total sample and racial group using Wilcoxon test.

Results: Pre-SSI, 75.67% of SMs in the sleep-SSI group rated sleep high in importance and 44.88% highly considered doing something about their sleep. Mean (M) age = 20.79 (SD=3.66), 84.5% Male, 68.1% White, and 83.0% Active Duty. No differences were found in motivation outcome measures (i.e., *Importance, Readiness, Confidence, Considering Doing Something*) between the two groups (p >0.05). Racial minority subgroup: *Considering Doing Something* approximated significance (p =.051) M=.43, SD=1.4 (Control) vs M= 13 SD=1.76 (Intervention). Control group only: *Considering Doing Something* was significant *(p=.011),* Whites M= .54, SD=1.74 vs. Non-Whites M=.13, SD=1.76.

Conclusion: Study demonstrates how a novel 50min sleep-SSI may affect motivation for sleep-behavior change. Among the Non-White subgroup, the intervention group showed greater magnitude of change on *Consider Doing Something About Sleep* than did the control group. No difference was observed in the White subgroup. Findings suggest the sleep-SSI may have had a greater effect on minority than on White SMs. Further analyses with follow-up data will indicate whether SMs engaged in positive sleep behaviors and/or improved sleep following the intervention.

CORRESPONDING AUTHOR: Rosemary E. Estevez Burns, PhD, Wilford Hall Ambulatory Surgical Center, San Antonio, TX; romanz917@hotmail.com