

> > > Improving Light-Curing Knowledge Through Lectures in Undergraduate Students

Improving Light-Curing Knowledge Through Lectures in Undergraduate Students

Objectives: Proper knowledge of light-curing is essential for delivering sufficient radiant energy at the correct wavelengths, ensuring effective polymerization of photoactivated materials. However, undergraduate dental students often lack a comprehensive knowledge of light-curing due to its omission from academic curricula. This cross-sectional study aims to evaluate the impact of a two-hour targeted lecture on improving light-curing knowledge among undergraduate students.

Methods: Ethical approval was obtained (protocol CEI2024-0594). A validated 15-item multiple-choice questionnaire assessing photoinitiators, wavelength intensity, and spectral radiant power was administered before and after the lecture "Light-Curing Essentials for Dental Success" to identify student's knowledge of this topic. The study included 119 students from second and third year from Universidad Iberoamericana, Dominican Republic. Descriptive analyses were computed using Microsoft Excel. A total of 95 students completed the initial questionnaires while 80 completed the final one.

Results: Participants' ages ranged from 19 to 29 years and most of them were female (77%). As a result, in the initial questionnaire, second-year students achieved 53.73% of correct answers, while third-year students achieved 57.59%. After the lecture, correct answers increased to 86.66% for second-year and 77.78% for third-year, showing a rise of 26.56% in correct answers. Second-year students improved from 10 to 54 correct answers in the question about battery charge and power, while "I do not know" answers dropped from 42 to 3. Third-year students exhibited an overall reduction in "I do not know" answers from 59 to 3. Specific questions about photoinitiators, lamp positioning, and uniform radiation showed significant improvement, with all answers correct in the final evaluation.

Conclusions: Overall, the lecture enhanced students' knowledge of light-curing and increased correct answers. This highlights the effectiveness of targeted educational interventions in enhancing understanding of light-curing concepts, essential for clinical success.

Division:

Meeting: 2025 IADR/PER General Session & Exhibition (Barcelona, Spain)

Location: Barcelona, Spain

Year: 2025

Final Presentation ID: 1510

Abstract Category|Abstract Category(s): Education Research

Authors

- **Crespo, Roxana** (Universidad Iberoamericana , Santo Domingo , Dominican Republic)
- Velazquez, Gabriela (Universidad Iberoamericana , Santo Domingo , Dominican Republic)
- Perez, Leyani (Universidad Iberoamericana , Santo Domingo , Dominican Republic)
- Grau, Patricia (Universidad Iberoamericana , Santo Domingo , Dominican Republic)

Financial Interest Disclosure: NONE

SESSION INFORMATION

Poster Session

Education Research - Innovative Teaching Approaches Assessment and Tools in Dental Education

Friday, 06/27/2025 , 11:00AM - 12:15PM