

> > > CAD/CAM Technology Integration in Dominican Dental Practices

CAD/CAM Technology Integration in Dominican Dental Practices

Objectives: Computer-aided design (CAD) and manufacturing (CAM) technology is increasingly important in dentistry, yet its adoption faces challenges in developing countries, such as the Dominican Republic. This online survey evaluates CAD/CAM integration among Dominican dentists, focusing on barriers and benefits.

Methods: After ethical approval (CEI2024-589), a cross-sectional study was conducted using 19 questions through an online survey distributed to members of the Dominican Dental Association (n=11,108). A sample of 372 was determined using Epi Info software with a 95% confidence level. The questionnaire, translated from a previous study, was structured into three sections: demographic data, CAD/CAM usage, and barriers to adoption. To ensure validity, the survey went through a process of translation, back-translation, and expert review. Data was collected via Google Forms, and descriptive statistics were computed using Microsoft Excel.

Results: 377 responses were collected over two months: 42% were general dentists, 58% were specialists, and 45.5% had less than 10 years of experience. Periodontics was the most common specialty (21.4%) and 52.7% of the participants were in private practice. CAD/CAM use was reported by 60.7% with 19.77% of users being general dentists, 18.6% prosthodontists and 16.86% orthodontists. Among users, 72.8% used intra-oral scanner, 68.7% for crowns manufacture. Additionally, 88.4% stated that the technology positively impacts their clinical decisions, and 85.7% reported changes in the materials they used. Of the 39.3% non-users, 38.3% identified high costs as the primary barrier, followed by a lack of technological knowledge (32.5%) and perceived low utility (29.8%).

Conclusions: CAD/CAM integration appears to positively impacts Dominican dental users by enhancing clinical decisions and material usage. However, its adoption faces significant economic and educational barriers. Addressing these challenges through targeted strategies can promote greater integration, access, and awareness, optimizing digital dentistry in the Dominican Republic.

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SESSION INFORMATION

Poster Session

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