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Comparison of Digital Impressions and Conventional Impressions in Dentistry

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Project Title

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Project Category

Enter your abstract text here (max 300 words)

COMPARISON OF DIGITAL IMPRESSIONS AND CONVENTIONAL IMPRESSIONS IN DENTISTRY

Kunal Sethi, Charan Teja Bobba, Keerat Kuckreja, Dr. Jim Milani (Mentor)
IDS 2025, University of the Pacific, Arthur A. Dugoni School of Dentistry, San Francisco

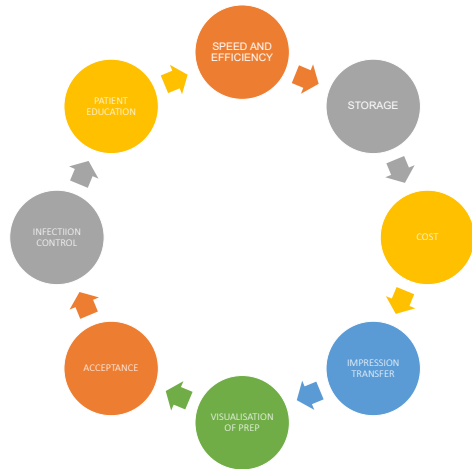
OBJECTIVE

This poster provides a comparative analysis of digital and conventional impression-taking methods in dentistry, assessing their performance in terms of speed, efficiency, cost, storage, impression transfer, visualization, dentist and patient acceptance, infection control, and patient education.

METHODS

Data from 15 research articles were meticulously reviewed, extracting insights to facilitate a comprehensive comparison. The poster integrates visual elements, including recorded images by the presenters, to augment the analysis.

COMPARISON



DENTIST & PATIENT ACCEPTANCE

•Mean VAS (Visual Analog Scale) scores :
Assessment of difficulty/discomfort 0 to 100 ,
Very difficult / discomforting = 100 ,

VAS	CONVENTIONAL	DIGITAL
DENTIST'S ASSESSMENT	48.02	24.00
PATIENT'S ASSESSMENT	44.86	6.50

SPEED AND EFFICIENCY



Average time :
Conventional impression was **33.51 min**



Average time :
Digital impression was **16.03 min**

TIME EFFECTIVENESS

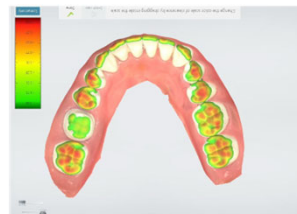
DIGITAL IMPRESSIONS



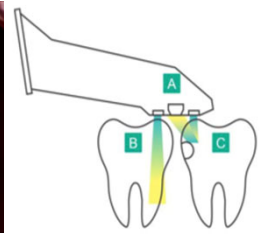
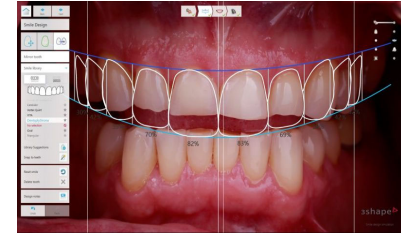
CONVENTIONAL IMPRESSIONS



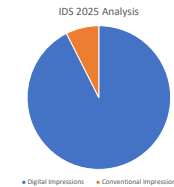
VISUALISATION AND CLEARNACE



PATIENT EDUCATION



SURVEY WITH IDS 2025 BATCH



RESULTS

Conventional impressions are lauded for their cost-effectiveness, reliability, and adherence to standardized protocols. Conversely, digital impressions offer enhanced precision, streamlined workflow, and improved patient experience, signaling a transformative shift in impression-taking practices.

CONCLUSION

While digital impressions exhibit clear advantages, their widespread adoption hinges on factors such as initial investment costs, training requirements, and integration with existing workflows. Nevertheless, ongoing technological advancements and growing acceptance among dental professionals herald a promising future for digital impression systems in dental practice.

In summary, this analysis underscores the nuanced strengths and limitations of both digital and conventional impression techniques, empowering dental practitioners to make informed decisions regarding impression-taking methodologies in clinical settings.

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