

ARTIFICIAL INTELLIGENCE REVOLUTIONIZING DENTAL EDUCATION BHARATI VIDYAPEETH DEEMED UNIVERSITY & AMC DENTAL COLLEGE HINALI MAVANI B.D.S, M.P.H, M.S.P.M NAZIA AKHTAR B.D.S, M.B.A NIDHI PATEL B.D.S, M.P.H



INTRODUCTION

- Dental education has always been at the forefront of technological advancements, embracing new tools and techniques to enhance learning and improve patient care.
- In recent years, the integration of artificial intelligence (AI) has emerged as a transformative force in various industries, revolutionizing the way tasks are performed and decisions are made.
- In the realm of dentistry, AI holds tremendous potential to reshape the landscape of education, offering innovative solutions to enhance the learning experience and equip future dental professionals with advanced skills and knowledge.

METHODS & MATERIAI

OBJECTIVES

- It aims to investigate how AI can improve the learning experience and enhance student outcomes in dentistry.
- Additionally, the poster seeks to assess the effectiveness of AI-based learning platforms in dental training, considering their impact on skill development, personalized learning, and real-time assessment.

ADVANTAGES

• AI-based learning platforms demonstrate improved

- Conducted an extensive review of scientific articles, research papers, and dental education journals to gather relevant information on the integration of artificial intelligence (AI) in dental education.
- Reviewed studies focusing on the impact of AI on learning outcomes, the effectiveness of AI-based learning platforms, and advancements in diagnosis and treatment planning.

RESULTS

Impact on Learning Outcomes

- Studies have shown that the integration of AI in dental education positively impacts learning outcomes. Students who engage with AI-based learning platforms demonstrate improved clinical skills, knowledge retention, and critical thinking abilities.
- Personalized learning experiences facilitated by AI algorithms result in enhanced student engagement, motivation, and overall satisfaction with the educational process.

Effectiveness of AI-based Learning Platforms:

AI-powered learning platforms, such as virtual reality simulations and interactive dental anatomy apps, have been found to be highly effective in dental education. These platforms offer realistic, immersive experiences that enable students to practice dental procedures in a controlled virtual environment.
The integration of AI algorithms in learning materials, such as adaptive e-books and online lectures, enhances the personalized learning experience by tailoring content and pacing to individual student needs.

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Advancements in Diagnosis and Treatment Planning:

• AI algorithms applied to dental imaging analysis have shown remarkable accuracy in detecting and diagnosing oral health conditions, such as caries, periodontal diseases, and oral cancers. This aids in early detection and timely intervention, leading to improved patient outcomes.

Ethical Considerations:

• Striking a balance between AI technologies and human expertise is crucial to maintaining the patient-doctor relationship and preserving the importance of clinical judgment and empathy in dental practice.

• AI algorithms applied to dental imaging in detecting oral health conditions.



CONCLUSION

• The integration of AI in dental education holds great promise for revolutionizing the learning experience, improving student outcomes, and advancing diagnosis and treatment planning.

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The findings of this research underscore the significance of incorporating AI technologies in dental curricula to prepare future dental professionals with the necessary skills and knowledge in this evolving digital era.
As the future unfolds, further research and exploration in this field will be necessary to fully realize the transformative impact of AI in dentistry,

ultimately benefiting both practitioners and patients alike.

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