

# Exploring the Factors of AI- Based Medical Education: A Systematic Literature Review from Foresight and Innovation Perspective in the Gulf Cooperation Council

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## ABSTRACT

To explore the integration of Artificial Intelligence (AI) into medical higher education curricula in the Gulf Cooperation Council (GCC) region by identify enablers, barriers, and best practices in medical education in GCC. The study aims to develop a perspective on the future of AI-based learning in GCC medical education system. A foresight study employed methodological triangulation, utilizing systematic literature, causal layered analysis and secondary data analysis. This integrative design enhances credibility, validity and the depth of findings. The study is focus on medical higher education institutions within the Gulf Cooperation Countries (GCC) region. The study employed systematic literature reviews to assess the enablers, barriers, and best practices for AI adoption in medical education. Besides, causal layered analysis and secondary data analysis. The systematic literature review highlights the importance of AI integration in medical education, emphasizing project-based learning, curricular innovation, and ethical considerations. The Gulf Cooperation Council data emphasizes the need for enhanced AI policies. The paper also explores the synergy between societal, educational, and technical dimensions in education and the potential disruptive innovation in medical education due to AI's revolutionary capacity to redefine a new paradigm in medical education. The incorporation of artificial intelligence into medical education in the Gulf Cooperation Council (GCC) necessitates a comprehensive strategy that merges technological advancement, ethical consideration, and inclusive structures to prepare future healthcare practitioners for disruptive innovations in medical education.

*Keywords: Medical Education, Artificial Intelligence, Foresight, Disruptive Innovation, Causal Layered Analysis.*

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