

Utilization of Artificial Intelligence Tools in Medical Education among Undergraduate Medical Students at a Public Medical School in Sarawak, Malaysia

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ABSTRACT

Introduction: Artificial Intelligence (AI) is increasingly becoming an integral part of medical education, offering potential opportunities for enhancing learning experiences. Despite its growing relevance, the utilization of AI tools in medical education among medical students in Sarawak, Malaysia, remains underexplored.

Aim/Purpose/Objective: The study aimed to explore the utilization of AI tools in medical education among undergraduate medical students at a public medical school in Sarawak Malaysia.

Method: A mixed-method cross-sectional survey was conducted from October 2023 to August 2024 among 185 undergraduate medical students from year one to year five at a public medical school in Sarawak. A convenience sampling method was employed. Data were collected using a self-designed, validated questionnaire to collect information on the utilization of AI tool in medical education. Quantitative responses were analysed descriptively while qualitative data from open-ended questions were thematically analysed.

Results: Among the 185 participants, 40.0% reported using AI tools, and 55.1% reported an understanding of the purpose of AI tools in medical education. ChatGPT was the most frequently used AI tool (56.79%), followed by Claude AI (6.17%) and Google Bard (4.94%). Qualitative thematic analysis identified three primary areas of AI tool use: educational purposes (45%), clinical applications (30%), and research assistance (25%)

Conclusion: This study showed that 40% of medical students utilized AI tools in medical education, with ChatGPT being the most common. These findings underscore the growing role of AI tools in medical education and highlight the need for further research to understand their long-term impact and to develop strategies to optimize their integration into medical education.

Keywords: Artificial intelligence tools; medical students; medical education