# Enhancing Teaching and Learning in Health Sciences Education through Ethical Use of AI Tools

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## Abstract

Artificial Intelligence (AI) is transforming education by enhancing teaching effectiveness, student engagement, and learning outcomes. In health sciences education, including physiotherapy and rehabilitation sciences, AI-enabled tools support lesson planning, personalized learning, assessment, and skill development. This paper explores the ethical, safe, and fair use of AI in teaching and learning processes. It highlights how AI tools assist educators in developing interactive content, generating case-based learning scenarios, and providing timely feedback to students. The integration of AI also supports competency-based education aligned with NEP 2020 by promoting critical thinking, clinical reasoning, and digital literacy. Additionally, AI-driven systems can help identify learning gaps and support student well-being through adaptive learning strategies. Despite these benefits, responsible use, data privacy, and academic integrity must be ensured. The paper concludes that ethical integration of AI can enhance educational quality while preparing students for future healthcare practice.

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