

Title: *AI Usage and Critical Thinking Among International Medical Students: A Qualitative and Quantitative Study*

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Abstract

This study examines how our Hungarian and international medical students engage with Artificial Intelligence (AI) tools in both theoretical and practical components of their medical education at the University of Pécs Medical School, Hungary. By combining quantitative and qualitative approaches, the research aims to understand students' patterns of AI use, their perceptions of its benefits and limitations, and the ways in which these technologies influence critical thinking and independent learning.

15 questions were asked using a structured questionnaire among our medical students enrolling in the Hungarian, German and English program at the University of Pécs. Quantitative data provide insights into students' frequency and purpose of AI tool usage—ranging from literature review and test preparation to clinical case analysis—while qualitative responses reveal personal reflections on reliability, ethics, and the balance between human reasoning and algorithmic assistance.

Findings indicate that while most students integrate AI tools into their study routines, their ability to critically assess AI-generated information varies significantly. Many students view AI as a supportive partner for efficiency and exploration, yet they also express awareness of its potential biases and the importance of maintaining professional judgment.

The study underscores the need to embed AI literacy and critical thinking training within medical curricula, ensuring that future physicians develop both technological competence and reflective awareness when navigating AI-assisted healthcare environments.