

Additional file 1. Study questionnaire

Perceptions of undergraduate health professions students on the utilisation of artificial intelligence tools for teaching, learning and assessment

Section A. Participant information and consent

Introduction: We are conducting a study on the perception of health professions students regarding the use of artificial intelligence (AI) in health professions education. You are invited to participate in this study. You may contact the investigator for any details before giving your consent to participate.

Risks, benefits and confidentiality: There are no risks involved in the study. Your participation will help us understand the challenges and advantages of AI in education from your perspective, thereby facilitating improvement. Information provided by you will be kept confidential. Results obtained from the study will be shared with you. You are free to withdraw from the study if you do not wish to answer the questions.

A1. I have read this Participant Information Sheet. (Yes / No)

A2. I agree to take part in this study as a research participant. (Yes, I agree and hereby give my informed consent / No, thanks. I do not give my consent)

Section B. Demographic and academic information

B1. Name (optional)

B2. Age (in completed years)

B3. Gender

B4. College name

B5. Year of course of study (First year / Second year / Third year / Fourth year / Internship or final year)

B6. Have you had any prior exposure to AI-related tools for teaching and learning? (Yes / No)

B7. If yes, please name the AI-related tools for teaching and learning that you have used, and their purpose.

Section C. Perceptions of AI in teaching, learning and assessment

For each statement, please indicate your level of agreement on the following scale: Strongly disagree (1) / Disagree (2) / Neutral (3) / Agree (4) / Strongly agree (5).

C1. AI can make lectures more interactive and engaging.

C2. Integration of AI in teaching can improve conceptual understanding.

C3. I am comfortable with AI being used to deliver or supplement lectures.

C4. AI can help identify my individual learning needs and tailor content accordingly.

C5. I would like to use AI tools (for example, adaptive quizzes, simulations) to enhance my learning.

C6. AI-based virtual patients or simulations can improve clinical decision-making skills.

C7. AI will help me in better time management.

C8. AI can be used to provide immediate and personalised feedback on assessments.

C9. I trust AI to evaluate my performance fairly in objective assessments (for example, multiple-choice questions).

C10. AI can reduce student workload and improve consistency in performance.

C11. I am excited about the integration of AI in education.

C12. AI in education raises ethical concerns that must be addressed.

Section D. Open-ended questions

D1. What benefits do you see in using AI in health professions education?

D2. What concerns or challenges do you foresee with the use of AI?

Note. Items C1–C11 contribute to the overall perception score. Item C12 is reported separately (see Methods). Domain assignment: teaching and learning (C1, C2, C3, C4, C6); assessment (C8, C9, C10); readiness (C5, C7, C11).