

Supplementary file 1. Survey questionnaire (English version)

Use of Artificial Intelligence Programs Among Medical Students

Introduction

This study aims to evaluate medical students' awareness, perceptions, and use of artificial intelligence programs. Participation is entirely voluntary, and the questionnaire is completed anonymously. The collected data will be used solely for scientific purposes; no personal identifying information will be obtained, and confidentiality will be maintained.

By proceeding with this questionnaire, you indicate that you voluntarily agree to participate in this research.

Section 1: Demographic Information

1. Age

What is your age?

- ☐ 18–20
- ☐ 21–23
- ☐ 24–26
- ☐ ≥27

2. Gender

What is your gender?

- ☐ Male
- ☐ Female
- ☐ Other

3. Academic Year

Which year of medical school are you currently enrolled in?

- ☐ Preparatory year
- ☐ Year 1
- ☐ Year 2
- ☐ Year 3
- ☐ Year 4
- ☐ Year 5
- ☐ Year 6

4. Institution

Which faculty of medicine are you currently attending?

- ☐ (Open-ended response)

5. Language of Instruction

What is the language of instruction in your medical education?

- ☐ Turkish
- ☐ English

Section 2: General Awareness and Use

6. Awareness of Artificial Intelligence Programs

Are you aware of the potential applications of artificial intelligence programs (e.g., ChatGPT) in medicine?

- ☐ Yes

- ☐ No

7. Exposure to Artificial Intelligence Programs

How were you exposed to artificial intelligence programs during your medical education?

(You may select more than one option.)

- ☐ Introduced by faculty members during courses
- ☐ Recommended by friends or peers
- ☐ Learned through self-directed research
- ☐ Learned through social media or the internet
- ☐ I have not been exposed

8. Frequency of Use

How often do you use artificial intelligence programs in your medical studies?

- ☐ Daily
- ☐ Weekly
- ☐ Monthly
- ☐ Rarely
- ☐ Never

9. Artificial Intelligence Programs Used

Which artificial intelligence programs do you use?

(You may select more than one option.)

- ☐ ChatGPT
- ☐ MedPaLM
- ☐ IBM Watson

- ☐ Ada Health
- ☐ VisualDx
- ☐ Other

Section 3: Applications in Medical Education

10. Preferred Devices

On which devices do you use artificial intelligence programs?

(You may select more than one option.)

- ☐ Computer
- ☐ Smartphone
- ☐ Tablet

11. Study Support

How do you use artificial intelligence programs in your studies?

(You may select more than one option.)

- ☐ Summarizing lecture notes
- ☐ Creating flashcards or study materials
- ☐ Answering clinical questions
- ☐ Assistance with assignments or research
- ☐ Creating and organizing study plans
- ☐ Developing exam preparation strategies
- ☐ Verifying and fact-checking information
- ☐ Explaining topics I do not understand

12. Clinical Use

Have you used artificial intelligence programs in clinical settings or simulations?

- ☐ Yes
- ☐ No

13. If yes, in which situations did you use them?

(You may select more than one option.)

- ☐ Diagnostic or treatment suggestions
- ☐ Decision support during simulations
- ☐ Preparing patient education or information materials
- ☐ Clinical case analysis
- ☐ Assistance with assignments given by faculty
- ☐ Analyzing patient data

14. Access and Availability

How do you access artificial intelligence programs used in medical education?

(You may select more than one option.)

- ☐ University-provided tools or licenses
- ☐ Personal subscription or purchase
- ☐ Free online tools
- ☐ Through friends or peers
- ☐ I do not have access

15. Performance and Feedback

How do you evaluate the performance of artificial intelligence programs?

- ☐ Far exceeds my expectations

- ☐ Meets my expectations
- ☐ Slightly below my expectations
- ☐ Far below my expectations

Section 4: Attitudes Toward Artificial Intelligence in Medicine

(Likert scale questions)

16. Artificial Intelligence and Equality

Do you believe that artificial intelligence programs provide equal learning opportunities among medical students?

- ☐ Strongly agree
- ☐ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly disagree

17. Compatibility with Your Learning Style

Do you think artificial intelligence programs are compatible with your learning style?

- ☐ Strongly agree
- ☐ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly disagree

18. Overall Perception of Artificial Intelligence in Medicine

What is your overall perception of the role of artificial intelligence in medicine?

- ☐ Very positive
- ☐ Positive
- ☐ Neutral
- ☐ Negative
- ☐ Very negative

19. Reliability of Artificial Intelligence

How reliable do you consider medical information generated by artificial intelligence?

- ☐ Very reliable
- ☐ Reliable
- ☐ Neutral
- ☐ Not reliable
- ☐ Not reliable at all

20. Ethical Concerns

Do you have ethical concerns regarding the use of artificial intelligence in medicine?

- ☐ Yes
- ☐ No

21. If yes, which concerns do you have?

(You may select more than one option.)

- ☐ Data privacy and security
- ☐ Overreliance on artificial intelligence in decision-making
- ☐ Weakening of the doctor–patient relationship

- ☐ Incorrect or misleading decisions made by artificial intelligence

Section 5: Future Use and Developments

22. Future Role of Artificial Intelligence

How do you think the role of artificial intelligence in medical education and practice will change over the next five years?

- ☐ Increase significantly
- ☐ Increase slightly
- ☐ Remain unchanged
- ☐ Decrease slightly
- ☐ Decrease significantly

23. Education and Training

Would you like to receive formal education on the effective use of artificial intelligence programs during medical school?

- ☐ Yes
- ☐ No

24. Preferred Educational Content

In which areas related to artificial intelligence would you prefer to receive education?

(You may select more than one option.)

- ☐ Basic artificial intelligence concepts
- ☐ Use of artificial intelligence in clinical practice
- ☐ Artificial intelligence ethics and legal regulations
- ☐ Data analytics and artificial intelligence modeling

25. Suggestions for Improvement

What improvements or additional features would you like to see in artificial intelligence programs for medical education?

(You may select more than one option.)

- ☐ More user-friendly interface
- ☐ More accurate and reliable responses
- ☐ Improved Turkish language support
- ☐ More options for clinical case analysis
- ☐ Medical education–specific content and materials
- ☐ More frequently updated information
- ☐ Enhanced data security and privacy features
- ☐ Simulation and practical application modules