

Supplementary File 1: Satisfaction Questionnaire

This questionnaire was developed specifically for this study to assess students' learning experience with the AI-empowered teaching model. It consists of 20 items across four dimensions: perceived learning effectiveness (items 1-6), interest stimulation (items 7-11), knowledge retention (items 12-16), and overall satisfaction (items 17-20). Each item is rated on a 5-point Likert scale ranging from 1 (Strongly disagree) to 5 (Strongly agree).

Perceived learning effectiveness

1. This teaching model helped me better understand pharmacological knowledge.
2. This teaching model improved my ability to apply pharmacological knowledge to clinical cases.
3. This teaching model helped me develop clinical decision-making skills.
4. This teaching model enhanced my ability to integrate knowledge from different chapters.
5. This teaching model made me more confident in making medication decisions.
6. This teaching model helped me understand the clinical implications of pharmacological principles.

Interest stimulation

7. This teaching model made pharmacology learning more engaging.
8. This teaching model stimulated my interest in clinical pharmacy.
9. I found the AI-assisted learning activities enjoyable.
10. The interactive case scenarios motivated me to learn more.
11. This teaching model made me more willing to participate in class activities.

Knowledge retention

12. The knowledge I learned through this model was retained longer.
13. I could recall drug mechanisms more easily after this training.
14. The clinical cases helped me remember pharmacological knowledge better.
15. The repeated practice helped consolidate my understanding.
16. I felt more prepared for clinical practice after this course.

Overall satisfaction

17. I was satisfied with this AI-empowered teaching model overall.

18. I would recommend this teaching model to other students.
19. I preferred this teaching model over traditional lecture-based instruction.
20. This teaching model met my expectations for pharmacology learning.

Response scale:

1 = Strongly disagree

2 = Disagree

3 = Neutral

4 = Agree

5 = Strongly agree