

## **Large Language Models in Nursing Education: A Step Forward for Wound Care Teaching**

Dear Editor,

We read with great interest the article '*Facilitators and Barriers of Large Language Model Adoption Among Nursing Students: A Qualitative Descriptive Study*' (Ma *et al.* 2025). This study offers a timely and insightful exploration of nursing students' perceptions and experiences of using large language models (LLMs), identifying key facilitators and barriers through the lens of the Theory of Planned Behaviour—a topic of increasing importance in the digital transformation of healthcare education.

Ma *et al.* (2025) highlight the need for clear guidance on the safe and effective use of LLMs in nursing education and clinical practice. While LLMs are recognised for their potential to support students in academic learning, clinical decision-making and research, their use raises significant concerns, including ethical risks, misinformation and the potential erosion of critical thinking. The absence of clear guidance may result in unsupervised or unsupported use, reinforcing the need for collaborative efforts among educators and professionals to ensure responsible integration. The authors recommend that future research incorporate quantitative methodologies to validate and expand these findings, explore current usage patterns and identify students' specific educational needs. They also advocate for including nursing educators' perspectives, recognising the value of their insights in shaping comprehensive and ethical strategies for integrating LLMs into healthcare education.

As nurse educators, we are constantly seeking innovative ways to enhance learning experiences without losing focus on the essential skills required for nursing practice. This article contributes to the ongoing discussion about our role in developing and implementing innovative pedagogies. Integrating AI-powered tools, such as chatbots, presents exciting opportunities to

engage educators and students in new ways, with the ultimate goal of improving patient care. If these technologies can help us achieve this goal, we believe it is time to take the next step forward.

One area where the principles discussed in the article could be particularly impactful is wound care education. Wound care is a specialised field that requires a high level of expertise, hands-on training, critical thinking and decision-making skills, as well as the ability to adapt to complex and evolving patient needs. Higher education plays a crucial role in equipping nursing students with the specialised knowledge and skills necessary to address these challenges effectively. While traditional teaching methods, particularly clinical practice with real patients, remain essential for skill development, AI-powered chatbots could complement these approaches by offering additional tailored guidance, interactive case studies and real-time answers to clinical questions. For example, a chatbot could simulate patient interactions, guide students through wound assessment, wound healing recognition and dressing selection, and reinforce decision-making by offering tailored feedback. This aligns with previous findings demonstrating the impact of AI-driven tools, such as natural language processing (NLP), computer vision and generative AI, in promoting active and personalised learning, automated assessment and real-time feedback (Heerschap 2023; Kil et al. 2024; Koljonen 2023; Noraset et al. 2024; Seth et al. 2024). Furthermore, AI technologies reduce educators' workload by automating teaching tasks and resource creation, such as quizzes, synthesised educational materials and lesson plans (Heerschap 2023; Koljonen 2023).

Despite these advancements, challenges remain in ensuring AI's accuracy, transparency and ethical integration in education. The concerns raised in the review regarding content reliability are also relevant to wound care training. Confirming that the information provided by chatbots is based on the best available scientific evidence is crucial to ensure that students receive accurate and reliable guidance. By providing immediate and personalised feedback, chatbots

can help minimise risks in education, ensuring that students develop safe and effective clinical practices. Future research should explore the effectiveness of chatbots in wound care education, assessing their role in improving clinical competencies, critical thinking and proficiency in wound assessment and management. Additionally, regulatory and pedagogical frameworks must be developed to promote the responsible use of AI-driven educational tools in nursing curricula.

The integration of chatbots into wound care education aligns with the broader trends discussed in the article and addresses a critical opportunity in nursing training. By exploring AI-powered chatbots, educators could create more engaging, effective and accessible learning experiences for nursing students while maintaining the irreplaceable role of hands-on clinical practice. These tools can also help bridge the gap between theoretical knowledge and real-world application, preparing students to translate their learning into clinical practice more effectively.

The article significantly contributes to the literature on AI in nursing education. We expect this commentary to stimulate the discussion on the role of nursing educators in developing innovative pedagogies, particularly in specialised fields like wound care. Further research and educational projects are required to determine the best ways to assess student competency and prepare them for practice. We encourage the authors and other researchers to consider how chatbots and other AI tools can be tailored to address the unique challenges of wound care training, breaking barriers between innovative technology and practical skills, and ultimately transforming nursing education.

### **Conflicts of Interest**

The authors declare no conflicts of interest.

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