Check for updates

Received: 13 February 2023 | Accepted: 20 February 2023

DOI: 10.1111/jocn.16677

Journal of Clinical Nursing WILEY

EDITORIAL

Using chatbots like ChatGPT to support nursing practice

1 | INTRODUCTION

For the past several months, there has been increased interest in the possibilities of using artificially intelligent (AI) chatbots to help craft educational, clinical and scientific documents following the November 2022 realise of the open-source platform, ChatGPT. ChatGPT is a large language model developed by OpenAI that uses machine learning techniques to generate human-like text. It is based on the GPT (Generative Pre-trained Transformer) architecture, which uses deep learning to analyse and understand natural language text.

ChatGPT is certainly not the first chatbot supporting healthcare professionals. Xu et al. (2021), in their review of chatbots used in cancer care identified 78 chatbots that were applied to support diagnosis, treatment, monitoring, workflow planning and health promotion. However, unlike previous chatbots that had limited capabilities and specific use, ChatGPT has been trained on a diverse range of texts including web pages, books and conversational data. Consequently, it is highly versatile and can be used for a wide range of areas, including customer support, information retrieval, education and health care (OpenAI, 2022).

2 | EXAMINING THE AI PLATFORM CHATGPT

We decided to examine the platform by asking the AI platform itself (https://chat.openai.com/auth/login) the following questions related to its potential use in nursing practice: *Describe the potential use of ChatGPT in nursing practice. Identify the benefits and the limitations. What are the implications of using ChatGPT?* The response is shown in Table 1.

3 | APPLICATIONS IN NURSING PRACTICE

The generated automated response highlights several possible applications that could support nurses in their clinical practice. According to ChatGPT, it could reduce repetitive writing and administrative work such as summarising long lists of patient information. It could provide case summaries or care plans identifying nursing interventions targeting specific patient needs. It could enhance communication by providing conversation cues between nurses and patients, and it could generate instructions and recommendations that are easier to follow, jargon free and person/patient centred. Other potential applications could be translating medical language into easier to understand text or translating information/instructions directly to the patients' native language. Moreover, complex instructions could be easily and efficiently simplified, thereby possibly increasing patient compliance and adherence. Obviously, these benefits make its use appealing. However, its use is not without limitations and risks.

4 | LIMITATIONS AND POTENTIAL RISKS

Compassionate and empathic communication is the bases of the nurse–patient relationship. It is possible that overreliance on these chatbots can lead to deskilling nurses. For example, providing prescriptive responses to nurse–patient conversations may make these interactions more impersonal and less therapeutic. Such a concern is supported by Parviainen and Rantala (2022) who argued the use of AI chatbots to provide automated consultations and decision-making can have a profound influence on the nurse–patient relationship, especially regarding its effect on patients' trust. Thus, important questions to consider in relation to its use include 'Will the patient's trust towards nurses be eroded if they perceive that decisions are being taken by chatbots rather than by human beings?' 'Will patients adhere to the recommendations suggested by nurses, if they notice that the decisions are being supported by chatbots?'.

Responses given by these chatbots may not be reliable or evidence based. In fact, the OpenAI website acknowledges ChatGPT 'may occasionally generate incorrect or misleading information and produce offensive or biased content. It is not intended to give advice'. However, as with other chatbots, there is the risk that technologically smart nurses may use this tool without considering its limitations. Doing so could increase the risk of giving inaccurate or biased information to patients or other staff. Since AI robots cannot take responsibility for their responses and cannot be held accountable for its actions or decisions, nurses will remain accountable for their clinical decisions, even if these have been taken based on the chatbots' responses.

Currently, the ChatGPT platform advises persons and organisations not to include sensitive, confidential or identifiable information, as it is not able to ensure the confidentiality of the information being shared with it. Additionally, the information processed by ChatGPT is stored temporarily on OpenAI's servers and is not guaranteed to be secure. Therefore, nurses need to take appropriate measures to protect any sensitive or confidential data related to the patient or

 © 2023 John Wiley & Sons Ltd.

13652702, 0, Downloaded from https://onlinelibrary.wiley.com/doi/10.1111/jocn.16677 by Cochrane Malta, Wiley Online Library on [10/03/2023]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

the healthcare organisation, such as by using encryption or not sharing it online. Moreover, any application needs to conform with the country's data protection regulations.

There is still limited evidence about the effectiveness of using chatbots to support clinical practice. Abd-Alrazaq et al. (2020), in their systematic review with meta-analysis of the effectiveness and safety of using chatbots to support interaction and communication and improve mental health, did not provide conclusive evidence. A survey of physicians across the United States to investigate their perceptions about the use of healthcare chatbots found that they were ambivalent about their risks and benefits (Palanica et al., 2019). Moreover, the lack of ability to capture the emotional state of patients and the inability to rely on experience and clinical judgement in decision-making were of major concern to the participants in this study. This lack of clarity about its potential benefits and highlighted risks are significant reasons why healthcare professionals, including nurses, need to be cautious in adopting such technology in clinical practice. Nurses should also be cautious about potentially misleading narratives and exaggerated claims (e.g. 'revolutionary' or 'game changers') made about such technologies, without critically evaluating these claims (Walker, 2022). Importantly, whilst chatbots may improve nurses' efficiency, nurses must recognise they are just a tool… they cannot replace what nurses can do best – providing the patient a 'human touch' and a 'therapeutic environment' through their presence and emotional connection. Finally, how well this innovative technology can be integrated into existing healthcare systems, such as electronic health records, remains to be seen, as the communication of healthcare's records with developing technologies is not outstanding.

Key points

- Chatbots like ChatGPT can support nursing practice in different ways
- However, nurses needs to acknowledge their limitations and potential risks when using these technologies in nursing practice

5 | UPTAKE

How well the nursing profession adopts the chatbots depends on several factors. Nurses will need to perceive that chatbots such as

TABLE 1 ChatGPT response.

ChatGPT is a large language model that has been trained on a wide range of texts, making it well-suited for a variety of applications. One area where ChatGPT has the potential to be applied is in nursing practice.
One potential use of ChatGPT in nursing practice is as a tool for documentation. Nurses often spend a significant amount of time documenting patient information, such as vital signs, medications, and treatment plans. ChatGPT could be used to automate this process, allowing nurses to spend more time providing direct care to patients. Additionally, ChatGPT could be used to generate patient education materials, such as discharge instructions or medication information sheets, which could help improve patient outcomes.
Another potential use of ChatGPT in nursing practice is as a virtual assistant for nurses. ChatGPT could be used to provide nurses with quick and accurate answers to clinical questions, such as dosages for medications or the management of a particular condition. This could improve the efficiency of care and reduce the risk of errors. ChatGPT can also be used in triage and consultation by providing quick and accurate responses to patient queries via chatbot in an emergency department.
However, there are also limitations to the use of ChatGPT in nursing practice. One limitation is that the model is only as good as the data it has been trained on. If the model has not been trained on a particular topic or if the data are out of date, the model's responses may be inaccurate or incomplete. Additionally, ChatGPT is a statistical model, which means that it may make mistakes or produce unexpected results. This means that the model's output should always be reviewed and validated by a human clinician before it is used in patient care. Another limitation is that ChatGPT is not able to understand the emotional state of the patient, the nuances of human communication, and cannot replace the human touch of a nurse.
Overall, the use of ChatGPT in nursing practice has the potential to improve efficiency and reduce errors, but it is important to be aware of the limitations of the model and to validate its output. Additionally, ChatGPT should be used as a tool to supplement, rather than replace, human clinical judgment.
The implications of using ChatGPT in nursing practice include improved documentation and patient education, as well as more efficient and accurate clinical decision-making. However, it is important to be aware of the limitations of the model and to validate its output, as well as using it as a tool to supplement, rather than replace, human clinical judgment. Additionally, the use of ChatGPT should be done in accordance with relevant regulations and guidelines, and with the proper safeguards in place to protect patient privacy and confidentiality.

13652702, 0, Downloaded from https://onlinelibrary.wiley.com/doi/10.1111/jocn.16677 by Cochrane Malta, Wiley Online Library on [10/03/2023]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

ChatGPT provide a relative advantage over conventional practices, is compatible with their practice, simple to use, testable and, above all, capable of providing tangible results. Moreover, nurses' familiarity and ease of working with other forms of technology will influence the uptake of chatbots in their practice.

Chatbots like ChatGPT are currently limited and require further development to be effectively implemented in supporting the planning and delivery of nursing practice. However, it is expected that more of these generative and large language models will find their way in daily applications and become useful in different contexts including nursing practice. The fact that over a million users have already experimented with the ChatGPT platform in the 5 days after launching (OpenAI, 2022), indicates this innovation is of significant public interest and its potential use is increasing exponentially. Interestingly, a few weeks after ChatGPT was released, Google together with DeepMind announced the release of a medical chatbot Med-PaLM—a similar language model based on medical and research datasets to answer questions related to medical questions and support clinical decision-making. Moreover, Google has also announced they will soon release a ChatGPT rival named Bard. Only time will tell us how such innovative applications (or a significantly better versions), can successfully support nursing practice.

6 | CONCLUSION

Whilst there has been discussion about the possibilities and risks of using AI chatbots in nursing education, there has been limited debate about its applicability to nursing practice. This editorial is one attempt to alert nurses to its potential benefits, limitations and risks. Of critical importance is that nurses are at the table when decisions are made related to such technologies and that nurses acknowledge the crucial role their presence plays in the provision of safe and effective care, irrespective of technologies available to assist them.

AUTHOR CONTRIBUTIONS

All authors contributed to the design and/or conduct of the manuscript. All authors approved the current version of the manuscript.

KEYWORDS

Chatbots, nursing practice, technology, clinical decision-making

ACKNOWLEDGEMENT

None.

CONFLICT OF INTEREST STATEMENT

The authors have no conflicts to declare.

FUNDING INFORMATION

No funding was received for this project.

DATA AVAILABILITY STATEMENT

No primary data collected.

Anthony Scerri PhD, MSc. (HSM), M.Ger, BSc. (Hons.) Nursing, SRN
Senior lecturer[1]
Karen H. Morin PhD, RN, ANEF, FAAN
Professor Emerita[2]

[1]*Department of Nursing, Faculty of Health Sciences, University of Malta, Msida, Malta*
[2]*Professional Development Editor: Journal of Advanced Nursing, the Journal of Clinical Nursing, and Nursing Open Editor, Nursing Open, University of Wisconsin-Milwaukee, College of Nursing, Milwaukee, Wisconsin, USA*

Correspondence
Anthony Scerri, Department of Nursing, Faculty of Health Sciences, University of Malta, Msida, Malta.
Email: anthony.t.scerri@um.edu.mt

ORCID

Anthony Scerri https://orcid.org/0000-0002-7231-9710

REFERENCES

Abd-Alrazaq, A. A., Rababeh, A., Alajlani, M., Bewick, B. M., & Househ, M. (2020). Effectiveness and safety of using chatbots to improve mental health: Systematic review and meta-analysis. *Journal of Medical Internet Research*, *22*(7), e16021.

OpenAI. (2022). ChatGPT: Optimizing Language Models for Dialogue. Available at: https://openai.com/blog/chatgpt/.

Palanica, A., Flaschner, P., Thommandram, A., Li, M., & Fossat, Y. (2019). Physicians' perceptions of chatbots in health care: Cross-sectional web-based survey. *Journal of Medical Internet Research*, *21*(4), e12887.

Parviainen, J., & Rantala, J. (2022). Chatbot breakthrough in the 2020s? An ethical reflection on the trend of automated consultations in health care. *Medicine, Health Care and Philosophy*, *25*(1), 61–71.

Walker, R. R. (2022). Countering myths and harms of artificial intelligence and big data. *Teaching and Learning in Nursing.*, *17*, 336–340. https://doi.org/10.1016/j.teln.2022.07.009

Xu, L., Sanders, L., Li, K., & Chow, J. C. (2021). Chatbot for health care and oncology applications using artificial intelligence and machine learning: Systematic review. *JMIR Cancer*, *7*(4), e27850. https://doi.org/10.2196/27850

13652702, 0, Downloaded from https://onlinelibrary.wiley.com/doi/10.1111/jocn.16677 by Cochrane Malta, Wiley Online Library on [10/03/2023]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License