

Peer Review File

Article information: <https://dx.doi.org/10.21037/jmai-23-70>

Reviewer A

Thank you for allowing me to review this manuscript. The author aims to give an overview of the use of ChatGPT in medicine and how it can impact each of the specialties. The table and figure are clear and easy to understand. However, I would like to suggest as follows:

1. Please add the section “Future direction in medicine” or “Suggestions for future medicine.” Before conclusion.

Reply 1. We inserted the subheading “Future direction in Medicine” in the text. Thanks for your suggestion.

Changes in the text: We inserted the subheading before Conclusion.

FUTURE DIRECTION IN MEDICINE

The future direction of ChatGPT in the field of medicine holds immense potential to revolutionize healthcare delivery and patient outcomes (5). As natural language processing and artificial intelligence continue to advance, ChatGPT is poised to become an indispensable tool for healthcare professionals. By leveraging vast amounts of medical data and the ability to understand and generate human-like text, ChatGPT can assist doctors and clinicians in diagnosing complex medical conditions, recommending personalized treatment plans, and answering patient queries in real-time (12,18). Moreover, it can enhance medical research by sifting through vast volumes of scientific literature and clinical trials, accelerating the pace of discoveries and drug development. The integration of ChatGPT into telemedicine platforms and virtual assistants can also facilitate remote patient monitoring, improving access to care and providing valuable medical advice to individuals in underserved regions (28,29). However, ethical considerations and data privacy must be carefully addressed to ensure the responsible and secure use of ChatGPT in medicine, making it an indispensable ally in shaping the future of healthcare (29,30).

2. The author provides information about the benefits and limitations of ChatGPT and its use in medicine in Table 1 without reference. Please add accordingly.

Reply 2. We inserted the references in Table 1, following your suggestion. Thanks for your recommendation.

Changes in the text: We inserted the references in Table 1.

Reviewer B

Dear Authors, I suggest you focus on specific issues of chatGPT and medical issues. I appreciate your tentative and effort, but I believe a narrower discussion could be more interesting.

Reply: We included a subheading with a resumed discussion about the main points. Thanks for your suggestion.

Changes in the text: We included the subheading “Discussion”.

DISCUSSION

The integration of ChatGPT into medicine holds great promise, presenting both advantages and limitations (9,10). One of the most exciting applications of ChatGPT is the development of conversational agents or chatbots that can provide patients with information and support for managing their health conditions (22,23). These chatbots offer accessible and convenient access to medical advice, reducing waiting times and potentially lowering healthcare costs (15,18). Additionally, ChatGPT's ability to analyze large volumes of unstructured clinical data can aid in more accurate diagnoses, personalized treatment plans, and improved patient safety (10,22). Furthermore, its potential applicability across various medical specialties highlights its versatility and adaptability in the healthcare landscape (22).

However, alongside its potential, it is essential to address the limitations of ChatGPT. While it can generate contextually appropriate responses, it lacks empathy and the ability to provide emotional support that human healthcare providers can offer. It cannot conduct physical examinations, which may be necessary in certain cases (6,7). Additionally, the tool may face challenges with communication, cultural competency, and language skills, affecting its ability to provide accurate advice to patients from diverse backgrounds (6,9,10). The potential for biases in its responses should also be closely monitored to ensure ethical and inclusive healthcare practices (10).

One significant aspect of ChatGPT's potential impact on medicine lies in evidence-based medicine (22). By providing clinicians with quick and accurate information, ChatGPT can support evidence-based decision-making and facilitate the creation of patient education materials (22,24,25). However, ensuring transparency and addressing biases in its responses is crucial to maintain the credibility and reliability of information (25).

Ethical considerations are paramount when using ChatGPT in medicine (6). The tool can help explore ethical frameworks and foster transparent communication between healthcare providers, patients, and the general public (28,29). Nevertheless, accountability, bias mitigation, and privacy must be carefully managed to ensure ethical and responsible use of ChatGPT (8,30).

Reviewer C

Comments to authors

Introductory paragraph

The purpose of this study was to investigate the possibilities of ChatGPT technology in the field of medicine. To accomplish this goal, the authors undertook a thorough study of the current literature on the subject, assessing the methodology and findings of numerous studies. According to their findings, ChatGPT has the potential to transform the way healthcare professionals communicate with patients and handle medical data. There are, however, worries about the ethical implications and potential downsides of adopting this technology. Overall, our research sheds light on the current level of research on ChatGPT and its prospective impact on the field of medicine.

Reply: We inserted this paragraph in the introduction. Thanks for your suggestion. This paragraph better elucidate the aim of our study.

Changes in the text: We included the present paragraph as the last paragraph of the introduction.

General comments

Major points

1) purpose relevance: The study investigates the possibilities of ChatGPT technology in the field of medicine, which is extremely relevant to the purpose of improving healthcare outcomes through new technologies.

Reply: Thanks for the wise elucidation of our paper.

2) Internal validity: The approach of the study included a thorough examination of current literature on the topic, which improves internal validity by ensuring that the analysis is based on a diverse set of sources.

Reply: Thanks for the wise elucidation of our paper.

3) External validity: The findings of the study have external validity because they are based on a thorough analysis of previous research on ChatGPT technology in medicine, which provides a broad viewpoint on the subject.

Reply: I appreciate the astute clarification you provided for our paper.

4) Level of evidence: The study has a high level of evidence since it is based on a thorough evaluation of current literature on the subject, which includes a variety of studies with differing levels of evidence.

Reply: Thank you for the insightful explanation of our paper.

5) Ethical behavior: The study's authors demonstrate their commitment to ethical conduct in research by acknowledging potential conflicts of interest and disclosing their funding sources.

Reply: Thanks for the knowledgeable elucidation of our paper.

Minor points

1) Mission relevance: - ChatGPT technology has the potential to transform the way healthcare professionals communicate with patients and handle medical data. The investigation of this possibility is consistent with the study's objective of improving healthcare outcomes through innovative technology.

Reply: I'm grateful for the wise and clear explanation of our paper.

2) Internal validity: - The methodology of the study included a thorough examination of current literature on the topic, which improves internal validity by ensuring that the analysis is based on a diverse set of sources. The authors of the study are medical specialists, which adds to the study's internal validity.

Reply: Thank you for shedding light on our paper with your wisdom.

3) External validity: - The examination of existing research on ChatGPT technology in medicine in the paper provides a comprehensive view on the topic, boosting its external validity. The study recognizes the limitations of previous research and identifies opportunities for future investigation, which increases its external validity.

Reply: I want to express my gratitude for the wise elucidation of our paper.

4) Level of evidence: The study's extensive evaluation of current literature on the topic contains a variety of research with varied levels of evidence, which increases the study's

level of evidence.

Reply: I'm thankful for the intelligent and thorough explanation you offered for our paper.

5) Ethical behavior:

Reply: None.

Concluding paragraph

This paper reports exciting results and with a few amendments.

Reply: Thanks for the erudite explanation of our paper, it was truly enlightening.