Ann Ig. 2025 May-Jun; 37(3): 397-398. doi: 10.7416/ai.2024.2660. Epub 2024 Oct 16.

LETTER TO THE EDITOR

Comment on "Vaccination hesitancy: agreement between WHO and ChatGPT-4.0 or Gemini Advanced"

Dear Editor,

we would like to comment on "Vaccination hesitancy: agreement between WHO and ChatGPT-4.0 or Gemini Advanced (1)". The study's core premises for evaluating vaccine-related information from sophisticated chatbots such as ChatGPT-4.0 and Google Gemini sophisticated are intrinsically relevant, especially given the significance of misinformation in vaccine reluctance. However, such methods raise concerns about the validity of the comparison between chatbot responses and WHO guidelines. For example, the study did not explain how the open-ended questions were developed or whether they were based on current public disputes over vaccination myths. The selection criteria for the 38 questions are critical to comprehending the study's findings. Do these questions reflect the most common misconceptions regarding vaccines, or were they chosen at random?

Furthermore, the concept of a "appropriate" reaction appears to be highly subjective. Criteria for consistency and conformity to WHO criteria should be specified in order to develop a more transparent framework for evaluating replies. To improve the repeatability and validity of scientific findings, data assessment procedures must be carefully evaluated. Are any statistical methods utilized to calculate consistency rates, or is the data just qualitative observations? These shortcomings have the potential to damage the trustworthiness of the study's findings.

Looking ahead, there is an obvious need to enhance ways for evaluating the impact of AI chatbots in areas such as vaccine misinformation. Future research should include longitudinal studies that examine the changing accuracy of AI replies as they learn and adapt over time. Researchers should also investigate the usage of user demographics, as the effectiveness and appropriateness of answers can differ between populations. Furthermore, investigating how these chatbots respond to sensitive or critical thinking questions may reveal insights on chatbot limitations in real-world scenarios.

The novelty of this study is its approach to integrating AI technologies into public health communications, particularly in combating misinformation. However, it would be useful for the authors to delve deeper into the implications of their findings for vaccine promotion strategies, and what specific contexts might chatbot interactions have a meaningful impact on vaccine adoption. Furthermore, it is important to examine the potential risks associated with overreliance on AI in public health communications, as these technologies are increasingly integrated into health education campaigns. Understanding their limitations is essential to maximize their benefits while minimizing unintended consequences.

Conflict of interest: Authors declare no conflict of interest
Acknowledgement: None data availability statement: there is no new data

Hinpetch Daungsupawong[1], Viroj Wiwanitkit[2]
[1] Private Academic Consultant, Phonhong, Lao People's Democratic Republic
[2] Medical College, Saveetha Institute of Medical and Technical Sciences Saveetha University, India

Annali di Igiene : Medicina Preventiva e di Comunità (Ann Ig)
ISSN 1120-9135 https://www.annali-igiene.it

References

1. Fiore M, Bianconi A, Acuti Martellucci C, Rosso A, Zauli E, Flacco ME, Manzoli L. Vaccination hesitancy: agreement between WHO and ChatGPT-4.0 or Gemini Advanced. Ann Ig. 2025 May-Jun; 37(3): 390-396. doi: 10.7416/ai.2024.2657. Epub 2024 Oct 7.

Corresponding author: Hinpetch Daungsupawong, Private Academic Consultant, Phonhong, Lao People's Democratic Republic.
e-mail: hinpetchdaung@gmail.com

Authors' contribution:
HP 50% ideas, writing, analyzing, approval
VW 50% ideas, supervision, approval
HP 50% ideas, writing, analyzing, approval