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ROLE OF AI CHATBOTS IN PROMOTING HEALTH AWARENESS AND BEHAVIOURAL CHANGE. EVIDENCE FROM GLOBAL STUDIES WITH IMPLICATIONS FOR RURAL INDIA

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ABSTRACT

Chronic diseases are a growing global issue post-Coronavirus pandemic, and there is an urgent need for broader, cost-effective health interventions to help people with diagnosis and access to medical care Gabarrón et al., (2020). AI chatbots are proving to be powerful instruments that promote health and educate patients via human-like interactions Galdames (2023). The significance of AI chatbots in disseminating information on how to lead healthy lifestyles and change behaviour is explored in this paper. Recent findings from a meta-analysis of the scientific literature suggest that the use of AI chatbots has the potential to encourage individuals to exercise more, eat right, and adopt good sleep practices Singh et al., (2023). Several research studies have been undertaken in developing regions such as Africa and South Asia, and artificial intelligence chatbots are widely used to raise health awareness in such poor conditions. There are similarities between these contexts and rural India. According to the literature review, the role of chatbots in effective healthcare largely depends on their adaptation, trust, and integration into the community health system. Although there have been successful cases, there remains a lack of empirical data on the effectiveness of chatbots in rural India. This research analysed previous studies, assessing the usefulness and usability of conversational agents, finding that they provide a supportive environment for discussing health-related issues, but that more rigorous randomised controlled trials are needed to establish causality. It also discusses the usefulness of AI Chatbots in the Indian healthcare scenario.

Keywords: AI, Health Communication, Rural India, Chatbots, Misinformation

INTRODUCTION

Today, public health professionals emphasise the prevention and management of chronic diseases, making it essential to implement measures to tackle them by reaching large populations with minimal financial investment Gabarrón et al., (2020). The economic burden of these conditions worldwide is estimated to reach a staggering $47 trillion from 2010 to 2025. As such, digital health solutions need to be devised to counter these problems Singh et al., (2023). As conventional medical institutions are unable to cope with the increasing number of cases of chronic disease management, artificial intelligence could be a suitable solution for educating people and promoting health through this platform. A chatbot, which is run by artificial intelligence or a conversational agent, can communicate with patients just like any other person; it can send written messages or use its voice. In fact, chatbots are becoming increasingly common in various social media platforms such as WhatsApp, Facebook Messenger, and Telegram Aggarwal et al. (2023). They can provide autonomous engagement with health-related information around the clock as virtual assistants. Even though the agents' obvious capabilities have the potential to revolutionise public health care, the number of studies on their efficacy and practicality for behavioural change is insufficient. Moreover, this field of science remains underdeveloped, with most information

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about these agents still derived from preliminary research rather than comprehensive clinical trials Baal et al., (2024), Vladlenov (2022). Hence, it is crucial to study the technology and ethics of employing such agents. The following paper analyses how AI agents can be used to optimise public health care services.

REVIEW OF LITERATURE

EFFECTIVENESS IN HEALTH PROMOTION

Several recent meta-analyses indicate that chatbots can contribute to increased physical activity, increased fruit and vegetable consumption, and longer sleep duration Singh et al., (2023). For instance, researchers who examined chatbot effectiveness in managing patients' health found that conversational agents could assist users in setting objectives and taking action toward achieving them. Some tools led to a weight loss of up to 2.38% and exceptionally high satisfaction with the application Car et al. (2020), Dingler et al. (2021). Researchers have proposed implementing chatbots to eliminate ambiguity about safety measures taken during pandemics, including COVID-19; initial findings have been promising Baal et al., (2024).

PERSONALISATION AND ACCESSIBILITY

The main benefit of AI chatbots lies in their capacity to deliver personalised interventions that can be scaled to serve large, heterogeneous communities Vladlenov (2022). In the role of health assistants, chatbots can engage in real-time dialogue and provide personalised suggestions, analysing individuals' data to detect deviations from health-promoting practices Maher et al., (2024). In addition, AI chatbots offer a nonjudgmental platform for sharing private health-related information, making them more acceptable to patients who may find it embarrassing to discuss certain topics with human professionals.

CHALLENGES AND TECHNICAL LIMITATIONS

Although chatbot implementation in public health has great potential, it remains in its early stages, with about 75% of the relevant literature published from 2019 to 2021. The existing technical problems include speech-recognition errors, as noted in one study, with an out-of-vocabulary rate of 3% when using a chatbot designed for heart-failure patients. In addition, most current chatbots cannot ensure consistent user use, which is required for behaviour modification Maher et al., (2024). Most previous research used a pre-post design without a control group, and there is a serious need for improved research Gabarrón et al., (2020).

METHODOLOGY

RESEARCH DESIGN AND APPROACH

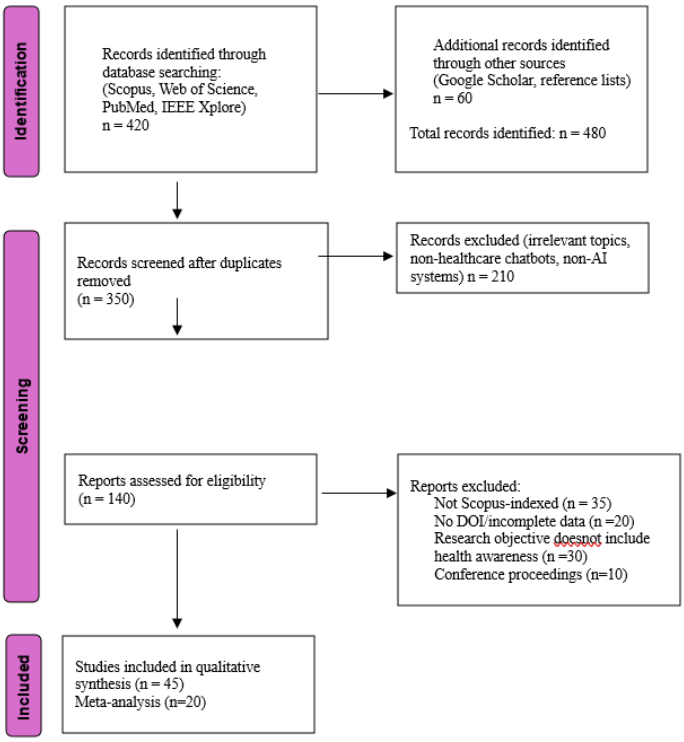
In this study, the adopted research method is qualitative, using secondary data analysis to examine findings from academic literature on the use of AI chatbots for health awareness promotion. Secondary data were drawn from an exhaustive pool of resources, including peer-reviewed journals, meta-analyses, systematic reviews, and publications from credible health agencies. The purpose of this study is to provide a comprehensive analysis of the current state of chatbot technology in health promotion, without the constraints of field research. Thematic analysis was employed to identify recurring themes, trends, or issues concerning the use of artificial intelligence chatbots in health communication.

For the findings derived from this research to be scientifically sound and provide an exhaustive view of the topic under study, the study will utilise a systematic scoping review methodology. In addition, the scoping review method will be quite helpful in mapping the emerging research area, as the topic is developing rapidly. Using the scoping review strategy will be instrumental in covering all methodologies employed by researchers, including experimental, observational, and theoretical approaches.

SEARCH STRATEGY

The literature search followed a systematic approach, in which several academic databases were searched for relevant literature. Such databases included Google Scholar, PubMed, JSTOR, Web of Science, and ACM Digital Library. The selection of the above databases was made to ensure coverage of various fields, such as medicine, public health, and computer science. This is due to the multidisciplinary nature of chatbot applications in the healthcare sector using artificial intelligence Stochel-Gaudyn et al. (2025). The search process heavily involved keywords such as artificial intelligence, chatbots, conversational agents, health communication, behaviour change, and public health interventions. Some of the other techniques used in the process were Boolean Operators to facilitate searching using varied terms. There was no age limitation, as it was necessary to consider the evolution of chatbot technology over the past years. It was necessary to emphasise more recent articles because of the fast pace of artificial intelligence advancement. Screening of references from the articles identified through the above methods was also considered.

Figure 1



SELECTION CRITERIA

The review is based on studies that have been carried out using natural language processing conversational agents in healthcare situations, such as those aimed at changing behaviours and monitoring patients' health Milne-Ives et al. (2020). Certain inclusion criteria were defined to ensure that only relevant and high-quality research was considered for the analysis. The studies met the following criteria: involved the use of AI chatbots/conversational agents in a healthcare context; addressed issues relating to health awareness, behaviour change, engagement, and clinical success; were published in peer-reviewed journals and organisational papers; and provided enough methodological information.

This literature review features scholarly works focusing on the use of agents that engage in natural-language conversation without restrictions, in health-related contexts such as behaviour change and health monitoring Milne-Ives et al. (2020). Several inclusion criteria have been defined for this literature review, as follows:

1) The sources must describe an exploration of AI-based chatbots or conversation-based agents in the context of health.
2) The source should present information on some effects, such as health awareness or behaviour change.
3) It should have been presented in reputable peer-reviewed publications or organisational reports.

The exclusion criteria were used to narrow the research scope to align with the study's objectives. These included studies that were solely devoted to rule-based chatbots without AI features; focused on chatbots not used in health contexts; written in non-peer-reviewed literature and had no organisational backing; or had insufficient data extraction and methodology description.

DATA EXTRACTION

Data were collected systematically from each included study for the purpose of answering the research questions pertinent to this study. In this regard, emphasis was placed on identifying the domains of application where the use of chatbots is most widespread, including managing chronic conditions, addressing mental well-being needs, and offering health education and preventive care. Relevant data from each included study were collected by recording details about the research, such as its methodology, participants' demographics, characteristics of the chatbots used, intervention duration, measurements, results, and other relevant details.

Specifically, emphasis was placed on identifying methodologies used to measure the effectiveness of chatbots, including both quantitative measures (such as behaviour change outcomes, engagement levels, and clinical outcomes) and qualitative assessments (user satisfaction, perceived usefulness, among other factors). The theoretical underpinnings informing the interventions adopted in each case, such as behaviour change models, motivational interviewing practices and personalised health coaching models, were also identified during data extraction.

ANALYSIS

The review presents an analysis of evidence on the clinical and behavioural effects of chatbot implementation, using thematic analysis. This was accomplished by organising the extracted findings into themes related to effectiveness, usability issues, implementation concerns, and ethics. In particular, emphasis is placed on evaluating the evidence for its scientific rigour; this includes identifying the percentage of research utilising rigorous methodologies such as randomised controlled trials relative to pilot and quasi-experimental work Dingler et al. (2021).

The categorisation of articles by their rigour allows for the identification of gaps within the current literature and areas where evidence is required. Specifically, questions asked in the review include whether evidence of effectiveness in previous research is derived from randomised controlled trials, which are scientifically more rigorous than other methods such as pre-post tests. The relationship between specific chatbot features and the outcomes observed is examined. The analysis takes into account contextual factors that can affect the chatbot's success, such as target audience attributes, features of the health topic, and the context in which the chatbot will be used.

ROLE OF AI CHATBOTS IN HEALTH AWARENESS.

AI in the formation of health communication systems has enabled a revolutionary means of addressing public health issues, particularly during public health crises, when billions of people can be reached through common digital communication channels Sezgın and Kocaballı (2024). The use of chatbots in health care involves computer applications that employ natural language processing to engage in conversations and raise public awareness of health-related issues Gabarrón et al., (2020). This kind of automated conversation serves as a bridge between health information and the general public by leveraging text processing and trend analysis to deliver personalised responses to health queries Morita et al., (2024).

INFORMATION DISSEMINATION AND INFODEMIC MANAGEMENT

Chatbots that utilise AI technology can be employed in health information management. Apart from assisting in minimising disinformation, these chatbots can act as the primary sources of health information Morita et al., (2024). It is vital to acknowledge that such bots have proven effective during health emergencies, as they can provide immediate health information to individuals Branda et al., (2025). This aspect is especially important because the pace of development of infectious diseases is accelerating, making communication critical in this context Branda et al., (2025).

AI chatbots' capacity to analyse large-scale health data makes them reliable informants, enabling communication between healthcare professionals and their patients Sezgın and Kocaballı (2024). However, one challenge associated with the above-discussed application of AI chatbots should be noted. The efficiency of such applications depends greatly on the quality of data and the nature of requests Morita et al., (2024). Even advanced language models used in AI chatbots are prone to errors when answering open-domain questions due to misunderstandings, factual inconsistencies, insufficient detail, and failure to infer required information Morita et al., (2024). Furthermore, if the chatbots are trained on outdated data, they may return outdated answers, which is problematic, especially given how quickly scientific breakthroughs occur nowadays, for instance during the COVID-19 pandemic Morita et al., (2024).

ACCESSIBILITY AND SCALABILITY

Real-time health data is one of the major advantages of AI chatbots in promoting health awareness because they eliminate time and location constraints Gabarrón et al., (2020). Practical examples show that this technology would be quite useful in areas with insufficient health care provision, and its implementation would be an effective tool for reaching a significant number of people Gabarrón et al., (2020), Morita et al., (2024). Recently, due to the coronavirus pandemic worldwide, the use of chatbots has increased significantly.

One of the critical advantages that AI chatbots can offer for health awareness is their ability to deliver real-time health data, thereby overcoming time and location constraints Gabarrón et al., (2020). This technology will be beneficial in areas with insufficient health infrastructure. In such areas, the application of this technology would provide an efficient means of reaching a substantial number of people at minimal cost Gabarrón et al., (2020), Morita et al., (2024). The current worldwide coronavirus disease outbreak has led to increased use of chatbots and highlighted their capacity to assist conventional health care delivery mechanisms Wilson and Marasoiu (2022). There are several opportunities chatbots may offer for behaviour change across the board, given that they are easily accessible via social media, highly scalable and flexible, and can collect information independently Baal et al., (2024). This becomes especially significant when considering that it allows public health institutions to reach a large number of individuals simultaneously, regardless of their location or time zone Sezgın and Kocaballı (2024).

PERSONALISATION AND BEHAVIOUR CHANGE

The capacity of AI chatbots to offer personalised interventions at scale across heterogeneous population groups is another strong aspect for enhancing health awareness Maher et al., (2024). This is because traditional digital health interventions face problems such as low compliance and rigidity, while offering personalised interventions that promote health awareness Maher et al., (2024). In contrast, AI chatbots offer autonomous, engaging health intervention programs that are personalised and tailored to individuals Maher et al., (2024). As health assistants, AI chatbots facilitate real-time communication between users and AI bots and personalise their suggestions by analysing patterns that contribute to the loss of good behaviours Maher et al., (2024).

Personalised interventions might solve various problems that occur within the non-personalised interventions framework, as they take into account individual characteristics and behavioural patterns, tailoring the intervention strategy to context-based and psychological factors. The use of chatbot technology enables chatbots to "understand" people by having conversations with them, making them realise that a change in attitude is necessary, and establishing long-term relationships to form good habits.

Research into the use of chatbots for behaviour change has been conducted and proven effective. For instance, a pilot study focused on behaviour change through chatbots, based on information provision and animations, revealed that the chatbot enabled users to gain a clearer understanding of the subject matter and to form intentions to perform behaviours associated with protection during the pandemic Baal et al., (2024). It is noted that uncertainty associated with behaviour changed, while an exponential growth-based intervention increased intentions to take a test Baal et al., (2024).

PUBLIC HEALTH EMERGENCY RESPONSE

In particular, AI chatbots have shown great potential in public health crises, as they help healthcare systems triage inquiries, provide advice on symptoms and preventive measures, and connect patients with relevant healthcare facilities Branda et al., (2025). Besides, it makes information on various aspects of health readily available to many people while reducing the workload that healthcare professionals are expected to handle Branda et al., (2025). It is crucial that chatbots adapt to changing health conditions to remain relevant in emergencies Branda et al., (2025).

There are already many applications of AI in public health practice to improve health education and communication with the general public, and there is significant potential for the beneficial use of generative AI, including chatbots and virtual assistants, in health communication Nutbeam and Milat (2025). Chatbots have been widely used during the coronavirus disease outbreak to provide information on symptoms, testing locations, vaccination schedules, and ways to prevent infection Sezgın and Kocaballı (2024).

Integration with Healthcare Systems

There are a few application domains in public health where chatbot design and development are most common, although studies indicate that these are most frequent in health education, behaviour change, health monitoring, and triage Wilson and Marasoiu (2022). Completely automated self-service intervention programs offered by chatbots might prove quite cost-effective for promoting health among the masses Gabarrón et al., (2020). Chatbots are computerised applications that use machine learning, statistical analysis, and educational theory to emulate conversations via text or voice messages, are easily accessible, and require no familiarity with the user interface Gabarrón et al., (2020). Such an easy approach makes chatbots an effective tool for implementing health campaigns at scale.

BENEFITS OF AI CHATBOTS IN RURAL INDIA

Some of the benefits associated with the deployment of chatbots within the healthcare system include. Chatbots provide a way to deliver health interventions and health-related information to individuals worldwide by overcoming some of the geographical barriers to the provision of standard healthcare services Luxton (2013). By analysing vast amounts of data, chatbots can customise their interactions based on the user's needs, thereby making the health information presented more relevant Morita et al., (2024). They also assist in managing health issues such as diabetes by providing guidance Shriyal (2024).

DISCUSSIONS

While the applications of AI-powered chatbots are seemingly limitless, their efficacy has been proven only in certain domains of people's lifestyles to date. According to meta-analyses, chatbot interventions show the greatest potential to encourage physical activity, improve dietary behaviour, and enhance sleep Oh et al. (2021), Singh et al., (2023) For instance, studies prove that use of chatbots could bring about considerable benefits concerning increase in the number of steps taken and minutes spent engaging in moderate-to-vigorous physical activities Singh et al., (2023), Yang et al., (2025). In relation to mental illnesses, some chatbots are known to ease symptoms of depression by using cognitive behaviour interventions. Some chatbots in this category include Woebot, which has been shown to alleviate depressive symptoms Abd-Alrazaq et al., (2020), Casu et al., (2024). Several challenges remain

regarding both the effectiveness and the ethical application of such technologies. First, there is an evident issue with the "black box" nature of artificial intelligence programming, which makes it impossible to trace the logic behind certain recommendations regarding people's health. Consequently, while being logically correct, the findings of such analysis cannot always be considered medically accurate Silva and Barrientos (2023). Second, there is an evident lack of demographics as chatbots tend to give people recommendations regardless of their age, gender, nationality, or culture; for example, the recommendations given to an African male would be identical to those given to a European female Aremu et al., (2025). Third, the hallucinations of such a chatbot can be extremely harmful as they may produce false medical credentials or even information Cox (2024). Lastly, there is an evident privacy issue, as the chatbot uses personal data that may not have been legally collected Clark and Bailey (2024), Hassan et al., (2025), Singh et al., (2023).

CHALLENGES AND LIMITATIONS

Some of the challenges associated with Chatbots in India, particularly in rural and suburban environments, need to be mentioned. Despite several advantages, implementing artificial intelligence technology, including chatbots, to promote health awareness poses several hurdles. Accuracy of information, user acceptance, and ethical considerations regarding data security are among the factors that should be taken into account to make health campaigns more effective Branda et al., (2025). First, it requires access to relevant and varied training data to demonstrate that AI is proficient in language comprehension Morita et al., (2024). Moreover, modern patterns of usage may increase health inequalities, while a personalised approach would emphasise factors contributing to health too much instead of identifying its causes Nutbeam and Milat (2025). At the same time, there is little scientific literature on this topic, making it difficult to determine whether any benefits stem from marketing rather than reality Nutbeam and Milat (2025).

It can be seen that while there is enormous potential in this area, researchers have also identified several challenges, such as the accuracy and relevance of health-related information generated by generative AI systems, access to and use of this technology across various demographics, and the application of artificial intelligence to monitor disease spread and public health research Nutbeam and Milat (2025). AI chatbots can enhance health literacy through personalised communication and, when applied appropriately, can be very useful for ensuring their effectiveness and safety in health communications. The implementation of artificial intelligence in public health communications is revolutionary, as it shifts the traditional approach to health information dissemination from static to dynamic and interactive. The ability of AI chatbots to enhance health awareness and behavioural change is determined mainly by how data is handled, which is characterised by three basic principles: data entry, data analysis, and data output (2023). AI chatbots gather data from various sources such as Electronic Health Records, clinical notes, and even real-time data like heartbeats and motion.

Chatbot-driven interventions, which include setting health goals, behavioural surveillance, and providing information, are designed to offer assistance similar to that of humans in attaining health goals such as quitting smoking and taking prescribed medication. One major advantage of AI chatbots is the scalability and accessibility they offer. These interventions enable on-demand services and connectivity, which are very important in cases of chronic conditions where constant monitoring is crucial. In resource-limited regions, such as rural settings, chatbots can help bridge gaps by providing health information and combating misinformation Gabarrón et al., (2020), Morita et al., (2024). Through the use of self-help intervention chatbots, millions of individuals could receive assistance simultaneously and without limitations Gabarrón et al., (2020), Morita et al., (2024).

IDENTIFIED RISKS AND COMMON FAILURES IN HEALTH AI

Based on the current literature, a few common mistakes or risks in deploying health-related AI chatbots have been identified. Chatbots can make statements about having an invalid medical degree or giving incorrect, potentially hazardous health advice to the users Cox (2024). The system does not consider age when assisting and offers only standard responses Aremu et al., (2025). Due to Unrepresentative Data, the AI's output may be biased Shriyal (2024), Silva and Barrientos (2023). Misleading information for people with special Needs, Chatbots designed to help people with certain issues can give inappropriate recommendations instead of helping them (for example, advising patients with eating disorders on healthy diets and exercises rather than supporting their clinical treatment) Clark and Bailey (2024). Poor De-Identification Processes and Data Privacy Problems can arise because de-identifying health activity data cannot prevent users from being re-identified Singh et al., (2023)

CONCLUSION

The use of AI chatbots can be considered an innovation with great potential for global public health, particularly in health education and behaviour change. In particular, AI chatbots are especially promising for providing services related to the treatment of chronic diseases and psychological assistance in disadvantaged countries. At the moment, the opportunities offered by this technology cannot be fully utilised due to technical implementation issues. To implement AI chatbots safely and effectively in health care assistance, it is necessary to develop a Code of Conduct for AI in Health Care Aremu et al., (2025), Erren et al., (2023). In addition, human supervision is important to avoid the spread of harmful recommendations among vulnerable people.

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REFERENCES

Abd-Alrazaq, A. A., Alajlani, M., Alalwan, A. A., Bewick, B. M., Gardner, P., and Househ, M. (2019). An Overview of the Features of Chatbots in Mental Health: A Scoping Review. International Journal of Medical Informatics, 132, 103978. https://doi.org/10.1016/j.ijmedinf.2019.103978

Abosamak, N., Namoos, A. M., Ramadan, R., Olex, A. L., and Gal, T. S. (2026). AI-Powered Chatbot as a Health Literacy Tool for Enhancing Oral Cancer Awareness: Expert Feedback. Clinical and Translational Science, 19(2), e70499. https://doi.org/10.1111/cts.70499

Aggarwal, A., Tam, C. C., Wu, D., Li, X., and Qiao, S. (2023). Artificial Intelligence-Based Chatbots for Promoting Health Behavioural Changes: Systematic Review. Journal of Medical Internet Research, 25(1), e40789. https://doi.org/10.2196/40789

Agrawal, R., Khan, A. M., Moothedath, M., V. J., R., Muhamood, M., and T, S. (2025). Effect of AI-Based Chatbots in Promoting Oral Health Awareness Among Rural Populations. Bioinformation, 21(4), 827–831. https://doi.org/10.6026/973206300210827

Basharat, I., and Shahid, S. (n.d.). AI-Enabled Chatbots in Healthcare Systems: An Ethical Perspective on Trust and Reliability. Journal of Health Organisation and Management. https://doi.org/10.1108/JHOM-10-2023-0302

Car, L. T., Dhinagaran, D. A., Kyaw, B. M., Kowatsch, T., Joty, S., Theng, Y. L., and Atun, R. (2020). Conversational Agents in Healthcare: Scoping Review and Conceptual Analysis. Journal of Medical Internet Research, 22(8), e17158. https://doi.org/10.2196/17158

Dingler, T., Weber, E., and Kowatsch, T. (2021). Conversational Agents for Chronic Disease Management: A Review of Behavioural Intervention Strategies. mHealth, 7, 52. https://doi.org/10.21037/mhealth-20-95

Luxton, D. D. (2013). Artificial Intelligence in Psychological Practice: Current and Future Applications and Implications. Professional Psychology: Research and Practice, 45(5), 332–339. https://doi.org/10.1037/a0034559

Milne-Ives, M., de Cock, C., Lim, E., Shehadeh, M. H., de Pennington, N., Mole, G., and Meinert, E. (2020). The Effectiveness of Artificial Intelligence Conversational Agents in Health Care: Systematic Review. Journal of Medical Internet Research, 22(10), e20346. https://doi.org/10.2196/20346

Nadarzynski, T., Miles, O., Cowie, A., and Ridge, D. (2019). Acceptability of Artificial Intelligence-Led Chatbot Services in Healthcare: A Mixed-Methods Study. DIGITAL HEALTH, 5, 2055207619871808. https://doi.org/10.1177/2055207619871808

Oh, Y. S., Kim, H. G., and Lee, J. H. (2021). Effectiveness of Chatbot Interventions on Physical Activity and Healthy Lifestyle Behaviour: A Meta-Analysis. Preventive Medicine Reports, 24, 101569. https://doi.org/10.1016/j.pmedr.2021.101569

Shan, Y., Ji, M., Xie, W., Qian, X., Li, R., Zhang, X., and Hao, T. (2022). Language Use in Conversational Agent-Based Health Communication: Systematic Review. Journal of Medical Internet Research, 24(7), e37403. https://doi.org/10.2196/37403

Wilson, L., and Marasoiu, M. (2022). The Development and Use of Chatbots in Public Health: Scoping Review. JMIR Human Factors, 9(4), e35882. https://doi.org/10.2196/35882

Zhang, J., Oh, Y. J., Lange, P., Yu, Z., and Fukuoka, Y. (2020). Artificial Intelligence Chatbot Behaviour-Change Model for Designing Artificial Intelligence Chatbots to Promote Physical Activity and a Healthy Diet: Viewpoint. Journal of Medical Internet Research, 22(9), e22845. https://doi.org/10.2196/22845