

ChatGPT as a source of health information in Asia - benefits, drawbacks and recommendations: A systematic literature review and thematic analysis

¹Ms. K.G.L.A.N.S.Jayawardhana, ²Dr. M.Srihari

¹Research Scholar, ²Head/Associate Professor,
^{1,2}Department of Communication and Media Studies,
 Bharathiar University, Coimbatore, Tamil Nadu, India.
nisansala.cms@buc.edu.in, haricms@buc.edu.in

Abstract- ChatGPT is increasingly used by patients as a source of health-related information, even surpassing traditional search engines. In diverse Asian societies, deep-rooted differences in cultural and political landscapes significantly influence the portrayal of Artificial Intelligence (AI). However, systematic reviews on 'the health information-seeking by Asians using AI' are limited. Therefore, this study aimed to discuss the role of ChatGPT as a source of health information among Asians, significantly the perceived benefits and drawbacks of using ChatGPT as a source of health information for Asians, and the perceived recommendations for enhancing the use of ChatGPT as a source of health information among Asians. A systematic literature review was conducted in accordance with Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA). Initially, 210 research papers were retrieved and of it, 17 research papers published in the English language in 13 Asian countries during 2023 to February 2025 were selected from prominent publishing databases such as Taylor and Francis, Elsevier, Science Direct, Sage, and Springer, based on specified inclusion and exclusion criteria. After a thematic analysis, it was recognized 8 perceived benefits, 11 perceived drawbacks of using ChatGPT for health information-seeking by Asians, and 7 perceived recommendations for enhancing the use of ChatGPT for health information-seeking in Asian countries. Further, the findings of the study contribute to identifying the potentiality of using ChatGPT to increase health literacy among Asians. Moreover, the study suggests recommendations to bridge the digital divide in health information access in Asian countries, which contribute to meeting the UN Sustainable Development Goal of ensuring health and well-being for all ages and genders.

Index Terms: ChatGPT, Health information-seeking, Source of Information, Asians, Asia.

1. INTRODUCTION

At present, Artificial Intelligence (AI) technologies have become vital to everyday information-seeking through search engines, social media platforms, streaming and video-sharing services, navigation applications, voice assistants, and chatbots integrated into various services (Elliot, 2019; Haider & Sundin, 2019). Alongside, AI has emerged as a transformative technology in healthcare, with the potential to dramatically reshape patient care, monitor the health status of patients, accelerate the diagnosis process, clinical decision-making, improve the treatment process, dosage instructions, health management, and complex medical conditions (Akkan & Seyyar, 2025; Maniyar et al., 2024; Bachmann et al., 2024; Alowais, 2023; Dave et al., 2023; Guidance, 2021). Noticeably, patients use this advanced, large-scale digital platforms and virtual assistants to access and seek health-related information and support and to make informed decisions about their health (Alanezi, 2024; Johnson et al., 2023; Onyeaka et al., 2021).

AI-enabled conversational chatbots are increasingly used to support access to information and health care as a way of dealing with growing demands for health information (Çitir, 2025; Roldan-Vasquez et al., 2024; Al-Shboul et al., 2023; Softić et al., 2021). Also the interest in chatbots has further increased with the release of ChatGPT in 2022 (Roldan-Vasquez et al., 2024; Branley-Bell et al., 2023). ChatGPT's ability to generate information relevant to user queries has contributed to its rise as a new-generation information-seeking tool (Mun & Hwang, 2024). This large language model (LLM) incorporates AI and natural language processing (NLP) to simulate human-like responses to user inquiries, reducing the need for human care (Liu et al., 2024; Bachmann et al., 2024; Javaid et al., 2023).

ChatGPT seems to be an extremely useful form of AI that could be integrated into the everyday clinical practices and medical context for assisting in clinical and laboratory diagnosis, assessing patients' symptoms, providing updates, support and, new developments to healthcare professionals and health research (Psilopatis et al., 2024; Tamsah et al., 2023; Dave et al., 2023). Furthermore, ChatGPT, an approachable method that can also be used to raise awareness and disseminate relevant information among patients as it surpasses traditional search engines in terms of perceived relevance and accessibility (Kacer & Ipekten, 2025; Ulusoy et al., 2023). Although ChatGPT consistently acknowledged its status as a non-medical professional and emphasized the importance of consulting healthcare experts for personalized advice, it demonstrates a respectful and vigilant approach to delivering medical information (Yoo & Jang, 2025).

When reviewing the related literature, an online survey conducted in the US shows that, of 600 active ChatGPT users, approximately 7% of respondents use ChatGPT for health-related queries (Choudhury & Shamszare, 2023). Another study conducted in India found that 90 (57.3%) healthcare professionals and 34 (64.1%) non-healthcare professionals have searched online for ChatGPT (Parikh et

al., 2023). The findings of the study conducted by Maniyar et al. (2024) offer preliminary evidence supporting the potential application of ChatGPT as an AI-driven medical information resource.

The application of ChatGPT in the healthcare sector is currently in its nascent stages (Choi et al., 2024; Al-Shboul et al., 2023). It continuously improves its performance over time and adapts to users' preferences, enhancing the quality and relevance of its responses (Alanezi, 2024). ChatGPT has the largest user base worldwide (Piao et al., 2024; Roldan-Vasquez et al., 2024). Therefore, healthcare researchers have already begun to explore the potentiality of ChatGPT for improving healthcare (Branley-Bell et al., 2023). However, in diverse Asian societies, deep-rooted differences in cultural and political landscapes significantly influence the portrayal of AI (Neyazi et al., 2023). Therefore, in this study, it was analyzed the role of ChatGPT as a source of health information, its perceived benefits and drawbacks as a source of health information, and the perceived recommendations for enhancing the use of ChatGPT as a source of health information among Asians. The findings of the study contribute to identifying the potentiality of using ChatGPT to increase health literacy among Asians, to bridging the digital divide in technology access in Asian countries, and to meeting the UN Sustainable Development Goal of ensuring health and well-being for all ages and genders.

A plethora of studies have been conducted on using ChatGPT for general information-seeking and information-seeking behavior in different countries (Mun, 2024; Neyazi et al., 2023; Yadav & Pokhrel, 2023). Later, ChatGPT's role in the healthcare sector has been assessed through different studies (Banchman et al., 2023; Temsah et al., 2023; Al-Shboul et al., 2023). Nevertheless, no systematic literature review, in accordance with PRISMA has been done along with a thematic analysis of the 'research articles' published on 'ChatGPT as a source of health information' in Asia from 2023 to February 2025, prominently focusing on the free version of ChatGPT 3.5. Therefore, this study fills that information gap, achieving the research objectives mentioned below.

1.1. Research Objectives

1. To find out the perceived benefits of ChatGPT as a source of health information among Asians.
2. To explore the perceived drawbacks of ChatGPT as a source of health information among Asians.
3. To examine the perceived recommendations for enhancing the use of ChatGPT as a source of health information among Asians.

2. METHODOLOGY

2.1. Inclusion/exclusion criteria

The study was conducted as a systematic literature review in accordance with Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA). Initially, relevant articles were searched from prominent publishing databases such as Science Direct, Sage, Springer, Elsevier, Taylor and Francis, BioMedCentral, Scopus, and Google Scholar as all are well-established for their authenticity worldwide. Key phrases such as 'Chatbots and information seeking', 'seeking health information using ChatGPT', and 'ChatGPT as a health information source in Asia' were used in searching relevant research articles from the aforementioned publishing platforms. Accordingly, 11,731 articles (Springer-3670, Science Direct- 1819, Sage-6242) were identified as relevant. Of those articles, 210 research papers were retrieved and eventually, 17 (n=17) research articles that fulfilled the inclusion criteria were chosen for the study.

As per the inclusion criteria, only the 'research papers' published in English language, in Asian countries, during 2023 to February, 2025 were considered for the systematic review. The studies conducted based on ChatGPT 3.5 version were considered for the review as it has become one of the most popular NLP models in recent times, widely utilized for queries about wide range of topics (Pasin et al., 2025; Piao et al., 2024; Roldan-Vasquez et al., 2024). According to the exclusion criteria, review articles, book chapters, newspaper articles, magazine articles, conference papers, informal literature surveys (no defined research questions; no defined search process; no defined data extraction process), duplicate reports of the same study, and studies conducted on ChatGPT 4.0 version were excluded from the study.

Research articles were filtered using the PRISMA (Preferred Record Items for Systematic Review and Meta- Analysis) method and the following PRISMA flowchart shows the process of articles selection.

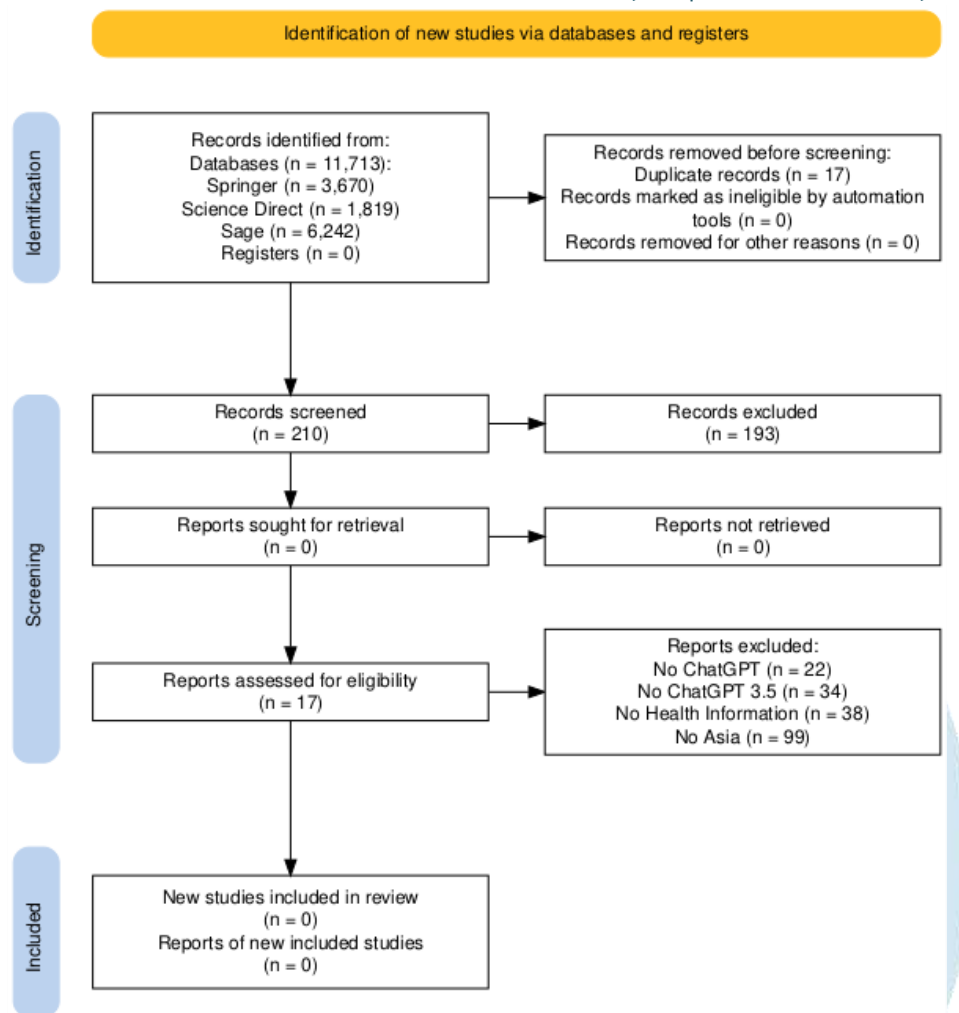


Figure 01: PRISMA Flow Diagram of included articles in the systematic literature review.

3. FINDINGS AND DISCUSSION

The main objective of the study was to review research papers to elaborate on the integration of ChatGPT as a source of health information in Asia. Research papers published during 2023 to February 2025 in different Asian countries such as India, Bangladesh, China, Pakistan, Iran, Turkey, South Korea, Indonesia, Saudi Arabia, Jordan, Cambodia, Vietnam, and Singapore, were chosen for the study.

A thematic analysis approach was used to analyze the data. Themes were created iteratively by comparing and contrasting the findings of the selected studies and refining themes. During the thematic analysis phase, themes were extracted from the conclusion of each literature based on the three research objectives; to find out the perceived benefits and the drawbacks of ChatGPT as a source of health information among Asians, and to explore the perceived recommendations for enhancing the use of ChatGPT as a source of health information among Asians. An inductive approach was used allowing the emergence of new themes that were not previously identified.

A summary of the findings and a detailed discussion of the findings are presented below.

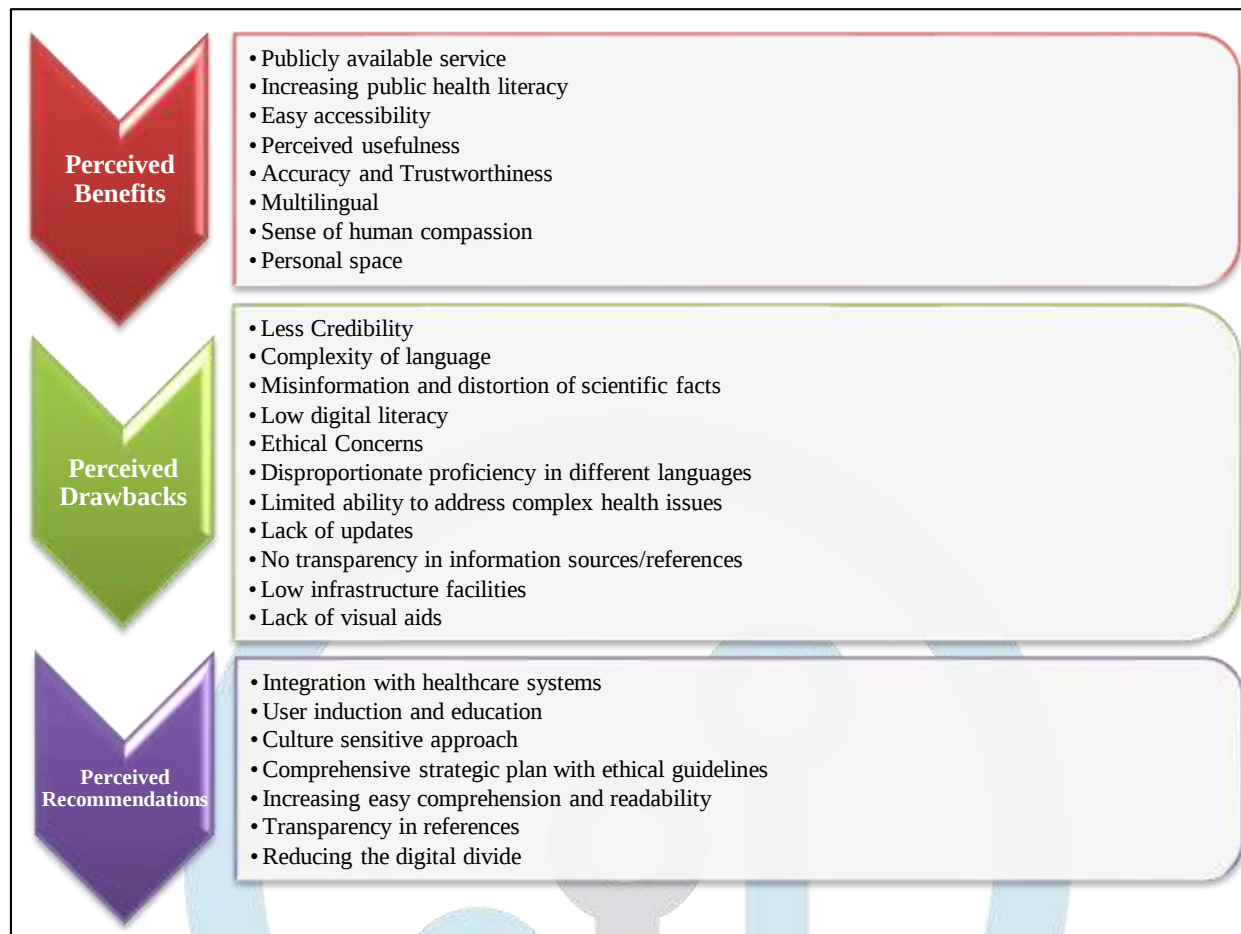


Figure 02: Summary of the findings of the literature search regarding the perceived benefits, perceived drawbacks and recommendations for improvement of ChatGPT in health information-seeking in Asian countries.

Table 01: Overview of the research articles chosen for the systematic review (n=17)

No	Author/ Authors' Name	Data base	Year	Country/ countries involved	Article Name	Summary of the study
1	Al Shboul et al.	Taylor and Francis	2023	Jordan and Saudi Arabia	Investigating the use of ChatGpt as a novel method for seeking health information: A qualitative approach	The study examined participants' perspectives on using ChatGPT for health information and to pinpoint areas where ChatGPT's functionality and design should be improved. Data were collected using semi-structured interviews and thematic analysis was used to analyse data. Findings: ChatGPT was easy and handy tool for getting health information, however there is the necessity to create ChatGPT with accessibility, ease, trustworthiness, personalization, and usability with a person-centered approach to healthcare.
2	Ulusoy et al.	Cureus	2023	Turkey	How efficient is ChatGPT in accessing accurate and quality health-related information?	The study is a comparative content analysis of health-related information provided by ChatGPT and a few selected websites. Data were obtained from various information sources by using the DISCERN score and the Journal of the American Medical Association benchmark criteria. Readability levels of the content were measured by using the Flesch-Kincaid grade level, Gunning Fog Index, and Simple Measure of Gobbledygook (SMOG) index. Findings: There was no statistically significant difference between information provided by the websites and ChatGPT.
3	Wang et al.	Elsevier	2023	China, Cambodia Vietnam Singapore	ChatGPT: promise and challenges for deployment in low- and middle-income countries.	This study discusses the potential advantages and drawbacks of employing ChatGPT to advance healthcare in low- and middle-income countries by examining its potential impact on three distinct levels. This qualitative study reflects the insights on ChatGPT's contributions to medicine and public health by facilitating immediate access to essential medical knowledge and education in LMICs.

4	Maniyar et al.	Elsevier	2024	India	ChatGPT conversations on oral cancer: Unveiling ChatGPT's potential and pitfalls	The research investigates the application of ChatGPT in responding to various questions related to oral cancer. A dataset of 25 questions on oral cancer was compiled from diverse sources and categorized into five groups. ChatGPT was used through a structured approach of submitting questions individually for evaluation. Two oral cancer surgeons independently assessed response accuracy and reproducibility using a grading scale. Findings: ChatGPT is a valuable information source for oral cancer-related queries.
5	Choi et al.	Springer Nature	2024	South Korea	Availability of ChatGPT to provide medical information for patients with kidney cancer.	This research evaluates whether ChatGPT could help patients understand kidney cancer and replace consultations with urologists. Two urologists developed ten questions commonly asked by patients with kidney cancer. The answers to these questions were produced using ChatGPT. The five-dimension SERVQUAL model was used to assess the service quality of ChatGPT. Findings: Although ChatGPT answers to kidney cancer questions are generally accessible, they should not supplant the counseling of an urologist.
6	Hassona et al.	Elsevier	2024	Jordan	How good is ChatGPT at answering patients' questions related to early detection of oral (mouth) cancer?	The study examined the quality, reliability, readability, and usefulness of ChatGPT in promoting oral cancer early detection. 108 patient-oriented questions about oral cancer early detection were compiled from expert panels, professional societies, and web-based tools. ChatGPT was asked questions; those answers were evaluated regarding quality, readability, actionability, and usefulness. No misleading information was identified among ChatGPT responses about early detection of oral cancer.
7	Piao et al.	SAGE	2024	China	Assessing the performance of large language models(LLMs) in answering medical questions regarding breast cancer in the Chinese context	The study evaluates and compares the performance of LLMs in answering questions regarding breast cancer in the Chinese context. ChatGPT, ERNIE Bot, and ChatGLM were chosen to answer 60 questions related to breast cancer posed by two oncologists. The accuracy, length, and readability among answers from different models were evaluated using statistical software. ChatGPT scored higher than ERNIE Bot and ChatGLM demonstrating sense of human compassion.
8	Faisal et al.	SAGE	2024	Pakistan	Evaluating the comprehension and accuracy of ChatGPT's responses to diabetes-related questions in Urdu compared to English	This cross-sectional observational study was conducted to determine the comprehensiveness of ChatGPT's responses in Urdu to diabetes-related questions and the accuracy of ChatGPT's Urdu responses when compared to its English responses. Findings: No Urdu response (0.0%) was considered to have more accuracy than English. Further work must be done to optimize Urdu responses in medical contexts.
9	Mun and Hwang	Sage	2024	South Korea	Understanding ChatGPT continuous usage intention: The role of information quality, information usefulness, and source trust.	The study examined whether information quality predicts information usefulness and source trust, which, in turn, influences users' intention to continue using ChatGPT. Data from ChatGPT users were analyzed using structural equation modeling. The results indicate that the accuracy, richness, timeliness, format, and relevance of the information presented by ChatGPT were significantly associated with both information usefulness and source trust. The findings showed that both information usefulness and source trust were positively and significantly associated with the continuance usage intention toward ChatGPT.
10	Yan et al.	Wiley	2024	China	Walking forward or on hold: Could the ChatGPT be applied for seeking health information in neurosurgical settings?	Responses from ChatGPT toward 13 questions raised by experienced neurosurgeons were evaluated in this exploratory study for their consistency and appropriateness blindly by the other three neurosurgeons. The readability of response text was investigated quantitatively by word count and the Gunning Fog and Flesch-Kincaid indices. Findings: The chatbot could provide relatively stable output on consistency and appropriateness. However, the capacity of ChatGPT to deliver effective health information is still under debate.

11	Alanezi	Taylor and Francis	2024	Saudi Arabia	Factors influencing patients' engagement with ChatGPT for accessing health-related information	This study investigated the factors influencing patients' engagement with ChatGPT for accessing health-related information. A quasi-experimental design with a mixed-methods approach including both online survey and qualitative interviews were used for data collection. Twenty-eight influencing factors were identified from survey and interview analysis that may affect positively or negatively on patients' engagement on ChatGPT. Findings: revealed perceived usefulness and trustworthiness as major influencing factors. Interview findings revealed information quality, ethical concerns, and technical limitations as major influencing factors.
12	Şenoymak et al.	Springer	2024	Turkey	Evaluating the accuracy and adequacy of ChatGPT in responding to queries of diabetes patients in primary healthcare	This study evaluates the accuracy and adequacy of ChatGPT in responding to common queries formulated by primary care physicians based on their interactions with diabetic patients in primary healthcare settings. Thirty-two frequently asked questions were identified by experienced primary care physicians and presented systematically to ChatGPT. Responses underwent evaluation by two physicians. ChatGPT demonstrated commendable accuracy and adequacy in addressing diabetes-related queries in primary healthcare.
13	Çitir	Springer nature	2024	Turkey	ChatGPT and oral cancer: A study on informational reliability	This study evaluates the accuracy of ChatGPT's answers for questions about oral cancer. A total of 20 questions were asked to ChatGPT, selected from Google Trends and questions asked by patients in the clinic. The responses of ChatGPT were evaluated by medical oncologists and oral radiologists. Inter-rater agreement was assessed using Fleiss's and Cohen kappa tests. ChatGPT provided reliable information about oral cancer and did not provide incorrect information and suggestions. However, all information provided by ChatGPT is not based on real references.
14	Anees et al.	Elsevier	2025	Pakistan	Assessing the quality of ChatGPT's responses to questions related to radiofrequency ablation for varicose veins	This cross-sectional study evaluated the accuracy and reproducibility of information provided by ChatGPT, for frequently asked questions about radiofrequency ablation (RFA) for varicose veins. ChatGPT provided generally accurate and reproducible information on RFA for varicose veins; however, variability in response quality and limited inter-rater reliability highlight the need for further improvements in its training, validation, transparency, and mechanisms to address inaccurate or incomplete information.
15	Pasin et al.	Research Gate	2025	Bangladesh	Assessing the quality, readability, and comprehensibility of Fibromyalgia and treatment information provided by ChatGPT	This study examined the quality, readability, and comprehensibility of responses of ChatGPT for "fibromyalgia" and "fibromyalgia treatment." Keywords for "fibromyalgia" and "fibromyalgia treatment" were obtained using Google Trends and entered into ChatGPT 3.5. The Ensuring Quality Information for Patients (EQIP), Flesch- Kincaid Reading Ease (FKRE), and Flesch-Kincaid Grade Level (FKGL) scores were calculated for the generated responses. Findings: While general information about fibromyalgia provided by ChatGPT is more readable, texts concerning fibromyalgia treatment are more complex.
16	Kacer and Ipekten	Wiley	2025	Turkey	Can ChatGPT provide quality information about fever in children?	The study evaluates the answers for frequently asked questions to ChatGPT on the prediction and treatment of peadiatric fever. The 50 questions most frequently asked about fever in children were asked to ChatGPT. The responses were evaluated using the quality and readability scales. Findings: The answers provided by ChatGPT, regarding fever, were high-quality, reliable, easy to read and understand.
17	Yoo and Jang	Sage	2025	Republic of Korea	Presentation suitability and readability of ChatGPT's medical responses to patient questions about on knee osteoarthritis.	This study examined the presentation suitability and readability of ChatGPT's responses to common patient questions, and its potential to enhance readability. 30 ChatGPT responses were analyzed related to knee osteoarthritis (OA), using readability and presentation suitability metrics. The readability scores for responses related to knee OA significantly exceeded the recommended sixth-grade reading level. The presentation of information was rated as adequate, the content lacked high-quality, reliable details, often difficult to read and lack sufficient quality.

Objective 01. Perceived benefits of ChatGPT as a source of health information among Asians.**1. Publicly available service.**

In the thematic analysis of n=17, it was observed that a prominent benefit of using ChatGPT as a source of health information is, that it is a publicly available service. As Wang et al. (2023) highlight, ChatGPT requires minimal bandwidth, thus providing the potential to reach a vast global population, possibly effecting transformative change in medicine and public health. Whereas Ulusoy et al. (2023) opined that the 'transformative' change in the public health field has happened because traditional ways of searching for medical advice such as meeting doctors, using medical-related websites, etc. have changed considerably. Also, patients experience ChatGPT as a health information retrieval system that democratizes medical knowledge, nurturing a healthier and more informed society even in resource-limited settings, benefiting both patients and clinicians (Maniyar et al., 2024; Al-Shboul et al., 2023). Accordingly, it can be perceived that the public uses ChatGPT as a source of health information, as it is a publicly available service.

2. Increasing public health literacy.

Another benefit that emerged in the analysis is ChatGPT's effective role in educating patients and increasing their health literacy. ChatGPT answers patients' queries, provides recommendations and suggests helpful health resources such as books and journals, provide access to educational materials, training modules, and other resources that can help improve health literacy (Kacer & Ipekten, 2025; Alanezi, 2024; Islam et al., 2023). Furthermore, n=17 studies elaborate on ChatGPT's ability to provide relevant information to patients' everyday lives such as information on diseases, drugs and their potential side effects (Çitir, 2025; Faisal et al., 2024; Islam et al., 2023). Additionally, Ulusoy et al. (2023) distinguish ChatGPT from other information sources by considering its ability to collect information from a variety of internet sources, give logical responses immediately, and mimic human-writing which other information sources are incompetent of doing. Accordingly, it was observed that ChatGPT is used for health information-seeking, as it increases public health literacy.

3. Easy accessibility.

As noted in the analysis, most of the users perceive ChatGPT as an easy-to-use AI tool and its ability to answer questions rapidly which provides great convenience in accessing the data (Pasin et al., 2025; Alanezi, 2024; Ulusoy et al., 2023). Findings of n=17 highlight that, ChatGPT is accessible freely and virtually from any location, searching health information at any time. Another significant observation in this regard is, ChatGPT is more beneficial in impoverished areas such as Low and Middle-Income Countries (LMICs) lacking proper infrastructure (Faisal et al., 2024; Wang et al., 2023; Al-Shboul et al., 2023). Unlike other health information sources, ChatGPT uses everyday language without medical jargon or brand names and it encourages the ordinary public's easy access for health information (Yoo & Jang, 2025). Therefore, it is evident that the user-friendly interface with easy accessibility is another perceived benefit of using ChatGPT for health information-seeking.

4. Perceived usefulness.

The thematic analysis revealed that ChatGPT provides high-quality and contextually relevant information in an easily understandable manner for individuals seeking basic medical advice in noncritical situations such as fever (Kacer & Ipekten, 2025; Anees et al., 2025; Yan et al., 2024; Şenoymak et al., 2024; Al-Shboul et al., 2023). Conversely, a few studies mentioned that rather than other online platforms (Facebook, YouTube), ChatGPT can provide quality and detailed information on complex topics like fibromyalgia, breast cancer, oral cancer, etc. (Pasan et al., 2025; Piao et al., 2024; Hassona et al., 2024). As per the analysis, when ChatGPT provides accurate, relevant, up-to-date, and sufficiently large amount of well-presented information, users can obtain needed information quickly and easily (Hassona et al., 2024; Mun & Hwang, 2024). Accordingly, it was apparent that users identify ChatGPT as a useful health information source.

5. Accuracy and Trustworthiness.

As per the thematic analysis, 'accuracy and trustworthiness' was recognized as another reason to choose ChatGPT for health information-seeking. The review highlights the fact that the accuracy of ChatGPT's responses was deemed to be generally sound, and reliable, with no significant inaccuracies detected for more urgent or complex health conditions (Yoo & Jang, 2025; Çitir, 2025; Al-Shboul et al., 2023). Also ChatGPT provides significantly high quality, good flow, and relevant and evidence-supported information about oral cancers, and Pediatric fever even similar in quality and readability to health-related websites (Kacer & Ipekten, 2025; Hassona et al., 2024; Ulusoy et al., 2023). Hence, it was recognized from the analysis that users rely on accuracy as one of the primary determinants of ChatGPT's trust.

6. Multilingual.

As the analysis demonstrated, ChatGPT technology understands many languages and it can respond appropriately (Alanezi, 2024; Faisal et al., 2024; Piao et al., 2024; Ulusoy et al., 2023), therefore, it has been identified as a benefit of using ChatGPT for health information-seeking. This multilingual ability of ChatGPT enables it to deliver informed responses across all supported languages, even if not directly trained in a specific language. According to Wang et al. (2023) in certain NLP tasks, ChatGPT has been trained on a vast dataset, enabling them to engage in dynamic conversations across many languages such as Chinese, Urdu, etc. Therefore, this technological advancement is invaluable for patients seeking medical and public health insights in their native tongues that are not English.

7. Sense of human compassion.

Findings revealed the 'sense of human compassion' of ChatGPT as a benefit of using ChatGPT for health information-seeking. Alanezi (2024) agrees with the fact that ChatGPT can produce human-like responses. It potentially offers companionship, support, and even therapy to individuals grappling with psychological challenges exhibits a semblance of "empathy" in its responses to offer more personalized emotional advice, and care (Alanezi, 2024; Wang et al., 2023). As Piao et al. (2024) bring forth, ChatGPT demonstrates a sense of human compassion with well-wishes to the patient such as "I wish you a speedy recovery", by alleviating the patient's anxiety with a comforting tone reflected in the responses. Consequently, 'sense of human compassion' has become another motive to choose ChatGPT as a source of health information by Asians.

8. Personal space.

As per the n=17 analysis, for potentially embarrassing health issues, chatbots were more accepted and preferred by more patients to ask questions and learn about sensitive information in a private environment securely and anonymously. For instance, ChatGPT can potentially offer precise and user-friendly information on maternal and child health to expectant mothers and new parents (Wang et al., 2023). Findings highlight that, ChatGPT, being freely accessible from virtually any location, enabling patients to confide their personal experiences and feelings without the potential unease of an in-person consultation has become a reason to use ChatGPT for health information-seeking. According to Faisal et al. (2024) and Al-Shboul et al. (2023), in a country like Pakistan where patients are often hesitant to ask for help, having an AI model like ChatGPT can be paramount to patient personal support and management. Thus, it was observed that the personal space that the public enjoys through communicating with ChatGPT is pivotal to choose it as a health information source.

Objective 02. Perceived drawbacks of ChatGPT as a source of health information among Asians.

1. Less credibility.

Analyzed studies showed moderate to low levels of trust in ChatGPT's ability to generate medical decisions (Alanezi, 2024; Ulusoy et al., 2023). As Wang et al. (2023) explain, responses generated by ChatGPT in the medical context cannot be entirely trusted and ought to be cross-checked by a trained physician. Further, ChatGPT presently lags behind health-related websites in terms of providing reliable information of merit (Ulusoy et al., 2023). Accordingly, it was noted that there is a risk of misleading users due to the ways of expression and inaccurate supporting information details that are not consistently reliable, valuable, or harmful (Anees et al., 2025; Kacer & Ipekten, 2025; Yan et al., 2024). Therefore, a need for a critical evaluation of the information generated by ChatGPT is identified based on the analysis.

2. Complexity of language.

The complexity of the language can limit the accessibility of ChatGPT content to the general public (Kacer & Ipekten, 2025). The fact was further proven by Yoo & Jang (2025), Hassona et al. (2024), Ulusoy et al. (2023), & Wang et al. (2023) through their studies. As stated by them, ChatGPT may not understand complex questions and may misunderstand words or phrases that it has not seen before; hence, it may give wrong answers to such questions. Thus, ChatGPT's limited understanding of complex social and cultural aspects relevant to medicine and public health could impede its applications in LMICs. Faisal et al. (2024) elaborate on the innumerable mistakes made by ChatGPT in word structures and grammar when interpreting English to Urdu. Therefore, it was recognized the ChatGPT's lack of ability to read and understand common patients' questions due to existing language barriers.

3. Misinformation and distortion of scientific facts.

In the findings, 'the risk of misinformation and distortion of scientific facts' was identified as a drawback of using ChatGPT for health information-seeking. Piao et al. (2024) opine that the data used to train ChatGPT are not publicly available, making accurate validation of the information used to produce these outputs currently impossible. ChatGPT disseminates information based on its database, which may not always be current, accurate, or relevant, hence risks patient education and decision-making (Anees et al., 2025). Hence, of n=17 studies, many have spotted that patients should prioritize physician consultations before taking any major medical actions (Faisal et al., 2024; Wang et al., 2023). Accordingly, ChatGPT could not be used as an information source in perpetuity due to rapid updates in the medical field.

4. Low digital literacy.

In line with thematic analysis, it was identified that individuals of older age and lower education level find it difficult to use chatbots requiring registration to search for information, even if it is open access (Çitir, 2025). Wang et al. (2023) highlight the fact that the application of ChatGPT in LMICs with lower literacy levels and limited digital literacy may not directly benefit the intended population. According to the findings, it can be further stated that, although ChatGPT is easy to use, the ability to acquire accurate and relevant responses depends on the questions being asked by the users. Therefore, users must be equally competent enough to ask clear and relevant questions, analyze the responses, and decide if to depend on them (Alanezi, 2024).

5. Ethical concerns.

As specified in the findings, there are no clear legal guidelines on ChatGPT's usage and effects (Alanezi, 2024; Wang et al., 2023). Moreover, legal and ethical questions concerning privacy, data security, and liability are also issues that cannot be overlooked (Piao et al., 2024). Wang et al. (2023) elaborate the fact that when analyzing health-related data with ChatGPT, there is a risk of inadvertently violating patient privacy, particularly when dealing with sensitive personal health information. As per the review, it is observed that many LMICs, particularly in South Asia and Southeast Asia, lack the legal provisions and enforcement mechanisms to counter data breaches and cybercrime, potentially complicating the deployment of ChatGPT. Analyzed studies suggest that the users must be aware of what information is appropriate to input into ChatGPT.

6. Disproportionate proficiency in different languages.

Owing to findings, it was recognized that ChatGPT was less able to give responses in other languages as extensive as English. Proving this fact, Faisal et al. (2024) opine that when considering the comparative accuracy of Urdu and English responses given by ChatGPT, Urdu responses were less accurate than English. Accordingly, analyzed studies claim that ChatGPT exhibits insufficient multilingual adaptation and translation capabilities when responding to languages such as Chinese (Piao et al., 2024) hence, ChatGPT is currently unable to expound upon and cater to linguistic heterogeneity across multiple ethnicities and cultures (Faisal et al., 2024). Consequently, ChatGPT's disproportionate proficiency in different languages was identified as a drawback to use it as a health information source.

7. Limited ability to address complex health issues.

As indicated in analysis, ChatGPT may not have a complete understanding of the complex intricacies associated with various medicine and public health issues (Wang et al., 2023), because ChatGPT might not be adequately trained to provide advice or information that helps patients make health-related decisions (Hassona et al., 2024). It was repeatedly noticed during the n=17 studies that, ChatGPT cannot replace physical examination and personalized advice of real doctors (Al-Shboul et al., 2023). Hence, an oversimplified solution generated by ChatGPT will not be sufficient and effective in addressing multifaceted public health challenges (Wang et al., 2023). Thus, ChatGPT's limited ability to address complex health issues is identified as a drawback of using ChatGPT for health information-seeking among Asians.

8. Lack of updates.

According to the thematic analysis, ChatGPT disseminates information based on its database, which may not always be current or accurate (Anees et al., 2025; Wang et al., 2023). Analyzed studies stated that ChatGPT only incorporates knowledge of a particular time period and cannot include the latest treatment trends. Although the GPT strives to learn patterns, context, and meaning to produce natural conversations, it does not always provide accurate or perfect answers because it relies on pre-trained data. Additionally, Choi et al. (2024) opine that ChatGPT does not generate "true knowledge-based answers" and does not take responsibility for the responses. Therefore, the lack of updates is another drawback of using ChatGPT for health information-seeking.

9. No transparency in information sources/references.

As per the findings, ChatGPT provides information without referencing its sources (Anees et al., 2025). In line with this fact, Yoo & Jang (2025) also describe that ChatGPT often failed to cite information sources, leading to very low reliability which raises concerns about the trustworthiness of the information provided. As Çitir (2025) further emphasizes, all information that ChatGPT provides is not based on a real reference. Accordingly, it is observed through the review that no transparency in information sources/references is another drawback of using ChatGPT in health information-seeking among Asians.

10. Low infrastructure facilities.

The thematic analysis revealed that the 'infrastructure limitations of Asian countries' are a drawback of using ChatGPT for health information-seeking. Wang et al. (2023) pinpoint the fact that the computational power demanded by ChatGPT currently necessitates dedicated servers and internet connections, which poses challenges for adoption in LMICs due to infrastructure limitations and insufficient internet access or electronic devices. However, the review findings were positive towards the progressive ongoing development of LLMs and innovative internet solutions holding promise for mitigating these challenges shortly.

11. Lack of visual aids.

As per the thematic analysis of n=17 studies, ChatGPT lacks visual aids like illustrations or images to support patients' understanding of the description that it provides on health-related matters (Yoo & Jang, 2025).

Objective 03: Perceived recommendations for enhancing the use of ChatGPT as a source of health information among Asians.**1. Integration with healthcare systems.**

It was observed in the analysis that, ChatGPT could significantly improve healthcare systems, especially in managing and analyzing large volumes of patients' data. ChatGPT, as a source of health information could significantly reduce the rising demand for healthcare services, improve the quality of healthcare services by engaging patients on automated systems and become an alternative for the shortage of healthcare professionals (Alanezi, 2024). However, the quality and understandability of health information provided by ChatGPT may vary across specific health topics; hence, further improvements are needed in those areas. As recognized during the analysis, collaboration with healthcare authorities and academic institutions should be encouraged to improve the quality, readability, and actionability of health information offered by ChatGPT (Pasin et al., 2025; Hassona et al., 2024).

2. User induction and education.

As per the analysis, 'user induction and education' is central to ChatGPT's success. The studies highlight that ChatGPT often delivered generalized information rather than personalized advice. Therefore, it was identified that patients should be encouraged to ask more specific, individualized questions that consider their personal health status and it could potentially improve the relevance of ChatGPT's responses (Yoo & Jang, 2025; Wang et al., 2023). However, user education plays a critical role in ensuring users' understanding of the role of ChatGPT in their healthcare or health education. Hence, it was recognized during the analysis that, prioritizing user education programs that explain the working principles of ChatGPT in simple and accessible language is vital.

3. Culture sensitive approach.

Owing to the findings, ChatGPT may lack cultural and religious appropriateness when implemented in LMICs. Thus, ChatGPT's limited understanding of complex social and cultural aspects relevant to medicine and public health could impede its applications in LMICs (Wang et al., 2023). Therefore, ChatGPT can be improved to generate culturally sensitive health messages, broadening its reach to wider audiences. Faisal et al. (2024) opine the compelling requirement for developing non-English evaluation methods for LLMs. As per the review, special attention should be paid to understanding, navigating, and incorporating societal and cultural constructs into ChatGPT in the context of medical practice.

4. Comprehensive strategic plan with clear ethical guidelines.

As identified in the analysis, the ChatGPT model is not solely designed for medical purposes; hence, further investigation and supervision should be done by the developers, the health-related professions, and the users to increase the productivity of ChatGPT regarding health related-information (Yan et al., 2024). In line with the findings, a need for a comprehensive strategic plan with clear guidelines was recognized. It should be mutually agreed upon by governing bodies and healthcare institutions to ensure data privacy and security along with clear ethical guidelines and prepare for potential challenges that may arise from the use of ChatGPT (Wang et al., 2023; Islam et al., 2023). Then the user will find ChatGPT-generated health information is useful with increased productivity ultimately leading to continuous use of ChatGPT for health information-seeking (Mun & Hwang, 2024).

5. Easy comprehension and readability

As revealed in the review, ChatGPT's algorithm, which organizes and presents diverse online information, is not specifically designed to produce patient-friendly educational materials. Hence, ensuring that the ChatGPT content is at a suitable reading and comprehension level for an average adult is vital (Yoo & Jang, 2025). Therefore, a need for implementing interventions to enhance readability and comprehension of ChatGPT was recognized through the analysis. As per the recommendations emerged from the analysis, improving ChatGPT's capability and practicality in generating easy-to-read medical information is crucial. Significantly, improving ChatGPT's future iterations by lowering the reading grade level appropriately would make medical information more accessible to a broader audience (Yoo & Jang, 2025).

6. Transparency in references.

Of the n=17 studies analyzed, the major focus was on increasing transparency about how information is sourced and verified to build trust in LLMs for patient education. The main reason for this query was that ChatGPT does not provide references to the information (Yoo & Jang, 2025). Therefore, to improve reliability, it has been recommended by the analyzed studies that, ChatGPT should be improved to provide a list of credible references, thereby enhancing the overall trustworthiness of its medical information.

7. Reducing the digital divide.

The overall opinion of the analyzed n=17 studies was to develop the needed infrastructure facilities for easy and free access to internet by the public and eventually to reduce the digital divide. As per the analysis, in Asian countries, access to Internet and AI models is essential to empowering patients to make informed decisions about their health (Kacer & Ipekten, 2025). Hence, it was inferred that attention of the relevant authorities related to health, ICT, AI, etc. should be paid on developing needed infrastructure facilities for easy and free access to the internet by the public enabling them to access health information through ChatGPT.

4. CONCLUSION

This study sheds light on the role of ChatGPT in enhancing public health information-seeking among Asians. Owing to major findings, users benefit by using ChatGPT as a source of health information, significantly because ChatGPT helps to increase the public's health literacy as it is publicly available with free and easy access. Nevertheless, a few prominent drawbacks such as less credibility, no transparency in information sources, lack of updates, and ethical concerns should be addressed at the earliest to improve the standard of ChatGPT as a health information source. To achieve trustworthiness and standard as a source of health information, the findings underscore the importance of supplementing and verifying ChatGPT-generated information with input from healthcare professionals to ensure the highest standard of patient care. However, in its current version, ChatGPT's responses cannot replace medical advice from a doctor or other healthcare professional. Accordingly, ChatGPT is an augmenting tool rather than a replacement for human decision-making. Though, by identifying the potentiality of using ChatGPT in Asian countries and by implementing a comprehensive strategic plan with clear ethical guidelines, ChatGPT can be utilized to increase health literacy among Asians. Also, it will pave the path to bridging the digital divide in technology access in Asian countries, contributing to meeting the UN SDG of ensuring health and well-being for all ages and genders.

5. SCOPE FOR FURTHER RESEARCH

This review focused only on the research articles published on ChatGPT 3.5. Hence, future studies can investigate on other chatbots such as Gemini, Bing, etc. Further, the utilization of GPT 4.0 in health information dissemination can be assessed to explore the benefits, drawbacks, and recommendations in depth. As Asia is covered in this particular study, future researchers can focus on other geographical areas. Moreover, studies can be conducted on utilizing ChatGPT to make the audience aware of specific health conditions.

6. REFERENCES

- [1]. Akkan, H., & Seyyar, G.K. (2025). Improving readability in AI-generated medical information on fragility fractures: The role of prompt wording on ChatGPT's responses. *Osteoporosis International*, <https://doi.org/10.1007/s00198-024-07358-0>. SpringerNature.
- [2]. Alanezi, F. (2024). Factors influencing patients' engagement with ChatGPT for accessing health-related information. *Critical Public Health*, 34:1, 1-20, DOI: 10.1080/09581596.2024.2348164. Taylor and Francis.
- [3]. Alowais, S.A., Alghamdi, S.S., Alsuhebany, N., Alqahtani, T., Alshaya, A.I., Almohareb, S.N., ...Albekairy, A.M. (2023). Revolutionizing healthcare: The role of artificial intelligence in clinical practice. *BMC Medical Education*, 2023;23:1–15.
- [4]. Al-Shboul, M.K.I., Alwreikat, A., & Alotaibi, F. A. (2023). Investigating the use of ChatGpt as a novel method for seeking health information: A qualitative approach. *Science & Technology Libraries*, DOI: 10.1080/0194262X.2023.2250835. Taylor and Francis.
- [5]. Anees, M., Shaikh, F.A., Shaikh, H., Siddiqui, N. A., & Rehman, Z. U. (2025). Assessing the quality of ChatGPT's responses to questions related to radiofrequency ablation for varicose veins. *Journal of Vascular Surgery: Venous and Lymphatic Disorders*, Volume 13, Number 1. <https://doi.org/10.1016/j.jvsv.2024.101985>. Elsevier.
- [6]. Bachmann, M., Duta, I., Mazey, E., Cooke, W., Vatish, M., & Jones, G.B. (2024). Exploring the capabilities of ChatGPT in women's health: Obstetrics and Gynaecology. *npj Women's Health*, 2:26, <https://doi.org/10.1038/s44294-024-00028-w>.
- [7]. Branley-Bell, D., Brown, R., Coventry, L. & Sillence, E. (2023). Chatbots for embarrassing and stigmatizing conditions: Could chatbots encourage users to seek medical advice? *Frontiers in Communication*, 8:1275127. doi: 10.3389/fcomm.2023.1275127
- [8]. Choi, J., Kim, J.W., Lee, Y.S., Tae, J.H., Choi, S.Y., Chang, I.H., & Kim, J.H. (2024). Availability of ChatGPT to provide medical information for patients with kidney cancer. *Scientific Reports*, 14:1542. <https://doi.org/10.1038/s41598-024-51531-8>. SpringerNature.
- [9]. Choudhury, A., & Shamszare, H. (2023). Investigating the impact of user trust on the adoption and use of chatGPT: Survey analysis. *J. Med. Int. Res*, 25, e47184. doi: 10.2196/47184.
- [10]. Çitir, M. (2025). ChatGPT and oral cancer: A study on informational reliability. *BMC Oral Health*, 25:86. <https://doi.org/10.1186/s12903-025-05479-4>. SpringerNature.
- [11]. Dave, T., Athaluri, S.A., & Singh, S. (2023). ChatGPT in medicine: An overview of its applications, advantages, limitations, future prospects, and ethical considerations. *Frontiers in artificial intelligence*. 2023;6:1169595.
- [12]. Elliot, A. (2019). The culture of AI: Everyday life and the digital revolution. Routledge.
- [13]. Faisal, S., Kamran, T. E., Khalid, R., Haider, Z., Siddiqui, Y., Saeed, S., ...Jabeen, M. (2024). Evaluating the comprehension and accuracy of ChatGPT's responses to diabetes-related questions in Urdu compared to English. *DIGITAL HEALTH*, Volume 10: 1–7. DOI: 10.1177/20552076241289730. SAGE.
- [14]. Guidance, W. (2021). Ethics and governance of artificial intelligence for health. World Health Organization.
- [15]. Haddaway, N. R., Page, M. J., Pritchard, C. C., & McGuinness, L. A. (2022). PRISMA2020: An R package and Shiny app for producing PRISMA 2020-compliant flow diagrams, with interactivity for optimised digital transparency and Open Synthesis Campbell Systematic Reviews, 18, e1230. <https://doi.org/10.1002/cl2.1230>
- [16]. Haider, J., & Sundin, O. (2019). Invisible search and online search engines: The ubiquity of search in everyday life. Routledge.
- [17]. Hassona, Y., Alqaisi, D., AL-Haddad, A., Georgakopoulou, E.A., Malamos, D., Alrashdan, M.S., & Sawair, F. (2024). How good is ChatGPT at answering patients' questions related to early detection of oral (mouth) cancer? *ORAL MEDICINE*, Volume 138, Number 2. <https://doi.org/10.1016/j.oooo.2024.04.010>. Elsevier.

- [18]. Islam, M.R., Urmí, T.J., Mosharrafa, R.A., Rahman, M.S., & Kadir, M.F. (2023). Role of ChatGPT in health science and research: A correspondence addressing potential application. *Health Science Report*, 2023;6:e1625. doi:10.1002/hsr.2.1625. Wiley.
- [19]. Javaid, M., Haleem, A., & Singh, R.P. (2023). ChatGPT for healthcare services: An emerging stage for an innovative perspective. *Bench Council Transactions on Benchmarks, Standards and Evaluations*, 3 (2023) 100105. Elsevier.
- [20]. Johnson, D., Goodman, R., Patrinely, J., Stone, C., Zimmerman, E., Donald, R., ...Wheless, L. (2023). Assessing the accuracy and reliability of AI-generated medical responses: An evaluation of the Chat-GPT model. *Res Sq*, 2023;rs.3.rs-2566942. doi:10.21203/rs.3.rs-2566942/v1.
- [21]. Kacer, E.O., & Ipekten, F. (2025). Can ChatGPT provide quality information about fever in children? *Journal of Paediatrics and Child Health*, 61, 60–65, doi:10.1111/jpc.16710. Wiley.
- [22]. Liu, H.Y., Bonetti, M.A., Lorenzi, F. D., Gimbel, M.L., Nguyen, V. T., & Egro, F. M.(2024). Consulting the digital doctor: Google versus ChatGPT as sources of information on breast implant-associated anaplastic large cell lymphoma and breast implant illness. *Aesth Plast Surg*, 48:590–607 <https://doi.org/10.1007/s00266-023-03713-4>. Springer.
- [23]. Maniyar, N., Sarode, G.S., Sarode, S.C., & Thakkar, S. (2024). ChatGPT conversations on oral cancer: Unveiling ChatGPT's potential and pitfalls. *Oral Oncology Reports*, 10 (2024) 100280. <https://doi.org/10.1016/j.oor.2024.100280>. Elsevier.
- [24]. Mun, I. B. (2024). A study of the impact of ChatGPT self-efficacy on the information seeking behaviors in ChatGPT: The mediating roles of ChatGPT characteristics and utility. *Online Information Review*, 1468-4527. DOI 10.1108/OIR-01-2024-0051. Emerald.
- [25]. Mun, I. B., & Hwang, K-H. (2024). Understanding ChatGPT continuous usage intention: The role of information quality, information usefulness, and source trust. *Information Development*, 1–17, DOI: 10.1177/02666669241307595. SAGE.
- [26]. Neyazi, T.A., Ee, T.K., Nadaf, A., & Schroeder, R. (2023). The effect of information seeking behaviour on trust in AI in Asia: The moderating role of misinformation concern. *New media & society*, 1–20. DOI: 10.1177/14614448231212804. Sage.
- [27]. Onyeaka, H. K., Zambrano, J., Longley, R. M., Celano, C. M., Naslund, J. A., & Amonoo, H. L. (2021). Use of digital health tools for health promotion in cancer survivors. *Psycho-Oncology*, 30(8), 1302–1310. <https://doi.org/10.1002/pon.5677>.
- [28]. Parikh, P.M., Talwar, V., & Goyal, M. (2023). ChatGPT: An online cross-sectional descriptive survey comparing perceptions of healthcare workers to those of other professionals. *Cancer Res Stat Treat*, 2023;6:32-6.
- [29]. Pasin, T., Karatekin, B. D., & Pasin, O. (2025). Assessing the quality, readability, and comprehensibility of Fibromyalgia and treatment information provided by ChatGPT. *Bangladesh Journal of Medical Science*, Vol. 24 No. 01.<https://doi.org/10.3329/bjms.v24i1.78716>.
- [30]. Piao, Y., Chen, H., Wu, S., Li, X, Li, Z., & Yang, D. (2024). Assessing the performance of large language models (LLMs) in answering medical questions regarding breast cancer in the Chinese context. *Digital Health*, Volume 10: 1–11. DOI: 10.1177/20552076241284771.
- [31]. Psilopatis, I., Bader, S., Krueckel, A., Kehl, S., Beckmann, M.W., & Emons, J. (2024). Can Chat-GPT read and understand guidelines? An example using the S2k guideline intrauterine growth restriction of the German Society for Gynecology and Obstetrics. *Archives of Gynecology and Obstetrics* (2024) 310:2425–2437. <https://doi.org/10.1007/s00404-024-07667-z>. Springer.
- [32]. Roldan-Vasquez, E., Mitri, S., Bhasin, S., Bharani, T., Capasso, K., Haslinger, M., Sharma, R., & James, T.A. (2024). Reliability of artificial intelligence chatbot responses to frequently asked questions in breast surgical oncology. *Journal of Surgical Oncology*, 2024;130:188–203. DOI: 10.1002/jso.27715. Wiley.
- [33]. Şenoymak, I., Erbatur, N.H., Şenoymak, M.C., & Egici, M.T. (2024). Evaluating the accuracy and adequacy of ChatGPT in responding to queries of diabetes patients in primary healthcare. *International Journal of Diabetes in Developing Countries*, <https://doi.org/10.1007/s13410-024-01401-w>. Springer.
- [34]. Softić, A., Husić, J. B., Softić, A., & Baraković, S. (2021). “Health chatbot: Design, implementation, acceptance and usage motivation,” in 2021 20th International Symposium INFOTEH-JAHORINA (INFOTEH), Bosnia.
- [35]. Temsah, M-H., Aljamaan, F., Malki, K.H., Alhasan, K., Altamimi, I., Aljarbou, R., ...Al-Eyadhy, A. (2023). ChatGPT and the future of digital health: A study on healthcare workers' perceptions and expectations. *Healthcare*, 11, 1812. <https://doi.org/10.3390/healthcare11131812>. MDPI.
- [36]. Ulusoy, I., Yilmaz, M., & Kivrak, A. (2023). How efficient is ChatGPT in accessing accurate and quality health-related information? *Cureus* 15(10): e46662. DOI 10.7759/cureus.46662.
- [37]. Wang, X., Sanders, H. M., Liu, Y., Seang, K., Tran, B. X., Atanasov, A. G., ...Chung, K.C. (2023). ChatGPT: promise and challenges for deployment in low- and middle-income countries. *The Lancet Regional Health - Western Pacific*, 2023;41: 100905. <https://doi.org/10.1016/j.lanwpc.2023.100905>. Elsevier.
- [38]. Yadav, M.R., & Pokhrel, L. (2023). ChatGPT behaviours among Nepalese users: An application of Hedonic Motivation System Adoption Model. *Journal of Business and Social Sciences Research* (ISSN: 2542-2812). Vol VIII, No. 2. <https://doi.org/10.3126/jbssr.v8i2.62124>.
- [39]. Yan, S-Y., Liu, Y-F., Ma, L., Xiao, L-L., Hu, X., Guo, R,...Tian, R. (2024). Walking forward or on hold: Could the ChatGPT be applied for seeking health information in neurosurgical settings? *Ibrain*, 2024;10:111–115. DOI: 10.1002/ibra.12149.
- [40]. Yoo, M., & Jang, C.W. (2025). Presentation suitability and readability of ChatGPT's medical responses to patient questions about on knee osteoarthritis. *Health Informatics Journal*, 1–13. Sage.