Use of Generative AI throughout the Patient Healthcare Journey: An Exploratory Study

Samar BENINA – Doctorante
THEMA Research Center, UMR CNRS 8184, CY Cergy Paris Université, France
samar.benina@cyu.fr

Inès CHOUK – Maîtresse de conférences HDR
THEMA Research Center, UMR CNRS 8184, CY Cergy Paris Université, France
ines.chouk@cyu.fr

Aïda MIMOUNI CHAABANE – Professeure des universités
THEMA Research Center, UMR CNRS 8184, CY Cergy Paris Université, France
aida.mimouni@cyu.fr

Abstract: Generative Artificial Intelligence (GenAI) has entered everyday routines and institutional environments at an unprecedented speed across virtually all sectors. The healthcare sector is standing out as one of the most profoundly transformed domains (Ayo-Ajibola et al., 2024; Dullabh et al., 2026; Lee et al., 2026; Pal et al., 2025; Shi et al., 2025; Traylor et al., 2025; Yun and Bickmore, 2025). The democratization of the use of tools such as ChatGPT, Claude, or Mistral by patients is progressively reshaping how they access information, interpret symptoms, prepare for consultations, manage uncertainty and navigate their healthcare journey (Cao et al., 2026; Dullabh et al., 2026; Traylor et al., 2025). Despite the rapid diffusion of these practices, relatively little research has focused on these new behaviors. In this context, the aim of this research is to better understand how the patients use GenAI throughout their healthcare journey and how this use reshapes the patient-physician relationship. To this end, we conducted an exploratory qualitative study based on patient's discourses on the web. 745 contributions from three online communities (Reddit, Facebook, Doctissimo) were analyzed. The findings highlight that (1) GenAI plays a pervasive role across the stages of the healthcare journey and enhances patient empowerment, (2) reconfigures the patient-physician relationship by introducing a new form of intermediation and (3) generates risks associated with overtrust, overreliance and privacy issues.

Keywords: Generative AI; healthcare journey; patients online discourses, patient empowerment.

Résumé : Les outils d'intelligence artificielle générative transforment la vie quotidienne à une vitesse sans précédent dans presque tous les secteurs. Le domaine de la santé apparaît comme l'un des secteurs ayant connu les changements les plus importants (Ayo-Ajibola et al., 2024; Dullabh et al., 2026; Lee et al., 2026; Pal et al., 2025; Shi et al., 2025; Traylor et al., 2025; Yun et Bickmore, 2025). La démocratisation de l'usage d'outils tels que ChatGPT, Claude ou Mistral par les patients transforme progressivement la manière dont ils accèdent à l'information, interprètent leurs symptômes, préparent leurs consultations, gèrent l'incertitude et naviguent dans leur parcours de santé (Cao et al., 2026; Dullabh et al., 2026; Traylor et al., 2025). Malgré la diffusion rapide de ces pratiques, peu de recherches se sont intéressées à ces nouveaux comportements. Dans ce contexte, l'objectif de cette recherche est de mieux comprendre comment les patients utilisent l'IA générative tout au long de leur parcours de santé et comment cet usage reconfigure la relation patient-médecin. Pour ce faire, nous avons mené une étude qualitative exploratoire fondée sur les discours de patients en ligne. Au total, 745 contributions issues de trois communautés en ligne (Reddit, Facebook et Doctissimo) ont été analysées. Les résultats montrent que (1) l'IA générative joue un rôle transversal dans les différentes étapes du parcours de soin et renforce l'empowerment des patients, (2) elle reconfigure la relation patient-médecin en introduisant une nouvelle forme d'intermédiation et (3) génère des risques liés à la surconfiance, à la dépendance excessive et aux enjeux de confidentialité des données (3).

Mots-clés : IA générative ; parcours de santé ; discours de patients en ligne ; empowerment du patient.

Introduction

Generative Artificial Intelligence (GenAI) has entered everyday routines and institutional environments at an unprecedented speed across virtually all sectors. The healthcare sector is standing out as one of the most profoundly transformed domains (Hajiheydari et al., 2025; He et al., 2019; Lal Muanawma et al., 2020; Lee et al., 2026; Tu et al., 2025; Zhang et al., 2026). According to a study by Doctolib and the Jean Jaurès Foundation, published in May 2026, 45% of participants reported using generative AI for health-related questions. Among them, 25% indicate that they consulted a physician more quickly, and 18% report that they consulted a physician even though they had not initially intended to do so[1]. In this context, the democratization of the use of tools such as ChatGPT, Claude, or Mistral by patients is progressively reshaping how they access information, interpret symptoms, prepare consultations, manage uncertainty and navigate through their healthcare journey (Clusmann et al., 2023; Hajiheydari et al., 2025; Kuroiwa et al., 2023; Shi et al., 2025; Takita et al., 2024).

The healthcare domain is characterized by strong informational asymmetries and emotional vulnerabilities (Anderson et al., 2013; Berry and Bendapudi, 2007; Fabes et al., 2022; McColl-Kennedy et al., 2012, 2017). Patients are constantly required to understand bodily signals, translate medical terminology, evaluate treatment options, prepare interactions with healthcare professionals and cope with uncertainty (Chatterjee et al., 2024; Reddy, 2024). In this context, GenAI may contribute positively to patients' empowerment, health literacy and sense-making capacities (Abeo et al., 2025; Bhuyan and Samuel, 2025; Campos and Salmi, 2025; Lee et al., 2026; Shi et al., 2025). However, it can also produce misinformation, increase anxiety, generate overreliance on AI-generated recommendations and weaken trust in healthcare professionals (Campos, 2025; Clusmann et al., 2023; Park, 2021; Park and Jones-Jang, 2023).

Furthermore, prior research has examined AI in healthcare through several theoretical lenses. First, studies grounded in technology acceptance theories particularly, the Technology Acceptance Model and Unified Theory of Acceptance and Use of Technology, have investigated patients' acceptance and adoption of AI based health services by focusing on perceived usefulness, perceived accuracy, self-efficacy and intention to use AI for their health (Dwivedi et al., 2019; Liu et al., 2021; Shi et al., 2025). Second, researchers have examined patients' reluctance toward medical AI showing that individuals may resist it when they perceive AI as unable to recognize their personal uniqueness (Longoni et al., 2019; Yun et al., 2021). Third, studies have explored the role of AI in patient trust highlighting the role of transparency, empathy, ethical perception and perceived intelligence (Lee et al., 2026; Traylor et al., 2025). Fourth, research has examined the role of AI in health information seeking and how it supports health related decisions (Esmaeilzadeh et al., 2025; Shi et al., 2025). Finally, researchers examined ethical concerns related to AI use in healthcare including privacy, explainability, fairness, accountability and governance (Morley et al., 2020; Park, 2021; Park and Jones-Jang, 2023).

[1] https://www.jean-jaures.org/publication/cartes-de-france-2026-de-lacces-aux-soins-soignants-et-patients-face-aux-inegalites-territoriales/

While these perspectives provide valuable insights into both the opportunities and challenges associated with the use of AI in healthcare, limited attention has been given to understand the role of this technology across the different stages of the healthcare journey and its consequences on patients' relationship with physicians. This study aims to address this gap by examining the following research question: *How does generative artificial intelligence become integrated into patients' healthcare journeys, and how does it reshape their relationships with physicians?* Following the presentation of theoretical background, we present the research methodology. Then, we report the main findings based on the analysis of online patients' discourses. Finally, we develop the study theoretical contributions and its practical implications.

I. Theoretical Background

1-Generative AI in the healthcare context

GenAI refers to computational systems capable of producing new content text, images, summaries, recommendations, and conversational responses (Banh and Strobel, 2023; Chatterjee et al., 2024; Sengar et al., 2025). According to Hermann and Puntoni (2025), GenAI is defined as a technology that mimics human characteristics to describe, explain, and predict human behavior. Prior research has examined digital health information seeking as a key patient practice, showing that patients integrate information obtained outside the medical encounter with information provided by healthcare professionals to better understand their health and engage in their care (Ayo-Ajibola et al., 2024; Dahl et al., 2021; Esmaeilzadeh et al., 2025; Shi et al., 2025; Yun, 2025). Beyond informational practices, GenAI is used in everyday health and lifestyle management such as nutrition (Liao et al., 2024; Ponzo et al., 2024) and physical activity and fitness (Zaleski et al., 2024). Finally, GenAI is used for emotional and psychological support (Luo et al., 2025; Zhang et al., 2025). While these perspectives offer valuable insights into implementation and adoption of GenAI, they tend to conceptualize AI as a functional tool rather than examining the role it plays within patients' healthcare journey.

2-The healthcare journey

Healthcare journey is described as a visual presentation of the complete route a patient follows during all stages of a care trajectory, together with the patient's emotional experience throughout that journey (Joseph et al., 2020). In healthcare, the journey stages structures vary depending on disease area, care setting, study aim, and the conceptual lens taken by researchers (Cherif et al., 2020; Davies et al., 2023; Joseph et al., 2020; Novelli, 2026; Richter et al., 2021). For instance, Cherif et al. (2020) state that the three main phases of the healthcare pathway in breast cancer treatment are discovery, examination, follow-up and survivorship. Toft et al. (2025), on the other side, outline the pathway after cardiac surgery through three phases: phase 1 (in-hospital recovery), phase 2 (outpatient rehabilitation), and phase 3 (long-term maintenance). This study adopts a five-stage framework for the healthcare journey: prevention and wellness, symptom recognition and initial consultation, diagnosis and consultation, treatment and care management, and follow-up and post-care (Bharatan et al., 2021; Bulto et

al., 2024; Davies et al., 2023; EURORDIS, 2024; Oga-Omenka et al., 2025). These stages were chosen because they capture the key moments that are likely to be present in most healthcare journeys and provide a broad and generic framework that can apply to different patients, health conditions and care contexts. Throughout the stages of the healthcare journey, the use of GenAI may enhance patient empowerment.

3- Patient empowerment

The concept of patient empowerment has deep historical roots, stemming from the societal movements of the 1960s and 70s that advocated for the rights and autonomy of marginalized groups (Rappaport, 1987). Initially, empowerment emerged as a tool for social justice, aiming to empower individuals from disadvantaged backgrounds to take control of their lives and assert their rights (Kieffer, 1984). In the healthcare context, the concept of empowerment has been defined in various ways (individual, collective, process, psychological state, etc.). Researchers such as Braithwaite et al. (1989), Bodenheimer et al. (2002), and Coulter and Ellins (2007) have characterized empowerment as a process through which individuals and communities gain greater control, awareness, and self-determination over decisions and actions affecting their health. For Freire (1993), empowerment is both an outcome and a process. His work highlights the role of empowerment in enabling patients to make autonomous and informed decisions about their health while fostering critical and informed behavior. Schulz and Nakamoto (2005, 2013) contribute to this understanding by proposing a multidimensional model of empowerment, delineating four distinct dimensions: meaning, competence, self-determination, and impact. In this paper, we adopt Zimmerman's perspective (1995) of empowerment. According to this author "*psychological empowerment refers to empowerment at the individual level of analysis (Zimmerman, 1990a). The construct integrates perceptions of personal control, a proactive approach to life, and a critical understanding of the sociopolitical environment*" (p.581).

Past works show that empowered patients are more likely to exhibit increased self-efficacy, enabling them to navigate complex healthcare systems with confidence (Tambuyzer et al., 2014). They make informed choices about treatment and care, actively participating in decision-making processes alongside healthcare professionals. Hence, patient empowerment appears to be a catalyst for patient-centered care, promoting individual well-being and enhancing the overall quality of healthcare delivery (Castro et al., 2016).

II. Methodology

This study explores naturally occurring online discourse about patient uses of GenAI. This approach allows us to collect spontaneous data produced by online users in a natural setting, without being elicited by the researcher. It is particularly appropriate for studying health-related GenAI use because patients often discuss sensitive, uncertain, or emotionally charged experiences in online communities, where they can share narratives, ask questions, and compare interpretations. Data was collected manually on a daily basis from December 2025 to February 2026 across three online platforms: Reddit, Doctissimo, and Facebook. These platforms were selected because they host active health-related discussions, contain naturally

occurring exchanges about GenAI, and provide patient narratives rich enough to capture uses, meanings, and tensions across the healthcare journey. Before data collection, the research protocol received ethical approval from the ethics committee of CY Cergy Paris Université. The final corpus includes 745 posts/comments from 669 unique participants distributed across the three platforms as follows: Reddit (617 posts/comments; 570 participants), Doctissimo (56 posts/comments; 35 participants), and Facebook (72 posts/comments; 64 participants). Only posts and comments explicitly referring to AI in a health-related context and relevant to the research question were retained in the corpus. The analysis was conducted manually and the data were subsequently analyzed through thematic analysis (Paillé and Mucchielli, 2012).

III-Findings

Three themes emerged from the analysis: GenAI's roles across the healthcare journey, the reconfiguration of the patient-physician relationship, and the tensions and risks generated by GenAI-enabled health practices (themes, sub-themes, and examples of verbatim are presented in Appendix 1).

Findings reveal that GenAI is not used marginally or episodically by patients but became embedded throughout the entire healthcare journey. During the **prevention and wellness stage**, GenAI primarily operates as a **lifestyle and prevention assistant**. Patients mobilize it to structure everyday health-related practices, including symptom tracking, food monitoring, sleep optimisation, and the translation of abstract health objectives into actionable routines. Beyond information provision, GenAI contributes to the operationalization of preventive care in everyday life. As patients enter **the symptom recognition and initial interpretation stage**, GenAI assumes a stronger **sense-making and uncertainty-reduction role**. Rather than merely searching for medical information, users rely on GenAI to organise symptoms, generate possible interpretations, evaluate the seriousness of situations, and determine whether medical consultation may be necessary. In this stage, GenAI partially mediates the interpretation of bodily signals and contributes to patients' early health-related decision-making processes. During **diagnosis and consultation**, GenAI increasingly functions as a **translation and mediation tool** between physician medical expertise and patient understanding. Patients use GenAI to decode medical jargon, summarise consultations, interpret test results, and prepare future interactions with healthcare professionals. In doing so, GenAI reshapes access to medical knowledge and changes informational asymmetries in the patient-physician relationships. This transformation becomes even more visible during **treatment and care management.** Patients and relatives no longer mobilize GenAI solely to understand symptoms or diagnoses but increasingly rely on it to compare therapeutic options, interpret side effects, monitor treatment evolution, and navigate complex care trajectories. GenAI thus emerges as a form of a **self-directed learning tool** about treatments alternatives. Finally, during **follow-up and long-term self-management**, GenAI appears to take on a more affective and emotional role. Patients turn to it not only for information but also for reassurance, emotional regulation, and coping support in situations characterised by uncertainty, waiting, chronic symptoms, or anxiety. In this stage, GenAI moves beyond functional assistance and becomes integrated into **the emotional management** of illness experiences.

Moreover, across the corpus, two contrasting positions emerge. Some users explicitly frame GenAI as a **complementary** tool that can support information seeking, reassurance, and consultation preparation without replacing professional expertise. Others describe GenAI as a partial **substitute**, especially when they experience physicians or therapists as unavailable, too expensive, insufficiently attentive, or unable to provide enough time and explanation. The corpus also reveals a more **ambivalent configuration of trust.** Some users criticize physicians while simultaneously recognizing that GenAI remains limited and potentially risky.

Finally, the corpus allows the identification of the positive consequences of GenAI use on patients' experiences as well as tensions and risks. The positive outcomes mainly concern patients self-directed learning, health literacy and empowerment. GenAI helps patients to better **access and understand medical** information and enhances **patients competencies** such as preparing for consultations, formulating questions and interpreting symptoms and results. Tensions and risks encompass classic limitations of AI such as misleading outputs, hallucinations, inability to detect errors, and privacy and exposure of sensitive health data. But most importantly, the corpus highlights issues **of overtrust and excessive confidence in AI-generated outputs.** In this context, some users describe GenAI as partially replacing professional care, especially when healthcare access is limited, expensive, or emotionally unsatisfactory.

IV-Contributions

From a theoretical perspective, this research contributes to the literature in three ways. Firstly, relatively little research has examined how patients use generative AI throughout different stages of their healthcare journey. Indeed, existing research in the healthcare context has rather focused on the adoption of GenAI (e.g., Liu, 2021), on the reliability of using GenAIs as medical assistants (e.g., Bean et al., 2026), or on ethical issues regarding AI (Morley, 2020). This study highlights **the different roles that AI can play in the healthcare journey**. When using GenAI, patients are more empowered, become more active and even more proactive (GenAI is used as a prevention tool, an interpretative tool, a consultation preparation tool, an anxiety management tool…). Secondly, GenAI introduces a new form of intermediation and reconfigures the patient-physician relationship. Hence, **the dyadic relationship between the patient and the physician is evolving into a triadic relationship** (patient-GenAI-physician). This new form of relationship has several potential consequences: considering GenAI as complementary to the physician, as a substitute for the physician or developing an ambivalent perception of the physicians' decisions, etc. Thirdly, this study contributes to the literature on patient empowerment when using GenAI. While prior research has explored the role of trust in GenAI in enhancing patient empowerment and its consequence on compliance with AI generated recommendations (e.g., Lee et al. 2026), our study highlights **the ambivalence of AI enabled empowerment**. On the one hand, GenAI enhances patient autonomy, self-directed learning and participation in healthcare decision-making. On the other hand, this empowerment simultaneously generates new vulnerabilities related to overreliance and overtrust in GenAI outputs.

From a practical point of view, healthcare organizations should recognize GenAI as an emerging informal touchpoint in the patient journey. In particular, they should identify the stages where GenAI appears most valuable to patient consultation preparation, medical report explanation, treatment understanding, and follow-up reassurance, and develop guidance around these moments. GenAI can thus potentially become a **source of value creation** if patients are adequately trained to use it and remain critical of its outputs. Furthermore, the findings highlight the importance of developing public policies aimed at promoting **AI health literacy programs.** Indeed, it is crucial to educate patients to a responsible use of GenAI to prevent overconfidence and overreliance. Such programs should also increase patients' awareness of the privacy issues associated with the disclosure of health data (highly sensitive data) when using GenAI.

V- Limitations and future research

Despite its contributions, this research has several limitations. For instance, this study was limited to only three online platforms. Although these platforms provide rich data, they do not capture all online spaces where patients may discuss their use of GenAI for health-related purposes. Moreover, the approach used does not allow us to identify the stage of the patient healthcare journey.

This study opens up several stimulating avenues for future research: to what extent the use of GenAI can generate an "illusion of competence" among patients? How does the level of AI health literacy shape patients' uses of GenAI within the healthcare journey? Are there different patient profiles based on their use of GenAI? How do physicians perceive patients' use of GenAI and how does this perception differ from patients' perceptions? What are the implications, from the physicians' perspective, of the shift from a dyadic to a triadic patient-GenAI-physician relationship? How GenAI use influences patients' acceptance of and adherence to medical prescriptions and recommendations?

References:

Abeo, A. N. A., Gannon, B., Zhang, F. et Lu, X. (2025), « Artificial intelligence techniques and health literacy: A systematic review », *Mayo Clinic Proceedings: Digital Health*, vol. 3, n° 4, article 100269. https://doi.org/10.1016/j.mcpdig.2025.100269

Anderson, L., Ostrom, A. L., Corus, C. et al. (2013), « Transformative service research: An agenda for the future », *Journal of Business Research*, vol. 66, n° 8, p. 1203-1210.

Ayo-Ajibola, O., Davis, R. J., Lin, M. E., Riddell, J. et Kravitz, R. L. (2024), « Characterizing the adoption and experiences of users of artificial intelligence-generated health information in the United States: Cross-sectional questionnaire study », *Journal of Medical Internet Research*, vol. 26, article e55138. https://doi.org/10.2196/55138

Banh, L. et Strobel, G. (2023), « Generative artificial intelligence », *Electronic Markets*, vol. 33, article 63. https://doi.org/10.1007/s12525-023-00680-1

Bean, A. M. et al. (2026), « Reliability of LLMs as medical assistants for the general public: A randomized preregistered study », *Nature Medicine*. https://doi.org/10.1038/s41591-025-04074-y

Berry, L. L. et Bendapudi, N. (2007), « Health care: A fertile field for service research », *Journal of Service Research*, vol. 10, n° 2, p. 111-122.

Bharatan, T., Devi, R., Huang, P.-H., Javed, A., Jeffers, B., Lansberg, P., Wahab, A., Abid, F. et Raza, S. (2021), « A methodology for mapping the patient journey for noncommunicable diseases in low- and middle-income countries », *Journal of Healthcare Leadership*, vol. 13, p. 35-46. https://doi.org/10.2147/JHL.S288966

Bhuyan, S. S. et Samuel, J. (2025), « Generative artificial intelligence use in healthcare: Opportunities for clinical excellence and administrative efficiency », *Journal of Medical Systems*, vol. 49, article 10. https://doi.org/10.1007/s10916-024-02145-0

Bodenheimer, T., Lorig, K., Holman, H. et Grumbach, K. (2002), « Patient self-management of chronic disease in primary care », *JAMA*, vol. 288, n° 19, p. 2469-2475. https://doi.org/10.1001/jama.288.19.2469

Braithwaite, R. L., Bianchi, C. et Taylor, S. E. (1994), « Ethnographic approach to community organization and health empowerment », *Health Education Quarterly*, vol. 21, n° 3, p. 407-416. https://doi.org/10.1177/109019819402100308

Bulto, L. N., Davies, E. L., Kelly, J., Walsh, A. et Pollack, A. (2024), « Patient journey mapping: Emerging methods for understanding and improving patient experiences of health systems and services », *European Journal of Cardiovascular Nursing*, vol. 23, n° 4, p. 429-433. https://doi.org/10.1093/eurjcn/zvae012

Campos, H. O. (2025), « Generative AI as third agent: Large language models and the clinician-patient relationship », *Journal of Participatory Medicine*, vol. 17, article e68146. https://doi.org/10.2196/68146

Campos, H. et Salmi, L. (2025), « Critical AI health literacy as liberation technology: A new skill for patient empowerment », *NAM Perspectives*, article 10.31478/202512a. https://doi.org/10.31478/202512a

Cao, Y., Ji, Y., Fu, C. Y., Dharmavaram, S., Turchioe, M., Benda, N. C., Mamykina, L., Sun, Y. et Xu, X. O. (2026), « More than decision support: Exploring patients' longitudinal usage of large language models in real-world healthcare-seeking journeys », *Proceedings of the CHI Conference on Human Factors in Computing Systems*. https://doi.org/10.1145/3772318.3791946

Castro, E. M., Van Regenmortel, T., Vanhaecht, K., Sermeus, W. et Van Hecke, A. (2016), « Patient empowerment, patient participation and patient-centeredness in hospital care: A concept analysis based on a literature review », *Patient Education and Counseling*, vol. 99, n° 12, p. 1923-1939. https://doi.org/10.1016/j.pec.2016.07.026

Chatterjee, S., Fruhling, A., Kotiadis, K. et Gartner, D. (2024), « Towards new frontiers of healthcare systems research using artificial intelligence and generative AI », *Health Systems*, vol. 13, n° 4, p. 263-273. https://doi.org/10.1080/20476965.2024.2402128

Cherif, E., Martin-Verdier, E. et Rochette, C. (2020), « Investigating the healthcare pathway through patients' experience and profiles: Implications for breast cancer healthcare providers », *BMC Health Services Research*, vol. 20, article 735. https://doi.org/10.1186/s12913-020-05569-9

Clusmann, J., Kolbinger, F. R., Muti, H. S., Carrero, Z. I., Eckardt, J.-N., Laleh, N. G., Löffler, C. M. L., Schwarzkopf, S.-C., Unger, M., Veldhuizen, G. P., Wagner, S. J. et Kather, J. N. (2023), « The future landscape of large language models in medicine », *Communications Medicine*, vol. 3, article 141. https://doi.org/10.1038/s43856-023-00370-1

Corbin, J. et Strauss, A. (1985), « Managing chronic illness at home: Three lines of work », *Qualitative Sociology*, vol. 8, p. 224-247. https://doi.org/10.1007/BF00989485

Coulter, A. et Ellins, J. (2007), « Effectiveness of strategies for informing, educating, and involving patients », *BMJ*, vol. 335, n° 7609, p. 24-27. https://doi.org/10.1136/bmj.39246.581169.80

Dahl, A. J., Milne, G. R. et Peltier, J. W. (2021), « Digital health information seeking in an omni-channel environment: A shared decision-making and service-dominant logic perspective », *Journal of Business Research*, vol. 125, p. 840-850. https://doi.org/10.1016/j.jbusres.2019.02.025

Davies, E. L., Bulto, L. N., Walsh, A., Pollack, A., Langton, V. M., Laing, R. E., Graham, A., Arnold-Chamney, M. et Kelly, J. (2023), « Reporting and conducting patient journey mapping research in healthcare: A scoping review », *Journal of Advanced Nursing*, vol. 79, n° 1, p. 83-100. https://doi.org/10.1111/jan.15479

Dullabh, P., Zott, C., Gauthreaux, N., Peterson, C., Aronoff, A., Monkhouse, K. et Sittig, D. F. (2026), « Integrating generative AI into patient-centered clinical decision support: Viewpoint on research and practice considerations », *Journal of Medical Internet Research*, vol. 28, article e81628. https://doi.org/10.2196/81628

Dwivedi, Y. K., Rana, N. P., Jeyaraj, A., Clement, M. et Williams, M. D. (2019), « Re-examining the unified theory of acceptance and use of technology (UTAUT): Towards a revised theoretical model », *Information Systems Frontiers*, vol. 21, p. 719-734. https://doi.org/10.1007/s10796-017-9774-y

Esmaeilzadeh, P., Maddah, M. et Mirzaei, T. (2025), « Using AI chatbots (e.g., ChatGPT) in seeking health-related information online: The case of a common ailment », *Computers in Human Behavior: Artificial Humans*, vol. 3, article 100127. https://doi.org/10.1016/j.chbah.2025.100127

EURORDIS (2024), *Guide to developing a patient journey*, EURORDIS-Rare Diseases Europe.https://download2.eurordis.org/publications/GuideDevelopmentPatientJourney-2024.pdf

Fabes, J. et al. (2022), « Information asymmetry in hospitals: Evidence of the lack of cost awareness in clinicians », *Healthcare*, vol. 10, n° 5, article 824.

Freire, P. (1993), *Pedagogy of the Oppressed*, New York, Continuum.

Fuchs, C., Prandelli, E. et Schreier, M. (2010), « The psychological effects of empowerment strategies on consumers' product demand », *Journal of Marketing*, vol. 74, n° 1, p. 65-79. https://doi.org/10.1509/jmkg.74.1.65

Ghinassi, S., Giacomelli, G., Massobrio, R., Cravero, A. et Fracchia, L. (2026), « Trust when the healthcare ecosystem is integrated with artificial intelligence », *Patient Education and Counseling*, vol. 142, article 109361. https://doi.org/10.1016/j.pec.2025.109361

Hajiheydari, N., Delgosha, M. S. et Saheb, T. (2025), « AI in medical diagnosis: A contextualised study of patient motivations and concerns », *Social Science & Medicine*, vol. 371, article 117850. https://doi.org/10.1016/j.socscimed.2025.117850

Harrison, T., Waite, K. et Hunter, G. L. (2006), « The internet, information and empowerment », *European Journal of Marketing*, vol. 40, n° 9/10, p. 972-993. https://doi.org/10.1108/03090560610680961

He, J., Baxter, S. L., Xu, J., Xu, J., Zhou, X. et Zhang, K. (2019), « The practical implementation of artificial intelligence technologies in medicine », *Nature Medicine*, vol. 25, p. 30-36. https://doi.org/10.1038/s41591-018-0307-0

Hedfeld, P. (2026), « AI as a socio-technical actor: Rethinking definitions for ethics and governance », *AI and Ethics*. https://doi.org/10.1007/s43681-026-01123-1

Helen, D. et Suresh, N. V. (2024), « Generative AI in healthcare: Opportunities, challenges, and future perspectives », in *Revolutionizing the Healthcare Sector with AI*, p. 79-90.

Hermann, E. et Puntoni, S. (2025), « Generative AI in marketing and principles for ethical design and deployment », *Journal of Public Policy & Marketing*, vol. 44, n° 3, p. 332-349. https://doi.org/10.1177/07439156241309874

Joseph, A. L., Kushniruk, A. W. et Borycki, E. M. (2020), « Patient journey mapping: Current practices, challenges and future opportunities in healthcare », *Knowledge Management & E-Learning*, vol. 12, n° 4, p. 387-404. https://doi.org/10.34105/j.kmel.2020.12.021

Kieffer, C. H. (1984), « Citizen empowerment: A developmental perspective », *Prevention in Human Services*, vol. 3, n° 2-3, p. 9-36. https://doi.org/10.1300/J293v03n02_03

Kuroiwa, T., Sarcon, A., Ibara, T., Yamada, E., Yamamoto, A., Tsukamoto, K. et Fujita, K. (2023), « The potential of ChatGPT as a self-diagnostic tool in common orthopedic diseases: Exploratory study », *Journal of Medical Internet Research*, vol. 25, article e47621. https://doi.org/10.2196/47621

Lalmuanawma, S., Hussain, J. et Chhakchhuak, L. (2020), « Applications of machine learning and artificial intelligence for Covid-19 (SARS-CoV-2) pandemic: A review », *Chaos, Solitons & Fractals*, vol. 139, article 110059. https://doi.org/10.1016/j.chaos.2020.110059

Lee, W.-J., Shin, S. et Shin, L. Y. (2026), « Can AI be a trusted counselor? How AI counseling builds psychological empowerment and compliance intention », *Health Marketing Quarterly*. https://doi.org/10.1080/07359683.2026.2663735

Liao, L.-L., Chang, L.-C. et Lai, I.-J. (2024), « Assessing the quality of ChatGPT's dietary advice for college students from dietitians' perspectives », *Nutrients*, vol. 16, n° 12, article 1939. https://doi.org/10.3390/nu16121939

Liu, S., Wright, A. P., Patterson, B. L., Wanderer, J. P., Turer, R. W., Nelson, S. D., McCoy, A. B., Sittig, D. F. et Wright, A. (2023), « Using AI-generated suggestions from ChatGPT to optimize clinical decision support », *Journal of the American Medical Informatics Association*, vol. 30, n° 7, p. 1237-1245. https://doi.org/10.1093/jamia/ocad072

Longoni, C., Bonezzi, A. et Morewedge, C. K. (2019), « Resistance to medical artificial intelligence », *Journal of Consumer Research*, vol. 46, n° 4, p. 629-650. https://doi.org/10.1093/jcr/ucz013

Lorenzini, G., Arbelaez Ossa, L., Shaw, D. M. et Elger, B. S. (2023), « Artificial intelligence and the doctor-patient relationship: Expanding the paradigm of shared decision making », *Bioethics*, vol. 37, n° 5, p. 424-429. https://doi.org/10.1111/bioe.13158

Lukkien, D. R. M., Nap, H., Peine, A. et Boon, W. P. C. (2025), « Responsible scaling of artificial intelligence in healthcare: Standardization meets customization », *Ethics and Information Technology*, vol. 27, article 34. https://doi.org/10.1007/s10676-025-09842-5

McColl-Kennedy, J. R., Hogan, S. J., Witell, L. et Snyder, H. (2017), « Cocreative customer practices: Effects of health care customer value cocreation practices on well-being », *Journal of Business Research*, vol. 70, p. 55-66. https://doi.org/10.1016/j.jbusres.2016.07.006

McColl-Kennedy, J. R., Vargo, S. L., Dagger, T. S., Sweeney, J. C. et van Kasteren, Y. (2012), « Health care customer value cocreation practice styles », *Journal of Service Research*, vol. 15, n° 4, p. 370-389. https://doi.org/10.1177/1094670512442806

Morley, J., Machado, C. C. V., Burr, C., Cowls, J., Joshi, I., Taddeo, M. et Floridi, L. (2020), « The ethics of AI in health care: A mapping review », *Social Science & Medicine*, vol. 260, article 113172. https://doi.org/10.1016/j.socscimed.2020.113172

Oga-Omenka, C., Rosapep, L., Baruwa, E. et al. (2025), « A methodological review of patient healthcare-seeking journeys from symptom onset to diagnosis and treatment », *BMJ Global Health*, vol. 10, article e016978. https://doi.org/10.1136/bmjgh-2024-016978

Ouschan, R., Sweeney, J. C. et Johnson, L. W. (2006), « Customer empowerment and relationship outcomes in healthcare consultations », *European Journal of Marketing*, vol. 40, n° 9/10, p. 1068-1086. https://doi.org/10.1108/03090560610681014

Paillé, P. et Mucchielli, A. (2012), *L'analyse qualitative en sciences humaines et sociales*, Paris, Armand Colin.

Pal, A., Umapathi, L. K. et Sankarasubbu, M. (2025), « Generative AI/LLMs for plain language medical information: Systematic review », *Journal of Medical Internet Research*, vol. 27, article e65588. https://doi.org/10.2196/65588

Park, Y. J. (2021), *The Future of Digital Surveillance: Why Digital Monitoring Will Never Lose Its Appeal in a World of Algorithm-Driven AI*, Ann Arbor, University of Michigan Press.

Park, Y. J. et Jones-Jang, S. M. (2023), « Surveillance, security, and AI as technological acceptance », *AI & Society*, vol. 38, n° 6, p. 2667-2678. https://doi.org/10.1007/s00146-021-01331-9

Ponzo, V., Goitre, I., Favaro, E., Merlo, F. D., Mancino, M. V., Riso, S. et Bo, S. (2024), « Is ChatGPT an effective tool for providing dietary advice? », *Nutrients*, vol. 16, n° 4, article 469. https://doi.org/10.3390/nu16040469

Rappaport, J. (1987), « Terms of empowerment/exemplars of prevention: Toward a theory for community psychology », *American Journal of Community Psychology*, vol. 15, n° 2, p. 121-148. https://doi.org/10.1007/BF00919275

Reckwitz, A. (2002), « Toward a theory of social practices: A development in culturalist theorizing », *European Journal of Social Theory*, vol. 5, n° 2, p. 243-263. https://doi.org/10.1177/13684310222225432

Reddy, S. (2024), « Generative AI in healthcare: An implementation science informed translational path on application, integration and governance », *Implementation Science*, vol. 19, article 27. https://doi.org/10.1186/s13012-024-01357-9

Richter, P., Hickmann, E. et Schlieter, H. (2021), « Validating the concept of patient pathways: A European survey on their characteristics, definition and state of practice », *International Journal of Integrated Care*, vol. 21, n° 2, article 8. https://doi.org/10.5334/ijic.5357

Sauerbrei, A., Kerasidou, A., Lucivero, F. et Hallowell, N. (2023), « The impact of artificial intelligence on the person-centred, doctor-patient relationship: Some problems and solutions », *BMC Medical Informatics and Decision Making*, vol. 23, article 73. https://doi.org/10.1186/s12911-023-02162-y

Schulz, P. J. et Nakamoto, K. (2005), « Emerging themes in health literacy », *Studies in Communication Sciences*, vol. 5, n° 2, p. 1-10.

Schulz, P. J. et Nakamoto, K. (2013), « Health literacy and patient empowerment in health communication: The importance of separating conjoined twins », *Patient Education and Counseling*, vol. 90, n° 1, p. 4-11. https://doi.org/10.1016/j.pec.2012.09.006

Sengar, S. S., Hasan, A. B., Kumar, S. et Carroll, F. (2025), « Generative artificial intelligence: A systematic review and applications », *Multimedia Tools and Applications*, vol. 84, p. 24435-24476. https://doi.org/10.1007/s11042-024-20016-1

Shi, J., Xia, X., Zhuang, H., Li, Z. et Xu, K. (2025), « Empowering individuals to adopt artificial intelligence for health information seeking: A latent profile analysis among users in Hong Kong », *Social Science & Medicine*, vol. 375, article 118059. https://doi.org/10.1016/j.socscimed.2025.118059

Spreitzer, G. M. (1995), « Psychological empowerment in the workplace: Dimensions, measurement, and validation », *Academy of Management Journal*, vol. 38, n° 5, p. 1442-1465. https://doi.org/10.2307/256865

Takita, H., Kabata, D., Walston, S. L., Tatekawa, H., Saito, K., Tsujimoto, Y., Miki, Y. et Ueda, D. (2024), « Diagnostic performance comparison between generative AI and physicians: A systematic review and meta-analysis », *medRxiv*. https://doi.org/10.1101/2024.01.20.24301563

Tambuyzer, E., Pieters, G. et Van Audenhove, C. (2014), « Patient involvement in mental health care: One size does not fit all », *Health Expectations*, vol. 17, n° 1, p. 138-150. https://doi.org/10.1111/j.1369-7625.2011.00743.x

Traylor, D. O., Hoang, T. D., Kiser, K. et Choi, J. H. (2025), « Beyond the screen: The impact of generative artificial intelligence on patient learning and the patient-physician relationship », *Cureus*, vol. 17, n° 1, article e76980. https://doi.org/10.7759/cureus.76980

Tu, T., Schaekermann, M., Palepu, A., Saab, K., Freyberg, J., Tanno, R., Wang, A., Li, B., Amin, M., Cheng, Y., Vedadi, E., Tomasev, N., Azizi, S., Singhal, K., Hou, L., Webson, A., Kulkarni, K., Mahdavi, S. S., Semturs, C. et al. (2025), « Towards conversational diagnostic artificial intelligence », *Nature*, vol. 642, n° 8067, p. 442-450. https://doi.org/10.1038/s41586-025-08866-7

Wachter, R. M. et Brynjolfsson, E. (2024), « Will generative artificial intelligence deliver on its promise in health care? », *JAMA*, vol. 331, n° 1, p. 65-69.

Yang, R. (2026), « Between epistemic empowerment and moral anxiety: Chinese patients' ambivalence toward AI-assisted diagnosis », *Social Science & Medicine*, vol. 391, article 118929. https://doi.org/10.1016/j.socscimed.2026.118929

Yun, H. S. et Bickmore, T. (2025), « Online health information-seeking in the era of large language models: Cross-sectional web-based survey study », *Journal of Medical Internet Research*, vol. 27, article e68560. https://doi.org/10.2196/68560

Yun, J. H., Lee, E. et Kim, D. H. (2021), « Behavioral and neural evidence on consumer responses to human doctors and medical artificial intelligence », *Psychology & Marketing*, vol. 38, n° 4, p. 610-625. https://doi.org/10.1002/mar.21445

Zaleski, A. L., Berkowsky, R., Craig, K. J. T. et Pescatello, L. S. (2024), « Comprehensiveness, accuracy, and readability of exercise recommendations provided by an AI-based chatbot: Mixed methods study », *JMIR Medical Education*, vol. 10, article e51308. https://doi.org/10.2196/51308

Zhang, P. et Kamel Boulos, M. N. (2023), « Generative AI in medicine and healthcare: Promises, opportunities and challenges », *Future Internet*, vol. 15, n° 9, article 286. https://doi.org/10.3390/fi15090286

Zhang, Q., Zhang, R., Xiong, Y., Sui, Y., Tong, C. et Lin, F. H. (2025), « Generative AI mental health chatbots as therapeutic tools: Systematic review and meta-analysis of their role in reducing mental health issues », *Journal of Medical Internet Research*, vol. 27, article e78238. https://doi.org/10.2196/78238

Zhang, W., Li, J., Guo, F., Zhu, C., Kludacz-Alessandri, M. et Evans, R. (2026), « Diffusion of responsibility: Patient moral judgments of generative AI-informed clinical decisions », *Social Science & Medicine*, vol. 392, article 118928. https://doi.org/10.1016/j.socscimed.2026.118928

Zimmerman, M. A. (1990a), « Taking aim on empowerment research: On the distinction between psychological and individual conceptions », *American Journal of Community Psychology*, vol. 18, p. 169-177.

Zimmerman, M. A. (1995), « Psychological empowerment: Issues and illustrations », *American Journal of Community Psychology*, vol. 23, n° 5, p. 581-599. https://doi.org/10.1007/BF02506983

Appendix 1: Qualitative study results

Theme 1. The role of GenAI across the stages of the healthcare journey

Sub-theme	Role of GenAI	Verbatim
Prevention and wellness	Lifestyle and prevention support	"ChatGPT helped me organize all my medical documentation and encouraged me to keep a daily journal of my symptoms."
		"It helps track calories, protein, and fiber to reach my postpartum health goals. It gives me great motivation and advice. Being in control of my health feels great."
		"I discussed my sleep problems with it and told it what medications and supplements I was taking. It gave me recommendations with timings. I followed them, and the first morning after, I felt more rested than I had in years."
Symptom recognition and initial consultation	Symptom interpretation and orientation tool	"My father was in pain, and I asked him to describe his symptoms in detail. ChatGPT listed possible diagnoses, and the one it considered most likely turned out to be the correct diagnosis."
Diagnosis and consultation	Translation and sense-making resource	"I gave the transcripts to ChatGPT, and it turned all that conversational gibberish into meaningful information. ChatGPT picked up the medical jargon and translated terms I didn't fully understand. It was empowering."
Treatment and care management	Self-directed learning and treatment comparison support	"ChatGPT helped me go through studies and understand the effectiveness of different treatments. I learned the differences between many hormone combinations, treatments, and side effects."
follow-up and post-care	Reassurance and emotional support companion	"After 30 years of consultations with countless gynecologists and pain management specialists, I finally have a treatment plan that works for me."

Theme 2. GenAI use and the reconfiguration of the patient–physician relationship

Sub-theme	Observed dynamic	Verbatim
Complementarity	GenAI helps patients become informed, reassured, and better prepared, but remains secondary to medical expertise.	"AI like ChatGPT can be a complementary tool to get informed or reassured, but it does not replace a healthcare professional. Use it carefully and consult a doctor if you have serious doubts about your health."
Partial substitution	GenAI sometimes replaces unavailable or insufficient professional listening, especially for emotional support and advice.	"Personally, it accompanies me daily and replaces, in listening and advice, my psychiatrist, whom I cannot see as often as I would like. ChatGPT is really a great help and gives very good advice."
Comparison with the physician	Patients compare GenAI with physicians, especially regarding availability, listening, explanation, and consultation time.	"ChatGPT has the advantage of not being full of certainties, of listening when you ask questions, and of not ending the consultation after 20 minutes. It has the disadvantage of being just a tool that generates a response word by word through a probabilistic approach and tends to answer correctly most of the time, and nonsense from time to time, which can be very dangerous if followed blindly. It does not replace a doctor, that is certain, but it can be a good complement for the patient when one needs to talk about their illness and understand it better."

Theme 3. Tensions and risks generated by patients' use of GenAI

Sub-theme	Observed risk	Verbatim
Overconfidence	Excessive trust in GenAI's medical answers and diagnostic ability	"ChatGPT is more competent than some doctors; it can make a diagnosis from blood test results."
Hallucinations / errors	Plausible but inaccurate or misinterpreted answers	"I found that AI contains errors and 'hears' words incorrectly. I am not a fan at all."
Dependence / substitution	Repeated use may replace or compete with professional support	"I learned more about myself using ChatGPT than in years of therapy."
Privacy and confidentiality	Fear of sharing sensitive and identifiable health data with public AI systems	"Even my first name, my date of birth, even the names of hospitals or doctors could be identifying, and I do not want that ending up in a public AI."