Journal of Digital Health Innovation and Medical Technology
Vol. 1 No. 10 Oktober 2025
E-ISSN: 3090-0816
Open Access: https://journals.ai-mrc.com/jdhimt

Exploring Patients' Experiences with AI-Powered Telemedicine: Trust, Adaptation, and Care Dynamics

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Article Info

Article history:
Received 26-08-2025
Revised 03-09-2025
Accepted 17-10-2025

Keyword:
Patients' Lived Experiences; AI-Powered Telemedicine; Digital Healthcare Platforms; Trust and Skepticism; Emotional Adaptation; Patient-Provider Relationships

ABSTRACT

Objective: The rapid advancement of digital health systems has transformed healthcare delivery, yet little is known about how patients construct meaning from their interactions with AI-powered telemedicine. Existing research often emphasizes technical performance and clinical efficiency, while patients' subjective experiences—particularly regarding trust, emotional adaptation, and relational dynamics—remain underexplored. Method: This study adopts an interpretative phenomenological approach (IPA), using semi-structured, in-depth interviews with 15 participants who had engaged in AI-assisted consultations. Thematic synthesis was employed to analyze transcripts and identify key patterns of meaning. Results: The analysis reveals three central themes: (1) trust and skepticism toward AI-based diagnoses, (2) emotional adaptation to digital healthcare, and (3) shifting patient–provider relationships. Patients described a constant negotiation between technological efficiency and human empathy, underscoring the importance of personalized care and transparent algorithmic decision-making. Conclusion: These findings deepen understanding of patient experiences in digital healthcare environments and emphasize the need for patient-centered design in AI-powered telemedicine. The study demonstrates that technological innovation must be aligned with human-centered values to foster trust, improve adoption, and enhance the quality of digital health services.

INTRODUCTION

The rapid advancement of digital health systems and platforms has transformed the delivery of healthcare worldwide, reshaping how patients access, experience, and perceive medical services (Galdino & Wicker, 2024). Among these innovations, AI-powered telemedicine has become central to enhancing accessibility and efficiency, especially in response to chronic disease burdens and recent public health crises that required reduced physical contact (Gupta & Jaiswal, 2025).

While the integration of artificial intelligence into telemedicine platforms has generated significant promise in improving diagnostic accuracy and streamlining care pathways, it has also introduced complex social and psychological dynamics (Kökalan et al., 2023). For many patients, the transition from traditional face-to-face consultations to AI-assisted virtual interactions has provoked both excitement and anxiety. Some perceive these platforms as empowering tools that provide greater control over personal health decisions and improved access to specialized expertise. Others, however, express concerns regarding trust, data privacy, and the loss of personal connection with healthcare professionals (Bahardeen et al., 2025). These tensions highlight an important human-centered dimension within digital health adoption, where patients' subjective experiences play a crucial role in shaping their perceptions of care quality, safety, and reliability.

Given these shifts, there is a growing recognition of the need to understand healthcare technologies not only from technical and clinical perspectives but also through the lens of patient experience. Much of the existing literature has focused on evaluating the effectiveness of AI-driven

telemedicine in terms of clinical outcomes, operational efficiency, and usability metrics. However, less attention has been devoted to exploring how patients make sense of and emotionally respond to these platforms in their everyday lives. Understanding these subjective experiences is essential for improving user-centered design, enhancing patient trust, and ensuring equitable access to digital health solutions.

This context underscores the importance of phenomenological inquiry in uncovering the lived experiences of patients using AI-powered telemedicine systems. Unlike quantitative evaluations that emphasize measurable performance indicators, phenomenology focuses on how individuals perceive, interpret, and construct meaning from their engagement with these technologies (Sun et al., 2020). By exploring patients' voices and personal narratives, this approach enables a deeper understanding of the socio-cultural and emotional dimensions of digital health adoption. Such insights are critical not only for advancing theoretical knowledge but also for guiding the development of human-centered digital health platforms that respond to patients' real needs and expectations.

Building upon the broader context of digital health transformations, research on patients' subjective experiences in interacting with AI-powered telemedicine platforms has emerged as a critical area of scholarly inquiry (Perry et al., 2023). As digital healthcare continues to evolve, understanding how patients perceive, interpret, and construct meaning from their interactions with intelligent systems has become increasingly relevant. These experiences encompass not only perceptions of technological usability and clinical reliability but also deeper emotional, social, and cultural dimensions that shape how individuals engage with emerging healthcare technologies. This growing attention reflects a recognition that the success of digital health platforms depends not merely on technical performance but also on their alignment with human values, expectations, and trust.

Despite the increasing scholarly interest in this domain, existing research remains predominantly focused on quantitative evaluations, such as usability metrics, patient satisfaction scores, and system efficiency indicators (Pan et al., 2024). While these studies provide valuable insights into technical performance and operational outcomes, they often fail to capture the subjective complexities inherent in patients' lived experiences. Quantitative approaches, by their nature, tend to reduce patient interactions into measurable variables, overlooking the personal narratives and emotional dynamics that influence perceptions of care quality and trust in AI-assisted decision-making. Consequently, these methodological orientations are limited in their ability to uncover the deeper meanings and interpretative processes that shape patients' engagement with digital healthcare.

Furthermore, qualitative studies in this area remain relatively scarce and fragmented, often adopting descriptive case analyses that lack sufficient methodological depth to reveal the essence of patients' experiences (Alcaide-Pulido et al., 2025). In many cases, existing research relies on structured surveys or brief interviews that fail to provide the level of rich, nuanced data required to understand the phenomenon holistically. As a result, critical questions remain unanswered regarding how patients make sense of algorithmic recommendations, develop trust or skepticism toward AI-driven systems, and negotiate the balance between technological efficiency and human empathy in telemedicine settings.

These limitations highlight the necessity of adopting a phenomenological approach, which is uniquely suited to explore the lived experiences of patients by focusing on personal meaning-making processes rather than solely on objective outcomes (Kamp et al., 2019). By engaging deeply with participants' narratives and uncovering the interpretative structures that underpin their perceptions, phenomenology provides a methodological framework capable of addressing these gaps. This perspective enables a more comprehensive understanding of how patients experience AI-assisted healthcare in real-world contexts, contributing to both theoretical advancements and practical improvements in the design of patient-centered digital health systems.

Although significant progress has been made in the development and implementation of AI-powered telemedicine platforms, much of the existing research remains focused on evaluating technical performance, operational efficiency, and clinical outcomes (Morris et al., 2025). Studies in this field have largely relied on quantitative frameworks and structured evaluations to assess factors such as usability, patient satisfaction, and diagnostic accuracy (Hu et al., 2023). While these

approaches provide important insights into system functionality and performance optimization, they often fail to capture the subjective complexities of patients' lived experiences when interacting with intelligent healthcare systems.

Traditional research methods, particularly survey-based designs and structured assessments, tend to reduce the richness of individual narratives into predefined variables, overlooking how patients interpret, negotiate, and make meaning from their interactions with AI-driven platforms (Goforth et al., 2024). As a result, critical aspects such as trust-building processes, emotional adaptation, perceived empathy, and negotiated autonomy remain insufficiently explored (Ishido et al., 2025). These limitations create a significant gap in understanding how patients' perceptions evolve as they engage with technologically mediated healthcare and how these perceptions influence adoption, satisfaction, and long-term behavioral change.

While a few qualitative studies have attempted to explore patient experiences, many are constrained by descriptive analyses that lack sufficient methodological depth to uncover the essence of the phenomenon (Cressey, 2019). The limited use of interpretative frameworks has resulted in fragmented insights that fail to explain how individuals construct meaning from their digital health interactions. Consequently, there remains a lack of clarity on questions such as:

How do patients develop trust or skepticism toward AI-assisted diagnoses and recommendations?

In what ways do patients adapt emotionally and cognitively when transitioning from traditional consultations to digital healthcare environments?

How do patients perceive the shifting dynamics of human-AI relationships in the context of healthcare delivery?

Addressing these unanswered questions requires an approach capable of moving beyond superficial descriptions and numerical evaluations. A phenomenological methodology, specifically Interpretative Phenomenological Analysis (IPA), offers a rigorous framework to explore the lived experiences of patients and to uncover the underlying structures of meaning shaping their engagement with AI-powered telemedicine (Heidelburg & Collins, 2023). By focusing on subjective interpretation, phenomenology provides a holistic understanding of how patients experience digital healthcare systems, thereby generating insights that can inform the development of patient-centered design principles and more effective digital health strategies.

Recent studies have increasingly examined how patients experience digital healthcare, particularly within the context of AI-powered telemedicine platforms (Nabirye et al., 2025). Research has explored usability, trust, and patient satisfaction, but most investigations remain limited to quantitative assessments of efficiency and clinical outcomes. Several qualitative studies provide insights into the emotional and social dimensions of healthcare technologies; however, these often lack methodological depth and fail to capture the essence of lived experiences (Arce et al., 2023). Theoretical frameworks from human-computer interaction and patient-centered care have highlighted the importance of understanding subjective interpretations in technology adoption. Yet, there is still limited evidence on how patients construct meaning, negotiate trust, and adapt emotionally when interacting with intelligent telemedicine systems.

To address these gaps, this study adopts an interpretative phenomenological approach (IPA) to explore patients' lived experiences with AI-assisted telemedicine. IPA was selected because it focuses on understanding personal meaning-making and provides a structured method to examine how individuals interpret and respond to complex healthcare technologies (Sander et al., 2020). This approach allows for the exploration of critical questions identified in the Knowledge Gap, such as how patients develop trust, manage uncertainty, and experience shifting relationships with healthcare providers when technology mediates their care (Ravina-Ripoll et al., 2024). By engaging deeply with participants' narratives, this study uncovers the subjective realities that underlie digital healthcare interactions. In doing so, it generates insights that extend beyond technical evaluations and contributes to the advancement of patient-centered digital health strategies.

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The remainder of this article is structured as follows. The introduction provides the conceptual foundation and situates the study within the broader context of digital health research (Falicov et al., 2020). The Method section describes the phenomenological framework, participant selection, data collection, and the analytic process using interpretative techniques. The Results section presents findings organized into themes that reflect patients' experiences, illustrated with direct quotes to strengthen contextual interpretation (Liu et al., 2025). The Discussion section connects these findings to existing literature and theoretical perspectives, highlighting contributions and practical implications (Rahman et al., 2022). Finally, the Conclusion summarizes key insights and offers recommendations for improving the design and implementation of AI-powered telemedicine platforms.

RESEARCH METHODS

Study Design

This study adopted an interpretative phenomenological approach (IPA) to explore patients' lived experiences in using AI-powered telemedicine platforms. The phenomenological design was selected because it enables a deep understanding of how individuals perceive and interpret their interactions with digital healthcare systems, focusing on the subjective meanings embedded within their personal narratives. The interpretative orientation of IPA, rooted in Heidegger's hermeneutic philosophy, was considered particularly relevant for this study, as it goes beyond mere description by uncovering the underlying meanings that shape patient perceptions, emotions, and behaviors. By applying this approach, the study was able to reveal complex insights into trust, skepticism, emotional adaptation, and relational dynamics arising from patients' engagement with AI-assisted medical consultations.

Participants

The participants comprised individuals who had actively used AI-driven telemedicine platforms within the past six months for managing their health conditions. A purposive sampling strategy was employed to ensure that only participants with direct and meaningful experiences relevant to the phenomenon were included. The inclusion criteria required participants to be adults between 25 and 60 years of age, have at least one diagnosed chronic health condition such as diabetes, hypertension, or cardiovascular disease, and to have used AI-based telemedicine platforms for at least two separate consultations. Individuals who had never used telemedicine services or who experienced cognitive impairments that could limit their ability to provide reliable data were excluded from the study.

A total of 15 participants were recruited, consisting of eight females and seven males, with ages ranging from 28 to 57 years (M = 41.6). Participants came from diverse educational, occupational, and socioeconomic backgrounds, which enriched the data and offered a wide range of perspectives on patient experiences with AI-assisted digital health platforms. This diversity provided a broader understanding of how different demographic and contextual factors influenced patient perceptions and interactions within digital healthcare environments.

Data Collection

Data were collected using semi-structured, in-depth interviews to obtain rich, detailed accounts of participants' experiences with AI-powered telemedicine platforms. An interview guide was carefully developed based on a review of relevant literature and pilot-tested with two participants to ensure clarity and appropriateness. The guide provided a consistent framework for exploring key aspects of the phenomenon while maintaining flexibility for participants to elaborate on issues most relevant to them.

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Interviews were conducted either face-to-face or via secure video conferencing platforms, depending on participants' preferences and availability. Each session lasted between 45 and 75 minutes and was carried out in a private, distraction-free setting to promote open dialogue and participant comfort. With informed consent, all interviews were digitally recorded and transcribed verbatim to preserve the authenticity of participants' narratives. Field notes were also maintained to capture contextual observations, non-verbal cues, and emotional expressions that provided additional insight into participants' lived experiences. The combination of these strategies ensured that the data collected were both comprehensive and contextually grounded.

Data Analysis

Data were analyzed using Interpretative Phenomenological Analysis (IPA) to uncover the meanings embedded within participants' accounts and to identify thematic patterns across the dataset. The analytic process began with repeated readings of the transcripts to achieve full immersion in the narratives and to develop an intuitive understanding of the data. Significant statements and meaning units were then identified and coded to capture key aspects of participants' experiences. These codes were gradually clustered into emergent themes that represented both shared experiences and individual variations within the dataset.

Cross-case comparisons were conducted to identify broader structural patterns while preserving sensitivity to the uniqueness of each participant's narrative. Throughout the analysis, NVivo 14 software was used to assist with data organization and facilitate systematic coding; however, all interpretation and thematic development were grounded in the participants' voices rather than being driven by software automation. To enhance analytic rigor and credibility, the coding framework and emergent themes were reviewed by an independent qualitative research expert, ensuring that the findings accurately reflected the essence of participants' experiences.

Ethical Considerations

All research procedures were conducted in strict compliance with ethical standards for qualitative research involving human participants. Ethical approval was obtained from the Institutional Review Board (IRB) of the affiliated institution before the commencement of data collection. Prior to participation, all individuals received detailed information regarding the objectives, procedures, potential risks, and benefits of the study, and written informed consent was secured from every participant.

To ensure participant privacy and confidentiality, pseudonyms were assigned to all participants, and any identifying information was removed from the transcripts and research reports. Participation in the study was entirely voluntary, and participants were informed of their right to withdraw at any point without penalty. All data were stored securely, and access was restricted to authorized research personnel only. The study adhered to the principles outlined in the Declaration of Helsinki and complied with applicable institutional, national, and international research ethics guidelines.

RESULTS

Trust and Skepticism toward AI-based Diagnosis

Participants expressed mixed perceptions regarding the reliability and accuracy of AI-powered diagnostic recommendations. While some participants reported a growing trust in the platform's ability to provide precise medical advice, others voiced concerns about algorithmic errors and the lack of human judgment.

One participant, a 45-year-old patient with chronic diabetes, described:

"The system provided me with treatment suggestions that matched what my doctor later confirmed… it gave me confidence that the AI actually understands my condition."

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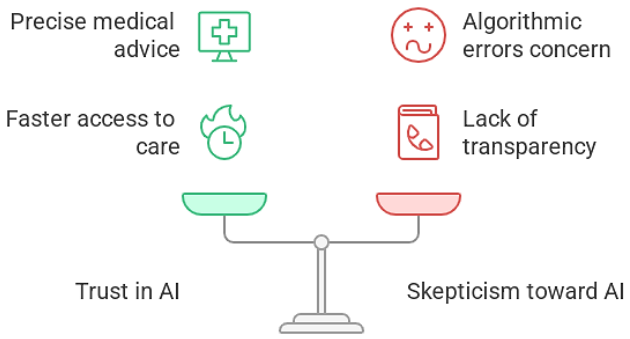
In contrast, other participants remained skeptical about depending solely on AI for healthcare decisions:

"Sometimes the recommendations feel too generic… I want to be sure that a real doctor has reviewed my data before I make any decisions."

These contrasting perspectives reflect a dual-layered experience: on the one hand, the platform facilitates faster access to care and supports medical decision-making; on the other hand, it raises concerns about transparency, particularly regarding how the AI processes and interprets patient data.

Balancing Trust and Skepticism in AI Diagnosis



Emotional Adaptation to Digital Healthcare

Another significant finding relates to participants' emotional adaptation when interacting with telemedicine platforms. For many, transitioning from traditional face-to-face consultations to AI-assisted virtual care required a shift in expectations and psychological adjustment.

One participant, recently diagnosed with hypertension, shared feelings of initial uncertainty:

"I felt nervous during my first session… I didn't know if the AI would understand what I was saying or if it would misinterpret my symptoms."

However, several participants reported becoming more comfortable with repeated use of the system, describing a gradual development of digital health literacy:

"Over time, I learned how to explain my symptoms better, and the responses became more relevant… now, it feels like the system 'knows me'."

This highlights the transformative nature of digital health adoption, where patients progressively build confidence and self-efficacy in managing their health through AI-powered tools.

Shifting Dynamics of Patient-Provider Relationships

The introduction of AI into telemedicine also reshaped how participants perceive their relationship with healthcare providers. While some appreciated the efficiency and instant feedback provided by the platform, others felt that human interaction was being diminished.

One participant explained:

"I like that I can get instant advice without waiting days for an appointment… but sometimes I miss talking directly to my doctor."

Conversely, several participants viewed the AI platform as a complementary tool rather than a replacement for traditional care:

"For simple questions, I use the AI… but when it comes to critical decisions, I still rely on my doctor. The AI saves time, but trust still comes from the human touch."

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These findings suggest that AI-assisted telemedicine is fostering a hybrid model of care, where technology enhances accessibility but cannot fully substitute the relational aspects of healthcare delivery.

Essential Insights

Across all three themes, the findings highlight a central phenomenon:

Patients experience a negotiation of trust between technological efficiency and human empathy when using AI-driven telemedicine platforms.

DISCUSSION

Summary of Key Findings

This study explored the lived experiences of patients using AI-powered telemedicine platforms and revealed three core themes: trust and skepticism toward AI-driven diagnosis, emotional adaptation to digital healthcare, and shifting patient-provider relationships. The findings highlight that patients continuously negotiate meaning in their interactions with AI systems, balancing technological efficiency with their expectations of human empathy and personalized care. These insights directly address the central research question by explaining how patients construct, interpret, and redefine trust and agency within digital healthcare environments.

Contributions to the Research Question

The findings contribute significantly to understanding the subjective meaning-making processes involved when patients engage with AI-assisted telemedicine platforms. Specifically, this study reveals that patients' trust in AI-driven diagnostic recommendations is neither fixed nor binary; instead, it is fluid, situational, and relational. Participants' experiences indicate that trust emerges when AI recommendations align with clinical expectations and personal health narratives, whereas skepticism grows when algorithms fail to explain their reasoning transparently or appear overly generalized.

Furthermore, the study demonstrates that emotional adaptation plays a critical role in shaping patient experiences. Initially, many participants reported anxiety, uncertainty, and a sense of detachment when interacting with AI-driven consultations (Mukhlis, 2025b). However, over time, repeated use fostered a sense of familiarity, control, and confidence, suggesting that digital health literacy evolves through continuous engagement rather than being a precondition for adoption.

These findings also illuminate a significant shift in patient-provider relationships . Patients increasingly perceive AI platforms as complementary partners rather than replacements for human healthcare providers, using them as tools to supplement, rather than substitute, medical decision-making. This underscores the need to design human-centered AI systems that integrate technological efficiency with empathetic, personalized care, aligning with the complex emotional realities patients face when navigating digital healthcare ecosystems.

Relationship to Existing Literature and Theoretical Frameworks

The findings extend existing literature on digital health adoption and human-AI interaction by providing phenomenological insights into patients' lived experiences (Mukhlis, Suradi, et al., 2023). Previous studies, such as (Bratianu et al., 2025), have reported that telemedicine platforms improve diagnostic accessibility but provide limited understanding of how patients internalize AI-assisted recommendations. The present study complements these findings by demonstrating that patients' acceptance of telemedicine is strongly mediated by subjective trust-building processes, reinforcing (Herbell et al., 2020) argument that trustworthiness in AI-driven care depends not only on technical accuracy but also on emotional resonance and perceived relational continuity.

In contrast, prior quantitative studies focusing solely on usability metrics and satisfaction indices have overlooked critical dimensions of meaning, identity, and agency that shape patient interactions with intelligent systems. This study fills that gap by revealing how patients interpret and

respond to uncertainty in algorithmic decision-making, resonating with theories of human-computer interaction that emphasize user autonomy and personalization (Zhao, 2025). Furthermore, the emergent findings support the principles of phenomenological epistemology, where knowledge is constructed through individual perception rather than objective measurement, highlighting the significance of exploring lived experiences to design patient-centered digital health platforms.

By situating these findings within broader theoretical frameworks, this study demonstrates that successful integration of AI-driven telemedicine requires a hybrid care model—one that leverages algorithmic intelligence while maintaining human empathy and trust. This perspective not only strengthens existing theories of digital health adoption but also provides actionable implications for improving AI transparency, user experience, and relational continuity within future telemedicine systems.

Implications of the Findings

The findings of this study offer important theoretical and practical implications for the broader field of digital healthcare and, more specifically, the design and implementation of AI-powered telemedicine platforms (Mukhlis, 2025a). From a theoretical standpoint, this research advances the understanding of patient meaning-making processes by highlighting how trust, emotional adaptation, and perceptions of relational continuity evolve within digitally mediated care (Mukhlis & Saidah, 2025). These insights extend phenomenological inquiry into digital health, demonstrating that patients' lived experiences represent more than passive system use; they involve active negotiation of identity, autonomy, and trust within new forms of technologically mediated healthcare relationships.

Practically, the study emphasizes the importance of designing patient-centered telemedicine systems that address patients' emotional needs while providing accurate, transparent, and personalized AI-driven recommendations. Findings suggest that ensuring algorithmic transparency, integrating opportunities for human interaction, and supporting digital health literacy are key to enhancing patients' confidence in adopting AI-assisted consultations (Mukhlis & Abdullah, 2025). Furthermore, these results are relevant beyond the immediate context of the study, as the insights inform policymakers, healthcare providers, and technology developers seeking to implement digital health systems across diverse sociocultural and clinical settings.

Limitations of the Study

While this study provides rich and nuanced insights into patients' lived experiences, certain limitations must be acknowledged. First, the sample size was relatively small, consistent with phenomenological research, but this limits the ability to generalize findings to larger populations (Mukhlis, Janwari, et al., 2023). Second, the study focused on individuals who had prior experience with AI-powered telemedicine platforms, which may introduce a selection bias, as participants were likely more familiar with digital technologies than the general population. Third, the findings are context-specific, reflecting the experiences of patients within a particular healthcare setting and sociocultural environment; thus, caution should be taken when applying these insights to different regions or health systems.

Moreover, as with many phenomenological studies, the interpretations presented are inherently shaped by participants' subjective narratives and the analytic lens applied during thematic synthesis (Mukhlis et al., 2024). While member checking and audit trail techniques were used to enhance credibility, the findings remain bounded by the qualitative nature of the research. Recognizing these limitations provides clarity on the study's scope and establishes a foundation for future investigations to build upon and extend these insights.

Directions for Future Research

The results of this study open several promising avenues for future research in digital health systems and AI-mediated healthcare. First, longitudinal investigations are needed to explore how patients' trust, confidence, and digital health literacy evolve over time with sustained engagement in AI-assisted telemedicine (Mukhlis, Maryam, et al., 2023). Second, comparative studies across diverse

sociocultural contexts would help clarify how cultural expectations and healthcare norms shape the meaning-making processes uncovered in this study. Third, integrating mixed-methods designs could complement phenomenological insights with quantitative measures of adoption patterns, clinical outcomes, and patient satisfaction to provide a more holistic understanding of digital healthcare transformation.

Furthermore, future research should investigate how human-AI interaction design principles influence patients' perceived agency, emotional security, and relational trust in telemedicine contexts (Mukhlis, Arifin, Ridwan, & Zulbaidah, 2025). Insights from such work could guide the development of hybrid care models that balance technological efficiency with human empathy, ultimately contributing to more equitable and patient-centered digital health ecosystems (Mukhlis, Arifin, Ridwan, Zulbaidah, et al., 2025). By continuing to explore these dimensions, scholars and practitioners can deepen theoretical understanding while simultaneously informing practical strategies for the responsible integration of AI into healthcare delivery.

CONCLUSION

This study explored patients' lived experiences in using AI-powered telemedicine platforms, addressing the need to understand how individuals construct meaning and negotiate trust within digitally mediated healthcare. The findings revealed three central themes: trust and skepticism toward AI-driven diagnosis, emotional adaptation to digital healthcare, and shifting patient-provider relationships, offering a deeper understanding of the subjective realities shaping patient engagement. By adopting an interpretative phenomenological approach, the study addressed limitations of previous research that relied primarily on quantitative measures, providing richer insights into patients' perceptions and meaning-making processes. These results contribute to the development of patient-centered digital health strategies, emphasizing the importance of transparency, personalized care, and the integration of human empathy in AI-assisted systems. While the findings are context-specific, they open opportunities for future research to examine diverse sociocultural contexts and evaluate hybrid care models that balance technological efficiency with relational continuity. Such investigations will further strengthen theoretical perspectives and guide the design of more equitable and human-centered digital health ecosystems.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest regarding the publication of this article. All stages of this research, including data collection, analysis, and interpretation, were conducted independently and objectively. The funding sponsor had no involvement in the design of the study, data collection, data analysis, interpretation of results, or writing of the manuscript.

REFERENCES

Alcaide-Pulido, P., Gutiérrez-Villar, B., Ordóñez-Olmedo, E., & Pérez-Escolar, M. (2025). Analysis of faculty readiness for online teaching: Assessing impact and adaptability in diverse educational contexts. *Smart Learning Environments*, *12*(1). Scopus. https://doi.org/10.1186/s40561-024-00353-2

Arce, G., Portugal, A., Torres, G., Ugarte, W., & Angulo, H. (2023). Emotional Intelligence and Resilience, an Applied Study in the City of Arequipa, Peru. *WSEAS Transactions on Business and Economics*, *20*, 705–715. Scopus. https://doi.org/10.37394/23207.2023.20.65

Bahardeen, F. A., Dong, L. Y., & In, S. (2025). A Qualitative Study on External Resources and Post-Traumatic Growth in the Lived Experiences of Emerging Adults with Childhood Trauma in

Klang Valley, Malaysia. *Malaysian Journal of Qualitative Research*, *11*(1), 79–95. Scopus. https://doi.org/10.61211/mjqr110107

Bratianu, C., Paiuc, D., & Brancu, L. (2025). Exploring the connections between DNA, cultural intelligence and knowledge dynamics in multicultural business environments. *Business Process Management Journal*. Scopus. https://doi.org/10.1108/BPMJ-10-2024-0959

Cressey, J. (2019). Developing culturally responsive social, emotional, and behavioral supports. *Journal of Research in Innovative Teaching and Learning*, *12*(1), 53–67. Scopus. https://doi.org/10.1108/JRIT-01-2019-0015

Falicov, C., Niño, A., & D'Urso, S. (2020). Expanding Possibilities: Flexibility and Solidarity with Under-resourced Immigrant Families During the COVID-19 Pandemic. *Family Process*, *59*(3), 865–882. Scopus. https://doi.org/10.1111/famp.12578

Galdino, M., & Wicker, P. (2024). A culture of constraints: How head coach turnovers affect the backroom staff and player development in professional football. *International Journal of Sports Science and Coaching*, *19*(2), 515–524. Scopus. https://doi.org/10.1177/17479541231207704

Goforth, A. N., Nichols, L. M., Sun, J., Violante, A. E., Brooke, E., Kusumaningsih, S., Howlett, R., Hogenson, D., & Graham, N. (2024). Cultural Adaptation of an Educator Social–Emotional Learning Program to Support Indigenous Students. *School Psychology Review*, *53*(4), 365–381. Scopus. https://doi.org/10.1080/2372966X.2022.2144091

Gupta, S., & Jaiswal, R. (2025). A deep learning-based hybrid PLS-SEM-ANN approach for predicting factors improving AI-driven decision-making proficiency for future leaders. *Journal of International Education in Business*, *18*(2), 234–268. Scopus. https://doi.org/10.1108/JIEB-05-2024-0058

Heidelburg, K., & Collins, T. A. (2023). Development of Black to Success: A Culturally Enriched Social Skills Program for Black Adolescent Males. *School Psychology Review*, *52*(3), 316–329. Scopus. https://doi.org/10.1080/2372966X.2021.2001691

Herbell, K., Breitenstein, S. M., Melnyk, B. M., & Guo, J. (2020). Family resilience and flourishment: Well-being among children with mental, emotional, and behavioral disorders. *Research in Nursing and Health*, *43*(5), 465–477. Scopus. https://doi.org/10.1002/nur.22066

Hu, Q., Zhou, Y., Dong, P., Xu, C., & Zhang, Q. (2023). Contributors to well-being of Chinese left-behind families: A dyadic perspective from family resilience and grandparent–grandchild relationship. *Child and Family Social Work*, *28*(3), 646–658. Scopus. https://doi.org/10.1111/cfs.12991

Ishido, K., Poudel, S., & Hirano, S. (2025). Cultural and Organizational Resistance to Surgical Education Reform: A Narrative Review. *Journal of Surgical Education*, *82*(9). Scopus. https://doi.org/10.1016/j.jsurg.2025.103587

Kamp, K. S., O'Connor, M., Spindler, H., & Moskowitz, A. (2019). Bereavement hallucinations after the loss of a spouse: Associations with psychopathological measures, personality and coping style. *Death Studies*, *43*(4), 260–269. Scopus. https://doi.org/10.1080/07481187.2018.1458759

Kökalan, Ö., Çetin, M., Dede, E., & Dede, B. (2023). A multilevel analysis of the links between daily emotional labor, daily spiritual experiences, and daily stress during the COVID-19 pandemic. *Anxiety, Stress and Coping*, *36*(1), 38–51. Scopus. https://doi.org/10.1080/10615806.2022.2139826

Liu, Y., Xu, Y., Kang, Y., Wu, L., Zhou, Y., & Yuan, L. (2025). Experiences and barriers in downward referral decision-making for palliative care patient caregivers under China's three-tiered linkage model: A qualitative study. *Asia-Pacific Journal of Oncology Nursing*, *12*. Scopus. https://doi.org/10.1016/j.apjon.2024.100578

Morris, A. M., Gray, S. A. O., Skov, H., & Pequet, A. (2025). Children's Emotion Regulation and Subjective Stress During the COVID-19 Pandemic: An Intergenerational Perspective Among Racially and Economically Minoritized Mother-Child Dyads in the United States. *Child and Youth Care Forum*, *54*(4), 841–858. Scopus. https://doi.org/10.1007/s10566-024-09840-6

Mukhlis, L. (2025a). A Phenomenological Study of Personal Spiritual Experiences in Navigating Religious Pluralism within Interfaith Communities. *Irfana: Journal of Religious Studies*, *1*(6), 212–220.

Mukhlis, L. (2025b). Spiritual Grounds for Economic Growth: A Qualitative Exploration of Rural Indonesian Women's Transformative Journeys Through Mosque-Led Empowerment Programs. *Servina: Jurnal Pengabdian Kepada Masyarakat*, *1*(8), 289–298.

Mukhlis, L., & Abdullah, M. N. (2025). *Hukum Keluarga Islam di Indonesia* (1st ed.). Mukhlisina Revolution Center.

Mukhlis, L., Arifin, T., Ridwan, A. H., & Zulbaidah. (2024). Integrating Artificial Intelligenceand Maqāṣid al-Syarī'ah: Revolutionizing Indonesia's Sharia Online Trading System. *Computer Fraud and Security*, *2024*(11), 301–309. https://doi.org/10.52710/cfs.238

Mukhlis, L., Arifin, T., Ridwan, A. H., & Zulbaidah. (2025). Reorientation of Sharia Stock Regulations: Integrating Taṣarrufāt al-Rasūl and Maqāṣid al-Sharī'ah for Justice and Sustainability. *Journal of Information Systems Engineering and Management*, *10*(10s), 58–66. https://doi.org/10.52783/jisem.v10i10s.1341

Mukhlis, L., Arifin, T., Ridwan, A. H., Zulbaidah, Rosadi, A., & Solehudin, E. (2025). Reformulation of Islamic Stock Law: The Application of Taṣarrufāt al-Rasūl and Maqāṣid al-Syarī'ahto Develop a Dynamic and Sustainable Islamic Capital Market in Indonesia. *Journal of Posthumanism*, *5*(3), 1–13. https://doi.org/10.63332/joph.v5i3.913

Mukhlis, L., Janwari, Y., & Syafe`i, R. (2023). INDONESIA STOCK EXCHANGE: THEORETICAL AND PHILOSOPHICAL ANALYSIS OF MUDHARABAH AND

`

MUSYARAKAH CONTRACTS. *Yurisprudentia: Jurnal Hukum Ekonomi*, *9*(2), 243–264. https://doi.org/10.24952/yurisprudentia.v9i2.8466

Mukhlis, L., Maryam, S., & Sormin, S. A. (2023). Model Pembelajaran Living History Berbasis PjBL Untuk Meningkatkan Keterampilan Histografi Mahasiswa. *Jurnal Educatio FKIP UNMA*, *9*(4), 1800–1809. https://doi.org/10.31949/educatio.v9i4.5595

Mukhlis, L., & Saidah, Y. (2025). Dynamics of Nature-Based learning in Developing Children's Motoricic Skills: Teacher and Parent Perspectives. *HUMANISMA: Journal of Gender Studies*, *9*(1), 64–79. http://dx.doi.org/10.30983/humanisme.v4i2.9366

Mukhlis, L., Suradi, Janwari, Y., & Syafe`i, R. (2023). Sosialisasi Saham Syariah sebagai Instrumen Pengembangan Ekonomi Masyarakat di Badan Kontak Majelis Taklim (BKMT) Kabupaten Mandailing Natal. *Jurnal Pengabdian Multidisiplin*, *3*(2), 2–9. https://doi.org/10.51214/japamul.v3i2.604

Nabirye, A. K., Munabi, I. G., Mubuuke, A. G., & Kiguli, S. (2025). Emotional and psychological experiences of nursing students caring for dying patients: An explorative study at a national referral hospital in Uganda. *BMC Medical Education*, *25*(1). Scopus. https://doi.org/10.1186/s12909-025-06708-8

Pan, T., Chen, D., Yu, Z., Liu, Q., Chen, Y., Zhang, A., & Kong, F. (2024). Analysis of current situation and influencing factors of marital adjustment in patients with Crohn's disease and their spouses. *Medicine (United States)*, *103*(11), E37527. Scopus. https://doi.org/10.1097/MD.0000000000037527

Perry, K. J., Penner, F., Contreras, H. T., Santos, R. P., & Sarver, D. E. (2023). A U.S. National Study of Family Resilience During the COVID-19 Pandemic. *Journal of Child and Family Studies*, *32*(6), 1627–1642. Scopus. https://doi.org/10.1007/s10826-023-02581-5

Rahman, N. A., Rajaratnam, V., Burchell, G. L., Peters, R. M. H., & Zweekhorst, M. B. M. (2022). Experiences of living with leprosy: A systematic review and qualitative evidence synthesis. *PLoS Neglected Tropical Diseases*, *16*(10). Scopus. https://doi.org/10.1371/journal.pntd.0010761

Ravina-Ripoll, R., Díaz-García, G. A., Ahumada-Tello, E., & Galván-Vela, E. (2024). Emotional wage, happiness at work and organisational justice as triggers for happiness management. *Journal of Management Development*, *43*(2), 236–252. Scopus. https://doi.org/10.1108/JMD-02-2023-0046

Sander, A. M., Boileau, N. R., Hanks, R. A., Tulsky, D. S., & Carlozzi, N. E. (2020). Emotional suppression and hypervigilance in military caregivers: Relationship to negative and positive affect. *Journal of Head Trauma Rehabilitation*, *35*(1), E10–E20. Scopus. https://doi.org/10.1097/HTR.0000000000000507

Sun, N., Wei, L., Shi, S., Jiao, D., Song, R., Ma, L., Wang, H., Wang, C., Wang, Z., You, Y., Liu, S., & Wang, H. (2020). A qualitative study on the psychological experience of caregivers of

`

COVID-19 patients. *American Journal of Infection Control*, *48*(6), 592–598. Scopus. https://doi.org/10.1016/j.ajic.2020.03.018

Zhao, C. Y. (2025). Exploring "Who am I": The potential of applying the Indian Vedanta philosophical practice of self-enquiry in psychotherapy. *Humanities and Social Sciences Communications*, *12*(1). Scopus. https://doi.org/10.1057/s41599-025-04387-w