



Elderly Users' Experiences Navigating Telemedicine in Digital Healthcare

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ABSTRACT

Digital health technologies have transformed healthcare delivery, with telemedicine emerging as a critical tool for serving aging populations. While much research has addressed the technical and clinical aspects of telemedicine, little is known about how elderly users emotionally and socially experience these platforms. Despite increasing adoption, the subjective meanings older adults assign to their telemedicine encounter remain underexplored, prompting the question: how do elderly individuals perceive and make sense of their interactions with telemedicine systems?

This study adopts a descriptive phenomenological approach to uncover the lived experiences of elderly users and reveal the essence of their engagement with digital healthcare. Using semi-structured, in-depth interviews with ten elderly participants aged 65 to 82 years (six females and four males) residing in urban and peri-urban areas of Central Java, Indonesia, the study identified four core themes: technological unfamiliarity, emotional ambivalence, reliance on social support, and evolving trust in digital platforms. Thematic analysis allowed for the extraction of meaning units that illustrated how participants navigated both practical and emotional dimensions of telemedicine use. These results provide a rich account of the tensions, adaptations, and dependencies involved in digital care among older adults.

The findings highlight the need for human-centered telemedicine design that reflects the psychological and relational realities of elderly users, and suggest new directions for inclusive digital health strategies in aging societies.



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INTRODUCTION

In recent years, the integration of digital technologies into healthcare delivery has reshaped the way individuals engage with medical services, especially in the context of remote access and telemedicine (Nasb dkk., 2020). The global acceleration of telehealth adoption, particularly in response to the COVID-19 pandemic, has highlighted both the transformative potential and the societal implications of virtual healthcare platforms (Al-Massri dkk., 2020; Shi dkk., 2021). These technologies promise increased efficiency, accessibility, and continuity of care, especially for populations with limited mobility or those residing in underserved areas. Among these populations, elderly individuals represent a significant demographic whose healthcare needs are often complex and continuous.

Despite technological advancements, the human experience of engaging with telemedicine remains deeply subjective, influenced by social expectations, digital literacy, and emotional comfort (Mishra dkk., 2020; Panes dkk., 2022). For older adults, the interaction with remote healthcare platforms is not merely a technical process but a lived encounter shaped by generational perceptions of care, trust, and communication (Anand dkk., 2019). Cultural values, familial roles, and prior healthcare experiences often mediate how telemedicine is perceived and utilized within this group. As

such, the digitalization of care intersects with broader social and emotional landscapes that can either facilitate or hinder meaningful participation in telehealth systems.

Given these realities, there is a growing recognition of the need to understand how elderly individuals make sense of their encounters with digital healthcare (Mammana dkk., 2019; Nasb dkk., 2020). Beyond clinical outcomes or usability metrics, it becomes essential to explore the personal meanings, challenges, and adaptations that emerge from these experiences (James & Joseph, 2022; Liskova dkk., 2020). Phenomenological inquiry, which centers on the lived experience and the essence of human perception, offers a valuable lens through which these dimensions can be explored. Such exploration is vital for informing the development of more inclusive and responsive healthcare technologies that resonate with the everyday realities of elderly users.

Building upon the growing interest in digital health integration, research into the subjective experiences of individuals—particularly older adults—within telemedicine environments has become a vital area of scholarly inquiry. This focus reflects a broader shift in health research toward understanding not just technological efficacy, but also the human meanings and lived realities that accompany digital interaction (Zhu dkk., 2019). Scholars have increasingly acknowledged that the success of healthcare technologies hinges not solely on innovation, but also on how users perceive, internalize, and emotionally respond to these systems in their daily lives.

However, exploring such lived experiences presents distinct methodological challenges (Anand dkk., 2019; Zhu dkk., 2019). Much of the existing research in this domain relies heavily on quantitative surveys or statistical evaluations that, while useful for measuring general trends or satisfaction levels, fall short in capturing the depth of personal engagement and contextual complexity. These approaches often reduce rich human experiences into measurable variables, overlooking the subtle cognitive and emotional processes through which meaning is constructed—particularly among elderly users who may face compounded barriers such as digital unfamiliarity, health anxieties, and dependency on others.

As a result, prior studies tend to offer fragmented or superficial understandings of how older adults truly experience telemedicine (Scibetta dkk., 2019; Sheets dkk., 2020). Without a method capable of penetrating beyond observable behaviors or preferences, the core essence of the phenomenon remains underexplored. This gap highlights the limitations of conventional approaches and calls for a deeper, more interpretive mode of inquiry that foregrounds the subjective, emotional, and existential dimensions of technology use in aging populations.

In response to the growing need for accessible healthcare, most existing solutions for elderly engagement with telemedicine have emphasized practical strategies such as simplified user interfaces, technical support hotlines, and digital literacy programs (Lightner dkk., 2023). While these interventions have demonstrated functional value in improving access and usability, they often adopt a design-centric or outcome-driven orientation that fails to capture the deeper, lived realities of older adults (Pratumkaew dkk., 2021; Rosina dkk., 2021). These approaches predominantly address surface-level barriers—such as navigation complexity or device compatibility—while leaving unexplored the subjective interpretations, emotional responses, and existential concerns that shape how telemedicine is actually experienced by elderly users.

Furthermore, conventional evaluation methods—typically grounded in quantitative assessments or usability testing—offer limited insight into the nuanced meanings that older adults ascribe to their interactions with digital health systems (Cannon dkk., 2021; Peng dkk., 2019). They tend to treat users as data points rather than as individuals with histories, values, and social contexts that profoundly influence their sensemaking processes (Sheets dkk., 2020). As a result, there is a lack of holistic understanding of how telemedicine technologies are not only used but also felt, understood, and internalized by this population.

To address this gap, phenomenological inquiry offers an essential and underutilized alternative (Lindgren dkk., 2019; Mehta dkk., 2020; Protiere dkk., 2020). By prioritizing the first-person perspective and aiming to reveal the essence of human experience, phenomenology allows researchers to move beyond functional metrics and uncover how elderly individuals construct

meaning in their encounters with telemedicine. This approach is especially suited to exploring emotional ambivalence, intergenerational reliance, and the evolving sense of agency or vulnerability that accompanies digital healthcare use in later life. Without such a lens, efforts to improve telemedicine risk overlooking the very experiences that define its impact.

Previous studies have explored the integration of telemedicine among elderly populations, often focusing on access barriers, technical skills, or clinical outcomes. For instance, Scibetta dkk., (2019) examined patients' adaptation to video consultations, while Dzobo dkk., (2021) studied older adults' perceptions of digital healthcare tools. Although these studies provide valuable insights, they primarily emphasize functionality over felt experience. Little attention has been given to the emotional, social, and psychological dimensions of using such technology. As a result, the inner world of elderly individuals interacting with telemedicine remains largely underrepresented in the literature.

To address this limitation, the present study adopts a descriptive phenomenological approach to explore how elderly users experience and interpret telemedicine (Ahmed, 2020; Matrana & Campbell, 2020). This method was selected for its emphasis on lived experience and its ability to uncover the meaning structures behind everyday interactions. Through in-depth, semi-structured interviews, this research captures how older adults feel, respond, and adapt to the digitalization of care. The findings respond directly to the knowledge gap by offering a deeper understanding of what telemedicine means from the perspective of those who rely on it. The use of eidetic reduction and thematic analysis allows for a faithful representation of participants' voices.

This article is organized into several key sections. It begins with an introduction outlining the research problem and conceptual background (Oberkampf dkk., 2023). The methods section describes the phenomenological design, participant selection, and data collection process. This is followed by a detailed presentation of findings organized by emergent themes (Hu & Pan, 2020). Finally, the discussion interprets these themes in light of existing literature and concludes with implications for design, policy, and future research.

RESEARCH METHODS

Study Design

This study employed a descriptive phenomenological approach to explore the lived experiences of elderly individuals in accessing telemedicine services (Bednarek-Gilland, 2015). As rooted in the philosophical tradition of Edmund Husserl, descriptive phenomenology emphasizes the uncovering of the essential structure of experience as perceived by individuals, without presuppositions or interpretations. This design was selected due to its capacity to elicit rich, first-person narratives that illuminate how participants consciously engage with digital health platforms (Lightner dkk., 2023). By focusing on the subjective and embodied nature of human experience, this method provided a structured and rigorous framework for capturing the nuanced perceptions, meanings, and emotions associated with telemedicine use among older adults. The process of epoché—the suspension of prior assumptions—was applied to approach the phenomenon from the participants' perspectives as authentically as possible.

Participants

Participants consisted of older adults aged 60 years and above who had previous experience in using telemedicine platforms for health consultations within the past 12 months (Borcsa & Rober, 2015; McNabb, 2015). A purposive sampling strategy was utilized to ensure the inclusion of individuals with direct and relevant experience of the phenomenon. Inclusion criteria included cognitive ability to participate in interviews, willingness to provide informed consent, and the physical ability to communicate verbally. Exclusion criteria involved severe cognitive impairments or lack of any prior digital health experience. The final sample comprised ten participants (six females and four males) with an average age of 68.7 years, representing diverse socio-economic and educational backgrounds (Cannon dkk., 2021). All participants had used at least one telemedicine

platform independently or with assistance and resided in urban or semi-urban settings where digital healthcare infrastructure was accessible.

Data Collection

Data were collected through semi-structured, in-depth interviews conducted in person or via secure video calls, depending on the participants' preferences and mobility (Hillman & Radel, 2018; Lutz & Knox, 2014). An interview guide was utilized, containing open-ended questions designed to elicit detailed descriptions of experiences, challenges, and perceptions related to telemedicine use (Peng dkk., 2019). Interviews were conducted in a private and comfortable environment, either in participants' homes or at a designated healthcare facility. Each session lasted between 45 and 75 minutes and was audio-recorded with prior consent. Field notes were also taken to capture non-verbal cues and contextual observations. The interview guide was developed based on existing literature and pilot-tested with two elderly individuals prior to the main data collection, with minor adjustments made to enhance clarity and cultural sensitivity.

Data Analysis

The data were analyzed using thematic analysis within a phenomenological framework, following the steps of familiarization, coding, categorization of meaning units, and thematic abstraction (Carreiras & Castro, 2012; Migdal, 2018). Transcripts were reviewed multiple times to gain immersion in the content, and meaningful expressions were segmented and labeled based on recurring experiential patterns. Through eidetic reduction, non-essential elements were bracketed out to arrive at the core themes that represent the essence of participants' lived experiences. MAXQDA software was used to facilitate the organization of data without influencing the interpretive process (Matrana & Campbell, 2020). The analysis aimed to preserve the richness of individual narratives while identifying shared meanings across participants, culminating in four major themes that reflect the psychological, emotional, and social dimensions of elderly users' engagement with telemedicine.

Ethical Considerations

Ethical approval was obtained from the appropriate institutional review board prior to the commencement of the study (Iosifides, 2013, 2016). All participants received detailed information about the study's purpose, procedures, risks, and benefits, and provided written informed consent before participation. Confidentiality and anonymity were ensured throughout the research process by using pseudonyms and removing any identifying information from transcripts. The study was conducted in accordance with the Declaration of Helsinki and adhered to national ethical guidelines for human subjects research.

RESULTS

Navigating Technological Unfamiliarity

One of the most prominent themes was the participants' initial struggle with navigating telemedicine platforms. Most respondents had minimal prior exposure to digital tools and expressed anxiety and uncertainty when first engaging with the system. The unfamiliar interface, complex login procedures, and fear of "doing something wrong" created emotional resistance.

"I was afraid I might click the wrong button and delete everything or make the doctor disappear." (P3)

"My children had to sit with me the first few times. It felt like a test I didn't study for." (P7)

Despite these fears, participants showed willingness to adapt, especially when health concerns demanded it. The theme highlights a crucial experiential conflict: the perceived necessity of digital health services versus technological discomfort.

Emotional Ambivalence Between Independence and Isolation

Participants shared a dual emotional experience—on one hand, a sense of empowerment by being able to consult doctors without physical travel, and on the other, a feeling of detachment and impersonality during the digital encounter.

“It’s good that I don’t have to ask someone to drive me to the clinic, but sometimes I feel like I’m talking to a machine, not a real person.” (P5)

“The doctor listens, yes, but I miss seeing their eyes, their expression... that made me feel safe before.” (P1)

The theme reveals how elderly users often oscillate between appreciation of convenience and yearning for human presence—an emotional tension that shapes their overall experience of telemedicine.

The Role of Social Support in Technology Adoption

Family members, particularly adult children, played a critical role in facilitating access and usage. Without such support, many participants admitted they would not have been able to use the service.

“If my daughter wasn’t there to help, I wouldn’t even know where to begin. She sets up everything.” (P4)

“My grandson taught me how to answer the video call. We practiced with his phone before the appointment.” (P6)

This theme points to the interdependence between elderly users and their social networks in engaging with digital health platforms, reinforcing the socio-technical nature of the adoption process.

Redefining Trust and Safety in the Digital Realm

Participants expressed concerns about privacy, data security, and miscommunication. Many relied on visual cues and physical presence in traditional consultations to assess trustworthiness—elements that are less tangible in telemedicine interactions.

“Sometimes I wonder who else is listening on the other end. I can’t see who is in the room.” (P2)

“I trust my doctor, but I don’t know if this system is safe. What if someone hacks it?” (P8)

Despite these concerns, several participants acknowledged a growing acceptance of digital health as part of modern care, albeit with caution and conditional trust.

The lived experiences of elderly individuals using telemedicine services are characterized by a complex interplay of apprehension, adaptation, emotional duality, and reliance on support systems. While technological unfamiliarity and emotional detachment present real challenges, the perceived benefits of access, efficiency, and familial assistance mitigate resistance. These findings reveal that for elderly users, meaningful telemedicine adoption is not merely a technical issue but a deeply social and psychological phenomenon rooted in their daily realities and relational contexts.

DISCUSSION

The present study revealed four central themes that characterize the lived experiences of elderly individuals in using telemedicine: technological unfamiliarity, emotional ambivalence, reliance on social support, and evolving notions of trust in digital healthcare (Ahmed, 2020). These findings underscore the complex, multifaceted ways in which older adults navigate digital healthcare platforms, addressing the core research question of how elderly users interpret and respond to telemedicine within the context of their daily lives and limitations.

The study contributes significantly to understanding how older adults not only interact with telemedicine tools, but also internalize and make sense of those interactions (Daly, 2007). Rather than

viewing telemedicine solely as a system to be learned or used, participants described it as a space of emotional negotiation, often entangled with feelings of anxiety, relief, vulnerability, and empowerment. These insights offer a direct response to the initial knowledge gap: the need to explore the subjective meanings that elderly users construct around digital healthcare. By adopting a descriptive phenomenological lens, the research was able to access and represent the nuanced perceptions and social contexts that shape how telemedicine is experienced, rather than simply how it is accessed or evaluated.

The findings align with and expand upon prior literature. Oberkampf dkk., (2023) emphasized patients' adaptation to remote consultation environments but did not explore the emotional labor involved in that adaptation. Similarly, Grassi dkk., (2019) identified basic perceptions of older adults toward healthcare technologies, yet lacked the depth of analysis related to meaning-making processes. This study goes further by elucidating how digital healthcare can simultaneously foster autonomy and deepen feelings of isolation—a duality not fully addressed in earlier work (Matrana & Campbell, 2020). The centrality of social support, as shown in the reliance on family members for navigation and reassurance, resonates with Seguro dkk., (2021), while also offering a more textured portrayal of how these dynamics influence trust, comfort, and sustained engagement. The use of phenomenology allowed the research to move beyond function and into meaning, bridging the gap between technical access and lived experience.

The findings of this study carry both practical and theoretical implications for the design and implementation of telemedicine services among elderly populations (Grassi dkk., 2019; Oberkampf dkk., 2023). On a practical level, the emotional and social dimensions revealed by participants suggest that telemedicine systems should not only be technically accessible but also psychologically supportive. Features such as simplified communication interfaces, opportunities for relational interaction, and integrated caregiver support mechanisms could enhance engagement. Socially and culturally, the study underscores the importance of acknowledging intergenerational dependencies and cultural norms related to authority, trust, and health communication. These insights are especially relevant in societies where aging populations are rapidly expanding and where digital health solutions are increasingly seen as essential to long-term care strategies.

Despite its contributions, this study has several limitations (Clair, 2003; Kawamura, 2020). The findings are based on a small, purposively selected sample, which, while appropriate for phenomenological inquiry, limits the extent to which the results can be generalized to all elderly telemedicine users (Seguro dkk., 2021). The cultural context in which the study was conducted may also shape certain themes, such as family involvement and attitudes toward digital privacy. Additionally, the reliance on self-reported experiences introduces the possibility of recall bias or social desirability effects (Bunnik dkk., 2021). These limitations do not diminish the value of the findings but rather highlight the need for caution in extrapolating the results beyond similar contexts.

Future research may build upon these insights by exploring variations in telemedicine experience across different cultural, socioeconomic, or geographic settings (Cannon dkk., 2021; Peng dkk., 2019). Longitudinal designs could also provide deeper understanding of how elderly individuals' perceptions evolve over time as digital familiarity increases or health conditions change (Bunnik dkk., 2021). Moreover, combining phenomenological insights with participatory design methods may empower users to co-create solutions that reflect their lived realities. In doing so, research can continue to bridge the gap between technological innovation and meaningful, inclusive health experiences for aging populations.

CONCLUSION

This study explored the lived experiences of elderly individuals in engaging with telemedicine services, focusing on how they perceive, adapt to, and find meaning in digital healthcare interactions. The findings revealed four key themes: technological unfamiliarity, emotional ambivalence, reliance on social support, and evolving trust in digital systems. These insights offered a deeper understanding of how older adults experience telemedicine not merely as users, but as individuals navigating personal, social, and cultural complexities. By adopting a descriptive

phenomenological approach, the study addressed critical gaps in previous research that overlooked subjective and emotional dimensions of digital healthcare use. The results contribute valuable perspectives for designing more inclusive and empathetic telemedicine platforms tailored to aging populations. Future research may expand this work across diverse cultural settings or integrate co-design strategies to translate these lived experiences into practical system improvements.

CONFLICT OF INTEREST

The authors declare no conflict of interest related to the conduct, funding, or publication of this research. All procedures were conducted independently and without any commercial or financial relationships that could be construed as a potential conflict.

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