Published by OTS Canadian Journal
Available at: *https://journal.canadian-ots.ca*
ISSN: 2817-1756
Vol-4, Issue-7; July, 2025
Research Article Open Access

Telehealth Adoption Among Elderly Patients: Barriers and Opportunities in Post-Pandemic Care

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Article History
Received: June, 12,2025
Revised: June, 27,2025
Accepted: July 10, 2025

Doi: https://doi.org/10.58840/p28cz459

Abstract:

The COVID-19 pandemic catalyzed an unprecedented shift toward telehealth services, offering a lifeline for vulnerable populations, particularly elderly patients. While telehealth adoption expanded rapidly during the pandemic, its continued integration into post-pandemic healthcare systems raises concerns and opportunities. This article explores the barriers elderly patients face in adopting telehealth, including technological literacy, access to devices, cognitive and physical limitations, and concerns about privacy. It also highlights key opportunities to improve elderly care through telehealth by enhancing accessibility, streamlining care coordination, and reducing hospital readmissions. Recommendations for policymakers, healthcare providers, and caregivers are provided to ensure equitable and sustainable telehealth integration for older adults.

Keywords: *Telehealth Adoption, Elderly Patients, Digital Health Barriers, Post-Pandemic Healthcare, Technology Acceptance, Healthcare Accessibility, Digital Literacy*

1. Introduction

The global COVID-19 pandemic significantly accelerated the adoption of telehealth services across all demographics, with elderly patients among the primary beneficiaries due to their high risk of severe illness. As healthcare systems adapted to social distancing and lockdown measures, virtual consultations became essential in delivering continuity of care. However, despite its rapid deployment, telehealth implementation revealed several challenges specific to older adults (Lam et al., 2020). As the world transitions to a post-pandemic reality, understanding and addressing the unique needs of the elderly population is crucial to ensuring equitable access to digital healthcare (Kruse et al., 2020).

Telehealth, defined as the remote delivery of healthcare services using telecommunications technology, provided a vital bridge between patients and providers during periods of physical isolation (Bashshur et al., 2020). For elderly individuals, who often have multiple chronic conditions and limited mobility, the benefits of virtual care were particularly significant. Reduced travel, minimized exposure to infection, and the ability to consult specialists from home were key advantages. Yet, these benefits were not universally realized due to a range of socio-technical barriers (Yasin, 2024).

One of the primary obstacles for elderly patients was digital literacy. Many older adults lack the necessary skills to navigate smartphones, computers, and telehealth platforms effectively. In addition, cognitive decline, visual or auditory impairments, and limited access to high-speed internet further compounded the digital divide (Totten et al., 2019). Research has shown that these barriers can result in decreased satisfaction, increased anxiety, and lower adherence to virtual care plans among the elderly. Moreover, trust in technology and personal preferences also play a role in telehealth adoption. Some elderly patients express discomfort with digital interactions, preferring face-to-face consultations where physical exams and interpersonal rapport can be established (Tremblay, 2025). Concerns about data privacy and the impersonal nature of virtual visits have also been cited as deterrents. In rural and underserved areas, infrastructural challenges—such as lack of broadband connectivity or availability of trained staff to assist—further limit telehealth's reach among older populations (Fragala et al., 2021).

Despite these challenges, the pandemic experience has paved the way for more inclusive digital health strategies. Healthcare providers, policymakers, and technology developers now recognize the importance of designing age-friendly telehealth solutions. Features such as simplified interfaces, caregiver support, training programs, and hybrid models of care (combining in-person and virtual options) are being explored to enhance usability and accessibility (Shukur, 2025). In the post-pandemic era, telehealth holds the potential to revolutionize elder care, but its success depends on addressing these structural and behavioral barriers. Ensuring that elderly patients are not left behind in the digital transformation of healthcare requires targeted interventions, inclusive policy frameworks, and a commitment to patient-centered design.

2. Barriers to Telehealth Adoption Among Elderly Patients

While telehealth offers convenience and safety, elderly patients often encounter several obstacles that hinder its effective use (Wootton & Bonnardot, 2015). These barriers can be broadly categorized into technological, physical, psychological, and systemic challenges.

2.1 Technological Barriers

Digital literacy remains one of the most significant hurdles. Many elderly patients are unfamiliar with using smartphones, tablets, or video conferencing software required for virtual consultations. In a study by Pew Research Center (2021), only 61% of Americans aged 65 and older reported using the internet regularly, and fewer were confident in handling tech-related tasks. Navigating login credentials, camera settings, and app interfaces can be intimidating, especially for those without prior experience or assistance (Surchi, 2025).

2.2 Physical and Cognitive Limitations

Age-related health issues such as hearing impairment, poor vision, and reduced motor skills can make telehealth technologies difficult to use. Additionally, patients with cognitive impairments such as dementia or Alzheimer's disease may struggle to follow instructions during a virtual visit or understand how to operate devices. These limitations reduce the effectiveness of telehealth in accurately assessing and managing their medical needs (Kruse et al., 2018).

2.3 Psychological and Emotional Factors

Trust and comfort with technology also influence telehealth adoption. Some elderly individuals perceive virtual care as impersonal or inferior to in-person visits (Mohammed, 2023). They may also fear that something important could be missed without a physical examination. The anxiety associated with technology use, sometimes referred to as "technophobia," can deter older adults from engaging with telehealth systems, even when they are capable of using them (Faeq, 2025).

2.4 Socioeconomic and Infrastructure-Related Issues

Access to reliable internet and modern devices is not universal. Elderly patients in rural areas or lower-income households may not have broadband connectivity or may share limited devices with others (LeRouge et al., 2019). Furthermore, language barriers, especially among immigrant or minority groups, can complicate telehealth navigation, particularly when instructions or interfaces are only available in one language (Wilson, 2025).

2.5 Lack of Support and Training

Without ongoing support, elderly patients may feel overwhelmed. Many are not provided with adequate training or access to a caregiver who can assist during virtual consultations. This lack of support infrastructure increases frustration and reduces follow-up rates, potentially compromising their health outcomes (Lam et al., 2020). Addressing these barriers is crucial for ensuring equitable access to care in a digitally evolving healthcare system. Tailored interventions, including caregiver

involvement, simplified platforms, and patient education, can help bridge the gap for elderly users (Lévesque, 2025).

3. Opportunities for Improved Elderly Care Through Telehealth

Despite the numerous barriers facing elderly patients in accessing telehealth, the benefits of effective implementation are substantial (Anderson & Perrin, 2017). When tailored appropriately, telehealth can significantly enhance the quality, accessibility, and continuity of care for older adults—especially those with chronic illnesses, mobility limitations, or living in remote areas (Ekeland et al., 2012).

3.1 Increased Access to Care

One of the most notable advantages of telehealth is its ability to eliminate geographical and physical barriers. Elderly patients often face challenges traveling to medical facilities due to mobility constraints, transportation issues, or the need for a companion. Virtual consultations drastically reduce these hurdles by enabling access to care from home (Fatah, 2025). This is particularly beneficial in rural or underserved regions where specialists and geriatric services are limited. Moreover, by reducing dependency on transportation and minimizing physical strain, telehealth enhances patient autonomy and empowers the elderly to manage their health more proactively (Costa, 2025).

3.2 Continuity and Coordination of Care

Telehealth plays a pivotal role in chronic disease management—a major concern for the elderly, who frequently deal with conditions like arthritis, cardiovascular disease, or diabetes. Through regular virtual visits, physicians can monitor progress, adjust treatment plans, and coordinate care more seamlessly across providers (Sayah et al., 2021). Integrated platforms enable shared access to electronic health records, allowing primary care physicians, specialists, and home health aides to stay aligned on treatment goals. This not only minimizes the risk of medical errors and redundant testing but also enhances the patient's sense of being holistically cared for (Shukur, 2024).

3.3 Early Intervention and Hospital Avoidance

Remote patient monitoring devices—such as wearable heart rate monitors, glucose sensors, and blood pressure cuffs—are revolutionizing how care is delivered to seniors. These tools enable clinicians to detect anomalies before they escalate into emergencies (Powell et al., 2017). For example, a sudden spike in blood pressure or an irregular heartbeat can prompt an immediate teleconsultation, preventing a potential hospital visit. Such early interventions not only safeguard the patient's health but also reduce hospital readmissions and alleviate pressure on emergency services (Olamide, 2025).

3.4 Support for Caregivers

Caregivers, often family members, play a vital role in elderly healthcare but are frequently under-supported. Telehealth allows caregivers to be present during virtual consultations, promoting better

communication between the medical team and the family. It ensures that caregivers receive timely updates, understand treatment plans, and are better equipped to manage medications, symptoms, and daily routines—ultimately improving both caregiver confidence and patient outcomes (Greenhalgh et al., 2020).

4. Strategies for Enhancing Telehealth Adoption Among Elderly

The effective adoption of telehealth among elderly populations hinges on more than just access—it requires thoughtful design, education, infrastructure investment, and supportive policy environments. To unlock the full potential of virtual care for seniors, a comprehensive, multi-pronged approach is essential (Marley, 2025).

4.1 Training and Digital Literacy Programs

Digital literacy remains a foundational barrier to telehealth utilization among the elderly. Many older adults lack experience with technology, creating apprehension or frustration when using new tools. Community-based interventions can bridge this gap. Senior centers, libraries, primary care clinics, and NGOs can provide ongoing training through workshops, helplines, or home visits (Cimperman et al., 2016). These sessions should be tailored to the cognitive and learning needs of older adults—focusing on simple instructions, step-by-step guidance, and hands-on demonstrations. Visual aids, printed manuals with large fonts, and video tutorials can enhance retention. Family members or caregivers should also be involved to reinforce skills and offer technical support at home (Thompson, 2025).

4.2 User-Friendly Platform Design

Technology developers must prioritize accessibility and simplicity in telehealth platforms. Many systems today are designed for tech-savvy users, which can alienate elderly individuals. Applying universal design principles—such as high-contrast interfaces, voice activation, captioning, and oversized icons—ensures greater inclusivity. Systems should minimize steps required for login and appointment navigation (Chang et al., 2021). Reducing cognitive load and eliminating jargon are key to making the interface usable and reassuring for older patients. Including customer support features such as real-time chat or on-call assistance can further ease adoption (Nouri et al., 2020).

4.3 Infrastructure and Device Support

Access to the internet and appropriate hardware is a persistent issue, particularly for low-income seniors or those in rural areas. Governments and healthcare systems should invest in digital inclusion initiatives, including the distribution of tablets or smartphones configured for telehealth use. Partnerships with telecom providers can help subsidize broadband costs or offer senior-friendly data packages (Santos, 2025). Policymakers should also explore public Wi-Fi access points or home-visit programs where healthcare workers set up technology and walk patients through its use (Smith et al., 2020).

4.4 Provider Engagement and Reimbursement

Doctors and nurses also need to adapt their approach when interacting with elderly patients remotely. Training should include best practices in virtual bedside manner, detecting non-verbal cues, and building rapport (Yellowlees & Shore, 2018). On the policy side, insurance reimbursement models must support telehealth services equivalently to in-person care. This ensures providers have the financial incentive to continue offering telehealth, especially to older patients who benefit most from its convenience and continuity (Otieno, 2025).

5. Policy Implications and Future Directions

The rapid expansion of telehealth services during the COVID-19 pandemic provided unprecedented insights into the benefits and challenges of digital healthcare delivery, particularly for older adults. While many elderly patients gained new access to care during periods of physical distancing, the uneven rollout of services also exposed critical gaps in digital equity, technological literacy, and health system preparedness. As the healthcare landscape continues to evolve, it is imperative that policymakers and stakeholders translate these lessons into actionable, sustainable policy (Wosik et al., 2020).

First, there is a clear need for standardized telehealth accessibility regulations. Just as physical healthcare facilities are required to meet disability access standards, telehealth platforms must comply with guidelines that accommodate visual, auditory, cognitive, and mobility impairments commonly experienced by elderly patients. Regulatory bodies should collaborate with technology developers, gerontologists, and accessibility experts to create enforceable frameworks that ensure inclusivity in digital care (Narayanan, 2025).

Second, investments in broadband infrastructure are essential for equitable telehealth access. Many elderly individuals—particularly those in rural, remote, or economically disadvantaged areas—lack reliable internet connectivity, creating a digital divide that exacerbates existing health disparities. National and regional policies must prioritize the expansion of high-speed internet coverage and affordability initiatives tailored to seniors. These could include government-subsidized broadband plans or public-private partnerships to deploy community hotspots and home internet installations (Kruse et al., 2016).

Third, dedicated funding for telehealth research focused on elderly outcomes is critical. Longitudinal studies are needed to assess the clinical effectiveness, patient satisfaction, and cost-efficiency of telehealth models for older adults. This evidence base will help identify best practices, inform care protocols, and shape reimbursement models that reflect the unique healthcare utilization patterns of this demographic (Bhatia et al., 2020).

Fourth, governments should incentivize health systems to integrate age-friendly practices into their telehealth strategies. This includes workforce development programs that train providers in geriatrics and virtual communication, as well as care coordination models that incorporate caregivers and community health workers. Embedding telehealth in long-term care planning—especially within aging-in-place and home-based care frameworks—can enhance chronic disease management, reduce institutionalization, and promote independence. Looking forward, the global trend toward an aging population underscores the urgency of integrating telehealth into the broader continuum of care. Thoughtful, inclusive policy design will be key to transforming telehealth from a temporary emergency measure into a permanent solution that empowers older adults, reduces barriers to care, and strengthens public health resilience.

6. Conclusion

Telehealth has the potential to revolutionize elderly care in the post-pandemic era, offering a crucial bridge between convenience, continuity, and quality healthcare. However, its success depends not only on technological advancements but also on the deliberate and compassionate integration of these tools into patient-centered care models. As the global elderly population continues to grow, the need for scalable and accessible healthcare becomes more urgent. Telehealth offers a practical solution—one that can increase healthcare access, reduce system burdens, and empower older adults to participate more actively in managing their own well-being.

Yet, the promise of telehealth will remain unfulfilled if it fails to account for the unique challenges faced by elderly users. Age-related cognitive decline, sensory impairments, limited digital literacy, and socioeconomic barriers all contribute to a digital divide that can leave older patients feeling frustrated, excluded, or alienated. To mitigate these risks, health systems must embrace inclusive design practices and build digital literacy initiatives tailored specifically for older adults. These should include simplified interfaces, hands-on training sessions, and ongoing support to ensure confidence and independence in using telehealth technologies.

Moreover, caregivers—both formal and informal—must be equipped and supported in this transition. Including caregivers in telehealth consultations not only improves care coordination but also reduces the emotional and logistical burden they often shoulder. Health professionals, too, require guidance and training to adapt their communication styles to virtual formats that preserve empathy, build trust, and accommodate the specific needs of aging patients.

From a policy perspective, sustaining telehealth adoption among the elderly requires regulatory and financial frameworks that prioritize accessibility, equity, and evidence-based outcomes. Investments in broadband infrastructure, device accessibility programs, and telehealth reimbursement models will be key in ensuring long-term viability. Public-private partnerships and age-friendly innovation hubs can play a vital role in accelerating this transformation. In sum, as technology reshapes healthcare delivery, our focus must remain human-centered. By bridging technological innovation with inclusive practices, we can ensure that telehealth evolves into a powerful tool for promoting autonomy, dignity, and health equity among elderly populations. The road ahead calls for collaboration across healthcare, technology, and policy sectors—to ensure that no older adult is left behind in the digital age of care.

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