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# TELEMEDICINE'S ROADBLOCKS: UNDERSTANDING ITS LIMITATIONS

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The rapid integration of telemedicine into modern healthcare systems represents a revolutionary step in enhancing accessibility and convenience in medical services. Although telemedicine offers numerous benefits, it is not without significant limitations, including **financial implications, barriers encountered by older adults, and the acceptance of this technology by physicians**. These challenges collectively affect its effectiveness and widespread implementation, highlighting the necessity for a critical examination of telemedicine's limitations in transforming healthcare delivery.

An essential aspect of telemedicine's limitations is its complex financial impact, which varies across patient demographics and health conditions. Its cost-effectiveness is not uniform; for example, chronic disease management through telemedicine often results in more savings compared to acute care. Additionally, the upfront costs of establishing telemedicine infrastructure and training can be substantial, affecting short-term financial outcomes. This complexity extends to how telemedicine fits within healthcare reimbursement models, with its viability hinging on insurance and government health plan coverage. "The financial implications of telemedicine adoption are complex, influenced by factors such as patient demographics and health conditions." (Jamal, 2023, p. 5)

One of the primary challenges in expanding telemedicine is addressing the unique needs of older adults, particularly those with limited technological literacy. This demographic often struggles with using digital platforms, which can hinder their ability to engage in telemedicine effectively. Additionally, many older adults in independent living facilities may not have access to the necessary devices or high-speed internet connections required for telemedicine. These barriers highlight the importance of developing user-friendly telemedicine solutions and providing necessary support and training for older adults. "Barriers to telemedicine for older adults extend beyond mere access and include challenges related to digital literacy and the suitability of the technology for this demographic." (Mao et al., 2022, p. 8)

The successful implementation of telemedicine heavily depends on its acceptance and adaptation by healthcare providers, particularly physicians. This acceptance is often influenced by their perception of the technology's ease of use and the complexities associated with adopting new systems. One of the main barriers is the comfort level of physicians with new technology; many may find the shift to telemedicine challenging due to its inherent complexity. This discomfort can slow down the adoption process, impacting the overall effectiveness of telemedicine in healthcare settings. Therefore, providing targeted training and support for healthcare providers is essential to facilitate a smoother transition to these new systems. "Physicians recognized the usefulness of telemedicine, but its complexity and the discomfort associated with new technology adoption posed significant barriers" (Hu, Chau, Liu Sheng, & Tam, 1999).

To conclude, while telemedicine significantly enhances healthcare accessibility and convenience, its widespread adoption faces notable challenges. These include complex financial implications, technological barriers for older adults, and the need for greater acceptance and adaptation by healthcare providers. Only by acknowledging and overcoming these hurdles can telemedicine truly transform healthcare delivery, making it more equitable, efficient, and accessible for all.

## **References:**

1. Jamal, A. (2023). Effect of telemedicine use on medical spending and health care utilization: A machine learning approach. *AJPM Focus*, 2(3), 100127. <https://doi.org/10.1016/j.focus.2023.100127>
2. Mao, A., Tam, L., Xu, A., Osborn, K., Sheffrin, M., Gould, C. E., Schillinger, E., Martín, M. D., & Mesias, M. (2022). Barriers to telemedicine video visits for older adults in independent living facilities: Mixed methods cross-sectional needs assessment. *JMIR Aging*, 5(2), e34326. <https://doi.org/10.2196/34326>
3. Hu, P. J., Chau, P. Y. K., Liu Sheng, O. R., & Tam, K. Y. (1999). Examining the Technology Acceptance Model Using Physician Acceptance of Telemedicine Technology. [Link](#)