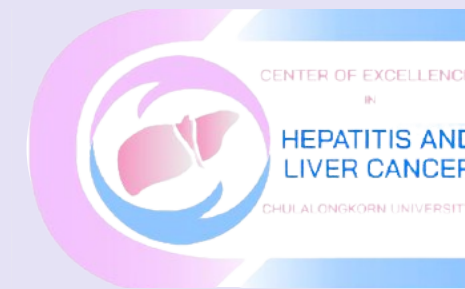


# The Impact of Caregiver Support and Digital Familiarity on Elderly Patients' Satisfaction and Perception of Telemedicine.



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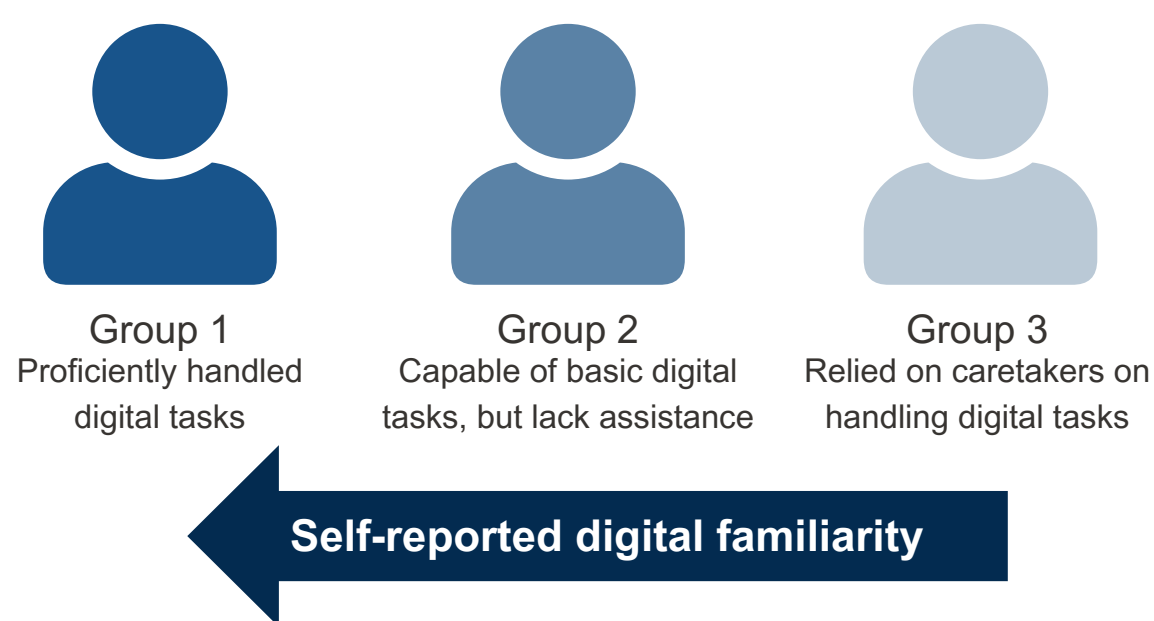
## 1 Introduction

Chronic diseases significantly impact global health, particularly in the elderly<sup>(1)</sup>. Regular follow-up is key for managing these conditions, but in-person visits often present challenges such as long wait times, transportation issues, and financial constraints<sup>(2-4)</sup>. The COVID-19 pandemic has further heightened infection concerns among this demographic. While telemedicine offers a promising alternative, its effective adoption may be hindered by limited digital literacy and internet access in some elderly patients<sup>(4)</sup>.

## 2 Objective

The objectives of this study are to:

1. Assess the acceptability and feasibility of the TeleCU telemedicine platform for elderly patients.
2. Investigate how demographics, satisfaction, and perceptions of the TeleCU platform vary among elderly individuals with differing levels of self-perceived digital familiarity.



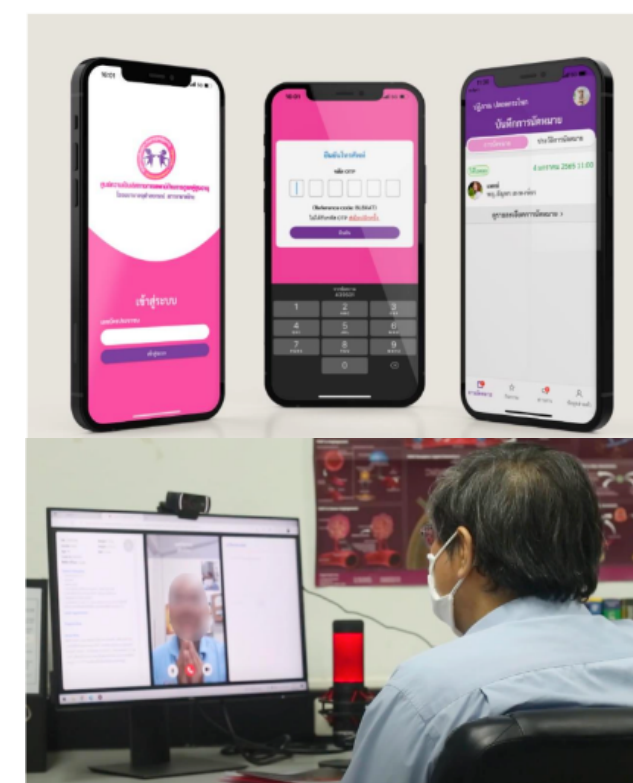
## 3 Methodology

Demographic information and online behavior patterns were collected from 710 elderly patients with chronic illnesses. These participants were categorized based on their self-reported digital familiarity. Following their telehealth sessions, they completed satisfaction and perception surveys. The association between digital familiarity and patient satisfaction and perception was analyzed using descriptive statistics and Fisher's exact test.

**User research**  
Interviewed healthcare providers and elderly patients

**Implementation**  
Pre-clinical screening  
Video consultations

**Evaluation survey**  
Satisfaction and perception on telehealth

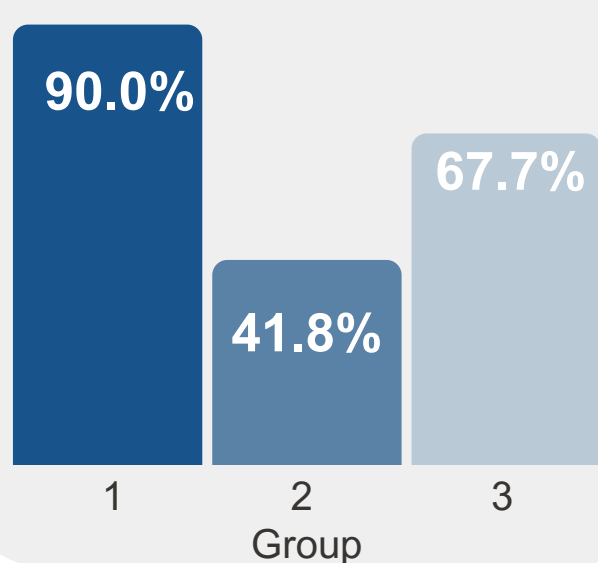


## 3 Results & Discussion

**Telehealth Satisfaction and Perception:** Overall, 96.7% were satisfied with their telehealth visit.

**Demographic Correlations:** Digitally proficient seniors are predominantly male ( $p = .035$ ), have a Bachelor's degree or higher ( $p < .001$ ), and reside in Bangkok ( $p < .001$ ). A higher educational level is associated with an increase in digital competency, where gender and domicile differences in digital proficiency could also be influenced by education<sup>(7)</sup>.

Proportion of Participants Rating Telemedicine  $\geq 4/5$  for Improving Healthcare Access



Elderly individuals with basic internet navigation skills but without caregiver support were significantly less likely to agree that telemedicine improves healthcare access ( $p = .003$ ). In contrast, there was no significant difference in the positive perceptions between Group 1 and Group 3 ( $p = .239$ ).

This suggests that caregiver assistance plays a key role in favorable telemedicine perceptions, on-demand help can increase engagement among the elderly<sup>(5,6)</sup>.

## 5 Policy Recommendation & Conclusion

This research points to the critical need to address digital inequities in telemedicine. A holistic strategy that merges technological education with individualized assistance can facilitate fair access to telemedicine for older adults, aiming for a more equitable healthcare system.

## References

1. Olivares DEV, Chambi FRV, Chafii EMM, Craig WJ, Pacheco SOS, Pacheco FJ. Risk Factors for Chronic Diseases and Multimorbidity in a Primary Care Context of Central Argentina: A Web-Based Interactive and Cross-Sectional Study. *Int J Environ Res Public Health*. 2017 Mar;14(3):251-2. Gajarawala SN, Pelkowski JN. Telehealth Benefits and Barriers. *J Nurse Pract*. 2021 Feb;17(2):218-221. doi: 10.1016/j.nurpra.2020.09.013. Epub 2020 Oct 21. PMID: 33106751; PMCID: PMC7577680. 3. Akilu TM, Abebe W, Worku A, Tadele H, Haile T, Shimelis D, et al. The Impact of COVID-19 on Care Seeking Behavior of Patients at Tertiary Care Follow-up Clinics: A Cross-Sectional Telephone Survey. *Addis Ababa, Ethiopia [Internet]*. 4. Mao A, Tam L, Xu A, Osborn K, Sheffrin M, Gould C, et al. Barriers to Telemedicine Video Visits for Older Adults in Independent Living Facilities: Mixed Methods Cross-sectional Needs Assessment. *JMIR Aging*. 2022 Apr 19;5(2):e34326. 5. Pichan CM, Anderson CE, Min LC, Blazek MC. Geriatric Education on Telehealth (GET) Access: A medical student volunteer program to increase access to geriatric telehealth services at the onset of COVID-19. *J Telemed Telecare*. 2021 Jun 21;1357633X211023924. 6. Le TV, Galperin H, Traube D. The impact of digital competence on telehealth utilization. *Health Policy Technol*. 2023 Mar 1;12(1):100724. 7. van Deursen AJAM, van Dijk JAGM, Peters O. Rethinking Internet skills: The contribution of gender, age, education, Internet experience, and hours online to medium- and content-related Internet skills. *Poetics*. 2011 Apr 1;39(2):125-44.