

POSTER PRESENTATION 3: PHYSICAL AND MENTAL HEALTH

Barriers and facilitators of self-management using digital technology in older adults living alone

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Purpose With the rapid digital transformation due to the COVID-19 pandemic, older adults face many challenges related to digital health literacy (Kaihlainen et al., 2022). Although older adults living alone, in particular, are likely to experience digital health inequity, research on difficulties when they employ digital technology for self-management remains scant. This study aims to explore barriers and facilitators of self-management using digital technology in older adults living alone during the pandemic digital era. **Method** We conducted a qualitative descriptive study using the focus group interview. Twenty-four older adults aged 65 and over who live alone participated in this study between September 2021 and October 2021. Participants, divided into four groups of six, were answered semi-structured questions about experience in using digital technology for self-management. Data were analyzed using content analysis, as described by Graneheim and Lundman (2004). We read the transcribed manuscripts several times to identify manifest and latent content. The text was segmented into codes, and it was condensed into subcategories having the same central meaning. Subcategories were abstracted into categories. Emergent themes were categorized into individual, technological, relational, and organizational factors based on the previous study (Wilson et al., 2021). **Results and Discussion** The digital technologies for self-management that participants have used were smartphones, computers, tablets, wearable devices, Bluetooth medical devices, artificial intelligence speakers, wireless emergency alerts. We found nine barriers and six facilitators related to self-management using digital technology for older adults living alone (Table 1). Barriers included age-related health problems, lack of knowledge, and lack of perceived usefulness (individual factor), user-unfriendly interface for devices, device error, and cost of equipment and internet service (technological factor), lack of human contact, lack of people to help troubleshooting problems (relational factor), and lack of data credibility (organizational factor). In addition, facilitators included repeated practice, self-efficacy, and perceived convenience (individual factor), personal reminders (technological factor), and peer support, shared goal setting (relational factor). The findings of this research provide insights into the needs of older people who live alone that health care providers should consider when developing digital self-management programs.

References

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Table 1. Barriers (-) and facilitators (+) to self-management using digital technology in older adults living alone

Category	Subcategory	Codes
Individual	Age-related health problems (-)	Tendency to forget things quickly
		Decreased visual acuity
		Hearing problems understanding fast speech
	Lack of knowledge (-)	Unaware technology use despite of they already have it
		Poor touchscreen skills
	Lack of perceived usefulness (-)	No interest to learn new things
	Repeated practice (+)	Lack of need to change on present life
Daily practice to remember		
Self-efficacy (+)	Desire to try again and again on one's own	
	Positive mindset that one can do it despite physical limitation	
Perceived convenience (+)	Familiarity by long-term use	
	Portability of technology that can be used in any pose or place	
Technological	User-unfriendly interface for devices (-)	Visual stress by small text and screen
		Unnecessarily complex functions
		Different interfaces between digital devices
	Device error (-)	Frequent troubles with laptops
		Not working wireless call bell in a medical emergency
Cost of equipment and internet service (-)	Expensive digital devices	
	Shortage of data	
Relational	Personal reminders (+)	Automatic alarms to tell somethings forgotten such as workout schedule
		Absence of emotional interactions
	Lack of human contact (-)	Hard feeling when communicating with the screen
		Lack of family's patience while learning
	Lack of people to help troubleshooting problems (-)	Visiting a smartphone store to fix a problem
Peer support (+)		Boosted motivation when being together
	Shared goal setting (+)	Sharing experiences among others and Co-teaching
Activity goals entered in mobile apps		Continuously managed activity goals by public health center
	Organizational	Lack of data credibility (-)