Residents' perception of the use of smart-home technologies in a retirement community

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Purpose In the past, older adults had ambivalent attitudes regarding the use of technology (Pirzada et al., 2022). However, the pandemic has been a catalyst for the use of technology. The COVID-19 pandemic has forced individuals to change habits and increase their trust in technology (Umair et al., 2022). This is an opportunity for older adults in general, specifically long-term care communities can take advantage of this and adapt their living spaces with assistive technologies. Smart home technology includes automation, social connectivity, activity, and health monitoring, among others. The use of smart home technology will benefit not only older adults' quality of life but also may reduce costs and improve the quality of care within long-term facilities (Borelli et al., 2019). Therefore, this qualitative study explored the perception of residents living in a retirement community regarding the use of a portal that integrated smart-home technology. **Method** Qualitative data were collected through semi-structured interviews with nine residents. The interviewer asked about demographics, use of devices, and the internet. Also, residents expressed their experiences living in smart-cottages that had a responsive platform (portal). The portal allowed older adults to control domestic devices and appliances, and communicate with the retirement community using a tablet. The interviews were transcribed, coded, and organized in themes using NVivo software. **Results and Discussion** The findings are presented in Table 1. Residents indicated that the portal was a protected and supportive tool. Older adults felt a strong sense of being cared for because if something went wrong with home services (such as the furnace, air conditioner, or lights), maintenance was notified automatically through the portal. Also, the motion sensors notified the nursing staff if residents fell or if they stayed in bed too long. A resident said, "They keep track. To make sure we are alive". Residents enjoyed scheduling services directly in the portal without contacting staff. Older adults chose what services they wanted to use. Some of them used the portal for communication with family members, but not with other residents because they preferred face-to-face communication. Residents associated the portal with safety, care, and support from the facility. The use of smart home technologies in retirement communities is perceived as a high-quality service by the residents. It increases technology literacy and improves residents' quality of life. Furthermore, the use of technology can save energy and reduce costs to the retirement community, increase customer satisfaction, and it can be a potential solution to the shortage of professionals in the aging field. Finally, the use of smart-home technologies can help residents to age in their cottages (aging in place) without moving to sections of the community that require a higher level of care such as assisted living or nursing homes.

References
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Table 1. Findings Display.

Perceptions of older adults living in a retirement community regarding the use of smart home technology.

Use of Technology

Residents tried new technologies if they match their interests or offer immediate benefits

The majority of older adults used the portal daily

Perception of the Portal among Residents

The portal increases users' sense of trust and satisfaction with the retirement community.

The portal promotes a sense of autonomy and environmental control among residents

Expectations: Older Adults Want Functionality

Technology should support the residents' daily life

A portal integrating smart-home technologies (sensors, appliances, etc.) is functional

A portal should include voice recognition

Adopting Smart Home Technology within CCRCs

Adoption of technology should be promoted through frequent training and hands-on practices with residents

Older adults will continue using smart-home technologies if they are efficient