

Application Fields and Innovative Technologies

Barriers and Facilitators to Technology Adoption for Social Connection in Long-Term Care: A Scoping Review. S. Somani, E. Rossnagel & S. Freeman *Gerontechnology* 25(s)

Purpose By 2050, the global population aged 60 and older will reach 2.1 billion [1]. In Canada, 18% of people are 65 or older, including more than 200,000 in long-term care facility (LTCF) [2]. Social isolation affects 50–55% of older adults [3], with LTCF residents at particularly high risk. Evidence shows that technology could enhance social connectedness among older adults [4], but its implementation remains challenging. The purpose of this scoping review was to examine current evidence on the barriers and facilitators influencing the implementation of technologies designed to enhance social connections among older adults, including those with dementia, residing in LTCFs. **Method** Guided by Arksey and O'Malley's (2005) framework, a comprehensive literature search was conducted in CINAHL, Medline, and PsycINFO for studies published in the past five years. The search focused on technologies that support social connectedness and reported implementation barriers or facilitators. Reviews, dissertations, and studies on medical or physical assistance technologies were excluded. After screening 2,024 articles and removing duplicates, 24 studies met the inclusion criteria. Data were extracted and analyzed descriptively to identify study characteristics and key themes. **Result** The studies covered diverse aged-care settings across Europe, North America, Asia, and Oceania, with samples of 6–289 participants aged 46–108. Social robots were the most commonly studied technology (14 of 24 studies), yet only six used implementation frameworks (e.g., TAM, EUnetHTA). Key barriers were staff workload, ethical concerns, and limited acceptance, driven by device management demands, privacy and emotional risks, inadequate training, and technical or usability issues. Facilitators included user acceptance, social connection, and emotional well-being, supported by simple, familiar technologies (e.g., iPads, KOMP, WeChat) that enabled family contact, community engagement, and reduced loneliness. **Discussion.** Barriers outweighed facilitators, and technology acceptance varied. While studies included multiple stakeholder perspectives, they were limited by English-only inclusion, minimal rural focus, and heterogeneous technologies. Key recommendations include providing robust training and support, addressing cost and sustainability, and adopting accessible designs.

References

1. World Health Organization. (2025). *Ageing and health*. <https://www.who.int/news-room/fact-sheets/detail/ageing-and-health>
2. Employment and Social Development Canada. (2022). *Seniors infographic – 2021*. Government of Canada. <https://www.canada.ca/en/employment-social-development/corporate/reports/esdc-transition-binders/seniors-2021-infographic.html>
3. Drageset, J., Kirkevold, M., & Espehaug, B. (2011). Loneliness and social support among nursing home residents without cognitive impairment: A questionnaire survey. *International Journal of Nursing Studies*, 48(5), 611–619. <https://doi.org/10.1016/j.ijnurstu.2010.09.008>
4. Francis, J., Rikard, R. V., Cotten, S. R., & Kadylak, T. (2019). Does ICT use matter? How information and communication technology use affects perceived mattering among a predominantly female sample of older adults residing in retirement communities. *Information, Communication & Society*, 22(9), 1281–1294. <https://doi.org/10.1080/1369118X.2017.141745>

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