



# ICT Interventions

## SOCIAL ISOLATION

This evidence theme on Information and Communication Technology (ICT) interventions is a summary of one of the key topics identified by a scoping review of social isolation research.

### Key points

- Information and Communication Technologies (ICT) are a diverse set of technological tools and resources including computers, Internet devices, live broadcasting technologies, recorded broadcasting technologies, and telephones.
- ICT can have positive effects on the wellbeing of older people by improving their social networks, establishing connections, and decreasing loneliness.
- Training older people in using different types of ICT is needed. This training should focus on the stated needs, concerns, and preferences of the older person.
- Human connection and face-to-face interaction are critical at all stages of life, including older age. Although current research highlights opportunities for ICT to improve the care, health, and wellbeing of older people, it should not be used as a replacement for direct human interaction.

### What is Information and Communications Technology?

Information and Communications Technology (ICT) brings together telecommunications and modern computing technology. It is defined by the United Nations Educational, Scientific and Cultural Organization as a diverse set of technological tools and resources used to transmit, store, create, share or exchange information. [1] This includes computers, the Internet (e.g., websites, blogs, emails etc), live broadcasting technologies (e.g., radio, television and webcasting), recorded broadcasting technologies (e.g., podcasts, audio and video players, and storage devices) and telephone (e.g., fixed or mobile, satellite or video-conferencing). [1]

ICT has been widely used in aged care. The Australian eHealth Research Centre's work in 'Health in the Digital Age' includes storage of health data and data analytics, clinical

terminology, use of data for other related purposes, and mobile health solutions such as telehealth. More recently, aged care providers have been trialling assistive and mobile technologies to meet certain needs of the people to whom they provide care and support. ICT has been shown to offer potential advantages such as improving the quality and safety of care and information sharing. It can also facilitate easier connections with health providers, families, and friends, especially for older people who are socially isolated. [2]

ICT has been widely used in aged care. The Australian eHealth Research Centre's work in 'Health in the Digital Age' include storage of health data and data analytics, clinical terminology, use of data for other related purposes, and mobile health solutions such as telehealth. Aged care providers have been trialling assistive and mobile technologies to meet certain needs of the people in their care. ICT has potential advantages such as improving quality and safety of care, information sharing and facilitating easier connections with health providers, families and friends, especially of the older people who are socially isolated. [2]

We found six reviews focused on the use of ICT in aged care facilities. Overall, any form of ICT used for social intervention such as email, video calls and chat using Skype and What's App and Facebook, decreased loneliness and increased the social network size of older people. However, it should be noted that older people have different levels of social engagement and abilities in using ICT, which can affect the outcomes. There are also some concerns about the generalisability of the findings as most of the research was conducted with small groups of participants.

Loneliness and social isolation in residential aged care settings were shown to decrease with the following ICT interventions:

- A one-hour session of Nintendo Wii games over 10 weeks (compared to watching TV alone) [3,4]
- Listening to a radio program of music from the 1920s to 1950s for one hour daily over three months
- Video conferences or video calls. This technology also improved family and social connections, increased social support, and decreased depression. [3, 6-9].
- Smartphone applications [9]
- Interactive social robots (i.e., artificial intelligence systems), although older people expressed concern that technology might replace true social contact with humans. [10]
- There is inconclusive evidence for the use of Skype in decreasing loneliness whereas Facebook use reduced loneliness. However, Skype was easier to use according to the older participants. [6]

Qualitative feedback from participants on the use of videoconferences and video calls was provided by one review. This review found:

- Videoconferences or video calls improved self-esteem, wellbeing and quality of life of older people. Older people felt that they were 'still part of the family.' [8]
- This form of contact, when integrated into occupational therapy sessions, was something that older people looked forward to. [8,11]
- Some older people reported getting anxious when calls were disrupted due to unstable or poor network connection, or when they find it difficult to use the smartphone or touchscreen tablet. Some people were afraid that video calls might end up replacing in-person contact with family and friends. [8]
- Older people need ongoing opportunities for training and practice in videoconferencing or video calls. [8]

## What can an individual do?

- Foster ICT literacy by providing a wide range of opportunities and encouraging older people to learn and/or build capacity and confidence using varying forms of ICT.
- Be aware and respectful of how socio-demographic factors may influence a person's readiness to engage in ICT training opportunities and learning processes.
- Support the older person's preferred form of ICT device and the application/s that they believe work best for them to facilitate social connectedness, and information sharing as well as to pursue hobbies and interests.
- Use a strength-based approach where the older person's strengths, experience and interests are used to encourage and/or teach people to use ICT devices and applications.
- Respect that some older people may chose not to use ICT while others, able to use ICT, may have a preference to use more traditional means to communicate/engage with family and friends, always or at special times, and/or with individuals.

## What can an organisation do?

- Enhance the organisation's digital literacy and encourage staff to keep developing their skills.
- Provide a secure and stable Internet connection in the aged care facility/service and ensure access details are readily visible within all communal rooms and bedrooms.
- Provide devices such as computer tablets and mobile phones for use by people who do not have their own.
- Facilitate learner-centred training for older people in aged care in the use of technology. Include training in online security.
- Provide opportunities for staff training in ICT and how they can respectfully facilitate older people to acquire and/or enhance their knowledge and use of digital technologies.
- If needed, support older people in their use of ICT.

## References

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