Personal Emergency Response Systems (PERS) and other information and communication technology (ICT)-devices

There are a number of Information and Communication Technologies (ICTs) aimed at falls prevention, fall detection and alarms for use in case of a fall, these can alert professionals or carers (Brownsell & Hawley, 2004) if a fall occurs and include home automation systems. There are also a range of ICT interventions which have been created or adapted to be pro-active in preventing falls, such as those which provide strength and balance training to older adults in the prevention of falls e.g. exergames, Wii-fit, Kinect (C. A. Miller, Hayes, Dye, Johnson, & Meyers, 2012; Williams, Soiza, Jenkinson, & Stewart, 2010).

What works?

- PERS can help to reduce a long lie (lying on the floor for long periods of time can cause serious health complications) and allow help to be brought quickly to the person who has fallen.
- Simple touchscreen interfaces and other easy to use technologies have been more readily accepted than those that are more complex and multi-faceted (Silveira, van het Reve, Daniel, Casati, & de Bruin, 2013).
- Focussing on the possibility of maintaining independence is more likely to lead to successful uptake of PERS and ICT-devices (Hawley-Hague, Boulton, Hall, Pfeiffer, & Todd, 2014).

Caution

- This is an emerging area and the evidence remains weak, but is changing rapidly.
- The main issues with use of ICT devices in the home are related to adoption and use of the systems; older adults need to understand the value and potential of the technologies on offer and receive suitable training and support in using them.
- Evidence is weak around the use of virtual reality and gaming systems for the promotion of physical activity (K. J. Miller et al., 2014). Emerging evidence suggests that games should be designed specifically for older adults (Schoene et al., 2014; Ystmark, 2013).
- Evidence is weak around the effective use of bed alarms in hospitals (Shorr et al., 2012).

Who can help older people with ICT

- Occupational therapists/physiotherapists
- Social care services
- Sheltered and assisted housing
- Providers of telecare and telehealth equipment and services
FACTSHEET

PERS and other ICT Devices

Further information

Further information on encouraging the use of technologies for falls prevention can be found at: http://farseeingresearch.eu/2014/07/17/preliminaryguidelines/

References on ICT


