

Needs, acceptance, adherence and use of innovative assistive technology – aspects of relational trust

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Purpose To present synthesized evidence on barriers and facilitators to acceptance and use of innovative assistive technology. The purpose is also to present support needs and expectations among people with dementia and their family caregivers, and their experiences of using sensor-based technology for safety and independence. **Method** A systematic review synthesising knowledge on facilitators and barriers to acceptance and use of technology was performed following the PRISMA guidelines. Empirical data were collected in focus group interviews with people with dementia and family caregivers participating in the European iDO project (2017-2019), and by semi-structured interviews with nine people with dementia and 21 family members participating in the TECH@HOME trial (2016-2019, ClinicalTrials.gov, NCT02733939). Manifest content analysis was used to analyse data from the interviews. **Results & Discussion** Main facilitators for technology acceptance and use were familiarity and motivation, perception of effectiveness and low technical demand. Barriers included newly developed technology, lack of experience of technology among users and lack of technical support (Thordardottir et al., 2019). Needs and expectations for the people with dementia and their caregiver included the desire for building trusting relationships with family and formal care, and to be able to participate in the care process (Lethin et al., 2019). Experiences of technology use were related to the process of understanding and acceptance of the technology as well as the reliability of the technology itself. Technology was seen as a precaution and safety measure to be in control over one's own life, and the participants negotiated issues of safety and privacy in relation to the use of technology (Malmgren Fänge et al., 2019). The findings from the three included studies illustrate outcomes of the transaction between individuals and technology, from the perspectives of the users. Needs, acceptance, adherence and use may constitute different aspects of relational trust, of importance for theory building, design and personcentred interventions including technology.

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