

The process of assistive technology needs assessment for effective delivery of services for people with dementia living at home

Key findings

- Participants reported conducting extensive assessment to identify the needs of people with dementia. Assessment tools included occupational therapy specific instruments, instruments for measuring cognitive impairment, and non-validated tools.
- Participants in some settings, often acute healthcare, may have limited experience of assistive technology as this is often provided by social care staff. This led to inefficient service delivery where the clinician familiar with the person with dementia and their caregiver was unable to access assistive technology interventions on their behalf.
- Some participants could only access a restricted range of assistive technology interventions for people with dementia, which often did not meet their needs.
- People with dementia were often discharged from hospital/acute services before assistive technology interventions were provided.
- Effective provision of assistive technology may be restricted by not meeting people with dementia early enough in their dementia journey.
- Participants had difficulty accessing training relating to the provision of assistive technology.
- Participants wanted access to resources which provided information on assistive technology developments – including case examples, and advice on simple modifications.
- There is a need for access to assistive technology interventions which support participation and leisure activities for people with dementia.
- Assistive technology was mostly provided to address safety concerns, often to reduce caregiver anxiety.
- Assistive technology was often provided for caregivers rather than for people with dementia.
- Where assistive technology interventions are provided, there is often no agreement on who will review or maintain the assistive technology.
- Caregivers were sometimes required to maintain assistive technology or respond to alerts. This could require training and could increase workload for caregivers.
- Assistive technology was not seen as the sole responsibility of occupational therapists but was recognised as having the potential to support occupational therapy goals.

Project aims

Research Question: What is the optimal assessment process for the effective delivery of assistive technology service for people with dementia.

This study aimed to:

- Explore the experiences of occupational therapists who provide assistive technology services, and/or work with people with dementia
- Understand effective assistive technology assessment services for people with dementia
- Understand obstacles to providing effective assistive technology services for people with dementia
- Identify areas of good practice, including where enhancement can be achieved.

Background

Assistive technology offers a potential solution for the wide range of prevalent care needs experienced by people with dementia. However, assistive technology is not meeting its potential possibly due to the focus on the design and development of new technologies rather than the process for selecting assistive technology and adapting it to meet individual needs.

Previous research suggests that limitations in this field may be due to knowledge and skill deficits on the part of practitioners, reduced understanding of the ideal assessment process (Sugarhood et al 2014), and provision of assistive technology inconsistent with assessment recommendations (Forsyth et al 2019).

To improve the delivery of assistive technology interventions there is a need for improved understanding of the challenges facing practitioners in this field, and discussion regarding possible developments which could improve service delivery for people with dementia and their caregivers.

Methodology

This exploratory study collected qualitative and quantitative data in two distinct phases:

Phase 1: Online survey for occupational therapists providing assistive technology and/or working with people with dementia.

The survey included questions to facilitate understanding of the participant, the practice of the participant regarding assistive technology needs assessment, models/theories used to guide practice, validated assessment tools and factors considered during this process; the process of matching assistive technology needs with assistive technology interventions; factors that restrict assistive technology needs provision and assistive technology service provision.

Phase 2: Online Discussion Groups:

Small online groups were used to deepen understanding of the context surrounding assistive technology provision.

Findings were reviewed with a senior manager from a major assistive technology provider to obtain industry viewpoint.

This study received ethical approval from Queen Margaret University Nursing, Occupational Therapy and Arts Therapies Divisional Ethics Committee.

Recommendations

1. Training courses should be developed which provide information on assessment tools, assistive technology interventions, adaptation of assistive technology to account for personal circumstances or characteristics.
2. Special Interest Groups and Community of Practice for occupational therapists with an interest in assistive technology are required.
3. Assistive technology services should be reviewed from a person-centred point of view where the needs of people with dementia and their caregivers are prioritised.
 - a. Routes for accessing assistive technology should be made clear.
 - b. There should be local agreement regarding who conducts assessment and how this will inform the provision of assistive technology, and who will review and maintain the assistive technology.

This study, conducted in 2021-2022, received funding via a Research Career Development Grant from the Royal College of Occupational Therapy Research Foundation

Grant holder: Dr Eleanor Curnow

Copyright © 2023 Royal College of Occupational Therapists & Queen Margaret University Edinburgh

Acknowledgements

Fiona MacLean PhD, Associate Professor of Occupational Therapy, Edinburgh Napier University & Honorary Professor, Queen Margaret University, Edinburgh

Brendan McCormack PhD, Professor and Head of Susan Wakil School of Nursing and Midwifery and Dean, Faculty of Medicine and Health, The University of Sydney.

References

Forsyth K, Henderson C, Davis L, et al. (2019) Assessment of need and practice for assistive technology and telecare for people with dementia - the ATTILA (Assistive Technology and Telecare to maintain Independent Living at Home for people with dementia) Trial. *Alzheimer's & Dementia: Translational Research and Clinical Interventions* 5: 420-430

Sugarhood P, Wherton J, Procter R, et al. (2014) Technology as system innovation: a key informant interview study of the application of the diffusion of innovation model to telecare. *Disability and Rehabilitation: Assistive Technology* 9(1): 79-87

