The uses and experiences of communication technology for home-dwelling older adults in a homecare services context: a qualitative systematic review

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Citation

Review question

How is communication technology for home-dwelling older adults in a homecare services context used and experienced?

The review operates with the following questions, reflecting the main research question:

1. What are the types and purposes of communication technologies implemented in community homecare services involving home-dwelling older adults?

2. How is the communication technology appropriated by the users?

3. How is the communication technology experienced by the users?

Searches

The electronic databases to be searched include Web of Science, CINAHL, MEDLINE, PsycINFO, and ACM Digital Library. Subsequently, the search will involve identification of potential additional studies by browsing the reference lists of the included studies. The search will include studies registered in the above databases between the dates 1 January 2011 and 10 March 2023. The review will consider studies published in English.

Types of study to be included

The review will consider qualitative empirical research written in English and published in peer-reviewed journals. Additionally, the study designs must include human subjects as their data source. Mixed methods studies with a qualitative component will be considered for inclusion. Quantitative research will be excluded.

Condition or domain being studied

Efforts to implement various communication technologies within the context of homecare services are numerous. Knowledge on the practicalities of making these technologies work, and the experiences of the people using them, is needed for understanding the implications of such technological implementations. No systematic reviews investigating 1) the uses and experiences of communication technology 2) within a community homecare setting, 3) involving home-dwelling adults, has been located. Correspondingly, the uses and experiences of digital communication technologies

implemented in a community homecare context make up the domain being studied.

Participants/population

Mandatory participants: adults aged 65 or older and living at home.

Potential participants: informal and formal caregivers, family and friends of the older adults.

Intervention(s), exposure(s)

Various forms of digital communication technology which mediate synchronous or asynchronous communication between two human actors. This delineation of the intervention does not limit it to a certain purpose (e.g., communication technology specifically for social connectedness) but is left open as to include a variety of potential purposes.

Comparator(s)/control

Not applicable

Context

Studies investigating the use of communication technology situated in a community homecare service setting and involving home-dwelling older adults. However, actual users are not specified.

Main outcome(s)

By way of synthetization, this review aims to achieve an understanding of relevant users' concrete experiences with communication technology as well as the practicalities of using them, hereby developing in-depth knowledge on the implications of health service delivery involving communication technologies for home-dwelling older adults within the community homecare setting. Secondly, the review seeks to provide an overview of the types of communication technology researched within this domain of health care delivery.

Additional outcome(s)

Not applicable

Data extraction (selection and coding)

Data extraction follows two steps: first, the main reviewer (MVB) will exclude only citations which clearly deviate from the inclusion criteria, skipping any cases of doubt. Second, three reviewers (MVB, AL, EBR) will independently and blinded to each other's decisions assess the remaining citations against the inclusion criteria. The number of citations to be excluded based on title and abstract will be decided through discussion and – if consensus cannot be achieved – through involvement of the fourth reviewer (BT).

Final selection of studies will be performed through the application of eligibility criteria on the full-text studies deemed assessable after preliminary screening based on title and abstract. The four reviewers comprising the review team will perform the assessment independently and blinded to each other's decisions. Following this, included studies will be agreed upon through discussion in the review team.

Qualitative data will be extracted from studies deemed eligible for inclusion in the review by the main reviewer (MVB). Subsequently, the extraction process will be assessed by the three co-reviewers (AL, EBR, BT). Any disagreements arising between the reviewers will be resolved through discussion. If consensus cannot be reached, the main reviewer (MVB) will have the final say. The extracted data will be comprised of details on bibliographic characteristics, methodology and data collection methods, author reflections on the research process, philosophical underpinnings, study

setting, geographical and cultural setting, technology investigated, participant characteristics and user roles, data analysis techniques, main findings, and author conclusions. The data will be extracted using an extraction tool developed by the reviewers for this review, which will be piloted before use. The data extraction tool will be included as an appendix to the final systematic review. Where data is missing, the main author of the paper in question will be contacted and requested to provide additional data if possible.

Risk of bias (quality) assessment

The qualitative studies deemed eligible for inclusion will be assessed independently by two reviewers, both part of the review team (AL, EBR), for methodological quality using Long et al.'s (2020) expanded version of the Critical Appraisal Skills Programmes's Qualitative Checklist (2018). Any disagreements regarding quality assessment will be resolved through discussion or – if consensus cannot be reached – through the involvement of the fourth reviewer (BT). The quality assessment will be conducted before data extraction and synthesis. Results will be included as part of the final review.

Strategy for data synthesis

Qualitative data will be synthesized using the method of thematic synthesis (Thomas & Harden, 2008), following three stages of data synthesis which begin closely knit to the original data and from this data develop themes of higher analytical abstraction which go across and beyond the included studies. The preliminary data analysis in each of the three stages will be performed by the main reviewer (MVB), who will share findings with the three reviewers in the review team (AL, EBR, BT). Through discussions amongst the review team running parallel to the process of data analysis, the thematic synthesis will be developed while ensuring faithful representation of the original data. The synthesis will be performed using the NVivo software package.

Analysis of subgroups or subsets

Not applicable

Contact details for further information

Martin Vinther Bavngaard

martinvi@oslomet.no

Organisational affiliation of the review

Department of Rehabilitation Science and Health Technology, Oslo Metropolitan University

https://www.oslomet.no/

Review team members and their organisational affiliations

Mr Martin Bavngaard. Department of Rehabilitation Science and Health Technology, Oslo Metropolitan University

Professor Anne Lund. Department of Rehabilitation Science and Health Technology, Oslo Metropolitan University

Assistant/Associate Professor Björg Thordardottir. Department of Rehabilitation Science and Health Technology, Oslo Metropolitan University

Mr Erik Rasmussen. Department of Social Work, Child Welfare and Social Policy, Oslo Metropolitan University.

Type and method of review

Synthesis of qualitative studies, Systematic review

Anticipated or actual start date

10 March 2023

Anticipated completion date

10 March 2024

Funding sources/sponsors

This review is part of a PhD dissertation situated within the project "BoVEL: Bo lenger hjemme med sosial velferdsteknologi" funded by The Research Council of Norway.

Grant number(s)

State the funder, grant or award number and the date of award

The Research Council of Norway, grant no. 331810.

Conflicts of interest

Language

English

Country

Norway

Stage of review

Review Ongoing

Subject index terms status

Subject indexing assigned by CRD

Subject index terms

Aged; Home Care Services; Homes for the Aged; Humans; Information Technology

Date of registration in PROSPERO

15 April 2023

Date of first submission

04 April 2023

Stage of review at time of this submission

Stage	Started	Completed
Preliminary searches	Yes	Yes
Piloting of the study selection process	Yes	Yes
Formal screening of search results against eligibility criteria	No	No
Data extraction	No	No
Risk of bias (quality) assessment	No	No
Data analysis	No	No

The record owner confirms that the information they have supplied for this submission is accurate and complete and they understand that deliberate provision of inaccurate information or omission of data may be construed as scientific misconduct.

The record owner confirms that they will update the status of the review when it is completed and will add publication details in due course.

Versions

15 April 2023

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