INPLASY PROTOCOL

Corresponding author:
Suellen Costa

suellenpcost@gmail.com

Author Affiliation:
Coimbra University

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Daily Mobility and Social Interaction of Older Adult Dog Owners: A Scoping Review Protocol

Costa, S[1]; Sousa, L[2]; Luz, H[3]; Padeiro, M[4].

Review question / Objective: This scoping review aims to map the impact of having a companion dog on the daily mobility and social interactions of community-dwelling older adults (≥ 65 years old) living in urban areas. The question in this scoping review is as follows: How does having a companion dog impact the daily mobility and social interactions of community-dwelling older adults (≥ 65 years old) living in urban areas?

Information sources: We will use electronic databases and will contact authors if necessary. From the search terms identified in item 11, specific search strategies will be developed with the help of a librarian to adapt to the chosen databases, namely SCOPUS, Web of Science, PubMed and Academic Search Complete. There will be no restriction on the publication date to avoid excluding articles not identified in the index.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 30 September 2021 and was last updated on 30 September 2021 (registration number INPLASY202190111).

INTRODUCTION

Review question / Objective: This scoping review aims to map the impact of having a companion dog on the daily mobility and social interactions of community-dwelling older adults (≥ 65 years old) living in urban areas. The question in this scoping review is as follows: How does having a companion dog impact the daily mobility and social interactions of community-dwelling older adults (≥ 65 years old) living in urban areas?

Rationale: The World Health Organization has launched the Active Aging paradigm that emphasizes the promotion of quality of life and the well-being of older adults. Active aging is the "process of optimizing opportunities for health, participation and safety for the consequent improvement in quality of life as people age" (WHO, 2002, p.

12). The WHO (2020) launched the Healthy Aging Decade 2021-2030, underlining the functional abilities for healthy aging. This initiative involves society in its various sectors, such as universities, governments, and civil society, in favor of practical actions that guarantee the rights, well-being, and skills of older people. Human-animal interaction (HAI) is a field of study that is gaining momentum in terms of investigation and intervention due to its potential benefits for health and well-being. HAI appears to be effective at enabling and strengthening social interactions, functional skills and rehabilitation, physical and cognitive skills, and the emotional processes of older people (Gee, Mueller, & Curl 2017). Studies based on therapeutic interventions with animals for institutionalized older people indicate that contact with dogs has a positive influence on mobility and social interaction. The benefits include "sensory stimulation, emotional stimulation and opportunities for social interaction, reminiscence of childhood experiences and were supported by the development of some new social relationships" (Jain et al., 2021, p. 1456). A survey with non-institutionalized older people who received dog-assisted therapy at home showed that pet therapy significantly reduced individuals' blood pressure and heart rate (Krause-Parello & Kolassa, 2016). A study comprising treatment with animal-assisted therapies involving older schizophrenics showed stimulated mobility, interpersonal contact and communication, and enhanced activities of daily living (Rodrigo-Claverol et al., 2020). However, the impacts of interactions between older adults and companion dogs (that is, in non-therapeutic situations) have not been examined as extensively, although some assumptions can be made. For example, having a companion dog may induce a set of activities that involve daily mobility (such as exercising with the dog or going to the vet) and social interactions (such as talking to other dog owners and sharing the dog's achievements). The relevance of this scoping review is to map the existing evidence of the impact of having a companion dog on the daily mobility and social interactions of older people living in urban areas and to identify potential gaps in the literature.

Condition being studied: The factors of interest in this research stem largely from the understanding that dogs, as companion animals, are active participants throughout their owners' lives. As people age, their mobility and opportunities to socially interact and form relationships begin to diminish (Lefrançois, Leclerc, & Poulin, 1998). Several factors contribute to the lower daily mobility and social interaction of older people: (i) the retirement process, which means that there is no need to go out every day and leads to the loss of daily contact with co-workers (Glass, Seeman, Herzog, Kahn, & Berkman, 1995; Handley, Lewin, Butterworth, & Kelly, 2021); (ii) difficulties with their own health (Shumway-Cook, Ciol, Yorkston, Hoffman, & Chan, 2005); (iii) the physical weaknesses that can affect mobility and contribute to the reduction of social interactions (Gardner, 2014; Metz, 2000); and (iv) mourning the loss of relatives, especially spouses and friends (Holt-Lunstad, Smith, Baker, Harris, & Stephenson, 2015). This review is interested in understanding the relationship between having a companion dog and the daily mobility and social interactions of older people living in urban communities so that these concepts can guide the mapping and observation of gaps in the existing literature. Daily mobility is a multidimensional concept that encompasses both an individual's abilities to move around within the home as well as the opportunities and possibilities to leave the house, use transportation, and access equipment and services (Webber et al., 2010). Social interaction encompasses the various contacts and relationships that older adults maintain in their daily lives in a diversity of environments, involving relatives, friends, service providers, and the neighborhood (Kim & Kaplan, 2004; Dall et al., 2017).

METHODS

Search strategy: This scoping review will employ a three-step search strategy to

identify published articles: 1) We will use selected English search terms after analyzing the most-used keywords in articles published in SCOPUS within our research theme, and we will test the terms indexed in PubMed, using keywords and terms from the Medical Subject Headings (MeSH) relevant to this review. 2) We will check the search strategies with the university library to adapt the keywords and index terms according to the needs of each database chosen for this review. These are: SCOPUS, Web of Science, PubMed, and Academic Search Complete. 3) Additional references and citation searches will also be conducted. Reference lists of articles identified during the search will be manually checked to identify potential articles for inclusion in the review.

Participant or population: The study population will include community-dwelling older adults (≥ 65 years old) living in urban areas who have at least one companion dog, with no exclusions based on ethnicity or gender.

Intervention: Not applicable.

Comparator: Not applicable.

Study designs to be included: All types of study designs will be included (qualitative and quantitative, randomized clinical trials, controlled trials, cohort studies, case series, cross-sectional studies, observational studies).

Eligibility criteria: Based on the Population, Context, and Concept (PCC) for scoping reviews, we will consider studies that include (i) Population: community-dwelling older adults, aged ≥ 65 years, who have at least one companion dog; (ii) Context: urban communities, regardless of country of origin; (iii) Concepts: daily mobility and social interaction. Therefore, studies that deviate from these criteria are not eligible, namely those in the context of animal-assisted interventions in aged care facilities or involving guide or therapeutic dogs. Studies other than peer-reviewed articles will be excluded (e.g., gray literature, letters to the editor, and abstracts published in proceedings). Only studies published in English, Spanish, or Portuguese will be considered for inclusion.

Information sources: We will use electronic databases and will contact authors if necessary. From the search terms identified in item 11, specific search strategies will be developed with the help of a librarian to adapt to the chosen databases, namely SCOPUS, Web of Science, PubMed and Academic Search Complete. There will be no restriction on the publication date to avoid excluding articles not identified in the index.

Main outcome(s): This scoping review is expected to provide evidence about how having a companion dog impacts both the daily mobility and social interactions of community-dwelling older individuals. Main outcomes will comprise a paper and a conference presentation.

Additional outcome(s): Not applicable.

Data management: Following PRISMA (2020), we will take the following steps. 1) Titles and abstracts will be selected by two independent reviewers for evaluation according to the inclusion criteria. Data from each relevant publication will be imported into the reference software (Mendeley version 1.19.8). 2) Before the initial screening, the same program will be used to automatically delete any duplicate documents. 3) Then, the author (A) will export the titles and abstracts of the selected articles to a spreadsheet (Excel version 2016, Microsoft Corporation, Redmont, W). (A) and be responsible for data extraction. It will exclude studies that clearly do not meet the inclusion criteria. The second reviewer will do the same; any disagreements that arise between the initial reviewers at each stage of the selection process will be resolved through discussion or with an additional reviewer. 4) The full text of the selected articles will be read by (A). The second author (B) will evaluate the extracted data and will also read the full text to verify the accuracy of the inclusion process. Any disagreement

will be addressed through discussion or consultation with the third author (C). 5) Reasons for excluding full-text evidence sources that do not meet the inclusion criteria will be recorded and reported in the final scoping review. Data from the studies that will be included in the review will be presented through numerical presentation (i.e., number and types of studies); through the scoping review flowchart (PRISMA-ScR); and by using narrative formats and tables in a summary report that will discuss the implications of the findings for future research and practice.

Quality assessment / Risk of bias analysis: We will use the Mixed Methods Assessment Tool (MMAT) to assess the risk of bias, inconsistencies, publication bias, and data inaccuracy. The MMAT has five criteria divided into two parts for analyzing the quality of five types of studies: qualitative research, randomized clinical trials, non-randomized trials, quantitative descriptive studies, and mixed-methods studies.

Strategy of data synthesis: Data synthesis will be performed through thematic analysis, conducted by three authors. We will follow these steps: 1) Extract a table of the following data: a) Author, year, country; b) Objective(s); c) Geographical context; d) Sample (age and sex); e) Design/methodology; d) Instruments/indicators; f) Results: mobility; g) Results: social interaction; h) Other variables. 2) Thematic analysis: coding, description, and elaboration of analytical themes for discussion of results. The results will be illustrated through tables or diagrams and described in a narrative way and through demonstrative tables by category in order to indicate the sources of evidence.

Subgroup analysis: Not applicable.

Sensitivity analysis: Not applicable.

Language: Studies published in English, Portuguese, or Spanish.

Country(ies) involved: Portugal.

Other relevant information: Second affiliation's - Department of Education and Psychology, University of Aveiro Campus Universitario de Santiago, 3810-193 AVEIRO, Portugal.

Keywords: Community Urban; Companion Dog; Senior; Walking; Social Interaction; Mobility; Urban Areas; Healthy Aging; Well-being.

Dissemination plans: The results will be presented at a conference, submitted to a peer-reviewed journal and presented in a master's thesis.

Contributions of each author:
Author 1 - Suellen Costa - The author prepares and develops the protocol, will be part of the selection and data extraction process, and will prepare the manuscript for this review.
Email: suellenpcost@gmail.com
Author 2 - Liliana Sousa - The author helped develop the research idea, helped in the creation of this manuscript, provided research oversight, critically reviewed, and provided full feedback on this protocol. The author will be included in the selection and data extraction process as a secondary reviewer and will also collaborate with a critical review.
Email: lilianax@ua.pt
Author 3 - Helena Luz - The author assisted in the creation of this manuscript, critically reviewed it, and provided feedback. The author will be included in the selection and data extraction process as a tertiary reviewer. Having provided research oversight, the author will also critically review the manuscript for this review.
Email: helenareis.luz@fpce.uc.pt
Author 4 - Miguel Padeiro - The author helped develop the research idea and provided oversight of the research as well as feedback on its development. The author assisted in the creation of this manuscript, reviewed it critically, and will provide full research feedback. The author will also critically review the manuscript for this review.
Email: jmnp@uc.pt