The experiences and effectiveness of canine-assisted interventions (CAIs) on the health and well-being of older people residing in long-term care: a mixed methods systematic review protocol.

STERN, C., LIZARONDO, L., CARRIER, J., GODFREY, C., RIEGER, K., SALMOND, S., APOSTOLO, J., KIRKPATRICK, P. and LOVEDAY, H.

2020

The experiences and effectiveness of canine-assisted interventions (CAIs) on the health and well-being of older people residing in long-term care: A mixed methods systematic review protocol

Cindy Stern, Lucylynn Lizarondo, Judith Carrier, Christina Godfrey, Kendra Rieger, Susan Salmond, Joao Apostolo, Pamela Kirkpatrick, Heather Loveday

Citation

Cindy Stern, Lucylynn Lizarondo, Judith Carrier, Christina Godfrey, Kendra Rieger, Susan Salmond, Joao Apostolo, Pamela Kirkpatrick, Heather Loveday. The experiences and effectiveness of canine-assisted interventions (CAIs) on the health and well-being of older people residing in long-term care: A mixed methods systematic review protocol. PROSPERO 2020 CRD42020161235 Available from:
https://www.crd.york.ac.uk/prospero/display_record.php?ID=CRD42020161235

Review question

The aim of this mixed methods review is to synthesize and integrate the best available evidence on the experiences and effectiveness of canine-assisted interventions (CAIs) on the health and well-being of older people residing in long-term care. More specifically the review questions are:

• What are the experiences of older people residing in long-term care who receive CAIs?

• What are the views of people directly or indirectly involved in delivering CAIs to older adults (such as family and friends of the residents, healthcare workers and volunteers) regarding CAIs for older people residing in long-term care facilities?

• What is the effectiveness of CAIs on the health and well-being of older people residing in long-term care facilities?

Searches

The search strategy will aim to find both published and unpublished studies. Studies published in English will be included. Studies published from April 2009 to the present will be included as this is an update of two previous systematic reviews.

Search strategy

https://www.crd.york.ac.uk/PROSPEROFILES/161235_STRATEGY_20191205.pdf

Types of study to be included

This review will consider quantitative, qualitative and mixed methods studies. Quantitative studies will include experimental and quasi-experimental study designs, analytical observational studies, analytical cross-sectional studies and descriptive observational study designs. Randomized controlled trials (RCTs) will be considered as the primary focus however in their absence other research designs will be considered. Qualitative studies will include designs such as phenomenology, grounded theory, ethnography, qualitative description, action research and feminist research. Mixed method studies will be considered if data from the quantitative or qualitative components can be clearly extracted.

Condition or domain being studied

Animal-assisted interventions (AAIs) are commonly used as an adjunct therapy to enhance health and well-being. They can be delivered one-on-one or in group formats with a range of animals being used. One population and setting where AAIs are used is with older people in long-term care facilities. With an increasingly ageing population there is a demand for high quality long-term care. Additionally once a person

enters a care facility, increases in physical and psychosocial morbidities can occur. Animal-assisted interventions may be able to play a role in improving health and well-being of residents for example by reducing depression and improving quality of life. This type of intervention seems particularly relevant to older people living in long-term care facilities as human animal-interactions are not dependent on a high level of cognitive function nor high physical and functioning ability

Participants/population
The review will consider studies that include older people (60 years and older) who reside in long-term care facilities and who receive CAIs. Studies that contain people younger than 60 will be included as long as the mean age is 60. There will be no exclusions based on medical conditions or co-morbidities.

Additionally for the qualitative component, the views of people directly or indirectly involved in delivering CAIs to older adults such as family and friends of the residents, healthcare workers and volunteers will also be considered

Intervention(s), exposure(s)
The quantitative component of the review will consider studies that evaluate CAIs. Interventions will be grouped as either canine-assisted activities (CAAs) or canine-assisted therapies (CATs). For the purpose of this review definitions will be based on those provided by the American Veterinary Medical Associations.5 Canine-assisted activities "provide opportunities for motivational, educational, and/or recreational benefits to enhance quality of life."5para7 Canine-assisted therapies are "a goal directed intervention directed and/or delivered by a health/human service professional with specialised expertise, and within the scope of practice of his/her profession."5para5 Canine-assisted education will not be considered since this intervention is rarely measured in studies in this area. There will be no limitations to the duration of interventions or the required follow-up.

Comparator(s)/control
The quantitative component of the review will consider studies that compare the intervention to usual care, alternative therapeutic interventions or no intervention.

Main outcome(s)
The quantitative component of this review will consider studies that include outcomes related to health and well-being including but not limited to: loneliness, depression, anxiety, well-being, quality of life, mood, satisfaction, morale, self-esteem, activity participation/involvement, activities of daily living, blood pressure, and social interaction. Where possible review outcomes will be grouped under the biopsychosocial model.

Outcomes can be measured using any validated instrument, via observation or by self?report.

The qualitative component of this review will consider studies that investigate the experiences of older people receiving the CAIs as well as the views of people directly or indirectly involved in delivering CAIs to them such as family and friends of the residents, healthcare workers and volunteers.

* Measures of effect

Outcomes will be measured during or immediately after the intervention or at a follow?up period.

Additional outcome(s)
None

* Measures of effect

None

Data extraction (selection and coding)
For the quantitative component, data will be extracted from quantitative and mixed methods (quantitative component only) studies included in the review by two independent reviewers using the standardized Joanna Briggs Institute data extraction tool in JBI SUMARI.33 The data extracted will include specific details about the populations, study methods, interventions, and outcomes of significance to the review objective.

For the qualitative component, data will be extracted from qualitative and mixed methods (qualitative

component only) studies included in the review by two independent reviewers using the standardized Joanna Briggs Institute data extraction tool in JBI SUMARI34 The data extracted will include specific details about the population, context, culture, geographical location, study methods and the phenomena of interest relevant to the review objective. Findings, and their illustrations will be extracted and assigned a level of credibility using the JBI ranking scale available through JBI SUMARI.

Any disagreements that arise between the reviewers will be resolved through discussion, or with a third reviewer. Authors of papers will be contacted to request missing or additional data, where required.

Risk of bias (quality) assessment

Quantitative papers (and quantitative component of mixed methods papers) selected for retrieval will be assessed by two independent reviewers for methodological validity prior to inclusion in the review using standardized critical appraisal instruments from JBI SUMARI based on study design e.g. RCT, quasi-experimental studies etc.33

Qualitative papers (and qualitative component of mixed methods papers) selected for retrieval will be assessed by two independent reviewers for methodological validity prior to inclusion in the review using the standard JBI critical appraisal checklist for Qualitative Research available in JBI SUMARI.34

Authors of papers will be contacted to request missing or additional data for clarification, where required. Any disagreements that arise between the reviewers will be resolved through discussion, or with a third reviewer. The results of critical appraisal will be reported in narrative form and in a table.

All studies, regardless of the results of their methodological quality, will undergo data extraction and synthesis (where possible) and the impact of methodological quality will be considered when developing conclusions and recommendations for practice.

Strategy for data synthesis

This review will follow a convergent segregated approach to synthesis and integration according to the JBI methodology for MMSR.

Quantitative synthesis

Studies will, where possible, be pooled with statistical meta-analysis. Effect sizes will be expressed as either odds ratios (for dichotomous data) or weighted (or standardized) final post-intervention mean differences (for continuous data) and their 95% confidence intervals will be calculated for analysis. Heterogeneity will be assessed statistically using the standard chi squared and I² tests. The choice of model (random or fixed effects) and method for meta-analysis will be based on the guidance by Tufunaru et al. Where statistical pooling is not possible the findings will be presented in narrative form including tables and figures to aid in data presentation. A funnel plot will be generated to assess publication bias if there are 10 or more studies included in a meta-analysis. Statistical tests for funnel plot asymmetry (e.g Egger test) will be performed where appropriate.

Qualitative synthesis

Qualitative research findings will, where possible be pooled using the meta-aggregation approach. This will involve the aggregation or synthesis of findings to generate a set of statements that represent that aggregation, through assembling the findings and categorizing these findings based on similarity in meaning. These categories are then subjected to a synthesis to produce a comprehensive set of synthesized findings that can be used as a basis for evidence-based practice. Where textual pooling is not possible the findings will be presented in narrative form.

The findings of each single method synthesis included in this review will then be configured according to the JBI methodology for MMSR. This will involve quantitative evidence and qualitative evidence being juxtaposed together and organized into a line of argument to produce an overall configured analysis. Where configuration is not possible the findings will be presented in narrative form.

Analysis of subgroups or subsets
Subgroup analyses will be conducted where there is sufficient data to investigate CATs and CAAs and morbidities. Sensitivity analyses will be conducted to test decisions made regarding methodological quality.

Contact details for further information
Cindy Stern
cindy.stern@adelaide.edu.au

Organisational affiliation of the review
The Joanna Briggs Institute
https://joannabriggs.org/

Review team members and their organisational affiliations
Dr Cindy Stern. The Joanna Briggs Institute
Dr Lucylynn Lizarondo. The Joanna Briggs Institute
Dr Judith Carrier. Cardiff University
Assistant/Associate Professor Christina Godfrey. Queen's University
Assistant/Associate Professor Kendra Rieger. University of Manitoba
Professor Susan Salmond. The State University of New Jersey
Assistant/Associate Professor Joao Apostolo. Escola Superior de Enfermagem de Coimbra
Ms Pamela Kirkpatrick. Robert Gordon University
Professor Heather Loveday. University of West London, London

Type and method of review
Systematic review

Anticipated or actual start date
01 December 2019

Anticipated completion date
31 December 2020

Funding sources/sponsors
Author (CS) received an Academic Women's Research Excellence Award from the University of Adelaide to support the update of the original reviews. The funders have no role in the review process.

Conflicts of interest

Language
English

Country
Australia

Stage of review
Review Ongoing

Subject index terms status
Subject indexing assigned by CRD

Subject index terms
MeSH headings have not been applied to this record

Date of registration in PROSPERO
14 July 2020

Date of first submission
05 December 2019

Details of any existing review of the same topic by the same authors

Update of two previous reviews by one of the authors:

Stern C, Konno R. JBI Libr Syst Rev 2011; 9(6): 146-206.

Stern C. JBI Libr Syst Rev 2011; 9(21): 727-790

Stage of review at time of this submission

Stage	Started	Completed
Preliminary searches	Yes	No
Piloting of the study selection process	No	No
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

14 July 2020