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A systematic review on use of green spaces in supporting recovery from trauma in older people living in community in the UK

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A systematic review on use of green spaces in supporting recovery from trauma in older people living in community in the UK
Jitka Vseteckova, Abigail Methley, Kerry Jones

Citation

Jitka Vseteckova, Abigail Methley, Kerry Jones. A systematic review on use of green spaces in supporting recovery from trauma in older people living in community in the UK. PROSPERO 2020 CRD42020183058 Available from:

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Review question

What are the ways outer spaces are being used towards recovery from trauma in older people living in community?

Searches

The search will include both quantitative and qualitative studies. No restrictions for dates of publication were implemented. Language will be limited to English only. The search strategy will be created by an expert in systematic review searching, in collaboration with the authors. Once the strategy is finalised, it will be adapted to the syntax and subject headings of the other databases.

Preliminary searches performed through: PsycINFO, MEDLINE, CINAHL, Embase, Emcare, BNI, PubMed, AMED (see attached).

Other sources: NICE Evidence, Google Advanced search, Social Care Online (SCIE).

Preliminary search terms

green spaces, adults >65, trauma, UK Ecotherapy, wilderness, therapy, animal therapy, pet therapy, green care, care farming, AND trauma/PTSD AND older/aged/elderly/adult

Final searches to include all databases listed above and the following key terms:green spaces, outdoors, blue spaces, nature, wilderness, ecotherapy, green care, outdoors, outer spaces, older, aged, elderly, adults over 65, trauma, PTSD, UK.

Types of study to be included

We plan to include studies of any design (quantitative, qualitative, mixed-methods or professional practice articles) and grey literature

Condition or domain being studied

Cooley 2020 define as (b) a focus on talking therapy used to support mental health difficulties, neurological impairment, forensic rehabilitation, or to provide psychological support in physical health settings; and (c) professionals qualified to provide talking therapy and who are regulated by a professional governing body. For simplicity, these various professionals will be referred to collectively as 'practitioners' in reference to the talking therapy aspect of their profession.

Uptake on activities outdoors, any change in specific trauma symptoms and comorbid mental health symptoms such as anxiety/depression, generic measure of distress, generic measure of overall wellbeing/quality of life, health, health promotion, stress reduction, relaxation, social contact, social connection, social interaction, self-esteem, self-efficacy, self-image, self-confidence, self-empowerment and possibly interpersonal relationships with others and confidence in using green spaces improvement in quality of life, outcomes related to the recovery model including hope, optimism, identity, purpose.

Participants/population

Older people, living in the community (anyone who is not in an inpatient unit; this therefore includes people in their own homes, nursing or residential homes) in the UK, aged 65 +, having experienced trauma. Trauma may be identified using clinical interview and/or standardised measures of symptoms and impact on functioning.

Intervention(s), exposure(s)

Based on the above the phenomenon of interest will be green space(s), blue space(s), ecotherapy, green care, nature, green settings, parks, forests, woodlands, wildlife, urban green settings, urban landscapes, gardens, outdoors and outer space interventions for the participant group delineated above, interventions focused on physical activity components (walking, cycling, yoga, taichi, mindfulness walks) and interventions where activities that are focussing on occupational therapy, horticultural therapy therapeutic intervention including wilderness therapy, social and therapeutic horticulture or garden therapy or community gardens, facilitated environmental conservation & informative walks, contact with nature, ecotherapy, ecopsychology, adventure therapy, nature-based arts and crafts including landscaping, people getting dogs and taking them outdoors, but not if they go specifically somewhere to have canine therapy. Most existing reviews are already incorporating animal therapy and literature around this topic is already available. For this reason, we will not include papers focussing on animal therapy specifically next to papers focussing on types of interventions outdoors for older people (over 65+) living in the community, having experienced trauma.

Comparator(s)/control

None

Main outcome(s)

Uptake on activities outdoors, any change in specific trauma symptoms and co-morbid mental health symptoms such as anxiety/depression, generic measure of distress, generic measure of overall wellbeing/quality of life, health, health promotion, stress reduction, relaxation, social contact, social connection, social interaction, self-esteem, self-efficacy, self-image, self-confidence, self-empowerment and possibly interpersonal relationships with others and confidence in using green spaces improvement in quality of life, outcomes related to the recovery model including hope, optimism, identity, purpose.

* Measures of effect

Not applicable.

Additional outcome(s)

Outcomes of interest relate to the levels and types of green spaces being used towards recovery from trauma in older people living in community within the UK. It is expected that outcomes will be diverse and context-specific, therefore it is not possible to produce an exhaustive list at the outset. However, examples of outcomes may include:

- Measure of time (e.g. minutes / hours) spent outdoors per time period (e.g. day / week)
- Types of outdoor activity that older people recovering from trauma report undertaking

Physical activity has been shown to provide clear health benefits including reduced risk of cardiovascular disease, certain types of cancers, stress and depression, and improved mental / cognitive health, wellbeing and sleep (Reiner et al., 2013; Warburton et al., 2006). Therefore, knowing the physical activity levels of carers allows researchers to develop targeted interventions to improve the mental and physical wellbeing of this specific population. Furthermore, physical activity per se is now recognised as a health outcome by major funding councils and government organisations.

* Measures of effect

Not applicable.

Data extraction (selection and coding)

Study selection (both at title/abstract screening and full text screening) will be performed by two reviewers,

independently. Any disagreements will be solved by consensus or by the decision of a third reviewer where necessary. After eliminating the duplicates (studies that are identified more than once by the search engines), an initial screening of titles, abstracts, and summaries (if applicable) will be undertaken to exclude records that clearly do not meet the inclusion criteria. Each record will be classified as 'include' or 'exclude' or 'maybe' with comments to identify relevant and exclude irrelevant literature. The researchers will be inclusive at this stage and, if uncertain about the relevance of a publication or report, it will be left in. The full text will be obtained for all the records that potentially meet the inclusion criteria (based on the title and abstract/summary only). In a second step, all the full text papers will be screened against the inclusion criteria, using a standardized tool. Studies that do not meet the inclusion criteria will be listed with the reasons for exclusion. An adapted PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-analyses) flow-chart of study selection will be included in the review..

We plan to extract data on the participants, interventions, comparators, and outcomes. In addition to that the extraction sheet will include authors, year of study/report, aim/purpose, type of paper (e.g. journal article, annual evaluation report, etc), geographical area, study population (e.g. age of carers and condition of individuals being cared for), sample size, study design, and key findings that relate to the systematic review question. Two reviewers will independently extract data using a structured data extraction form. Disagreements between review authors will be resolved by discussion or a third author.

Risk of bias (quality) assessment

Two reviewers will independently assess the risk of bias for randomized controlled trials using the Cochrane risk of bias tool, which includes the following domains: random sequence generation, allocation concealment, blinding of outcome assessors, completeness of outcome data, and selective outcome reporting. We also plan to assess the following additional sources of bias: baseline imbalance and inappropriate administration of an intervention as recommended by the Cochrane Handbook for Systematic Reviews of Interventions. Studies will be judged at high risk of bias if there was a high risk of bias for 1 or more key domains and at unclear risk of bias if they had an unclear risk of bias for at least 2 domains. Authors of papers will be contacted if information is missing.

Strategy for data synthesis

Findings from included studies will be synthesized narratively. The 'Guidance on the Conduct of Narrative Synthesis in Systematic Reviews' will be used to advise the narrative synthesis. First, a preliminary synthesis will be conducted to develop an initial description of the findings of included records and to organize them so that patterns across records can be identified. In a second step, thematic analysis will be used to analyse the findings. The following five steps of thematic analysis will be followed adopting a recursive process:

- a) Familiarization with the extracted data
- b) Generation of initial codes
- c) Searching for themes
- d) Reviewing themes
- e) Defining and naming themes

Depending on the findings available, the reviewers will aim to provide a flow chart mapping the physical activity of carers. This review will highlight the current and desired levels of physical activity of carers, as well as the need for more high-quality research in this field. The information presented in this review may be considered, in the future, by primary care providers and funding bodies when planning future support for this growing population of carers.

Meta-analysis will be conducted if data is found to be sufficiently homogeneous, although this is not expected. We will decide if it is appropriate to pool our measures of effect by assessing if the included studies are similar enough (in terms of their population, intervention characteristics, and reported outcomes) to draw meaningful conclusions. If a meta-analysis of the included studies is indicated, we will assess

statistical heterogeneity by visual inspection of the scatter of effect estimates in the forest plot and by calculating the I^2 statistic, after using the inverse variance method. In the case of a high degree of heterogeneity (I^2 greater than 50%), we will explore possible reasons for variability by conducting subgroup analysis.

Analysis of subgroups or subsets

Not applicable

Contact details for further information

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Organisational affiliation of the review

The Open University

Review team members and their organisational affiliations

Dr Jitka Vseteckova. The Open University
Dr Abigail Methley. Northamptonshire Healthcare NHS Foundation Trust
Dr Kerry Jones. The Open University

Type and method of review

Narrative synthesis, Systematic review

Anticipated or actual start date

01 February 2020

Anticipated completion date

01 March 2021

Funding sources/sponsors

Not applicable

Conflicts of interest

None known

Language

English

Country

England

Stage of review

Review Ongoing

Subject index terms status

Subject indexing assigned by CRD

Subject index terms

Color; Humans; United Kingdom

Date of registration in PROSPERO

12 June 2020

Date of first submission

29 April 2020

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

12 June 2020

PROSPERO

This information has been provided by the named contact for this review. CRD has accepted this information in good faith and registered the review in PROSPERO. The registrant confirms that the information supplied for this submission is accurate and complete. CRD bears no responsibility or liability for the content of this registration record, any associated files or external websites.