
Title registration for a systematic review: Book reading for promoting physical and mental health in older adults

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Submitted to the Coordinating Group of:

Crime and Justice

Education

Disability

International Development

Nutrition

Food Security

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Methods

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Business and Management

Other:

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No

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Title of the review

Book reading for promoting physical and mental health in older adults: a systematic review

Background

The world's population is growing older. According to a 2015 United Nations report (*World Population Ageing, 2015*), the number of people aged 60 years or over is estimated to grow from 900 million (12.3 %) in 2015 to 1.4 billion (16.5 %) in 2030. This global ageing phenomenon challenges researchers and policy-makers to investigate the factors that can promote healthy ageing, in order to alleviate the corresponding increasing socioeconomic costs.

There is consistent evidence that physical activity is positively associated with healthy ageing (Daskalopoulou, 2017). Similarly, social activity seems to have beneficial effects, for instance on longevity (Glass, 1999) and cognitive functioning in older adults (Kelly, 2017). However, the effects of leisure activities that are devoid of physical and extensive social engagement, such as book reading, remain unclear.

Policy relevance

Preparing for the economic and social shifts associated with an ageing population is an essential task for the twenty-first century policy-maker. Governments should look into innovative but sustainable ways to promote healthy ageing. Reviews that study the effects of common and low-threshold leisure activities, such as book reading, on the physical and mental health of older adults, may provide useful information in creating these frameworks. In this way, policy-makers can make evidence-based decisions on where to focus their efforts in dealing with global ageing.

Objectives

By systematically searching for individual studies, this review will answer the following research question:

What is the effect of book reading on the physical and mental health in older adults?

Existing reviews

In 2010, a Johanna Briggs Institute systematic review was published on the effectiveness of cognitive leisure activities, including reading, watching movies, playing board games and playing musical instruments, in preventing Alzheimer's and other dementias in older adults (Stern, 2010). Out of the 7 included observational studies, 6 revealed a positive association

between participating in cognitive leisure activities in late life (+65 years) and a reduced risk of developing Alzheimer's and other dementia types. Moreover, the results showed that some individual leisure activities, such as reading, may be more effective than others.

As this existing review has highlighted the potential beneficial effects of reading on Alzheimer's and other types of dementia only, a systematic collection, extraction and analysis of quantitative data on the effectiveness of book reading on other physical and mental health outcomes is warranted.

Intervention

Interventions for this systematic review will include any frequency and any duration of paper (hard copy) book reading, e-book reading or audiobook listening. Interventions where older adults are being read to, by other adults or children, will also be included.

As books are considered to engage readers' minds more than newspapers, periodicals and magazines, the latter three reading materials will be excluded from the review. In addition, studies looking at the combined effects of reading books and reading periodicals/magazines/newspapers will be excluded. Studies that do not specify the type of reading materials will also be excluded.

Within experimental studies, the effect of book reading will be compared to no paper or e-book reading, or no audiobook listening. For observational studies, the outcomes (see below) of older adults who read paper books, read e-books or listen to audiobooks, will be compared to those of older adults who did not participate in these activities.

Population

Studies in community-dwelling and institutionalized older adults (≥ 60 years of age) will be included. Studies that also include younger adults (<60 years of age) will only be included if: (1) they report the results separately for ≥ 60 year-olds, or (2) they specifically define the population as 'elderly' and the average age of the study participants is or exceeds the age of 60.

Outcomes

Primary outcomes: direct physical health outcomes (mortality, survival); direct mental health outcomes (quality of life, wellbeing, dementia, Alzheimer's Disease).

Any indirect health outcomes (e.g. change in physical activity) will be excluded.

Secondary outcomes: none.

Study designs

The following study types will be included: studies using an experimental design (quasi- or non-randomized controlled trials, controlled before and after study or controlled interrupted time series); studies using an observational design (cohort study, case-control study, controlled before and after study or controlled interrupted time series, cross-sectional study). Results of experimental and observational studies will be analysed separately. Other study designs such as case series, narrative reviews and non-original studies such as editorials, book reviews, commentaries, and letters to editors, will be excluded.

References

- Daskalopoulou, C., Stubbs, B., Kralj, C., Koukounari, A., Prince, M., & Prina, A.M. (2017). Physical activity and healthy ageing: a systematic review and meta-analysis of longitudinal cohort studies. *Ageing Research Reviews*, 38, 6-17. doi: 10.1016/j.arr.2017.06.003.
- Glass, T. A., Mendes de Leon, C. F., Marottoli, R. A., & Berkman, L. F. (1999). Population based study of social and productive activities as predictors of survival among elderly Americans. *British Medical Journal*, 319, 478–483. doi: 10.1136/bmj.319.7208.478
- Kelly, M.E., Duff, H., Kelly, S., McHugh Power, J.E., Brennan, S., Lawlor, B.A., & Loughrey, D.G. (2017). The impact of social activities, social networks, social support and social relationships on the cognitive functioning of healthy older adults: a systematic review. *Systematic Reviews*, 6(1), 259. doi: 10.1186/s13643-017-0632-2.
- Stern, C., Munn, Z. (2010). Cognitive leisure activities and their role in preventing dementia: a systematic review. *Int J Evid Based Healthc*, 8:2-17. doi:10.1111/j.1744-1609.2010.00150.x
- United Nations, Department of Economic and Social Affairs, Population Division. (2015). *World Population Ageing*. Retrieved from http://www.un.org/en/development/desa/population/publications/pdf/ageing/WPA2015_Report.pdf

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Roles and responsibilities

- **Content:** Jorien Laermans, Hans Scheers and Emmy De Buck from the Centre for Evidence-Based Practice work in close collaboration with their Belgian Red Cross' colleagues from the Social Care Department. This Department runs a Care Library, a project in which need-adapted library materials are provided to hospitals, residential care centres, rehabilitation centres... and therefore owns the necessary content expertise on the subject of book reading. In addition, the review team receives content support from an external panel of social care experts (e.g. Vonk3 research centre of Thomas More University, Expertise centre Dementia Flanders, residential care centres, Public Centre for Social Welfare, Christian health insurance fund). Professor Philippe Vandekerckhove, the CEO of the Belgian Red Cross, supports the development of this review, thereby aiming to expand the evidence base in the domain of social care.
- **Systematic review methods:** Jorien Laermans and Hans Scheers are researchers at the Centre for Evidence-Based Practice, where they develop evidence-based guidelines and systematic reviews on a daily basis. Senior researcher Emmy De Buck has co-authored several systematic reviews, including systematic reviews in the domain of humanitarian aid, as well as evidence-based guidance in the domain of social care.
- **Statistical analysis:** Jorien Laermans and Hans Scheers are both trained and experienced in performing statistical analyses, including meta-analysis.
- **Information retrieval:** Jorien Laermans, Hans Scheers and Emmy De Buck design highly specialized search strategies on a daily basis.

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Potential conflicts of interest

The authors are not aware of any conflicts of interest arising from financial or researcher interests.

Preliminary timeframe

Note, if the protocol or review is not submitted within six months and 18 months of title registration, respectively, the review area is opened up for other authors.

- Planned date of submitting a draft protocol: 1 June 2019
- Planned date of submitting a draft review: 1 June 2020