Reviewer's report

Title: Participation levels of physical activity programs for community-dwelling older adults: a systematic review

Version: 2  Date: 9 August 2014

Reviewer: Freya MacMillan

Reviewer's report:

Thank you for the opportunity to review this paper, which examined participation rates of physical activity programs for community-dwelling older adults. This is an important research area and the findings will be of interest to researchers interested in developing physical activity interventions for older adults. In order for this paper to be published, amendments are necessary first.

Major Compulsory Revisions

1. I am concerned that the search has not captured all relevant papers. For example the following papers are missing from this review:


Both of these are examples of physical activity interventions for community-dwelling older adults. It may be that these papers were excluded from the review for some reason, but as the methods are currently written I cannot see why. This is worrying in terms of the effectiveness of the search strategy.

If you have not done so already, I would suggest going through reference lists of previously published systematic reviews of physical activity interventions in older adults to check that you have captured all articles published prior to March 2013. Add this in to your methods section as a strategy to ensure you have captured all suitable articles. Such review include:

   • Andre Matthias Müller and Selina Khoo. Non-face-to-face physical activity interventions in older adults: a systematic review


You could also email authors of included studies to ask if they know of any other relevant articles that you have missed or do a citation search to see if other
relevant articles come up that have referenced the articles that you have included in the review. I am not suggesting that you need to do all of these but if indeed the papers I have noted above were not found by the current search strategy then I highly recommend you make some adjustments in order to capture them and any other relevant papers that have been missed.

Minor Essential Revisions

Abstract

2. First sentence: Change ‘had’ to ‘have.’

3. Methods, second sentence: insert ‘of’ before ‘participants’

4. Results, second sentence: change ‘initial participation’ to something like ‘The number of participants at baseline/enrolled in studies ranged between 24 and 582 persons.’ You state in the third sentence that initial participation could not be calculated so do not use ‘initial participation’ in the preceding sentence – this is confusing for the reader.

Background

5. Paragraph 2, first sentence: change ‘had’ to ‘have.’ Third sentence: avoid use of ‘low-intensity’ and ‘high-intensity’ unless you are referring to physical exertion here (If so then fine, leave as is)? Rather, do you mean limited and high contact?

6. Please provide rationale/references for why you have selected 55 years and above to define old age – is this based on the definition of older adults in the PA recommendations?

Methods

1. What is meant by ‘no review protocol existed to be used?’ Did you not make your own review protocol to follow? Do you mean ‘no review protocol has been published?’

2. The Pubmed search has ‘home or community’ and ‘residential’ listed twice.

3. Insert ‘:’ after ‘included’ in first sentence of study selection section and use ‘;’ rather than ‘,’ to split up the list. Use ‘:’ and ‘;’ to break up the second sentence too. Rather than ‘including study protocol’ do you mean ‘articles reporting on study protocols?’

4. What do you mean by ‘component of PA.’ Give examples (e.g. do you mean a measure of PA frequency, intensity, duration, type or fitness outcome).

5. Did the second reviewer screen a random sub-set of abstracts? Currently the paper states that the second reviewer was consulted only in cases of doubt. It would be better if the second reviewer was to review a sub-set of abstracts to ensure they agree with the initial reviewer’s decisions, regardless of if the first reviewer is in doubt or not, to ensure there was no bias in the screening phase.

6. Please define clearly in the methods what you mean by ‘convenience’ and ‘probability’ sampling to make this clear to the reader.

7. Participation levels section: what about number of persons in the total available sample (e.g. the total sample aged 55+ regardless of eligibility status)
and the number of eligible persons? It would be interesting to report this for the studies that include this information, to indicate the % older adult population that are likely capable of participating in such a study. You mention the lack of reporting of this information in the discussion section so I believe it was an aim of your paper and should therefore be stated in the methods – that you would also look for data on the total available and eligible sample (and then in results state that none of the papers reported this data). That is a very important finding – future researchers need to collect and report this data. Also in the last sentence in this section, insert ‘that’ before ‘started the program.’

8. What is the difference between PubMed and PubMed publisher? Did you mean MEDLINE, PubMed and/or PubMed Central?

9. Risk of bias section: The first sentence is not very clear to me – please re-word. Did you actually check for publication bias? Regardless of whether you think it’s likely or not you should still check. Have you considered potential design issues that could have resulted in bias in the participation data? E.g. in studies that used flyers, were the number of flyers given out recorded? Did studies that used multiple methods of recruitment state the number of participants recruited using each method (e.g. n=12 were recruited via letter, n=4 recruited via poster etc)? Or again have studies failed to report on this information, in which case you should recommend more detailed reporting in future.

10. In the statistical analysis section: insert a ‘:’ after ‘and’ and use ‘;’ instead of ‘,’ for the list of characteristics.

Results

11. Please avoid use of first person throughout the paper (such as in the third sentence of the ‘literature search’ section in ‘Results.’). Also delete the word ‘finally’ in this sentence.

12. ‘Characteristics of participants and programs’ paragraph: please write out ‘five’ rather than using ‘5’.

Tables

13. Please make sure you have included how recruitment was done in the ‘Way of recruitment’ column. I suspect that not all papers have included this information and this is why the method of recruitment is not currently reported for all included papers. If this is the case could you add ‘method not reported’ or similar in this column to make it clear to the reader that the author did not report it. For example, for the study by Burke et al., 2013 the ‘way of recruitment’ column states that participants were recruited from 60 suburbs, but how were they recruited (e.g. flyers, telephone etc)? It is essential to have as much detail as possible in this column to gain an idea of how best to recruit participants in to such studies.

14. Throughout the table in the ‘Way of recruitment’ column replace ‘send’ with ‘sent’

15. Row for Hernandes 2012: Please change ‘a other project’ to ‘another project’

16. Please add in age range of participants from each study to the table.
Figure
17. The reasons for excluding full text articles are not currently provided in the flow diagram. This information is essential.

Discussion
18. Last sentence of the first paragraph: edit wording to ‘….and group size are likely important in determining sustained participation.’
19. Paragraph 3, second sentence: delete ‘and’ before ‘higher sustained…’
20. Paragraph 4. Insert a full-stop after ‘invested’ and start the next sentence with ‘For example…’ Also change ‘phone’ to ‘phoning’ in this sentence.
21. The final sentence of this section needs relating back to the findings of this review. E.g. in your review did any of the included papers include online components? If not state this. If they did say what they were and how successful they were.

Discretionary Revisions
22. I do not think it was necessary to include the community/home, dwelling, or effectiveness related keywords. You would most likely have captured all the studies that you included in the review with keywords relating to older age, physical activity and intervention design....you may have done more work than you needed too!

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests