Author's response to reviews

Title: A snapshot of the prevalence of physical activity amongst older, community dwelling Victorians: patterns across the young-old and old-old

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The Editor
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Dear Sir/Madam

Re: MS 1752868066117968
A snapshot of the prevalence of physical activity amongst community dwelling older adults in Victoria, Australia: patterns across the young-old and old-old

Thank you for providing us with your reviewer's valuable feedback on our manuscript. They have raised some important points. We have sought to address these in the revised document. We have outlined below our responses to the specific comments made.

Reviewer 1’s comments

1) p5 para 1: Please cite examples and references for physical activity reducing need for medication in older people

Examples and a review reference have been inserted on page 5.

2) At the end of the introduction, a clear statement of why the study was conducted is needed. At present, the authors explain what they report, not why the study was done.

The aim of the associated study has been provided on page 6.

3) p6 para 1. Where was the study carried out? Country, state, area?

This information has been inserted on page 6.

4) p6 para 1: Were the exclusion criteria applied to patients in the current study or just to patients in the intervention study? If the former, this severely limits the generalisability of the data - it applies only to those
who were less likely to be active but were suitable for doing exercise. If this is the case, it is difficult to see how any useful results can be derived.

The text on page 6 has been revised to demonstrate that only age was an eligibility criterion in the reported research.

5) p7 para 1: Which University Ethics committee? Did the study accord with the principles of the Declaration of Helsinki?

Details of the ethics committee have been inserted on page 6.

6) p7 para 5: the AAS has good criterion validity.... In which group of patients?

The AAS has good criterion validity in Australian adults, as tested for population-based surveys. Another supporting reference (19) has been added on page 7.

7) p8 para 3: How many questionnaires were sent out? What was the response rate?

This information has been detailed on page 8, para 2.

8) p9 para 1: When giving p values, it needs to be clear what is being compared with what - this is not clear for older age groups or for gender / heavy work. Give the values and CIs for all comparisons. Same for p 10 para 2.

The text on page 9 para 1 and page 10 para 2 has been revised to include details of the differences (and the associated confidence intervals) to which the p values relate. Figure 2 and reference thereto has been removed, as its inclusion gave undue weight to non-significant findings.

9) p10 para 1: I think that it is important to show the data re: lack of association between knowledge and physical activity. This is critically important and suggests that education (easy as it might be) is not going to be the answer in increasing physical activity amongst older people.

The reviewer makes a salient point: indeed, the evidence indicates that agreement with physical activity messages does not translate into actual behaviour. This point is raised in the discussion (page 12, para 1). The Spearman's rho statistic values for the associations between the four messages and physical activity behaviour have been inserted on page 10, para 1.

Discussion: The discussion is long and poorly focussed. Less time should be spent describing the results of other studies - key results should be used to compare with the current work. Some comment needs to be made as to the potential weaknesses of the sample and of self-report of activity intensity and duration. Some discussion of the potential barriers to activity in older people would be useful, along with some comment as to how applicable the authors think the intensity and duration guidelines are for frail older people.

The discussion has been revised to focus on the key points: the proportion of older people who are sedentary and the scope for further promoting physical activity, particularly amongst the old-old. The perceptual barriers to activity in older people are highlighted and reference to the evidence base is used to make recommendations for primary care professionals to provide a tailored approach to physical activity adoption and maintenance in older people. The limitations of the study are outlined on pages 13 (para 3) - 14.

1) p5 para 2: Replace one of the examples of 'sedentary' with an alternative term
2) p7 para 2: Undergo, not undertake.
3) p8 para 2: Please give the cutoffs for the categories of age used.
4) p8 para 3: Be consistent about words / numbers (23 / twenty three)
5) p9 para 1: Keep to 1 decimal place for figures
6) p11 para 3: Omit brackets - 'with a response rate of' rather than (response rate was)

These minor changes have been made as suggested.

Reviewer 2's comments

1. Throughout the manuscript there is mixed use of the terms exercise and physical activity. These should
be seen as different terms with exercise being a subset of physical activity. I believe that the authors mean to use the term physical activity in nearly all instances, so should change many of the references to "exercise" throughout the text.

The term 'exercise' has been changed to 'physical activity' (with the exception of where the primary source used the word 'exercise').

2. Abstract (Results) lines 2-3. The sentence beginning "Prevalence of physical activity . . ." is difficult to follow and requires rewording.

The abstract has been revised to make the key points more explicit and the above sentence has been reworded.

3. In the methods you need to indicate the total number of GPs approached (from the 85 practices) so that the reader can interpret the GP response rate (i.e., 40 GPs agreed out of . . . approached).

It is not wholly possible to indicate the total number of GPs reached, as in some instances the letter of invitation went to the principal, and we cannot systematically discern whether all other GPs in the practice were informed of the invitation. In most cases, only one GP per practice took part. We can provide the breakdown on request. The text (page 6, para 2) has been revised to 'Forty GPs from 85 practices agreed to participate in recruitment of eligible older patients'.

4. Method, paragraph 1 - How did the GPs ascertain those of their patients "less likely to be currently engaged in physical activity". I imagine this would be very hard to do from what I assume was a review of patient files. 5. Method, paragraph 1 - Were the GPs trying to identify those patients likely to have depressive symptoms for the trial, given that that was the focus for the trial? Does this influence the physical activity data from those people? 7. Method, paragraph 1 - Please include the method by which GPs recruited older patients. Was it through screening patient files?

The text has been revised. Practices were not resourced to allow for a review of patient files prior to recruitment. (Once people screened positive for inclusion in the associated trial, we obtained medical clearance and at this stage a file review occurred). The majority of patients who participated were recruited by invitations sent to all living patients aged 65 and over on the GP's database. It was not possible to differentiate those with depressive symptoms by this method. Although the GPs were asked to focus on sedentary patients in any opportunistic recruitment, in the event, only a very small number of patients were recruited opportunistically by their GP (figures can be provided on request).

6. Method, paragraph 1 - Were the eligibility criteria noted those for the full trial or those for the PA assessment? Please make this clearer.

See response to reviewer 1's comment.

7. Results, paragraph 1 - If 346 screening instruments were returned from 984 people recruited, the response rate is 35% not 33% as noted.

The text on page 8, para 2 has been revised.

8. Results, paragraph 1 - The authors reported 330 usable data sets, yet the totals for each characteristic reported in Table 1 range from 266 to 294. Is the difference due to missing data for many questions? This needs clear explanation.

Yes, the difference is due to missing data. The available Ns for the variables have been added to Table 1.

9. Results, paragraph 1 - Make it clear whether or not the whole sample completed the PA assessment or only those below the depressive symptoms cut-off of 11.

The text on page 7, para 1, has been amended to clarify that all the sample completed the physical activity assessment, since the AAS was incorporated in the screening instrument they returned.

10. Results, Attitudes Towards Physical Activity - In this paragraph there appears to be confusion between perceptions of PA, awareness of PA messages, and agreement with messages. These are three different concepts that the authors appear to be confusing, hence this section and the discussion on it further into the paper requires revision for clarity.
We agree that the agreement with the statements may reflect general knowledge and the reporting thereof, rather than recognition of the National Physical Activity guidelines per se. There is also the possibility that, to some extent respondents were providing 'socially desirable' answers. The text on pages 9 (para 3), 12(para 1) and 13 (para 3) has been amended accordingly.

All the 'Minor Essential Revisions' and 'Discretionary Revisions' helpfully noted and suggested by the reviewer have been addressed. We hope that our revised manuscript meets with your approval. Please do not hesitate to contact us if you have any queries.

We look forward to hearing from you in due course.

Yours faithfully

Jane Sims
For the authors.