Reviewer's report

Title: A qualitative study of older adults' responses to sitting-time questions: do we get the information we want?

Version: 1 Date: 29 April 2011

Reviewer: Rachel Colley

Reviewer's report:

Major Compulsory Revisions

Abstract: The conclusion in the abstract does not match the full conclusion in the paper. The results of this study show major problems with using self-report sitting time questions in older adults. This is well explained in the full discussion of the paper; however, reading the abstract alone leaves the reader with the impression that self-reported sitting time provides reasonable estimates. This is not supported by the findings which clearly show major confusion with the questions in this age group.

Discussion: Further discussion of alternative measures of sitting time should be included. The results of this study suggest new tools and approaches are needed if we are going to have valid and accurate estimations of sitting time. The authors allude to the fact that accelerometers pick up more sedentary behaviour as they can capture the many periods of time throughout the day that respondents cannot recall. The conclusion of this paper should lean more towards the use of objective measurement or at the very least, using time use diaries rather than questionnaires. This suggestion (combined use of inclinometers and accelerometers) is alluded to in the middle of the discussion (page 21, end of 2nd paragraph); however the final conclusion of the paper still calls for revision of the PASE and IPAQ questions. The recall of something as ubiquitous in the day as sitting is difficult and this is compounded by the fact that the language of the questions forces people to think about the previous week (which could be quite variable between days) or a typical day (again, where day-to-day variability within a person makes it hard to accurately describe sitting behaviour). Self-reported MVPA is very weak as a measure but at least this is asking about specific activities. Sitting time is such a vague and all-encompassing entity that the authors need to consider (or at least discuss) whether we are asking too much of a questionnaire to provide an accurate summation of sitting time.

Another discussion point worth exploring is the question of whether we should be trying to capture all sitting time or just ‘unhealthy’ sitting time. Sitting whilst eating isn’t a behaviour we would ever intervene on, while watching excessive amounts of TV likely is. The reporting of specific sedentary activities that could be intervened upon (e.g., watching TV) might be more useful in the long run and may also prevent confusion in the data collection process because participants wouldn’t get frustrated with trying to remember so many discrete sessions of
sedentary behaviour throughout the day. It appears as though in this population that TV watching, passive transport and computer use might be behaviours of interest to target in time use diaries or questionnaires. It is good to see on page 22 that the authors discuss the need for domain-specific questions. It is therefore clear that they acknowledge the challenge of getting total daily sitting time.

There is also a lack of background provided about how other methods can get at sitting time (e.g., inclinometers/accelerometers). The work of James Levine is non-existent in the review of the literature and this is an oversight when we’re talking about sitting time in adults. Would this be appropriate to use in older adults?

Minor Essential Revisions
Page 5, data collection protocol: The last 2 sentences of this section are confusing. Once sentence says the total sample of participants was used then the next sentence makes a statement suggesting a sub-sample of something was used. Please clarify.

Multi-tasking in sitting time is alluded to in some of the respondents’ answers yet this issue is not discussed as a limitation to using self-report for sitting time. In other words, how can you possibly quantify time spent sitting while knitting and watching TV. What if people report this as two separate ‘sessions’ of sitting rather than a single session?

Discretionary Revisions
Page 4, Participants: replace ‘purposively’ with ‘purposefully’

Literature review: Consider citing a new review paper on sedentary physiology by Tremblay et al., (2010).

Page 20, line 2: reference style is not numbered “(Beatty and Willis, 2007)”

Review Questions
1. The research question posed is well defined. The authors clearly state their purpose of understanding older adults’ level of understanding of sitting time questions in existing physical activity questionnaires: IPAQ and PASE using cognitive interviewing.
2. The methods are well described and adequate detail is given.
3. No sample size justification is provided in the methods. Can the authors expand on this in their methods?
4. Data reporting adequate.
5. The discussion and conclusions are well supported by the results; however, the discussion that objective measures might be a necessary alternative to measure sitting time should be included in the conclusion/discussion section of the abstract. It isn’t until the very end of the full discussion that any mention of objective measures is made.
6. The limitations of the work are explained but could be expanded further. A systematic review by Prince et al. (2008) comparing direct and self-report measures of physical activity could be cited. A similar comparison for sedentary behaviour would be useful and this paper would be a good place to suggest this as a piece of future work needed in this field.

7. NA

8. Title is appropriate.

9. The writing quality is very good.

**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.