Reviewer's report

Title: Older adults' reporting of specific sedentary behaviors: validity and reliability

Version: 1  Date: 26 May 2014

Reviewer: Froydis N Vik

Reviewer's report:

Valid measures to use in studies on sedentary behavior among elderly are warranted, and this is a contribution to this field.

Major Compulsory Revisions:

1. The validity study: According to figure 1, the instrument seems to be “quite random” in its precision. Was absolute values used for mean and deviation? The instrument is both overestimating by 6-7 h AND underestimating by 6-7 h, (and everything in between). Is the statistics based on the deviations? You conclude that there is an underestimation of sedentary time, yet many measures clearly overestimate compared to accelerometer values. It seems that since the deviations go both ways – this might contribute in giving a better/more positive result than the data really allows for. Please clarify.

2. The conclusions should reflect that this does not seem to be a very useful questionnaire, at least when it comes to validity based on your results. But since there is few in the field, can you comment on if this is a better option using your instrument than developing a new questionnaire if someone should do a new study on sedentary behavior among elderly? Would they be better off trying to develop a new instrument and testing it than using this? What does your wide 95% limit of agreement imply? A discussion on the usefulness/practical implications of this new instrument is lacking. Thereby also including if the aim of the study is accomplished.

3. How was the randomization done for the test retest study? Seems odd that the subsample is different in so many aspects from the total sample. How many declined to participate in the test-retest?

4. Please include a reference on why only n=28 are enough for valid test retest analyses.

5. There seems to be one question missing: How many days do you sit and eat? Why was this question left out?

6. How was the questionnaire developed? Theory lacks. Since PA and sedentary behavior is considered as separate constructs, why did you use IPAQ?

7. Was mental status assessed? This may be of importance to people >85-90 yrs.

8. You state that 508 is the total sample, and 442 wore accelerometer. There is 7 elderly missing according to your explanation? Please clarify.
9. The title of table 1 is total sample, but yet you use 442. Is this your total sample then, and not 508?

10. It seems strange that the target period for the questionnaire and the accelerometer was not the same. Why was this chosen? Is this a major limitation to the study?

11. Your results were “better” than ref. 16. In what way?

12. Other authors have stated that ICC is ‘excellent’ (#.81), and ‘good’ (.61 - .80). Why do you think that your 0.7 is a “conservative” measure of acceptable values?

13. Please state what an “acceptable value” of Spearman’s coefficient is (with reference). This will make it easier for the reader to assess your value of 0.3.

14. Please make the limitation and strength of the study more clear. There is a suggestion for the use of log books, yet I assume this is not a limitation?

15. What do you mean by tertiary education? University? How many years?

16. Couple of hundred meters is rather imprecise. Do you mean 200? Or is it 1 km as in table 1. ?

Minor Compulsory Revisions:
1. Please include the word “new” before questionnaire in the aim of the study.
2. Please be consequent in using numbers, not letters. (i.e. 508)
3. Key words: please include self-report and accelerometer
4. Please use the same heading of table 1 as in the text when referring to it (results).
5. There is a spelling mistake in ref. 22. Please check all references.
6. Please have someone "native speakers" read for corrections and better language.

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

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

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