Reviewer's report

Title: Mobility and cognition are associated with wellbeing and health related quality of life among older adults

Version: 3  Date: 11 March 2015

Reviewer: Kristin Taraldsen

Reviewer's report:

This cross-sectional study explores the association between cognitive function and mobility and wellbeing and health related quality of life in a sample of 229 home dwelling older persons.

Major Compulsory Revision:

My main concern with this paper is, as it was before, the justification of why this study is important. It is difficult to approve the paper as it is. The value and limitations of the results should be presented more precise and you could also be clear in the structure, for example your description of outcome measures, presentation of results, and a clearer presentation of the study population earlier in the discussion.

1. Throughout the paper you should be more consistent in your definition of outcome measures. For example; define the SPPB either as a measure of mobility and balance or as a measure of mobility, and if you define MoCA and DSST as measures of executive functions (line 224) you should describe this also in the method.

2. In the abstract it would help to include more information, include p-values also when not statistical significant and add information about how strong the associations between your measures are.

3. Make stronger justification for the secondary objective.

4. If you only included measures from baseline this is your only examination, and I would suggest that you present this as “examination” instead of “baseline” throughout.

5. Decide if you will describe results in text or in Table 1. Be clear in your Tables. If you decide to use abbreviations you should add an explanation of these, and you could also include information f.ex about range for possible values. Consider to make one separate table for the background characteristics and one for the outcome measures.

Minor Essential Revisions:

6. You have described MoCA two places in the methods, suggest that you delete “…and the Montreal Cognitive Assessment (MoCA).” Line 176-177.

7. Correct typos line 76

8. Adjust information line 99-101, do not need to repeat information.
9. Suggest that you consider moving line 122-124 up to the end of “study design” (to line 102)

10. Line 127: include measures of quality of life here?

11. “A cut-off of 26 or lower is used to classify individuals with mild cognitive impairment” line 215-216 is also described in the method section, and could be deleted from the results.

12. Suggest to delete “…, a measure of mobility…” line 222-223

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

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

**Declaration of competing interests:**

Declare no competing interests