Reviewer's report

Title: Psychometric Properties of Instrumented Postural Sway Measures Recorded in Community Settings in Independent Living Older Adults

Version: 0 Date: 08 Dec 2019

Reviewer: Eling D. De Bruin

Reviewer's report:

The numbering of the affiliations give the impression six different entities were involved. Is this correct?

Abstract: Add quantitative data from the most important results to the abstract.

Page 3, lines 16-18: This is an important remark. It also hints to the fact that clinicians are mostly interested in individual patients. This requires that assessments are tested on their absolute and relative reliability.

Page 5, lines 1-2: Given the aim of this study was to test the ecological validity of balance assessments in the own environment of the subjects it seems odd the participants were invited for their test retest in a standardised study test setting. This seems to be contradictory to the aim. Why were the researchers not actively going out to where the target audience is living and perform the tests in those intended environments?

Page 8, line 5: change "=" to "smaller or equal then"

Page 9-10: When the intention is to measure people at their homes through mobile measurement systems the treating clinicians want obviously be able and say something about worsening or improving of an individual patient. This necessitates that we gain knowledge about smallest detectable change and similar measures. Hence, the analysis should be performed for both relative and absolute reliability and bland-altman plots should be added.
The authors express the hope that through technology interventions can be prescribed based on the individual's identified balance deficits. This, again, requires knowledge about the measurements on an individual's level and necessitates reporting both absolute and relative reliability results.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

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