Reviewer’s report

Title: Handgrip Force Steadiness in young and older adults: A Reproducibility Study

Version: 1 Date: 17 Jan 2018

Reviewer: Olivier Bruyère

Reviewer's report:
The objective of this study was to perform a reproducibility study of hand grip force steadiness. The reviewer has the following comments:

1. The advertisement for the Nintendo Wii should be removed from the title.
2. In the abstract, relative reproducibility and absolute reproducibility must be defined.
3. The assessment of the differences between young adults and older adults is not the objective of this study and must be removed from the manuscript.
4. One of the major issues in this manuscript is related to the validity of the Nintendo Wii Balance Board to assess hand grip force steadiness. As a matter of fact, it would be very interesting to assess the validity of the assessment using a defined force steadiness to be sure that what is assessed by the apparatus is true.
5. The second issue in this manuscript is related to the use of the 5, 10 and 25% of MVC. As a matter of fact, since other studies have also assessed the 50% of MVC, the rational is not very clear. The question is whether it would be clinically relevant to assess the 5 or 10% of MVC.
6. More information must be given regarding the SRD.
7. The reviewer does not fully understand the added value of the assessment of the area between the target force line and the force produced.
8. The reliability of the visio-motor feedback must be discussed.
9. The authors concluded that the WPD method is a relatively cheap, widely available, pragmatic and portable method. However, the reviewer is wondering whether the software used in this study is freely and widely available to assess the hand grip force steadiness.
10. At last, the reviewer is not sure that this method could be relevant in a clinical setting because of the limited reproducibility of the method but believes that it could be very useful in epidemiological studies (i.e. at the population level). Could the authors comment on that?

**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.

Yes

**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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