Reviewer’s report

Title: Reliability and validity of a sedentary behavior questionnaire for South American pediatric population: SAYCARE Study.

Version: 2 Date: 25 Aug 2019

Reviewer: Wendy Yajun Huang

Reviewer's report:

I appreciate the authors’ efforts in revising this manuscript. However, I have several suggestion/concerns shown as follows:

1. There is some inconsistency in sample size/number of invitations. In lines 115-116, it is said that 495 participants were recruited; however, in line 141, 400 children and adolescents were invited. Please clarify.
2. Line 150, not clear to me why participants who were pregnant were excluded; any other exclusion criteria applied (e.g. only healthy children and adolescents included)?
3. Lines 182 and 201: I am still not convinced of the justifications for classifying sedentary time (assessed by both questionnaire and accelerometer) using a 120 min/day cut-point. For questionnaire based assessment, why not only summing up screen-based sedentary activities (in line with the guidelines of not more than two hours of this kind of behavior per day)? For accelerometer based assessment, there lacks of rationale for using two hours a day of sedentary time as a cut-point. In addition, reference 17 is not supportive for using this cut-point (120 min/day of sedentary time). Please clarify.
4. Data analyses/interpretation: the justifications provided for "acceptable" reliability observed in this study are not convincing and may not be appropriate. Both the systematic review by Nascimento-Ferreira (Obesity Rev 2018) and the study by Ridgers (2012) referred to validity (not reliability) of subjective measures compared with objective measures. The criteria mentioned in these studies (e.g. spearman rho of 0.3 as moderate validity) are therefore not suitable for determining the reliability. In fact, the systematic review by Hidding 2017 in Sports Medicine has suggested kappa values >0.7 and Spearman correlation >0.8 as indicative of acceptable reliability. The findings and conclusion of this study, especially for reliability, should be cautiously presented. Lastly, is ICC more appropriate for assessing test-retest reliability?

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

No

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:

Needs some language corrections before being published

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