Reviewer's report

Title: Development and evaluation of the Andhra Pradesh Children and Parent Study Physical Activity Questionnaire (APCAPS-PAQ): a cross-sectional study

Version: 4  Date: 21 December 2015

Reviewer: Alberto Soriano-Maldonado

Reviewer's report:

General comments: Thank you for removing the stability data. The paper provides a clearer message to the reader who may want to implement the questionnaire in real settings, in terms of what to expect from it (i.e. what the strenghts and weaknesses are). The manuscript has considerably improved and I believe it is acceptable for publication in BMC Public Health. I have only some minor comments in an attempt to improve some sentences of the manuscript, that the authors may want to consider.

Abstract: In the results section of the abstract, please refer to association instead of validity. Also, please remove the last part of the sentence from the results section indicating “suggesting construct validity”, as this is discussion.

Page 3, line 63: Please consider changing “An accurate and reliable” by “Therefore, the development of valid instruments for assessing PA in LMIC is relevant since they can provide important information that will help improve our understanding of the association between PA and health outcomes and inform preventive actions in LMIC settings.”

From the last sentence of the introductions it seems that you only assess criterion validity. I suggest that you consider including both criterion and constructing validity in the aims of the study.

Page 5, line 143: please specify that by “S2” you refer to supplementary material.

Results

Page 9, lines 331-335: Consider making more reference to tables for the reader to know where to find the information described.

Page 10, line 400: I strongly suggest modifying “through mitigating or removing systematic bias and overestimation” for “by potentially mitigating systematic bias and overestimation”. The correlations improved to some extent, but not to a extent where suggesting that changing the value would “remove” bias...

Page 10, line 409: Please change “clean” for “process”

Page 11, line 432: If you want to include into the manuscript that you collected data on a second appointment, please include the range of the time difference across participants (I remember it was from one week to up to more than one
year).

Page 11, line 439: Considering the results, I would suggest to change the word “broadly” for “moderately”.

Page 11, line 453: I suggest to include “Despite some limitations, this questionnaire may be used...”.

The strengths and limitations should be stated just before the conclusion of the manuscript, instead of in the middle of the discussion.

Finally, the values included in figure 2 should be adjusted for age and sex, as you have presented in table 5.

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

**Quality of written English:** Acceptable

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

**Declaration of competing interests:**

I declare that I have no competing interests