Reviewer’s report

Title: The short international physical activity questionnaire: cross-cultural adaptation, validation and reliability of the Hausa language version in Nigeria

Version: 1 Date: 10 March 2011

Reviewer: Maria Hagstromer

Reviewer’s report:

This manuscript describes the translation, cultural adaptation of the IPAQ instrument to Hausa language as well as aspects of validity and reliability. In general the paper is of interest and an important contribution to the research community. The way the authors have described the translation and cultural adaptation is excellent. I have some comments regarding the methodological quality of the study, confusion or misunderstanding in the background that should be considered.

The comments below are a mix of major and minor revision.

1. Background: A reference for the first statement/sentence is needed.

2. Background, second sentence: Energy expenditure is not the same as physical activity (even though physical activity leads to increased energy expenditure. So the second sentence is misleading. Routine energy expenditure is was all persons alive have. I also suggest to split that sentence into two sentences.

3. Background, last sentence first para: Is it only that there is a lack of culturally relevant instruments or that it also can be due to lack of systems for monitoring?

4. Background, second para: Something is wrong here. IPAQ was not developed to standardize behaviors of population. Maybe add for standardizing measures of health-related PA behaviors.

5. Background, last sentence: Add “aspects of validity and reliability” or be more specific what aspects that are explored.

6. Regarding the method testing I have some general comments/questions. As it is of great importance that an instrument is validated under the same constraints as it will be used I wonder if

   a) the subjects in a future national study will be able to ask if they do not understand the question (page 7, second para, last sentence). This has to be discussed

   b) As the subjects included were to be able to speak, read and write both Hausa and English I wonder about how representative of the population that is. I.e is it those more educated that speaks both languages, even though English is an official language. See the descriptive table 1, 40% has a tertiary education is that representative to the population.
7. Was power calculated or how did the authors come up with 102 subjects for the evaluation?

8. The methods needs to be better and more transparent described. For example how was blood pressure and heart rate measured and how should these data be interpreted? Which week were the subjects asked to think about during the re-test?

9. If not an accelerometer could be used for the validity, why did the authors not include a diary or similar?

10. Why were the IPAQ chosen and not GPAQ as that instrument of choice?

11. Can you expect a different correlation by sex, age or SES. I.e could the analysis include that as well?

12. For the inter-method comparisons as well as for the test-retest reliability analysis that helps the reader to look into heteroscedasticity, such as the Bland-Altman analysis should be done.

13. In the discussion the authors compare their results with the ones from the 12-country validity study of IPAQ (page 11). The problem is that in that study the long version was compared with the short and in this study the short was compared with the short version, just different languages. This need to be problematized.

14. In the discussion, page 12, firsta para information that is missing in the method section is included. Move or at least describe how the data should be interpreted in the method.

15. I am not sure if I understand the discussion regarding the item sitting. For me the last sentences in para 1 (page 12) and para 2 is contradicting.

16. Discussion, page 14, third para. To vague – lies perhaps…… is that a strength of the study?

17. The reference list needs to be updated (accessed 2009?, Ref 24, Sjostrom is spelled with an n, is Wikipedia a good scientific reference? )

18. Table 2. Table text could include N=102.

19. Table 3, table text. I suggest adding correlation instead of relationship.

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

'I declare that I have no competing interests