Author's response to reviews

Title: Reliability and Validity of the Dutch Physical Activity Questionnaires for Children (PAQ-C) and Adolescents (PAQ-A)

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Author's response to reviews: see over
Dear Prof. Dr. Herman Van Oyen,

Thank you for taking the manuscript “Reliability and Validity of the Dutch Physical Activity Questionnaires for Children (PAQ-C) and Adolescents (PAQ-A)” by Bervoets and colleagues, into consideration for publication in Archives of Public Health. We also thank the two reviewers for their helpful comments. Included you will find the revised manuscript. Please find our point-by-point responses to the concerns of the reviewers below.

We hope that our paper is now ready for publication and we are looking forward to hearing from you soon.

Yours sincerely,

On behalf of all co-authors,

Liene Bervoets
Responses to reviewer comments

Version: 1 Date: 10 June 2014
Reviewer: Alexandre Mouton

Minor Essential Revisions

1. Page 5, line 119 : remove the comma after "(VO2)"
   
   It was corrected in the manuscript accordingly.

2. Page 5, line 126 : you mention that the questionnaires were structured to discern moderate (score 1) to vigorous (score 5) physical activity. Reading the questionnaire, it appears that the lower part of each 5-point scale report "no physical activity" and not "moderate physical activity". Therefore, it would be useful to clarify the scoring protocol of the questionnaires.
   
   Indeed, it was adjusted in the manuscript as “low” instead of “moderate” and “high” instead of “vigoros” in accordance with Kowalski et al. 2004. The use of the word “no” would be too specific, in our opinion.

3. Page 5-6, lines 125 and 128 : you mention that the PAQ-C and the PAQ-A consist respectively of nine and eight questions. However, there is an additional (last) question in each questionnaire that you should mention to clarify the understanding of your paper.
   
   Indeed, it was adjusted in the methods section as follows: “PAQ-C questionnaire has been originally designed for children aged 8 to 14 and consists of nine questions structured to discern low (score 1) to high (score 5) physical activity during the last seven days and a tenth question in order to identify children or adolescents who had unusual activity during the previous week. However, the last question was not used as a part of the summary activity score.”

4. Page 6, line 145 : I assume that you mean Q1-Q9 and not Q1, Q9.
   
   No, only Q1 and Q9 were transformed into quintiles since these questions were originally not categorical.

5. Page 6, line 150 : What does "BMI" mean in this sentence? Probably a typing mistake.
   
   Indeed, it was corrected in the manuscript as IBM.

6. Page 9, line 177 : A "%” is missing after "77.7"
   
   It was corrected in the manuscript accordingly.

7. Page 9, line 190 : The mean scores are exposed, but you do not further discuss if those values are "in the observed norms" or not, compared to previous studies. It could be of interest to specify your study population. The total mean physical activity scores of each study population (in total, not the only the reliability sample) could also be reported.
   
   Indeed, we added a comparison of our mean PAQ values with those observed by a previous study by Janz et al. (2008) to the Discussion section. In addition, Table 2 was added to clarify the characteristics of each study population per reliability/validity test.

8. Page 11, line 224-225 : you mention that adolescent generally showed lower levels of physical activity compared to children. You say that it is consistent with previous studies, but you didn't test for the significance of the difference between the two study populations. It could therefore be useful to do so.
   
   Indeed, in Table 2, we tested for the differences between PAQ-A and PAQ-C. We added asterisks to report the significant differences (p-values). In addition, we explained the differences found between adolescents and children in the result section.
Major Compulsory Revision

1. Methods – Reliability:
   • Please name the title “Parent-Child Reliability” instead of “Reliability” alone.
     *Since we also tested inter-item reliability it was corrected in the manuscript as follows: inter-item and inter-rater reliability.*

   • It would be interesting to explain the method of schools recruitment. Why did the authors choose to select six primary schools and four secondary schools?
     *The selection was based on the response rate of schools which were located in the vicinity of the university and/or home of the researchers involved. We added this sentence to the manuscript (Methods section). Consequently, our study sample is a ‘convenience’ one as mentioned in the first sentence of the Discussion: “In this study, we evaluated the reliability and validity of a Dutch version of the PAQ-C and PAQ-A in a convenience sample of children and adolescents living in Flanders, Belgium.”*

2. Results: It would be really interesting to add a table containing the clinical characteristics of the children included in both phases of reliability and concurrent validity. This information could reinforce the discussion part relating a difference in levels of physical activity in the population compared to findings from previous studies.
   *Indeed, Table 2 was added to the manuscript containing the descriptive characteristics of the study population (including clinical characteristics: age, gender, height, weight and BMI).*

3. Results – Concurrent validity
   • Please add the unit “kg/m²” when noting the mean BMI.
     *It was corrected in the manuscript accordingly.*

   • The reviewer is surprised to see that the authors did not perform a test-retest of their questionnaire. This choice should be explained in the discussion.
     *Indeed, it was added to the discussion as follows: “Because of the short time frame of our study and from practical point of view we opted to study inter-rater instead of test-rest reliability.”*

Minor Essential Revision

1. Abstract – Result section: Please be consistent and add the « % » after all results and not only for one result.
   *It was adjusted in the manuscript accordingly.*

2. Methods – Content validity: Have the two translated versions been previously pre-tested on a sample of subjects? Beaton et al. (Beaton DE., Bombardier C., Guillemín F., Ferraz MB. Guidelines for the process of cross-cultural adaptation of self-report measures. Spine. 2000, Volume 25, Number 24, 3186–3191) recommend this pretesting on a sample of 30-40 subjects to ensure that the adapted version is still retaining its equivalence in an applied situation.
   *Yes, the PAQ-C and PAQ-A have been previously tested in a pediatric setting on a sample of 47 subjects (21 overweight/obese and 26 controls). From the PAQ-C and PAQ-A, only inter-item reliability could be calculated and Cronbach’s alpha was 0.762 and 0.824, respectively. These results were implemented in the manuscript as ‘Proof of concept’ (Result section).*

3. Results – Reliability:
   • Please be consistent and add the « % » after all results and not only for one result.
     *It was adjusted in the manuscript accordingly.*
• Please be consistent with decimal points. In lines 181-182-183 you listed three decimal points instead of two elsewhere.

    It was adjusted in the manuscript accordingly.