Author's response to reviews

Title: Development and psychometric properties of the Y-PASS questionnaire to assess correlates of lunchtime and after-school physical activity in children

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Author's response to reviews: see over
23rd April, 2014

Dear Editor,

*Title: Development and psychometric properties of the Y-PASS questionnaire to assess correlates of lunchtime and after-school physical activity in children*

I am presenting the revisions made to the article ‘Development and psychometric properties of the Y-PASS questionnaire to assess correlates of lunchtime and after-school physical activity in children’ on behalf of myself and co-authors Kate Ridley, Timothy Olds and James Dollman. Thank you to the reviewers for their insightful comments and recommendations for improving the article. We have considered the comments made by the reviewers and have made changes where appropriate. Please see the attached document, which details specific changes made according to the reviewers’ comments.

All authors are aware that the revisions made to this manuscript and all authors have been alerted to and comply with the journal’s conflict of interest policy.

We look forward to hearing from you regarding our paper.

Kind regards,

Rebecca Stanley

(author for correspondence)
RESPONSE TO THE REVIEWERS

Thank you for your insightful comments and recommendations for this manuscript. These comments have encouraged us to improve the quality of the paper.

Please see below for specific responses to the reviewers’ comments.

| Reviewer #1 | A total of 11 focus groups were conducted. The first author of this current manuscript facilitated all the focus groups and was supported by the same trained research assistant. An additional addition has been made to the manuscript on page 9, under the “Questionnaire development and pilot testing” section: “A total of 11 focus groups were conducted and facilitated by the first author (RMS) and supported by a trained research assistant.”

Second sentence in the limitations section, Firstly should just be “first” | Thank you for this recommendation. This has been modified in the manuscript.

Discretionary Revisions - in the Background section, it is recommended that the authors remind the reader of their examples of correlates and contexts in which they are referring. For example, in the last paragraph the sentence, "there are currently no measures in use that assess correlates at all levels of the social ecological model, contain items that are specifically worded for the lunchtime and/or after school time periods, and assess correlates that have been conceptualized and defined by children." It would be useful to the reader to provide e.g. after correlates - this is true throughout the introduction/background section. | Thank you for highlighting the need to keep reminding the reader of the contexts and correlates referred to in this study. Additional information has been added to the background section to highlight the focus of the paper (ie. correlates of lunchtime and after-school physical activity). For example, page 5: “These correlates tend to have limited or poor evidence supporting the relationship with the physical activity context under investigation. For example, social support is a ‘global’ construct but associations may differ depending on the type of activity or the location of the activity [2]. Parental support may be a significant correlate of children’s organised sports but may not be a significant correlate in children’s lunchtime play, whereas teacher support may be associated with children’s lunchtime play but not afterschool play [2]. By including a ‘global’ measure of social support, specific sources of social support will not be identified, which can lead to misconceptions of the primary correlates and possibly biased results.”

Page 6 reads, “There are currently no measures in use that assess potential correlates of lunchtime and after-school physical activity at all levels of...” |
| Throughout the methods section, when describing drafts etc. of the tool it would be nice to have examples of questions. | Examples of items, and rewording of items, have been incorporated into the methods section. | Page 9, paragraph 1: “…and appropriate items were selected and modified to be context-specific, such as “I think I can be physically active even if my friends don’t want to” [42] was modified to “I am confident that I can still be active at lunchtime even if my friends don’t want to”.

Page 10, paragraph 1: The following are examples of items reworded based on the feedback from the expert panel: “There is always a teacher who supervises us during lunchtime” was modified to “There is always a teacher who is on yard duty during lunchtime”, and “I like to walk and talk at lunchtime” was modified to “I like to walk around at lunchtime”.

Page 10, paragraph 2: An example of an item that was reworded based on the pilot testing was, “Our school play area has painted lines on the ground to help me be active at lunchtime”. Examples of painted lines were included into the item to ensure appropriate interpretability (“Our school play area has painted lines on the ground (e.g. hopscotch and 4-square) to help me be active at lunchtime”).

The last sentence of the second paragraph in the data collection paragraph could provide an example of a question that was changed for terminology and wording - to give the reader a specific example. | Specific examples have been included at the end of this paragraph: “The following are examples of items reworded based on the feedback from the expert panel: “There is always a teacher who supervises us during lunchtime” was modified to “There is always a teacher who is on yard duty during lunchtime”, and “I like to walk and talk at lunchtime” was modified to “I like to walk around at lunchtime”.

The authors agree with the reviewer about the confusion of the terms used throughout the manuscript. As a result, a definition of correlates has been included in the first paragraph under the Background section: |

Reviewer #2

Discretionary revisions:
1. There are just a few concerns and clarifications. It would help readers if the authors provided a definition for, and defend their use of, the term “correlates”. | The authors agree with the reviewer about the confusion of the terms used throughout the manuscript. As a result, a definition of correlates has been included in the first paragraph under the Background section: |
They could more clearly explain that early testing of measures may only examine whether particular factors are correlated cross-sectionally with physical activity (PA), but the ultimate test of the usefulness of the measures is whether they prove to be predictive of PA when manipulated in an experimental situation. The items and scales in the Y-PASS may or may not prove useful for intervention design, since only a portion have actually been examined for their actual correlation to PA in other studies, and fewer (any?) have been shown to predict PA in experimental studies. Some may also be very difficult to change.

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<tr>
<th>2. There are also a few places in the manuscript and tables where the term “predictor items” is used instead of correlates, and it is not clear why.</th>
<th>To ensure consistency of our definition of correlates, the term “predictor item” has been changed to “correlate item” throughout the whole manuscript.</th>
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<td>3. In the first paragraph of the Background, the last sentence is confusing and redundant. The authors could delete the words “and the correlates of physical activity”… or clarify this entire paragraph to address the points above.</td>
<td>This whole section has been modified. See comment above.</td>
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<td>4. The conclusions should also include mention of the need to test the measures as predictors, not</td>
<td>Thank you for this suggestion. We feel that there is considerable confusion among researchers</td>
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just correlates. about the interchangeability of the terms ‘predictor’ and ‘correlate’. It is our view that, in the strictest statistical sense, the terms have the same meaning, but we understand that an everyday interpretation of the term ‘predictor’ incorporates a temporal, causative connotation. Rather than debate this, we have modified the following sentence to hopefully maximise understanding among readers. This has been added as a future recommendation in the Conclusion paragraph:

“Further, cross-sectional and experimental studies should be conducted to test the usefulness of the Y-PASS questionnaires in identifying the correlates of, and predictors of change, in lunchtime and after-school physical activity.”

5. On page 9, please define “h-index”. A definition of h-index has been included on page 10: “The expert panel represented three different countries (United States, New Zealand and Australia) and have an average h-index of 17.7 (h-index range = 2 – 43; an index reflective of productivity and impact of published work of the researcher [48]).”

6. In the data collection section it would be helpful to know how long it took the children to complete the survey. Thank you for this suggestion. This has been included under the “Data collection” section on page 12: “Children took on average 14.01 (±2.9) minutes to complete the lunchtime Y-PASS questionnaire (range = 11.42 – 16.55 minutes), while the after-school Y-PASS questionnaire took on average 24.50 (±3.9) minutes to complete (range = 19.15 – 28.12 minutes). This variation in completion time is acceptable with child participants [16].”