Author's response to reviews

Title: Sitting and standing performance in a total population of children with cerebral palsy: a cross-sectional study

Authors:

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Version: 5 Date: 29 May 2010

Author's response to reviews: see over
Dear Editor,

We appreciate the thorough review of our paper. The manuscript has been revised according to your suggestions, and we have done a copyediting of the language. Our response to each concern is written point by point below.

Best regards

Elisabet Rodby-Bousquet

Reviewer's report

Title: Sitting and standing in a total population of children with cerebral palsy.
Version: 2 Date: 18 November 2009
Reviewer: Sam Pierce

Reviewer's report:
Major compulsory revisions:

Introduction:
1) The Introduction does not clearly lead to the purpose of the study. For example, you never mention the GMFCS until the purpose statement so that it is unclear why you want to relate your data to the GMFCS. This is important especially since the GMFCS includes assessment of sitting/standing (depending on age) so that I would expect a relationship between the two. Also, what is the literature with regard to CP subtype that is relevant for your study?

Comment
We have added a presentation of the GMFCS and SCPE classification systems in the Introduction according to your suggestions. We have also stressed the importance of increased knowledge of the sitting and standing performance in a total population of children with CP (all GMFCS levels, subtypes and ages), which is the purpose of the study.

Methods:
1) How was GMFCS score/standing/sitting determined? Did the PT observe the child perform tasks or ask the caregiver? Who did the CP subtype classification?

Comment
This has been clarified in paragraph 5 in Material and Methods. The GMFCS level was scored by the child’s physiotherapist and the CP-subtype by the neuropediatrician.

2) You need to define baby chair and adaptive seating.

Comment
Thank you for pointing that out. We have realized the lack of clear definition of baby chair and distinction between baby chair and adaptive seating. We have decided to simplify the results by presenting the data using only three options instead of four (standard chair, adaptive seating and cannot sit). Baby chair is now included in adaptive seating and we have defined adaptive seating in paragraph 6 in Materials and Methods.
3) I don’t agree that the type of chair is on an ordinal scale since it is categorical data. Is a baby chair better than adaptive seating on your scale? Then, you report analyzing your data using a Chi square which is for nominal data. You need to be clear with your analysis.

Comment
We agree. After combining baby chair and other forms of adaptive seating, we have now used Kruskal Wallis to analyse differences in data related to CP-subtypes and Linear by linear to analyse differences related to GMFCS levels and age groups.

4) For your ANOVA’s, you don’t describe or report the post hoc tests so you cannot say where the differences were in your results.

Comment
Information about the post hoc tests for Kruskal-Wallis using Mann-Whitney is added into the Result section and in the Figure legends to clarify the Figures.

Results:
1) Table 1 should be summarized in text since the table itself is visually difficult to follow.

Comment
We have added a summary of Table 1 in paragraph 2 in Material and Methods. We have still kept Table 1 as a detailed presentation of the study objects as we were not sure whether you wanted it totally removed or only summarized in text to simplify.

2) Without clarifying the statistical analysis, I can’t really interpret the results.

Comment
Hopefully the use of Kruskal-Wallis test for all subtypes and the post hoc tests with Mann-Whitney will make it easier to interpret the results.

3) The figures in general are repeated in the text & not especially helpful while being difficult to visually follow.

Comment
The number of figures has been reduced from seven to four by removing Figure 1, 6 and 7. We also reduced the number of tables by removing Table 2 and 3. The data from Figure 6 and 7 are now presented as text and in different format in Table 4 (now presented as Table 2). Figure 2-3 (now presented as Figure 1 and 2) have been simplified by using only three options instead of four (standard chair, adaptive seating and cannot sit). We have made an effort to clarify Figure 4 and 5 (now presented as Figure 3 and 4) by changing the order of presenting the percentage of children who stand, stand up and sit down.

Discussion:
1) Throughout the Discussion, data was reported which belongs in the Results section. Only interpretation should be in the Discussion section.

Comment
We have reduced the data presented in the Discussion. However we have kept a brief summary of the data in the first two paragraphs of the Discussion with the intention to facilitate for the reader to understand the interpretation of data.
2) Throughout the Discussion, only focus on your data and its relation to the literature and don't discuss the value of the CPUP in general.

Comment
We have reduced the discussion on the value of CPUP. However, we still mention it as a possible reason for the low number of children unable to sit or stand.

Level of interest: An article of importance in its field
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

Reviewer's report
Title: Sitting and standing in a total population of children with cerebral palsy.
Version: 2 Date: 29 March 2010
Reviewer: Terry Pountney

Reviewer's report:

Is the question posed by the authors well defined? The question is how does sitting and standing abilities correlate with the GMFCS. They have used the term survey but in other parts of the text they use study. The terms used need to be clear and consistent and identify whether it is audit, survey or study.

Comment
We have changed the word survey to “study” and the purpose of the study to “describe”.

2. Are the methods appropriate and well described?
The methods are appropriate and well described. The results are well reported but it is not clear exactly what the assistive technology equipment is e.g. standing devices, bracing and frames

Comment
We are presenting the following data in paragraph 2 in the Result section: The reported means of standing showed that 368 (65%) of the children used to stand independently without support while 172 (31%) stood with support/assistive devices and 21 (4%) could not stand. Information was missing in one child. The most frequent standing device was a standing brace used by 130 children (75%) in some cases used in combination with a standing frame or a tilt table. Standing frames or tilt tables were used by 57 children, and standing wheelchairs by 23 children. However the data does not give us the possibility to separate between standing frames and tilt tables.

3. Are the data sound?
The data is derived from the CPUP which has a sound population from which to collect and analyse data.

4. Does the manuscript adhere to the relevant standards for reporting and data
deposition? I’m not sure that I can answer this

5. Are the discussion and conclusions well balanced and adequately supported by the data? There are no great surprises in this study as it is recognised that children at lower levels of GMFCS will need more adaptive seating and standing to enable them to function and participate. The data may be useful in future planning.

6. Are limitations of the work clearly stated? No limitations noted but there are some limitations in the consistency of equipment use across this large population.

Comment
This study lacks information on how often the children sit and stand and for how long they remain in different positions. The equipment used for standing is presented but not the equipment used to stand up and sit down since there is no such information available in the register.

7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?

Yes

8. Do the title and abstract accurately convey what has been found? Yes

Comment
We adjusted the title according to the Authors’ checklist and the STROBE recommendations.

9. Is the writing acceptable?

There are number of grammatical errors particularly in the past tense e.g. used to stand instead of stand.

Comment
Thank you for pointing that out. We have consulted a professional copy editor to proof-read the revised manuscript.

The figures need to be presented in a different format to make it easier for the reader to understand. Also there are probably too many figures.

Comment
We have reduced the number of figures from seven to four by removing Figure 1, 6 and 7. We also removed Table 2 and 3. The data from Figure 6 and 7 are now presented as text and in different format in Table 4 (now presented as Table 2). Figure 2-3 (now presented as Figure 1 and 2) have been simplified by using only three options instead of four (standard chair, adaptive seating and cannot sit). We have made an effort to clarify Figure 4 and 5 (now presented as Figure 3 and 4) by changing the order of presenting the percentage of children who stand, stand up and sit down.