Reviewer's report

Title: Use of manual and powered wheelchair in children with cerebral palsy: a population-based study

Version: 3 Date: 25 May 2010

Reviewer: Jan Willem Gorter

Reviewer's report:

I have read the manuscript with interest. It is a nice descriptive report (no hypothesis, basic statistics) of children and youth with CP using different types of wheelchair to move around, indoors and outdoors. The findings are confirmative with the literature on the Gross Motor Function Classification System and the work done by Palisano et al. on mobility.

I do like the important and relevant message of the authors that wheelchairs for young children with CP can "liberate' them instead of being confined to a wheelchair.

I think that the paper can be improved by the following suggestions.

1. Is the question posed by the authors well defined?
There is no clear reserach question posed and the authors could improve the paper by doing so. At the end of the introduction (page 3 and page 4) the authors state that " knowledge of the degree of independent mobiity ...in a total population of children with CP is of interest for health care planning as well as predicting future ability in the individual child". It is not clear if the latter (prediction) is one of the objectives but I understand that although the children are assessed twice per year for this study the data from the most recent reports only were used and the study therefore has a cross-sectional design. It would be much stronger if the authors would use their longitudinal dataset to address the prediction question in a population absed sample.

2. Are the methods appropriate and well described?

The method is a cross-sectional design. This could be stated more clearly and the description of the programme CPUP in which the child is examined 1-2 times per year is misleading (see abstract, methods section). The analyses is very basis with descriptives (frequencies) and limited correlations (GMFCS level). The authors could have posed hypothesis based on the literature by Palisano et al.

3. Are the data sound?
Yes. The data are collected as part of a programme CPUP with the use of reliable and valid classification system (GMFCS, SCPE). The variable mobility probably is a simple question yes/no in the programme. The authors could make this more clear. It would be nice to get some more detailed information on the
(other) mobility devices and wheelchair the children use, and their experiences if the authors have access to these data.
I do not see why all Figures are needed, as the data are mostly summarized in the Tables already.

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?
Yes.

5. Are the discussion and conclusions well balanced and adequately supported by the data?
The discussion section addresses nicely the findings (the use of wheelchair in a total population of children with CP, showing the degree of independent wheelchair mobility and the use of adult assistance for mobility). Again, it does not address the prediction of wheelchair use. The authors could discuss the cross-sectional design more clearly. The data is well interpreted and the literature is well referenced.

6. Are limitations of the work clearly stated?
No, this part is missing in the discussion section

7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?
Yes, the relevant literature is used. I would suggest to replace reference # 1 by the most recent consensus definition of CP published by Rosenbaum et al. The authors could also look at Holsbeeke et al. 2009 when they discuss the issue of capability and performance.

8. Do the title and abstract accurately convey what has been found?
Yes. In line one of the Methods there is a typo: were should be was.

9. Is the writing acceptable?
Yes. In line one of the Methods (abstract) there is a typo: were should be was.

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

Quality of written English: Acceptable

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

Declaration of competing interests:
'I declare that I have no competing interests'