Author's response to reviews

Title: Observational Skills Assessment Score: reliability in measuring amount and quality of use of the affected hand in unilateral Cerebral Palsy

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Author's response to reviews: see over
Hoensbroek, September 3rd 2013

Mr. Josefino M. Rodis
Journal editorial office
BMC Neurology

Dear Mr. Josefino M. Rodis,

On behalf of all authors, I hereby send you the revised manuscript “Observational Skills Assessment Score: reliability in measuring amount and quality of use of the affected hand in unilateral Cerebral Palsy”(version final 4), as you asked me in your mail from August 16th.

We revised the paper according to the reviewers’ comments. In the following pages answering the reviewers’ comments we gave a point by point description of the changes made.

We hope that the revised paper will meet the high standards of BMC Neurology. Hoping to hear from you soon, I remain

Yours sincerely

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We would like to thank both reviewers for their time and effort to improve our manuscript. The revisions we made in the article, based on the comments and suggestions of Mrs Ann-Kristin Elvrum, are described below.

Reviewer’s report
Title: Observational Skills Assessment Score: reliability in measuring amount and quality of use of the affected hand in unilateral Cerebral Palsy
Version: 3 Date: 12 August 2013
Reviewer: Ann-Kristin GunnesElvrum

Reviewer’s report:
Thank you to the editor and the authors for the revised manuscript with response to the reviewers. I think the inclusion of the additional file describing the tasks for the older children was useful, as well as the flow chart. However, it would be valuable with some more words explaining the flow chart. I am also happy with most of the responses, but still have some concerns which require Minor Essential Revisions. See below:

Background section:
1. 1st paragraph: The definition of performance is clear and well written, but I still feel that the manuscript would benefit from a more precise definition of what the authors mean by capacity. According to the manuscript capacity is defined as the “maximum potential capability to use the affected hand in bimanual tasks”. However, capacity and capability may not describe exactly the same thing. According to Holsbeeke et al. (1) capacity describes the person’s ability to execute a task in a standardized, controlled environment, whereas capability describes the person’s ability to execute a task in his/her daily environment. In the ICF (2) capacity is defined as an individual’s highest ability to execute a task or an action, and is measured in a uniform or standard environment. Capacity could also be defined as the best possible ability upon request (i.e. what the child “can do” when asked to) (3).

We agree that the word capability is confusing. Therefore, we have decided not to use the word capability anymore and rephrased our definition on capacity as follows: “….., as well as on the ability to use the affected hand to its maximal potential in bimanual tasks performed in a standardized environment, which is called capacity [5,6].” Thank you for bringing the work of Holsbeeke et al to our attention, we have added this article to our reference list. In our definition we use the term ‘maximal potential’ instead of ‘highest ability’ as we already speak of ‘the ability to use the affected hand’. To avoid any misinterpretation we added “.bimanual tasks performed in a standardized environment.”.
2. 3rd paragraph: If capacity is well defined in the beginning of the manuscript, this word can be used alone later on in the manuscript, for example in the following sentence: “Use of the affected hand is stimulated but not obligated in the AHA. We felt the need for an instrument that measures the potential capacity of the affected hand in bimanual skills.

We changed the sentence to read, “We felt the need for an instrument that measures the potential capacity of the affected hand in bimanual skills.” as suggested by the reviewer.

3. 3rd paragraph: I suggest rewriting “unilaterally” in the description of MUUL. Maybe you can write “one hand at a time” instead: “Furthermore, it measures one hand at a time and contains tasks that are usually not done by the assisting hand”.

Thank you for your suggestion. We have changed it accordingly.

4. 3rd paragraph: It is stated that AHA was developed in 2007, but AHA was developed for children from 18 months to 5 years of age in 2003, see reference (4) below. Thus, this needs to be changed in the manuscript.

The reviewer is right; the AHA is developed in 2003. We have corrected this in the text.

5. 3rd paragraph: According to the authors of AHA (4) AHA measures effective use of the assisting hand in bimanual activities, so I suggest to write this instead of spontaneous use.

We altered “spontaneous use” into “effective use”.

Methods:
6. 1st paragraph: In the description of the included and excluded participants you describe the excluded children as “children with very severe hand impairments”. It would be preferable if you could use MACS levels to describe the level of hand function for included/excluded children instead.

We changed it as follows:
Due to the study design and the therapy program, children with very severe hand impairments classified as Manual Ability Classification Score (MACS) IV or V [16], who were not able to use their hand, were not enrolled in this reliability study.

In general:
7. I wrote in my previous report that there is a need for some language corrections before this manuscript is being published. The authors have not responded to this comment, and as far as I can see the language has not been corrected in the revised manuscript. I still feel there is a need for language corrections, not limited to the examples below:
Methods and results should be referred to in the past tense both in the abstract and in the main document, while interpretation of the results should be in the present tense. We have rewritten the methods and results in past tense and the discussion in present tense. Furthermore, a native English person corrected the entire manuscript.

Consistency in the use of the words assessor and rater in the figures and main document would ease the reading of the manuscript. The same goes for scoring, measurement, assessment.

Instead of using the terms ‘rater’ and ‘assessor’ interchangeably, we used the term rater throughout the manuscript. As to the terms ‘assessment’, ‘measurement’ and ‘scoring’, these are indeed used throughout the manuscript. However, these terms are not used interchangeably. The term ‘measurement’ is used within the methodological context, e.g. repeated measurements, the term ‘assessment’ is used from a clinical perspective: assessing the patient, and the term ‘scoring’ is used in the context of the raters scoring the video tapes.

Abstract: OSAS measures amount and quality of use of the affected hand …… in bimanual skills… (Maybe write bimanual tasks or activities instead of bimanual skills?)

“in bimanual skills” has been altered in “in bimanual activities”. We used the word skills, because OSAS stands for Observational Skills Assessment Score.

Use ‘the’ in front of ICF.

ICF was used in paragraph 2 of the background session as follows: Several assessment tools have been developed for children with unilateral CP. Gilmore et al (2010) [7] reviewed psychometric properties and clinical utility of several upper limb measures at the International Classification of Functioning, Disability and Health (ICF) activity level [8].

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

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

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

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