Author’s response to reviews

Title: Ongoing monitoring of data clustering in multicentre studies

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Author’s response to reviews: see over
January 31, 2012

To the Editors,

Many thanks for the opportunity to resubmit our paper, “Ongoing monitoring of data clustering in multicenter studies.” We have addressed the reviewer’s comments point-by-point below.

All authors have again reviewed and approved the manuscript and take full responsibility for the manuscript. None of the authors have any conflicts of interest or financial disclosures to declare. None of the manuscript content has been previously published and there are no prior submissions with any overlapping information. The data used for the analyses presented in this manuscript have not been published previously. This manuscript is not and will not be submitted to any other journal while under consideration by *BMC Medical Research Methodology*.

Thank you for handling our submission and for considering our manuscript. We look forward to hearing your response.

Sincerely,

Emily Oken, MD, MPH
Response to Reviewer:

Reviewer 1: Emilie Vierron

1) Despite some corrections in measurement methods permitted decreasing the clustering of data for some variables, important center effects are remaining and explanations are lacking for that. For example: ICC’s for head circumference and skinfold thickness are increasing and this may be due (or not !) to data collected in new centers. It would be interesting to know if this point was investigated, may be through a box plot of these data in December 2009 or May 2010, as done in Figures 1a and 1b.

We noted the increases in ICCs for head circumference and skinfolds. While we did perform box plots for all measurements at each timepoint, the plots did not immediately reveal the case of these increases in ICC’s. We note on page 9 how we investigated each measure further.

2) Authors mentioned the method they used to perform confidence interval (CI) calculation but did not provide any reference (book or article) for this method. Please add it in the ICC part of the method section. Moreover, it would be more interesting to delete some results in table 1 (for example CCI’s of 12/08, 7/09 and 12/09) to simplify the reading of the table and to add CI for all ICC’s shown in this table 1, as this result give the precision of the estimated ICC’s, and allows the reader to know whether the estimated ICC’s could be really high or not, by consulting the high limit of CI. Finally, CI are results and should be presented in the result section (if mentioned in the text), not in the method section.

We have made the recommended changes.

3) The last paragraph of the discussion shows results that are not exposed in the paper (how to take account of clustering effect in multicenter studies). This point is interesting but must be placed in the result section, separately from results concerning ICC’s estimations as these are two steps of multicenter data analyses (data monitoring then statistical analysis).

We have moved these results to the results section.

4) Page 7 (result section), the sentence “we calculated ICC’s on all continuous measurements using SAS version 9.2” should be placed in the method section as it describes the statistical tools authors used.

Done

5) Pages 5 and 6 (the PROBIT study): two sentences indicate that pediatricians obtained parental consent and child’s assent. Please, correct these paragraphs.

Done

6) Pages 9 and 10, please add the text “(not shown)” at the end of the sentences “A box plot graph of SBP suggested that a handful of polyclinics had notably higher mean blood pressure measurements” and “A box plot of sitting height by clinic from this download confirmed that measurements were more consistent across clinics”.

Done