PEER REVIEW HISTORY

ARTICLE DETAILS

TITLE (PROVISIONAL)	Validity of instruction leaflets for parents to measure their child's weight and height at home
AUTHORS	Huybrechts, Inge; Beirlaen, Celine; De Vriendt, Tineke; Slimani, Nadia; Pisa, Pedro; Schouppe, Elien; De Coene, Anja; De Bacquer, Dirk; De Henauw, Stefaan; Himes, John

VERSION 1 - REVIEW

REVIEWER	Lara Akinbami National Center for Health Statistics, Centers for Disease Control and Prevention
REVIEW RETURNED	30-Sep-2013

GENERAL COMMENTS	This is a well-written description of a straightforward study assessing the impact of written instructions on parental report of child height and weight. Most of my comments are minor and have to do with providing more details about possible bias (characteristic of nonresponders), accounting for the complex survey design, and putting the differences into some concrete terms so that readers can judge the significance of the impact of the intervention. Abstract: Page 4: 1. Specify the sampling design either in the "design" or "setting" section. 2. Specify that measured data were taken up to 2 weeks after parental report. Introduction: Page 8: 3 . It would be helpful to address either in the introduction or the discussion the timing of such an intervention for a large survey. Most proxy reporting occurs "on the spot" during a telephone or face-to-face survey. Instructions on measuring child height and weight would need to be given to participants before the survey started and would thus also incur additional costs. Methods: Page 10: 4. Consent has been documented, but it is unclear whether review by an independent board (IRB) was sought or required. 5. The instructions to parents state that height should be essentially rounded down to the nearest inch, but measured weight by nurses was record to the nearest 0.1cm. Why the large discrepancy in rounding? Could a sensitivity analysis be done rounding the nurse measurements to the nearest inch to assess the possible impact? Or did parents ignore the advice and submit more precise height measurements than to the nearest inch?

	Page 11: 6. The stadiometer was checked and scale calibrated “before examination.” Was this before each child measurement, or before the entire process of measuring the cohort? Page 14: 7. How was the clustered sampling design accounted for in the estimation of variance/error? Results: 8. It may be useful to characterize the impact on the reporting by expressing the overall difference as the percent of children misclassified (cases of missed obesity or misattributed obesity) in the control group, or some similar metric. Discussion: 9. Were there differences between the respondents and non-respondents? This could be mentioned in the limitations section. 10. Were parents asked whether they owned or had access to a scale? Could this be another reason for failure to measure in all groups?

REVIEWER	Beatriz Sarriá Department of Metabolism and Nutrition Institute of Food Science, Technology and Nutrition (ICTAN-CSIC) Consejo Superior de Investigaciones Cientificas
REVIEW RETURNED	31-Oct-2013

GENERAL COMMENTS	The English editing should be revised by a native speaker. The length of this work is too long, it should be reduced, paying special attention to the clarity of this work which could be imrpoved. This work is relevant as it addresses a point that is important in human studies, i.e. measuring weight, height and body mass index. When it comes to working with children, study burden can be drastically reduced if parents carry out these determinations at home, but the quality of these measurements depend on parent instuction, as concluded by this work.

VERSION 1 – AUTHOR RESPONSE

Reviewer Name Lara Akinbami
Institution and Country National Center for Health Statistics, Centers for Disease Control and Prevention

Please state any competing interests or state ‘None declared’: None declared.

This is a well-written description of a straightforward study assessing the impact of written instructions on parental report of child height and weight. Most of my comments are minor and have to do with providing more details about possible bias (characteristic of nonresponders), accounting for the complex survey design, and putting the differences into some concrete terms so that readers can judge the significance of the impact of the intervention.

Abstract:
Page 4:
1. Specify the sampling design either in the “design” or “setting” section.

Answer: the authors included the study design (multistage cluster sampling design) after the description of the selection procedure via schools in the study settings paragraph of the abstract.
2. Specify that measured data were taken up to 2 weeks after parental report.
Answer: the authors included this information in the abstract (see intervention paragraph in abstract).

Introduction:
Page 8:
3 . It would be helpful to address either in the introduction or the discussion the timing of such an intervention for a large survey. Most proxy reporting occurs “on the spot” during a telephone or face-to-face survey. Instructions on measuring child height and weight would need to be given to participants before the survey started and would thus also incur additional costs.
Answer: thank you very much for this suggestion. It would indeed be very important to get an idea on the time needed by the parents to perform these measurements at home. Unfortunately no questions related to the time required for measuring were included in our questionnaires in which the parents were asked to report the weight and height of their child and all the measurement related question, so the authors can unfortunately not give any accurate time estimate for these procedures. Nevertheless the authors also agree that this is a very important issue for future interventions/studies that would like to use this approach and decided to include the following sentence in the discussion section of the revised manuscript:
“Furthermore would it be important to get an idea on the time needed for such parental weight and height measurements at home (for instance via a feasibility study registering the time of the measurements). For proxy reporting that occur “on the spot” during a telephone or face-to-face survey, instructions on measuring the child’s height and weight would need to be given to the participants prior to the interview and could thus incur additional costs.”

Methods:
Page 10:
4. Consent has been documented, but it is unclear whether review by an independent board (IRB) was sought or required.
Answer: The authors included the following sentence in the methods section after the information/details on the Ethical committee were given: “The EC has read and approved the study protocol and all the documents that were handed out to the participants (including the informed consent form)”.
5. The instructions to parents state that height should be essentially rounded down to the nearest inch, but measured weight by nurses was record to the nearest 0.1cm. Why the large discrepancy in rounding? Could a sensitivity analysis be done rounding the nurse measurements to the nearest inch to assess the possible impact? Or did parents ignore the advice and submit more precise height measurements than to the nearest inch?
Answer: thank you very much for this pertinent comment. In Belgium people rarely use the Inch and this measurement has not been used in the values reported by the parents, neither by the nurses. All the height measurements were rounded to the nearest mm whenever possible. Therefore we corrected this in the English instruction flyer that will be added as an annex to the manuscript and wrote now:
“The figure is not rounded but always noted down to the last full mm or subdivision of the inch”.
Page 11:
6. The stadiometer was checked and scale calibrated “before examination.” Was this before each child measurement, or before the entire process of measuring the cohort?
Answer: the stadiometer was checked and scale calibrated (if necessary) before each start of the measurements of an entire classroom. The authors included this information in the methods section.

Page 14:

7. How was the clustered sampling design accounted for in the estimation of variance/error?
Answer: we have ran all the statistical analyses with mixed models as well (while correcting for the cluster design: schools and classes), though the variance explained by the clusters was very low (<0.5% of total variance). When we ran the models adjusting for clusters the results were about the same, though few models were unstable because the low number of cases per class. Therefore, our final results have not been corrected for cluster design. A cutoff of 5% for the variance explained by clusters is often used as rule of thumb to correct for the cluster design, while our variance was even less than 0.5% of total variance. The authors included this information in the statistical methods section of the revised manuscript now.

Results:
8. It may be useful to characterize the impact on the reporting by expressing the overall difference as the percent of children misclassified (cases of missed obesity or misattributed obesity) in the control group, or some similar metric.
Answer: the misclassification details for both the control and intervention groups are presented in table 3.

Discussion:
9. Were there differences between the respondents and non-respondents? This could be mentioned in the limitations section.
Answers: unfortunately, because of ethical reasons we were not allowed to use any data obtained from children whose parents did not sign an informed consent. Therefore we were not able to investigate differences between respondents and non-respondents. However, as explained in the discussion section: “It is possible that respondents were more willing, or more able, than non-respondents to provide accurate assessments of their children’s weight and height. Therefore, the errors between parentally reported and measured weight and height in this sample may be underestimates of the true errors, since almost 40% of the parents refused to complete the questionnaire. However, to help minimize underestimation of the errors, the subjects were not aware of the future intended comparison between reported and measured values.”
10. Were parents asked whether they owned or had access to a scale? Could this be another reason for failure to measure in all groups?
Answer: Unfortunately, we did not include this question in our parental questionnaire. We only asked them what type of measurement instrument they used for the measurement but not what was available. This could indeed be a problem to consider in future surveys that include populations that might not have access to the appropriate instruments. Therefore, the authors recommended at the end of the discussion section that further feasibility studies should inform us on any practical complications in other populations than our Belgian parents.

Reviewer Name Beatriz Sarriá
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Institute of Food Science, Technology and Nutrition (ICTAN-CSIC) Consejo Superior de Investigaciones Cientificas Jose Antonio Novais 10, 28040 Madrid, Spain

Please state any competing interests or state ‘None declared’: None declared

The English editing should be revised by a native speaker. The length of this work is too long, it should be reduced, paying special attention to the clarity of this work which could be improved.

Answer: the manuscript was read and revised by a native English speaker. The authors tried to reduce the length of the manuscript and paid attention to the clarity of the text. However, the reduction of the text was to a large extend constrained due to the extra information that was required/asked by

the first reviewer.

This work is relevant as it addresses a point that is important in human studies, i.e. measuring weight, height and body mass index. When it comes to working with children, study burden can be drastically reduced if parents carry out these determinations at home, but the quality of these measurements depend on parent instruction, as concluded by this work.

Answer: thank you for acknowledging the usefulness of our manuscript