Reviewer’s report

Title: Accuracy of Parent-Reported Information for Estimating Prevalence of Overweight and Obesity in a Race-Ethnically Diverse Pediatric Clinic Population Aged 3 to 12

Version: 2 Date: 4 April 2014

Reviewer: Alison M Buttenheim

Reviewer’s report:

Thank you of the opportunity to review this paper which addresses an important issue of interest to obesity researcher: How accurate (valid) are parent reports of child weight, height, and weight status? The study leverages a large clinical dataset that is for the most part well suited to answer the research question.

Major Compulsory Revisions

1. My major concern about the study is the missed opportunity to looked at selective non-response by weight status of the child. In your analysis (Table 4) you compare OW/OB prevalence in the full sample kids based on EHR data to the parent reported prevalence only for those children whose parents reported anthropometry. Similarly in Table 2 you calculate the % correctly reporting for two different denominators. What I think it particularly interesting here, however, would be the prevalence estimates based EHR and parent report for just the sample of kids with parent report (a truer validity measure for self report) *and* prevalence estimates of OB/OW based on EHR for the kids with no parent report - in other words, how selective is non-report on weight status? (The authors might look at Buttenheim et al. 2013 "Underestimation of Adolescent Obesity" J Nursing Research for more background on this problem, as applied to the case of teen-reported data). While comparing the validity of parent report to the gold standard of measured height and weight is important, this has been addressed in several prior studies, as the authors mention in the discussion. Of more policy and practice relevance, perhaps, is the extent to which parent non-report further biases prevalence estimates.

2. A second major concern is the fixed size of the error used to classify parent misreport: +/- 1 inch of height, and +/- 2 pounds of weight. Given the large differences in height and weight for the younger vs. older kids in this sample, it would seem that a % difference would be a better marker? In other words, getting your 3-year old's height wrong by an inch is much bigger deal than getting your 12-year old's height wrong by that much. If the authors have a reference for using these absolute thresholds I would welcome the chance to see it; if not, I would suggest a % difference threshold. This will likely change the age effects reported in Table 3.

3. Data on refusal to participate in the survey should be presented. This may also
be selective on child weight status, but this would be impossible to assess unless you were able to link refusals to the EHR.

Minor Essential Revisions

4. Page 4, second paragraph: Please indicate whether parents could provide height in either inches/cm and weight in either kg/lbs.

5. Page 4, second paragraph: Is there any prior research on the validity of parent report of having scale / tape measure at home?

6. The discussion of medication dosing is underdeveloped. Is there any evidence of incorrect dosing by parents due to misperception of weight? I would suggest either expanding or deleting this material.

7. Table 2 appears to have some missing footnotes.

8. Please add Ns in Table 3.

9. Figure 1 is very challenging to read as currently formatted in black and white.

Discretionary Revisions

10. I don't know what a "produce extender disk" is, perhaps a brief explanation here would be warranted.

11. Page 5, second paragraph. I have a strong preference for not reporting "borderline" or "marginally" significant results.

12. Page 4-5 A flow chart diagram showing exclusions from 1,119 surveyed parents to 1,053 analytic sample and then the breakdown by which parent-reported anthropometry was available would be helpful.

13. Page 5, 3rd paragraph: It's not immediately clear what the 4 percentages in parentheses are at the end of that paragraph - I eventually mapped it to the four time periods but you could make this easier for the reader.

5. I would suggest a strong edit for syntax and clarity as there are some rough patches in the readability of manuscript. (Example: First sentence of last paragraph on p. 6)

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, and I have assessed the statistics in my report.

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