Reviewer’s report

Title: Capability for reporting height and weight: a cross-sectional study of 11-15 year olds

Version: 1 Date: 8 August 2012

Reviewer: Manfred Stommel

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Major Compulsory Revisions:

This study is both promising and somewhat disappointing. The authors claim at the end (p.13) that “This study illustrates a way by which the validity of self-reported data on weight and height can be improved” and “By integrating items on response capability in survey instruments, participant with low capabilities can be identified and characterized whereby analyses and conclusions can be adjusted and evaluated accordingly.” Since the authors lack data on measured weight and height, it seems premature to talk about improving “validity” of self-report measures, because they have not demonstrated what effect “low response capability” has on measurement error. For instance, does it just increase variance, i.e. random error in self-reported weight and height measures, or does it lead to systematic bias, i.e., systematic over- or underestimates of weight and height? Still, the authors could, and should, do more to explore the effects of “low response capability."

(1) Even though objective measures of weight and height are not available from this survey, the authors could provide information to address the following questions: Do mean weight and height differ for students who have low perceived recall ability vs. those who do not (controlling for the available socio-demographic indicators)? Do variances/standard deviations of weight and height differ for students who have low perceived recall ability and those who do not (controlling for the available socio-demographic indicators)?

(2) To strengthen their case that response capability affects reported weight and height, the authors may consider going beyond simple dichotomies. For instance, the discussion on p. 6 defines “high response capability” in weight reporting as a student who weighed him-/herself within the last month and claimed his/her recall was exact or approximate; everyone else was classified as having “low response capability.” Yet a simple trichotomy (“high” capability as defined, “medium” capability as either weighing within the last month or having exact or approximate recall, “low” capability as neither weighing within the last month nor having exact or approximate recall) would yield a gradation in capabilities, which could be used in the suggested tests under (1) to see, if they produce a ‘dose-response’ pattern that is consistent. For example, one would expect the largest weight score variances among individuals who neither claim good recall nor weighed themselves within a month prior to the interview.
(3) In short, the emphasis in this paper is almost exclusively on predictors of “low response capability,” but little is written about the effects of “low response capability,” certainly not enough to warrant the statement that participants with low response capability may “be excluded from analyses” (p. 12). However, there is some discussion of the effect on missing responses to the height and weight questions on p. 9: This could be expanded and shown in table format.

Overall, the concept of “response capability” is useful and the paper is worthwhile, but it could be improved through the inclusion of some of the analyses suggested here.

Minor essential Revisions:

Finally, there are several lapses in the English language, which may require an editor to clean it up. Some examples:

p.3., line 2: clinically measurement => clinical measurement; p.3, line 4: vitiated => compromised; p.3, 2nd line from bottom: within a recent amount of time => within a recent time period;

p.6., line 3 + 5, 3rd line of 3rd paragraph: weighted => weighed (the verb ‘to weight’ is a statistical term and refers to assigning analytical weights to strata in a stratified sample); p.6, 2nd line of 2nd paragraph: troubles => trouble;

p.7, 1st line of 3rd paragraph: who live in => who lives in; p.7, 3rd line of 3rd paragraph: categories => categorized; p.7, 7th line of 3rd paragraph: loosing => losing;

p.8, 1st line: applied in analyses => employed or used in the analyses;

p.12, 1st line of 2nd paragraph: applied methodological approach => methodological approach employed; p.12, 2nd line of 2nd paragraph: taken => made;

Level of interest: An article of importance in its field

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

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests.