Reviewer’s report

Title: A cluster randomized controlled trial for child and parent weight management: children and parents randomized to the intervention group have correlated changes in adiposity

Version: 0 Date: 10 Aug 2017

Reviewer: Amanda Raffoul

Reviewer’s report:

The authors provided a clear, concise description of a study investigating associations between children's and parents' changes in several measures after a weight management program. The background section provides a succinct overview of the literature in this area, and highlights the importance of this study.

Major comments:

1. Throughout the paper, the authors fail to use person-first language to describe children and adults affected by obesity (i.e., page 4, lines 12, 21, 52-53). Person-first language in obesity asserts that the individual comes before their condition, and assists in reducing the implicit stigma associated with excess weight that is prevalent in obesity-related writings (Kyle & Puhl, 2014, Obesity). Recently, the American Medical Association declared support for use of this language. The authors should make changes throughout the manuscript to use person-first language when referring to persons with obesity.

2. In the Discussion (Page 10, Lines 9-34), the authors describe participants' perceived structural barriers to achieving dietary change. These anecdotal evidences should be placed in the context of the self-efficacy literature, and perhaps explain why one's perceived ability or belief to accomplish a task may not have been sufficiently changed with the program. Further, why might there be differences in these perceptions between the parent-child dyads?

3. The authors suggest that changes in nutrition knowledge were assessed in both children and adults. However, the described measures on Page 10 (Lines 9-19) are assessing actual nutrition- and diet-related behaviours, not knowledge. The measure used to collect the data, then, may not accurately reflect the construct that is being assessed (nutrition knowledge). If the authors are inferring that nutrition-related behaviour is a reflection of nutrition knowledge, then this should be explicitly stated and described as a limitation of the study.

Minor comments:

Abstract

- Report the correlations in the Results section of the abstract.
Methods

- Page 5, Lines 19-21 - If possible, include the UNC Review Board study number for this study.

- Page 5, Lines 24-26 - Were any statistical analyses conducted to assess potential differences between the schools, or were these differences assessed at face value?

- Page 6, Line 55 - Reference the standard or original source of the BMI cut-offs/definitions that were used (e.g., World Health Organization).

- Page 7, Lines 38-41 - Please clarify the units of change for each outcome variable, such as average change in BMI percentile.

Discussion

- Page 9, Lines 7-14 - Since adiposity may be a better indicator of weight change in children than BMI percentile change, did you examine the association between adiposity and BMI change in this study? If the two variables are not significantly correlated, then that may be an additional salient discussion point. It would also further strengthen the claim made in Lines 36-38.

- Page 9, Lines 41-58 - Please clarify the direction of the correlation for both the children and parents, as this allows the reader to further conceptualize how children and parents may retain nutrition knowledge differently. For example, do parents retain knowledge for longer than their children?

- Page 10, Lines 7-9 - Provide a reference for the statement "self-efficacy is one of the most difficult parameters to change, especially in children".

- Page 10, Lines 43-44 - Clarify what impact self-reporting biases may have had on the final results (e.g., under-reporting may have under-estimated the associations).

Table 1 and demographics - The "ethnicity" (Hispanic/non-Hispanic) category of the table, for both parents and children, does not differentiate whether the respondents were White or non-White Hispanic. Perhaps try collapsing this category with the Race column, providing a breakdown of these two subsets.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes
Are the conclusions drawn adequately supported by the data shown?
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