Author's response to reviews

Title: Impact of physical activity on energy balance, food intake and choice in normal weight and obese children in the setting of acute social stress: A randomized controlled trial

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Author's response to reviews:

5th January 2015
Dear Editor,

MS: 3609820041262588

Impact of physical activity on energy balance, food intake and choice in normal weight and obese children in the setting of acute social stress: A randomized controlled trial.

Antje Horsch, Marion Wobmann, Susi Kriemler, Simone Munsch, Sylvie Borloz, Alexandra Balz, Pedro Marques-Vidal, Ayala Borghini and Jardena J Puder

Many thanks for your letter dated 8th December 2014 including the comments of four reviewers.

We have revised the above manuscript in response to the helpful comments of the reviewers and would like to resubmit it for publication in BMC Pediatrics. In the following, I will list each of your comments and in turn demonstrate how we have addressed them. Furthermore, we have highlighted all the changes in the manuscript using track changes.

I believe that the revised manuscript comprehensively addresses all of the concerns raised by the reviewers and trust that you will now see it fit for publication. Furthermore, I would like to thank all four reviewers for their valuable comments.

Yours sincerely,

Dr. Antje Horsch
(1) Reviewer: Berit Heitmann
Reviewer's report:
Nothing further

(2) Reviewer: Janine M Jurkowski
Reviewer's report:
The authors responded appropriately to all comments.

(3) Reviewer: Jana Strahler
Reviewer's report:
The author did a very nice job with this revision. All of my concerns have been addressed.
I have only very minor essential revisions left:
1. See also Reviewer #1 comment 4: In fact, there has been a manipulation check – HPA and ANS responses - which will be published in a separate paper. Please inform the reader that this psychobiological data will be published elsewhere.
Response : This has been stated.

2. Children have been classified as pre-pubertal due to age 7 to 11. Normally, girls begin puberty at ages 10-11, boys slightly later – thus, it is likely that some of your subjects already started puberty. Having not measured, e.g. Tanner stages, needs to be mentioned in the study limitations.
Response: We added this as a limitation (p.18, last para).

3. With regard to “no stress controls” (comment #5): Thanks for your response. No further changes are necessary.
Response : Thank you.

4. Definition of comfort food: Just recently, comfort food giving emotional comfort has been questioned, i.e. “comfort foods led to significant improvements in mood, but no more than other foods or no food” (Wagner, H. S., Ahlstrom, B., Redden, J. P., Vickers, Z., & Mann, T. (2014). The Myth of Comfort Food. Health Psychology). Thus, I would recommend deleting this part and writing “high fat and carbohydrate caloric content food”.
Response : Many thanks for this interesting suggestion. We are aware of this debate. However, given that the term „comfort food“ is well-established and has been used by many prominent researchers in the field of obesity that we have cited in our manuscript (e.g. Roemmich et al., 2011; Lattimore & Maxwell, 2004), we would prefer to continue using it. Please note that on p. 5, 2nd para we give a conventional definition of comfort food, which is in line with Roemmich et al. (2011): „high energy level sweet or salty foods”. In their review, Dallman et al. (2005) describe the physiological mechanisms that underlie the „self-medication“
with „comfort foods“ following chronic stress in rats. Thus, although „comfort foods“ perhaps do not augment the felt comfort in humans, they certainly seem to have a stress-reducing effect.

(4) Reviewer: Jillon S Vander Wal
Reviewer's report:

Major Compulsory Revisions
1. Results, section on energy balance, second sentence (289-292): The information added in parentheses is confusing because the sentence pertains to differential caloric intake between the physical activity and sedentary arms, but the part in parentheses pertains to differences between NW and OW/ob children. Also, conflicting statistics are presented two sentences later. Please separate and clarify this information or just refer the reader to the table.
Response: Following this comment, we have taken the information in parentheses (p.15, line 291) out and have deleted the sentence you pointed out (p.14, line 293-296).

2. Discussion, limitations, fourth sentence (405): The authors note that the failure to blind staff might have attenuated group differences. However, it's more likely that non-blind staff would tend to err in the direction of the study hypotheses, thereby accentuating between group differences.
Response: Many thanks – we have replaced « attenuated » with « accentuated » (line 405).

Minor Essential Revisions
1. Study design, first sentence (156). Figure 1 is referenced, but this reviewer did not receive Figure 1.
Response: We are sorry that you did not receive a copy of Figure 1. It should appear after the tables at the end of the document.

2. Please include the response to comment 7 in the first round of reviews in text, i.e., “Conners’ 3 and the Alabama Parenting Questionnaire have been officially translated into French and both are widely used in Europe (e.g., Farré-Riba & Narbona, 1997 for Conners’ 3 ; Essau et al., 2006 for APQ). The DEBQ has been translated and validated for French Language use (Lluch et al., 1996; Strien & Oosterveld, 2008).”
Response: We have inserted this information on p. 11 and p. 12, as suggested.

3. Results, section on impulsivity-hyperactivity, second sentence (309): It isn’t clear if “they” refers to the parents or to the children. Please clarify.
Response: We replaced « they » with « OW/ob children » in order to clarify this (line 309).

4. Discussion, fourth paragraph (362): Please add the word “possibly” before “due to the lack of power” as this is speculation.
Response: We have followed this suggestion.

Minor Issues Not for Publication

1. Abstract, background, last sentence (40): Please add a comma after “intake.”
2. Abstract, method, first sentence (45): Please change “7-11 year old” to “7- to 11-year-old.”
3. Background, second paragraph, second sentence (83): Please add a comma after “leptin.”
4. Background, fifth paragraph, last sentence (117): Please add a comma after “monitoring.”
5. Background, last paragraph, third sentence (125): Please remove “the” before “food.” Also, please divide the sentences listed as a, b, and c with semicolons rather than periods (124-129; as was done in the methods section, first paragraph). Please add a comma after “impulsivity” (127), and remove “the” after “food” (128).
6. Methods, first paragraph, part (e; 142): Please remove “child is” to preserve parallel sentence structure.
7. Methods, second paragraph, first line: Please remove “in” after “opted.”
8. Study design, first paragraph, third sentence (158): Please change “where” to “when” as it is in reference to time.
9. Study design, second paragraph, first sentence (168): Please change “basketball” to “basketball.” If two words are preferred, that’s fine, but then please change each occurrence of “basketball” to “basket ball.” Second sentence (line): Please add a comma after “PE specialist.” Third sentence (line): Please add a comma after i.e. Second to last sentence (line): Please add a comma after “books.”
10. Study design, fourth paragraph (187, 188): Please add commas after “pictures” and “games.”
11. Measures, food intake and choice (202): Please remove “up” as it isn’t necessary. Same paragraph, last line, please change “amount” to “number.” “Number” refers to things that can be counted such as calories. “Amount” refers to things than cannot, such as flour.
12. Energy expenditure: Please change “children-specific” to “child-specific” (215). Please change MET to METs (lines 218-221), please change “basket ball” to “basketball” (220), and please add a space between the numbers of minutes and “min (218, 219, 220).”
13. DEBQ: Please remove the space before the colon (229). Also, in the last sentence, add a comma after “reliability” and change “have” to “has” as the subject “structure” is singular.
14. Data analysis: Please add commas after “intake” (264), “balance” (266) and “behavior” (line 272).
15. Results, first paragraph, third sentence (281): Please change “regards” to
“regard.”

16. Results, second paragraph (i.e., energy balance, food intake/choice), last sentence: Please change “less” to “fewer.”

17. Discussion, second paragraph, fifth sentence (337): Please add an object after “This” or perhaps change to “These findings provide.”

18. Discussion, third paragraph: Please add commas after “peer stressors” (350) and “food intake” (354).

19. Discussion, sixth paragraph, first sentence: Add a comma after “behavior” (379)

20. Discussion, seventh paragraph: Please add a comma after e.g. (389)

21. Discussion, paragraph starting with “parenting techniques”: Remove the word “result” after “choice” (397)

22. Discussion, limitations, fourth sentence (405): Please change “was” to “were.”

23. Discussion, limitations, last sentence (419): Please add a comma after “test.”

Response: Many thanks for these suggestions – we have implemented all of them.