Author's response to reviews

Title: Pragmatic controlled trial to prevent childhood obesity in maternity and child health care clinics: pregnancy and infant weight outcomes (The VACOPP Study)

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Author's response to reviews: see over
Reviewer's report

TAINA MUSTILA: HERE OUR ANSWERS ARE WRITTEN WITH CAPITAL LETTERS. IN THE MANUSCRIPT THE CORRECTED TEXT WRITTEN WITH BLUE COLOR.

Title: Pragmatic controlled trial to prevent childhood obesity in maternity and child health care clinics: pregnancy and infant weight outcomes (The VACOPP Study)

Version: 2 Date: 8 April 2013

Reviewer: Christina Vinter

Reviewer’s report:

This article from Taina Mustila and coauthors is generally well presented and reports important findings relating to the issue about preventing childhood obesity.

The authors set out to study the effects of dietary and physical activity during gestation on pregnancy and infant weight gain outcomes. The study is a pragmatic non-randomized intervention trial with n=96 in the intervention group and n=89 in the historical control group followed up until 12 months postpartum.

Some specific points:

1. The title of the paper (and the name of the study) VACOPP is not defined in the article: WE HAVE ADDED THIS KNOWLEDGE TO INTRODUCTION.

2. In the abstract, the number of participants (n) should be clearly stated. THE NUMBER OF PARTICIPANTS IS ADDED TO THE ABSTRACT.

3. The background is well presented but seems very long and the article would benefit if shortened. INTRODUCTION IS NOW MODERATELY SHORTENED.

4. Page 3, line 3-5.: “18% of 2-year-old Finnish children are overweight and obese”. I cannot find this high prevalence in the paper from Vuorela et al as referred to (girls 11.3% and boys 6.3%). THOSE PREVALENCE NUMBERS ARE NOW CORRECTED.

5. Page 4, line 3-4 starting with “Only a few obesity prevention programs targeting pregnancy or infancy...........” refers to ref. 27 and 28. Both of these
systematic reviews are about postnatal intervention and not dealing with intervention during pregnancy. THIS POINT IS NOW CORRECTED.

6. Method: Taking into account the heterogenous group of pregnant women the number of participants seem very small. “Priority was not given to power calculation” – could you comment more specifically on this. WE HAVE ADDED CORRECTIONS CONCERNING THIS POINT; A POST STUDY POWER CALCULATION TO RESULTS CHAPTER AND AN ADDITIONAL COMMENT ON DESIGN AND PARTICIPANTS SECTION.

7. How did you measure the outcome “duration of moderate intensity”. Which questionnaires were used? Recall bias might be a problem in the control group concerning this. 4.2 and 4.5 hours/week, respectively, seems to be quite a lot of physical activity at a moderate level with women getting out of breath. Could that be over reporting? Please comment on this. THE PHYSICAL EXERCISE IS NOW DEFINED MORE ACCURATELY (AS ACCURATE THAT IT IS POSSIBLE WITH THE USED QUESTIONNAIRE). THIS MORE ACCURATE DEFINITION IS ADDED TO ALL POINTS WHERE IT WAS PRESENTED.

8. At page 6 overweight is defined as exceeding +10% and obesity as +20% curves for weight-for-length above the mean weight-for-height of healthy Finnish children. Please comment on this (unusual) definition of OW and obesity and why you have not used standard deviations or percentiles. Figure 3 in ref. 43 uses means and +-2SD for their reference curves. AN EXPLANATION OF THE USAGE OF THOSE PERCENTUAL DEFINITIONS IS ADDED TO PAGE 6.

9. Using ADA classification of pathological OGTT/GDM you report prevalences of 14.6% and 29.2%. For comparison, what is the prevalence of GDM in Finland and what was expected in this high-risk GDM group? THIS INFORMATION IS ADDED TO DISCUSSION. You have information on “History of newborn >4500g” in Table 1. Could you add the information “History of GDM” or GDM in any previous pregnancy (as is one of the criterias for being considered at risk of GDM). UNFORTUNATELY WE DID NOT GET RELIABLE DATA ON GDM IN THE MOTHERS’ PREVIOUS PREGNANCIES. THIS INFORMATION WAS ALREADY EXPLAINED IN DISCUSSION.

10. Only about 3% were exclusively breastfeeding after 6 months. Is this low rate representative for Finnish women? Again background prevalences for
11. There are a number of limitations in this study and you discuss this very well.

A number of pregnancy intervention studies using RCT have found effect on
growth in weight gain (GWG) but not on the clinical outcomes, like GDM. You find no major effect on
GWG but a significant reduction in GDM. Please go into more detail with this
issue. WE HAVE ADDED MORE DISCUSSION ON THIS ISSUE TO DISCUSSION CHAPTER.

12. The participation rate to group counselling was rather low compared to the
individual sessions/routine visits. Concerning this, which implications are
considered in clinical care and future studies? DISCUSSION ON THIS ISSUE IS ADDED TO DISCUSSION
CHAPTER.

Level of interest: An article whose findings are important to those with closely
related research interests

Quality of written English: Acceptable.

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

**Reviewer’s report**

TAINA MUSTILA: HERE OUR ANSWERS ARE WRITTEN WITH CAPITAL LETTERS. IN THE MANUSCRIPT THE
CORRECTED TEXT WRITTEN WITH BLUE COLOR.

Title: Pragmatic controlled trial to prevent childhood obesity in maternity and
child health care clinics: pregnancy and infant weight outcomes (The VACOPP
Study)

Version: 2 Date: 19 March 2013

**Reviewer: Everett Magann**

Reviewer’s report:
Major compulsory revisions

Page 5, Intervention: The authors need to state how similar information was conveyed to the participants during the counseling sessions by the physiotherapist and dietician. Was there a written protocol used by all of the physiotherapists and dieticians? Additionally in the counseling sessions, how did the author ensure that the PHNs provided consistent information to the women across all sites? A CORRECTIVE DESCRIPTION OF THIS QUESTION IS ADDED TO METHODS – INTERVENTION CHAPTER. IN ADDITION THIS LAST REFEREE’S QUESTION WAS ALLREADY DISCUSSED IN THE DISCUSSION CHAPTER.

Page 6, Intervention: Has the ‘get out of breath’ exercise been validated in any study to determine the level of exercise that is involved in that activity? Did the women just report that they ‘got out of breath’ or the number of times they ‘got out of breath’ or of the hours exercised how many of them they were ‘out of breath’? For example in table 2, physical exercise in h/week is that number of hours of ‘get out of breath exercise’ or is that just number of hour that the women considered that they exercised. A CORRECTIVE DESCRIPTION OF THIS ISSUE IS ADDED TO SITES WHERE IT WAS PRESENTED. THIS “AT LEAST SLIGHTLY OUT OF BREATH” AS WE USED IT IN OUR STUDY HAS NOT BEEN VALIDATED PREVIOUSLY. THE WOMEN REPORTED HOW MANY HOURS/WEEK THEY HAVE EXERCISED AT THE LEVEL “AT LEAST SLIGHTLY OUT OF BREATH”. THIS IS DISCUSSED ALSO IN DISCUSSION CHAPTER.

Page 8, Statistical method: it appears that the times of the control group 2008 and then the time of the intervention 2009-2010 were chosen for convenience. Was a sample size every done to determine the number of women that needed to be recruited to have a sufficient sample size to test the primary study outcome? If not, then was a post study power analysis undertaken to determine the strength of this study to answer the study outcomes. WE REPORTED HERE SECONDARY OUTCOMES OF THE VACOPP STUDY. THE PRIMARY OUTCOME WILL BE BMI/WEIGHT-FOR-HEIGHT AT THE AGE OF SIX YEARS. WE PERFORMED NOW A POST STUDY POWER ANALYSIS FOR THE WEIGHT DEVELOPMENT OF THE INFANTS (STATISTICAL METHODS, DESIGN AND PARTICIPANTS AND DISCUSSION).

Figure 1: There needs to be some perspective on the women delivered in Vaasa. Overall how many women were delivered in Vaasa on 2008 and in 2009-2010? How many women met the eligibility criteria overall for this study, is the figure 1
correct that only a total of 267 women of all the women attending the maternity
clinics met the study criteria in 2009 and only 232 in 2009-2010? THIS INFORMATION IS ADDED TO RESULTS
CHAPTER. WE ASSUME THAT THE NUMBERS OF ELIGIBLE WOMEN FOR THE STUDY SEEN IN FIGURE 1 IS
CORRECT.

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being
published. THE LANGUAGE CHECK HAS BEEN DONE BY A PROFESSIONAL NATIVE ENGLISH-SPEAKING
PERSON.

Statistical review: Yes, but I do not feel adequately qualified to assess the
statistics.

Declaration of competing interests:

I declare that I have no competing interests