Reviewer’s report

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
2. In the abstract, the number of participants (n) should be clearly stated.
3. The background is well presented but seems very long and the article would benefit if 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%)
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.
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.
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.
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.

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?

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).

10. Only about 3% were exclusively breastfeeding after 6 months. Is this low rate representative for Finnish women? Again background prevalences for comparison would be acknowledged

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 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

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?

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