Reviewer's report

Title: Physical activity patterns during pregnancy through postpartum

Version: 1  Date: 18 June 2009

Reviewer: Michelle Mottola

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I think this is an interesting and timely study. However, the IOM has just come out with new guideline recommendations regarding BMI and weight gain during pregnancy. My suggestion is that the authors reanalyze their data to correspond to the more recent guidelines because the data as grouped by BMI are no longer valid. Because this is a descriptive study, regrouping the data would be worthwhile (see below).

Major Comments:

1) Abstract – There should be actual data listed in the abstract. Perhaps, changes in total MET/hours per week could be listed with p values?
2) Introduction – For third paragraph pg. 1?, the authors should list all the time points measured. What is the hypothesis for their study?
3) Methods – How did your questionnaire distinguish between “physical activity” and “exercise”? Has your questionnaire been validated for postpartum women? This should be shown in methods as part of the procedure? A pregnancy questionnaire may not be valid for postpartum women?
4) Page 2– same section. As mentioned above, the BMI should be reevaluated according to the new IOM guidelines. This should also be rewritten on pg. 3 under Statistical methods.
5) Pg. 2 – why were 54 women greater than 5 months postpartum when they were contacted? Was the 12 month postpartum visit a home visit as well? Perhaps a chart of participants in numbers by time points that were completed would be helpful?
6) On page 3, under Statistical methods, does “other” mean Hispanic if there are non-Hispanic white, Non-Hispanic black?
7) Pg. 4, results, par. 1 – What were the several important covariates? These should be listed and justified as to why they were considered as important?
8) Pg. 4, results, par. 2 – Does care mean child-care? Self-care? Care of elderly? Please explain. If care refers to child-care, why would this not increase up to 100% if all women now had an infant to look after? Why was this only 51% at 3 months and 58% at 12 months? Please explain as this does not make sense? This is also indicated on Figure 1, when the changes over time are examined.
9) On pg. 5, when included and excluded participants are compared, the current cohort appears to be not generalizable to other populations of pregnant and
postpartum women. Why is this cohort so different on all variables?

10) Did you see different physical activity patterns based on pre-pregnant BMI? This would be interesting and new as this has not been done before? For example, were the normal weight women more active than the overweight or obese women, based on the new IOM guidelines?

11) Do the women in your sample know about the ACOG guidelines? Would this not perhaps bias these results if they do not know of these guidelines?

12) Did the authors examine physical activity patterns prior to pregnancy? You stated that many women resumed physical activity at 3 months post delivery but was this back to pre-pregnancy levels?

13) What is the difference between Figures 1 and 2, they look very similar? Are the data similar just presented different ways?

Minor Comments:
1) Abstract – line 9, add “the” before “past week”
2) Pg. 3, line 2, add a “,” after “postpartum”.
3) Pg. 6, par. 2, line 6, changed “measured” to “conducted by telephone interview”
4) Pg. 6, par. 3 line 2 and 3, change “loss” to “lost”

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.