Reviewer's report

Title: Physical activity, sedentary behaviors, and estimated insulin sensitivity and secretion in pregnant and non-pregnant women

Version: 2 Date: 30 April 2011

Reviewer: Kathleen Little

Reviewer's report:

Minor Essential Revisions

Abstract, Results
1. The coefficient of determination (r square) should be given for the r values as this is a more robust indication of the association between the variables.

2. It would be helpful to include some of the data (i.e. insulin, glucose, PAEE, etc.) which differed significantly between the groups, rather than just p values.

Background, paragraphs 2, 3
3. In paragraph 2, the authors state that previous studies on the topic "have relied on subjective self-report measures of physical activity", and in paragraph 3 "there is a requirement for studies that define the appropriate dose, intensity, and mode of physical activity during pregnancy ... to help prevent GDM." However, several intervention studies have been conducted on this topic in which physical activity has been measured and/or supervised and these should be included in this section:

PubMed Results


Methods, Self-reported pain section
4. Specify whether the pain rating was general versus specific (i.e. back pain).

Results
5. Table 1: Specify when the body composition measures were made in the pregnant group, 8-16 or 28-32 weeks gestation. Since there were no differences, it must be assumed that these were made at 8-16 weeks. However, this should be specified in the table footnote.

6. Table 3: Include r square (as in Abstract) in the table and/or in the Results section when referring to Table 3.

7. Table 3: In the footnote, change p to < 0.05 (not less than or equal to).

Discussion, paragraphs 1, 4, 7 and Conclusion
8. Same comments as for the Background section when the authors state "This is the first study" (paragraph 1); "Longitudinal studies .... are needed" (paragraph 4); "This study is the first ..." (paragraph 7); " Appropriately designed intervention studies are required" (Conclusion).

Minor issues not for publication
Author Contributions
9. End of first sentence, change "researched" to "collected the" data.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I declare that I have no competing interests.