Reviewer's report

Title: A Comparison of a Social Support Physical Activity Intervention in Weight Management among Post-partum Latinas

Version: 2  Date: 10 June 2014

Reviewer: Lorraine Walker

Reviewer's report:

The authors’ use inconsistent language for variables in the study that make following the logic of the manuscript difficult.

The 2 groups are names “intervention” and “attention control” in the aims, but in Tables these become “walking” and “non-walking”. The “intervention” and “attention control” wording is clearer.

The aims focus on “distal” and “immediate” outcomes and make no mention of “mediators” and “moderators”. Thus, the manuscript becomes very confusing when a reader reaches the Methods (instruments and data analysis sections) and new variables and terminology appear (i.e., “mediators” and “moderators”).

The first paragraph of the Discussion states that the study was effective in increasing social support for exercise, but this variable is not mentioned in the study aims as an outcome.

- Major Compulsory Revisions

This is an important study that includes a large number of variables regarding the context of the intervention and intermediate and distal outcomes. The clarity of the manuscript would be enhanced if the two study aims were restated as more specific hypotheses that reflect the multiple outcomes (intermediate and distal) reported in Results.

Multiple statistical tests are conducted (e.g., 21 neighborhood x group x time interactions) that are not directly mentioned in the study aims. Thus, I have concerns about capitalizing on chance and the robustness of sample size for such analyses, and that the main study outcomes are buried in detailed ancillary analyses. It would bring clarity to the manuscript if the main study hypotheses were the key focus of the Results, and the contextual influences were either placed in an ancillary section or placed in a separate manuscript. This would enhance the reader’s understanding of the main effects of the intervention on the intermediate and distal study outcomes. As written, these outcomes are buried.

The Data Analysis should be revised so that there is parallelism between the study aims (revised hypotheses) and data analytic procedures.

- Minor Essential Revisions
In introducing the Fat Tissue Inflammation markers in the Methods, clearly link these to those mentioned in the Background.

The Methods do not indicate in what language or combination of languages the intervention content and the self-report instruments were administered.

Make clear in the description of the Neighborhood measure whether it was treated as one continuous score or as 7 subscale scores. Also, are the Cronbach alpha values that are reported for the whole scale or for the subscales?

Make clear in the Methods whether the fat tissue inflammation markers were collected from women in both groups or just in the intervention group.

- Discretionary Revisions

Join the first two paragraphs in the Background.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

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

**Declaration of competing interests:**

I served as a paid consultant as this study was being initiated.