Author's response to reviews

Title: Participant Recruitment and Retention in a Pilot Program to Prevent Weight Gain in Low-Income Overweight and Obese Mothers

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Version: 4 Date: 28 July 2009

Author's response to reviews: see over
We appreciate each reviewer’s thorough review and suggestions. Revisions are **bold typed** in the text.

**Reviewer: Rachael Taylor**

Major compulsory revisions

**COMMENT #1:** No indication is provided of the initial recruitment rate ie. page 5 says every woman was personally invited but the paper does not show how many women were invited and refused to participate and whether these non-participants differed in any way from participants.  
**RESPONSE.** We added “sample representation” that describes potential participants who were invited to provide demographics and to be screened (pages 12-13). We also compared demographics between those who participated and those who did not participate in this study. Additionally, we provide CONSORT chart (see Figure 1).

**COMMENT # 2.** Why did only 30% of participants complete 24-hour recalls - justify. Reference(s) to support the use of telephone administered recalls would also be an advantage - often when these are done, participants have already completed a face to face interview first.  
**RESPONSE.** Information in this paper does not include data from 24-hour dietary recalls so that topic was deleted from this revision based on a suggestion from Reviewer Hesketh (See comment #15)

**COMMENT # 3.** The incentives mention pedometers yet the methods suggest only a questionnaire was used to measure physical activity - why the discrepancy?  
**RESPONSE.** Pedometer data was not used in the analyses for this paper so we removed information about pedometers.

**COMMENT # 4.** How were the 12 participants for the focus groups recruited? Were all the women at completion asked and only 12 agreed to participate?  
**RESPONSE.** Intervention participants (N = 28) who completed telephone interviews (two months post intervention) were invited to participate but only 12 attended one of three focus groups (page 11). Also see response to Reviewer Hesketh (See comment #3).

**COMMENT # 5.** Appropriate stats should be added to Table 1 given that tables should contain all necessary information to interpret them.  
**RESPONSE.** We added statistical tests and p values to each demographic variable (see Table 1).

**COMMENT # 6.** Similarly it would be good to see the predictors information in a table with all P values shown.  
**RESPONSE.** We added Table 3 that presents predictors of early and late dropout and overall retention. Statistical tests and p-values were provided.

**COMMENT # 7.** Page 12, "as one improved in negative affect" - improved from what to what? No information is provided regarding at what time points this refers to.  
**RESPONSE.** The sentence was revised as “Less negative affect predicted retention at the end of the study…” (page 14).

**COMMENT # 8.** Very little information is provided from the focus groups (page 12) - was any
other information pertinent?
RESPONSE. Focus group discussions with 12 intervention participants also included evaluation of study intervention (interactive DVD and peer support group teleconferences) which is not relevant to this paper.

COMMENT # 9. I am somewhat surprised by the comment that returning the first package is a condition of enrolment. Surely informed consent has to be obtained prior to this, so won't the non-returners still be considered drop-outs?
RESPONSE. This was suggested by WIC personnel based on their working experience with the target audience. This suggestion is for our future study because these mothers who will not show up to pick up the first study package are less likely to make a commitment to adhere to study requirements. Informed consent will be obtained when WIC mothers meet study criteria and interest to participate. These non-returners will not be considered dropouts because they will not be enrolled in our future study.

COMMENT # 10. Given this was a pilot study, with a large drop-out, was it sufficiently powered to detect any factors of interest?
RESPONSE. We had sufficient data for the statistics reported in this study but the dropout rates represent a limitation as you suggest. We acknowledged “interpretation of the findings needs to be cautious because of a relatively large dropout rate” (page 17).

COMMENT # 11. Number 6. I don't see how having an inclusion criterion of must be willing to make 2 trips to be measured will actually change behaviour ie. attendance.
RESPONSE. Based on reviewer Hesketh’s suggestion (See comment 27), we revised this section to focus on more general recommendations for future studies to improve their recruitment and retention (pages 17-18).

COMMENT # 12. Can women be tracked from one WIC center to another or is it not centrally managed?
RESPONSE. We spoke to one of our collaborating WIC programs and was confirmed that it is possible to keep track of women if they change WIC clinics.

Minor essential revisions:
COMMENT # 13. Page 4, end of 2nd paragraph - remove "un" before documented.
RESPONSE. This sentence was removed form this revision.

Discretionary revisions
COMMENT # 14. A brief explanation of positive and negative affect would be an advantage.
RESPONSE. Revised as suggested (page 10).

Reviewer: Kylie Hesketh

Major Essential Revisions
COMMENT # 1. Abstract: conclusion could be tempered eg. “may be important considerations”. Not really appropriate to make such a strong conclusion based on evidence from a single pilot study. May be more useful to summarise the findings here: eg. psychological factors such as depression and stress appear to be important
considerations… However behavioural factors, BMI and race did not impact.…
RESPONSE. We revised our conclusions (page 3).

Results

COMMENT # 2. As this paper reports on recruitment and retention, recruitment (response rate) figures should also be reported.
RESPONSE. See response to Reviewer Taylor comment #1.

COMMENT # 3. Qualitative data – recruitment feedback is reported from participants only, retention suggestions are provided from WIC staff only. Were participants asked about retention strategies and vice versa? Some explanation of how reported qualitative results were selected is required (in methods section) as the presentation does not appear to adhere to standard qualitative reporting methodologies.
RESPONSE. During focus group discussions, we did ask study participants about strategies for retention. They identified lack of understanding study requirements and incentives as factors that affected retention (pages 14-15). We modified the paragraph to reflect our findings. We did not ask WIC personnel to evaluate recruitment because we conducted informal focus group discussions with WIC personnel prior to recruitment to ask for recruitment strategies. Therefore, we did not feel that it was necessary to ask them to evaluate the recruitment strategies again. Also, see response to Reviewer Taylor comment #4.

Discussion

COMMENT # 4. First paragraph is appears to be results (qualitative evaluation) rather than discussion. This information should be reported in the results section and made clear whether it is derived from the focus group discussions or from researcher impressions/informal feedback from participants and staff.
RESPONSE. This paragraph has moved to result section. These data were obtained via recruiters’ log notes (page 14). We added data analysis of recruiters’ log notes (page 12).

COMMENT # 5. Second paragraph – reports on results not presented in the paper
RESPONSE. We added results in (page 13).

COMMENT # 6. Third paragraph – need to tie these comments back to your results ie. do your retention rates support that this was an important feature – were they higher than usual? The majority of your loss to follow-ups were due to disconnected phones - an indication that the incentives may not have worked?
RESPONSE. We revised the paragraph. We are unable to compare frequency of change phone numbers with other studies because most studies do not report such data. However, we added that “Our findings verify findings of previous studies that reported difficulties in maintaining participation in longitudinal studies when phone numbers and addresses are not stable” (page 15). We spoke to WIC personnel who told us that they were not surprised with the findings. It is most likely that participants who did not update their contact information did not understand study requirements and incentives as explained later by study participants who attended focus group discussions (page14).
COMMENT # 7. Pg 14 – sentence beginning “Findings of the current study…” would benefit from greater discussion. Do you mean to say that even with the measures taken in the current study, retention was low? Discussion of what might constitute extraordinary measures would be useful.
RESPONSE. Yes, we had done everything to improve retention that included asking suggestions from community advisory and peer advisory groups to this study. The extraordinary measures were added as “strategies for researchers working with low-income populations to potentially improve recruitment and retention (pages 17-18).

COMMENT # 8. Some comment on the generalizability of your results to studies in different population groups would be useful.
RESPONSE. Comments on generalizability were added (page 17).

Minor Essential Revisions
There are a few minor grammatical errors – a general proof read would be beneficial.
RESPONSE. We carefully proofread this revision.

Background
COMMENT # 9. First paragraph – “less optimal” than what? Or do you mean “less than optimal”?  
RESPONSE. Revised as suggested (page 4).

COMMENT # 10. Second paragraph, last sentence – needs proof-reading
Third paragraph – mention of the collaborative relationship is not necessary.
RESPONSE. The sentence was reworded and we removed the wording “collaborative effort” from this revision.

COMMENT # 11 Description of WIC services would fit better in first paragraph of methods.
RESPONSE. We moved ‘description of WIC service” to methods (page 5).

COMMENT # 12. Final paragraph – it is not clear what is meant by “baseline/follow-up”
RESPONSE. This was reworded and “follow-up” was removed from this revision.

Methods
COMMENT # 13. Procedure – please include actual dates of data collection (eg January-June 2008)
RESPONSE. Actual dates of data collection (June-July, 2007) were included (page 5).

COMMENT # 14. Intervention - Some description of the PSGTs would be useful
RESPONSE. Add a more detailed description of the intervention including PSGTs (pages 8-9).

COMMENT # 15. Measures – it is unclear how the diet measures were used/combined to generate the variables reported in the results section. Was the 24-hr recall used at all? If not it’s not necessary (and actually confusing) to include it here.
RESPONSE. We applied NCI algorithms to generate a score for fat intake behavior and a score for fruit and vegetable intake behavior (page 9). Description of 24-hour dietary recall was removed.

COMMENT # 16. Measures – It is unclear how (and if) item scores for diet, physical activity and psychological variables were transformed to scale scores (eg. were the 6 physical activity items summed to create a single physical activity variable?).
RESPONSE. Description of score computation was included (page 10).

COMMENT # 17. Measures – please explain the acronym CESD. This is the only measure where established validity and reliability is mentioned. Where other measures have established validity and/or reliability, this should be noted.
RESPONSE. We spelled out CES-D which is “the Center for Epidemiologic Studies Depression Scale.” (page 10) Description of score computation was included (page 11). We added psychometric properties to each measure used in this study (pages 9-11).

COMMENT # 18. Measures – please include who took height and weight measurements – not clear if this was trained researchers or WIC staff (were they trained for this?)
RESPONSE. Baseline height and weight were measured by trained recruiters and follow up body weight was measured by WIC staff who were trained to measure body weight (page 11).

COMMENT # 19. Measures – how were the 12 participants involved in the focus groups selected? What was the intervention vs control group, BMI and racial spread? Were any of these participants drop outs?
RESPONSE. See response to Reviewer Taylor Comment #4. Focus group participants included women from the 3 BMI categories (BMI 25.0-29.9, 30.0-34.9, and 35.0-39.9) but most participants (10/12) were white. These participants completed 2 months post intervention telephone interviews but some of them dropped out at 8 months post intervention due to loss to follow up.

COMMENT # 20. Were demographics collected via survey or from WIC records?
RESPONSE. Demographics were collected via a self-administered written questionnaires (page 5).

Results
COMMENT # 21. The information on numbers providing change of address and telephone information would be more useful if this were related to the numbers of participants who actually experienced change in this information during the study period.
RESPONSE. We only have information on those who contacted us for change of contact information. Some of those who did not contact us might have changed address and phone numbers as well, but we do not have a way to quantify those occurrences. Therefore, analysis of these data may not valid.

COMMENT # 22. It is unclear why a 10-unit change in depression score is used but single-unit change in stress score. This should be explained in the methods section. Was stress associated with late drop out, stress only at that timepoint, or was earlier stress accounted for?
RESPONSE. In this revision, we used a change per unit instead of a 10-unit change (page 14). Stress was only associated with late but not early dropout. Analysis of late dropout used two months post intervention data (N = 70) (See Table 3).

Discussion
COMMENT # 23. Points 4 & 7 seem similar, please clarify the distinction.
RESPONSE. This point is no longer applicable because we revised this section based on comment #27.

Discretionary Revisions
Results
COMMENT # 24. It would be informative to compare retention rates for participants in the control and intervention groups.
RESPONSE. We added Figure 1 that presents CONSORT chart.

COMMENT # 25. Did any participants drop out during the intervention phase? A table summarising the main results would be useful eg. scores for retained vs non-retained
RESPONSE. Two intervention participants dropped out during the intervention phase. We added Table 2 to compare scores between retainers and dropouts.

Discussion
COMMENT # 26. Pg 14 – Suggest clarifying your message by rewording sentence to “The potential for retention failures was relatively high in our study because we enrolled participants whose characteristics have previously been associated with lower retention: non-white…..”
RESPONSE. Revised as suggested (page 15).

COMMENT # 27. Rather than outlining how you will change your main study, informed by the results reported in this paper, it may be more useful to outline general suggestions for intervention studies in similar populations. This is likely to be more useful to readers.
RESPONSE. In this revision we made recommendations for future studies instead of more specific applications for our planned future study (pages 17-18).