Author’s response to reviews

Title: Key recruitment and retention strategies for a pilot web-based intervention to decrease obesity risk among minority youth

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Response to Reviewers

Thank you for considering our manuscript “Key recruitment and retention strategies for a pilot web-based intervention to decrease obesity risk among minority youth” for publication in Pilot and Feasibility Studies. We appreciate your thoughtful feedback and have revised the manuscript accordingly. Please see below for a point by point response to the comments.

Reviewer 1

1. The paper describes recruitment and retention strategies from the INC intervention study. The paper is well written and well structured. Recruitment and retention are major challenges in many trials and having effective strategies to improve recruitment and retention are crucial. It is therefore an important subject. The paper contributes to the literature, although the experiences and results are purely descriptive.

Response: Thank you for your thoughtful response and appreciate that the reviewer believes this paper contributes to the existing literature related to recruitment and retention strategies for studies.
2. Abstract: Can you conclude anything on which strategies were the most effective?

Response: Given that we have quantitative data relate to the recruitment strategies, we believe we are able to conclude that the most effective recruitment strategies within this study were community flyering and community events. Additional text in the abstract, discussion and conclusion have been added to reflect this. However, we are unable to determine which are the most effective retention strategies that we implemented. We acknowledge in the discussion and conclusion that this is a limitation due to the study design and that more research is needed to determine this.

3. Reference 14 is the study protocol. Is there a published paper on results from the project?

Response: At this time, we do not have a published paper on results from the project, however, related manuscripts are currently under preparation.

4. L 174 inclusion criteria. It is very confusing how you can change BMI percentile from 85 to 5. The study is about obese children. Is it correct that when you change the criteria to percentile 5 most of the children that you recruit for the study do not have any problems with their weight and might even by underweight? Or am I misunderstanding something? Table 2 shows that almost 50% are normal BMI class. Is there a risk that the strategies used to recruit children with normal weight to a study aimed at overweight children may not work the same way with overweight children?

Response: Thank you for the thoughtful feedback. To clarify, the goal of the pilot study Intervention INC is to reduce obesity risk in children 9-12 years old. The reviewer is correct in noting the BMI criteria includes children that are clinically defined as having “normal” or healthy weight, however, the BMI percentile range of 5% or greater excludes children that are underweight. We have added text in the methods section to make this more clear. We have now added “This BMI range includes healthy, overweight, and obese children”. There is evidence that most youth, regardless of BMI status (healthy, overweight, or obese), do not consume the daily recommended amount of fruits/vegetables and water. Furthermore, the specific population we are working with is at increased risk for developing childhood obesity even at the normal BMI. Therefore, the criterion was changed to expand the BMI percentile range to include healthy-weight children (BMI percentile at or above 5%) that are still at risk for developing childhood obesity.
5. **Table 2:** Girls constitute 60% of the study sample. Can you discuss why this may be? And is this a problem? Do you need strategies to recruit more boys?

Response: The 2013 systematic review of barriers to minority research participation by George et al., has reported that the majority of such health studies have had an overrepresentation of women (66.5%). An additional 2013 study by Warner et al. on successful recruitment and retention strategies in obesity trials of low income populations reported that of their study population, 68.5% were female. Correct, in our study, girls comprised 60% of the study population, which is a more even gender distribution than previous interventions may have maintained.

6. **Table 2:** are the children who participate in the study different to the general population living in the area where recruitment took place?

Response: The children in the study population reflect the general population living in East Harlem and Central Harlem, NY. This was intentional and we used community recruitment methods such as community flyering and attendance to community events to achieve this.

7. **Table 3 and 5 -** is it somehow possible to evaluate which strategies worked well and which did not?

Response: The most effective recruitment strategies within this study were community flyering and community events. Additional text in the abstract, discussion and conclusion have been added to reflect this. We are unable to determine which are the most effective retention strategies that we implemented. We acknowledge in the discussion and conclusion that this is a limitation due to the study design and that more research is needed to determine this.

8. **Discussion and conclusion:** It would be nice if you could be a bit clearer on which strategies worked well and which did not - are there specific strategies that you can recommend? Are there other strategies that could have worked? And some that did not work at all or maybe even made it worse?

Response: We agree with the reviewer that it would be informative to acknowledge with specific strategies were effective within our study population. We believe we are able to make some conclusions for recruitment strategies as we have acknowledged the most effective recruitment strategies were community flyering and community events. This has been noted in the abstract. Additionally, in the discussion, we observe that these strategies were more effective than the community clinic partnership. In order to make this more clear in the conclusion we have now
changed the conclusion to read “Within our study the most successful recruitment strategies include community flyering and attending community events.” However, we lack controlled information about the effect of individual strategies related to retention. Our study was not set up for the purpose of analyzing effectiveness of individual retention strategies. Furthermore, multiple strategies were necessary to maintain our high recruitment and retention rates. Our flexibility, cultural sensitivity, & bilingual staff were likely contributing factors that led to a trusting environment. Warner et al draws similar conclusions “Recruitment and retention of high percentages of racial/ethnic minorities and lower income samples is possible with planning, coordination with a trusted community setting and staff (e.g. community health centers and RAs), adaptability and building strong relationships.” We note these observations with supporting literature in the discussion section.

9. Thank you - I enjoyed reading the paper
Response: Thank you, we are pleased that the reviewer has found this paper enjoyable to read.

Reviewer 2

1. A good feasibility study with special emphasis on retention and recruitment in a specific population. Well written with some good solutions to retention and recruitment.
Response: Thank you for your thoughtful response and positive feedback.

2. Need to format tables and figures better as some appear in text where others appear at end.
Response: We appreciate your feedback and understand that with the current formatting some tables/figures appear in text while others appear at the end. We are following journal instructions for preparing tables and figures. If the manuscript is published, all tables and figures should appear in the indicated position within the text.