Author’s response to reviews

Title: The need to modify physical activity messages to better speak to older African American women: a pilot study

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Author’s response to reviews: see over
Response Letter:

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The need to modify physical activity messages to better speak to older African American women: a qualitative study

We would like to express our appreciation for the time and effort put in by the editor and the reviewers. Their comments and suggestions have improved the quality of the manuscript.

Reviewer# 1: Alice Fang Yan

Major Compulsory Revisions

1. Comment: ABSTRACT - The methods section needs to be clearly written to describe the “qualitative approach” employed in the study. For example, what was the sample size and age of the sample? How many focus groups were used? What software was used to analyze the data? What are the sources of “public information materials” in this study?

Response: We appreciate the comment and we have followed the suggestions offered by the reviewer. The methods section of the abstract was re-written in more detail in order to provide a better description of the study.

2. Comment: ABSTRACT - Statements in the results and conclusion section need to closely link to the aim stated earlier (“attitudes on physical activity and aging” among older African American women). Both the results and conclusion sections only mentioned “physical activity and exercise” and did not mention the concept of “aging”.

Response: We appreciate the comment and we have followed the suggestions made by the reviewer. The aim of the study was re-written in order to more clearly state the purpose of the study. Furthermore, we added more information into the results section to better link its content to the aim and conclusion of the study.

3. Comment: BACKGROUND - First paragraph. Please list the variety of personal and socio-environmental factors that influence physical activity behavior in this population [6-8].
I do not think the current literature was lacking for factors associated with inactivity among this group, as the author indicated.

**Response:** We appreciate the comment and we have followed the suggestions made by the reviewer. The sentence was re-written to recognize the presence of prior studies exploring the influence of physical activity in the studied population. Additionally, we have listed some factors that positively and negatively affect physical activity.

**4. Comment:** BACKGROUND - The last paragraph of the background seems rather abrupt – introducing many new concepts, including culture values, belief systems, religious influences, life experiences and group identity, without further explanation and justification. Then, the author immediately stated that “little attention has been paid to exploring how older African American women perceive messages used to promote physical activity for older adults.”

**Response:** We appreciate the comment and we have followed the suggestions made by the reviewer. The last paragraph was re-written in order to provide a better link with the previous paragraph. Moreover, we added new information to warrant the study and to place the concepts into context before stating the aim of our study.

**5. Comment:** BACKGROUND - I recommend the authors do more thorough work to justify their study aims. For example, what research gaps need to be filled by the study? What are the unique contributions of the study?

**Response:** We appreciate the comment and we have followed the suggestions made by the reviewer. The introductory material has been expanded in order to provide more information about the goals and need for the study.

**6. Comment:** METHODS - The justification of the sample size (n=10) was not mentioned.

**Response:** We appreciate the comment and we have followed the suggestions made by the reviewer. We have better described the sample selection for this study under the subheading participants in the methods section. We now believe that the justification for 10 participants is more clearly stated.

**7. Comment:** METHODS - The justification of using two different focus groups (a physically active group and a sedentary group) was not mentioned.
**Response:** We appreciate the comment and we have followed the suggestion made by the reviewer. We have included more information under the subheading participants to make the case of the need to use two focus groups (active and inactive).

**8. Comment:** METHODS - Since there are thousands of publicly available items related to physical activity, the authors need to justify why they are using only those three (data collection section).

**Response:** We appreciate the comment and we have followed the suggestion made by the reviewer. We have included information in the methods section under the subheading “data collection and analysis” to justify materials selected for evaluation in the study.

**9. Comment:** METHODS - What was the total number of messages being rated by participants? Could you give us some examples?

**Response:** We appreciate the reviewer’s comment. As described in the methods section under the subheading data collection and analysis, three different publications were rated by the participants. Table 3, displays the average score attributed for each publication for each of the focus group based on the scale adopted (1 being poor and 5 being excellent) in terms of material clarity and content.

**10. Comment:** METHODS - The author asked participants to use a scale from 1 to 5 to rate items in terms of clarity and content. Was this evaluation scale validated elsewhere?

**Response:** We appreciate the reviewer’s comment. We adopted this arbitrary scale to have a quantitative idea of the materials in terms of clarity and content. It could have been 1 to 10, or 5 to 20. Sometimes, individuals feel more comfortable in rating when they can use numbers instead of just concepts (i.e. poor, excellent, good, bad, etc.). Moreover, this extra information, help us to triangulate quantitative assessments with the qualitative information gathered in the focus groups.

**11. Comment:** RESULTS - How did the author make the conclusion that the “exercise and physical activity” brochure was perceived to be the best, followed by the “be active your way” brochure”. There has to be a clear procedure to rate and rank; this was lacking.

**Response:** We appreciate the reviewer’s comment. The objective procedure adopt to reach that conclusion was the scale we adopted (i.e. 1 poor, 5 excellent) where the numbers were higher for the Exercise and Physical Activity brochure, compare to the Be Active Your Way
brochure. Moreover, the conclusion was also based in the qualitative data gathered, where participants perceptions of the Exercise and Physical Activity brochure were more positive compared to the Be Active your Way and the Physical Activity Guidelines material retrieved from the CDC website. Such clarifying information has now been included in the manuscript in the paragraph preceding table 3.

12. Comment: DISCUSSION - The authors need to discuss the finding “Participants’ evaluation on the physical activity and exercise materials was found to be similar between the active and sedentary focus group” and explain why.

Response: We appreciate the reviewer’s comment and we have followed the suggestion. We have added a discussion in the second paragraph of the discussion that we believe addresses the reviewer’s suggestion.

13. Comment: DISCUSSION - The authors need to discuss the small sample size and the fact that the convenience sample might bias the results.

Response: We appreciate the comment and we have followed the reviewer’s suggestion. The study has been described as a pilot study. Moreover, we included information acknowledging the sample size and the convenience nature of the sample as a limitation of the study.

14. Comment: DISCUSSION - The results section did not ask participants to rate messages on “belief system, religious and culture value, life experiences and group identify work.” I wonder why the author discusses this in the discussion section (line 300).

Response: We appreciate the reviewer’s comment. Ultimately, the goal of this pilot study was to show the importance and need for developing culturally sensitive materials. In terms of exercise programs, we have learned that “one size fits all” does not work. The same concern applies for other types of interventions developed to promote physical activity (e.g. informational materials). It is important to link the content and all other components to the target population. Tailoring is very important to reach higher impact, as demonstrate by other studies on messaging tailoring. We included those concepts in the discussion section to make stronger our argument and to show to the readers the importance in developing culturally sensitive materials/messages and programs. African Americans are a very particular group in
the United States. It is a group where beliefs, culture, life experiences and identity notably differ from the other major racial groups in the United States.

**Minor Essential Revisions**

15. **Comment:** DISCUSSION - Fourth paragraph of discussion section (line 294). Please list the “10 out of 12 studies”. What are those studies and corresponding references?

**Response:** We appreciate the reviewer’s comment. However, we do not believe that there is a need to list the 10 out of 12 studies. Specifically, it is a literature review that comprised all studies. We have cited the literature review and built upon their conclusion to support our argument that tailored messages/culturally sensitive messages have higher impact when attempting to improve, change health behaviors such as physical activity.

**Discretionary Revisions**

16. **Comment:** Statistical analysis - the analysis plan seemed adequate.

**Response:** We appreciate the reviewer’s feedback.

17. **Comment:** RESULTS - What were the codes “CBg-66 inactive” “LP-73 Inactive” in the text?

**Response:** We appreciate the reviewer’s comment. The codes represent participant’s initials, age and physical activity status. We have decided to remove the initials, and leave just age and physical activity status since the initials can be to some extent linked to participant’s name.
Reviewer #2: Rodney Joseph

**Major Compulsory Revisions**

1. **Comment:** BACKGROUND - Line 53: please define the term “older adults”

   **Response:** We appreciate the comment and have followed the reviewer’s suggestion. We have included the expression “those aged 60 years and over”, to clarify and better situate the readers.

2. **Comment:** BACKGROUND - Line 63: A more in-depth description (i.e., what are these educational materials) of the “wide variety of educational materials” would provide clarity to the authors statement on lines 61-63.

   **Response:** We appreciate the comment and have followed the reviewer’s suggestion. We have included information on the educational materials, the target audience, and what information they provide.

3. **Comment:** BACKGROUND - Lines 63-65: The sentence starting with: “During the development process....” needs further clarification. Do the authors mean that this is the process for most of most educational materials? Currently, it’s unclear what materials the authors are referring to, as the development of all education materials for PA do not necessarily go thru these steps.

   **Response:** We appreciate the comment and have followed the reviewer’s suggestion. We have re-written the confusing section portion and now we believe that it is clear.

4. **Comment:** BACKGROUND - Please consider revising the last paragraph of the Introduction to clearly state the purpose of the study.

   **Response:** We appreciate the comment and have followed the reviewer’s suggestion. We believe that the modifications made in accordance with comment 4 of reviewer#1 satisfy this concern.
5. **Comment:** METHODS - A more in-depth discussion of the methodology used in the study is needed. Currently, it is unclear on: The exact questions used to guide the focus group discussion. Please include the focus group guide questions.

**Response:** We appreciate the comment and have followed the reviewer’s suggestion. We have created a table (table 1 in the revised paper) with the main questions used during the focus group discussions.

6. **Comment:** METHODS - What was the duration of the focus groups (i.e., how long were they) and what was the location in which they were conducted?

**Response:** We appreciate the comment and have followed the reviewer’s suggestion. We have included information on this matter under the subheading data collection and analysis in the methods section.

7. **Comment:** METHODS - The sampling methodology. Were participants a subset of AAs from a larger study?

**Response:** We appreciate the comment and have followed the reviewer’s suggestion. We have better described the sampling procedure in the methods section.

8. **Comment:** METHODS - Why was the sample size of 10 determined?

**Response:** We appreciate the comment and have followed the reviewer’s suggestion. Because this study was designed to be a pilot study we believe that two focus groups with 5 individuals each would give us a reasonable idea about our research question. We are not sure whether saturation was reached. Nevertheless it was acknowledged as a limitation of the study in the discussion section.

9. **Comment:** METHODS - Authors state that convenience sample was used and that 10 AAs were classified into either an active (n=5) or inactive (n=5) group. It’s surprising that the breakdown of participants was evenly distributed (i.e., 5 in each group) given the small and convenience sample. Further description on sampling methods are needed to build reader confidence with the sampling procedures.
Response: We appreciate the comment and have followed the reviewer’s suggestion. We have re-written the subheading “participants” and we now believe that the information is clearly presented and answers the reviewer’s suggestion.

10. Comment: METHODS - Please include the cut points used to determine MVPA by accelerometers and the software used to analyze accelerometer data.

Response: We appreciate the comment and have followed the reviewer’s suggestion. We have included information about the cut-points and the software used to analyze accelerometer data under the subheading participants.

11. Comment: METHODS - Please include more information about the focus group facilitator (i.e., years of focus group experience, demographic characteristics, etc.) This is important because the experience and personal characteristics of the focus group facilitator can influence the outcomes.

Response: We appreciate the comment and have followed the reviewer’s suggestion. We have include information on this matter under the subheading data collection and analysis.

12. Comment: METHODS - A more thorough description of the qualitative data analysis is needed. This is builds confidence and credibility in the results presented? What is meant by “prolonged engagement and triangulation” (line 147)? A much more detailed description of how data were analyzed is needed.

Response: We appreciate the comment and have followed the reviewer’s suggestion. We have included information on the qualitative data analysis in the body of the text. Additionally, we have described how we achieve prolonged engagement and how investigator triangulation was conducted.

13. Comment: METHODS - How was coding performed (independently, as a group, etc.)? Were themes repetitive?

Response: We appreciate the reviewer’s comment. The coding process was done independently by each of the 3 investigators engaged in the study. After this process, investigators met to compare and discuss the results before producing the final report. The
revised description provided, under the subheading data collection and analysis, for the comment 12 helps to clarify the coding process.

14. **Comment:** RESULTS - A more detailed description of the results is needed. The authors make statements of results and in most instances provide only one quote to support the qualitative analysis. Including more quotes to support the thematic analysis is needed to justify and illustrate study results. Authors may consider including a table with the themes and supporting quotes. Currently, the results lack sufficient information to provide credibility for the results/themes presented.

**Response:** We appreciate the comment and have followed the reviewer's suggestion. We have included more quotes in the results section for the thematic analysis.

15. **Comment:** DISCUSSION - Lines 248-249: Authors state that little is known about the complexity of factors influencing PA and the needs in this group. This is not necessarily the case, as quite a bit of research has been conducted in this area. Below are a few articles that focus on this topic that may help with framing the discussion:

**Response:** We appreciate the comment and have followed the reviewer’s suggestion. We have reworded the statement and have adopted most of the articles suggested by the reviewer to help improve the discussion.

**Minor Essential Revisions**

16. **Comment:** 1. ABSTRACT - Please change the word “improve” to “improving” on lines 22 and 49.

**Response:** We appreciate the comment and have followed the reviewer’s suggestion. The grammatical error has been fixed.

17. **Comment:** 2. ABSTRACT - Please include the number of participants and focus groups conducted in the abstract

**Response:** We appreciate the comment and have followed the reviewer’s suggestion. We have included the information requested by the reviewer.

18. **Comment:** BACKGROUND - Line 71: Please remove the word “been” from the phrase “have been shown”
Response: We appreciate the comment and have followed the reviewer’s suggestion. The word “been” has been removed from the expression.

19. Comment: BACKGROUND - Lines 84-86: please provide a reference for the example materials listed. This should be also be done for all public health materials/brochures noted in the article.

Response: We appreciate the comment and have followed the reviewer’s suggestion. We have included the reference for each of the 3 materials adopted in this study.

20. Comment: METHODS - 5. Please provide citations for the materials presented in the focus groups.

Response: We appreciate the comment and have followed the reviewer’s suggestion. We have provided with the pertinent references.

21. Comment: RESULTS - Please report accelerometer-measured MVPA of each group in the results.

Response: We appreciate the comment and we have followed the reviewer’s suggestions. We have included information in the result section describing the average minutes per week spend in moderate to vigorous physical activity for each group and the result observed for the t test.

22. Comment: RESULTS - Please include the exact p-values in Table 2.

Response: We appreciate the comment and we have followed the reviewer’s suggestions. We have included the p-values for each of the comparisons in the table (table 3 in the revised manuscript).

Comment: DISCUSSION - Line 257, please name the 2 of the 3 materials that were considered easy to understand.
Response: We appreciate the comment and have followed the reviewer’s suggestion. We have included the names of the materials as requested.

Discretionary Revisions

Comment: Line 57: The article would be enhanced if the authors provided an example of the personal and socio-environmental factors that influence PA behavior among AA women

Response: We appreciate the comment and have followed the reviewer’s suggestion. We have included this information, in line with comment 3 of reviewer#1.

Comment: The Discussion would be enhanced if the authors discussed additional information regarding cultural tailoring/adapting PA promotion materials. Below are references to seminal articles on topic, as they may be of interest to further develop the discussion:

Response: We appreciate the comment and have followed the reviewer’s suggestion. We have re-worded the paragraph where we discuss cultural tailoring/adapting PA promotion, including some of the papers suggested by the reviewer.

Associate Editor

The revision of the manuscript was performed in accordance with the concerns raised by the reviewers. All the suggestions made by the reviewers were followed. The revised parts are highlighted in red in the revised manuscript submitted. We appreciate the comments that indeed helped to improve the quality of the manuscript.