Reviewer’s report

Title: Feasibility of a Behavioral Automaticity Intervention Among African Americans at Risk for Metabolic Syndrome

Version: 0 Date: 10 Aug 2018

Reviewer: Cynthia Fritsch

Reviewer’s report:

Thank you for the opportunity to read this important pilot study about increasing engagement in healthy eating and physical activity behaviors through building habit formation (automaticity). This is especially important as urban Black/AA adults suffer higher rates of morbidity and mortality from MetS-related disease than their non-black counterparts. I have some comments that need attention:

In general, the figures need far more clarification, e.g., more information regarding what the Y axes represent. Some of the figures do not seem to illustrate the written findings (figure 5 is confusing). This is an area in need of some clarification in general. It is really difficult to interpret the figures in the absence of text and they should be interpretable on their own.

1. Intervention section, page 8, line starting 184. It would be very helpful to the reader if you could give more detail or examples of the educational materials (reading level?) cultural relevancy, etc... Similarly, could you give an example of what a "low-complexity " behavior is.

2. I am intrigued by the idea of environmental modifications. There are many environmental concerns (violence, poverty) that may not be modifiable. Again, a brief example would be useful for the reader to really visualize the intervention.

3. What method was used for the participant self-report of engagement in their plan. Paper diaries are prone to data loss and recall bias. Were you able to download pedometer steps to augment participant report?

4. In the participant characteristics section, please describe what literacy and motivation scales were used, or refer to the table so we can see what the scores' ranges were. You might add a qualifying sentence for each.

5. In the behavioral outcomes section, could you please clarify..."biweekly gains remained unchanged over the study duration". Do you mean that they continued to gain at each measurement point and the gains were the same? Figure 3 does not clarify this; in fact, it looks like the outcomes worsened. What do the numbers on the Y axis represent? In fact, the entire section needs clarification.

6. When you reference table 1, please mention that it's in the supplemental information
7. In the supplementary data tables, what do the mean numbers represent? Days? times/week?

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I recommend additional statistical review

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Please indicate the quality of language in the manuscript:

Acceptable

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