Reviewer's report

Title: Weight-Loss Intervention Using Implementation Intentions and Mental Imagery: A Randomised Control Trial Study Protocol

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Reviewer: Phillip Brantley J

Reviewer's report:

This study proposes to compare two weight loss interventions and a control condition to determine if they are associated with significant differences in weight loss and weight circumference at six and twelve months. It will also test several secondary variables.

1. Topic would interesting to readers and targets a major public health concern
2. Primary and secondary outcomes are clearly identified and appear appropriate for this study.

3. (Major compulsory) I would ease off the soap box on theoretical models a bit. Paper seems to be setting up a straw man concerning health psychology’s lack of theory driven treatment. I realize it is good grantsmanship to emphasize one’s theory driven approach, however, weight loss interventions have always been based on theory, just not on a single theory. We do not take time in intervention studies to remind the reader of the theoretical foundations of our procedures; most treatment journals only allow a line or two at most. It is hard to get the editors of JAMA to allow a large theory section. Interventions use a variety of components (typically the same ones proposed for the current study) and often do post-hoc analyses of the most important components of treatment. Frequency of self-monitoring and goal setting are typically most associated with successful weight loss so it is good your theoretical model dictates their use. My point is this is old wine in a new bottle and the study will use most all the same weight loss components all good lifestyle studies use. More emphasize on your novel components (e.g., use of imagery) and their theoretical model is interesting.

4. (Major compulsory) I have concerns about the power of the data analyses. I would like to see more justification provided for expecting a “large treatment effect size” between the interventions. After all, the use of a 12 week intervention is not likely to produce large weight loss totals; most intervention studies these days allow 20 to 26 weeks to allow for maximum weight loss. Why only 12 weeks?

5. (Major compulsory) The purpose/aim of this study seems to change throughout the paper. It is confusing to read in the abstract that the primary outcome is weight loss and the trial will test the effectiveness of interventions to produce weight loss…. and later e.g., in the Discussion Section, to read that the purpose of the study is to promote adherence with diet and physical activity guidelines.
6. (Major compulsory) The procedure for the interventions could benefit from some clarity. What happens after all participants watch the initial video? I get the weekly text message component but what about the implementation Intentions and mental imagery components? What are these (table2?), how are they carried out and by whom? Do participants in the intervention watch a second movie on the same day as the first movie to learn all this material? What procedures are in place to help guarantee treatment integrity? My manuscript pages are not numbered so maybe a page is missing.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

'I declare that I have no competing interests'