Reviewer's report

Title: Determining how best to support overweight adults to adhere to effective lifestyle change: Protocol for the SWIFT study

Version: 2 Date: 9 June 2015

Reviewer: Brenda Davy

Reviewer's report:

This manuscript describes the study design for the SWIFT trial, which aims to determine the role of choice (see p.9) of diet and exercise approach for weight loss [Paleo, Intermittent fasting, Mediterranean diet; Standard exercise recommendations or high-intensity interval training] as part of an RCT which will randomize participants to one of five conditions for lifestyle change support (control, brief support, daily self-weighing, app, hunger training). Adherence is an important issue in lifestyle change intervention. Effective approaches to encourage adherence are needed.

The stated primary aim is "to determine the effectiveness of different support strategies on weight loss at 12 and 24 months". The two stated aims suggest that two RCT are needed, however. One RCT would randomly assign individuals to one of the six possible combinations of diet/exercise strategies, or to a "choice" condition which would allow individuals to choose their diet/exercise strategies. This RCT would address the role of choice in promoting lifestyle change, if support strategies were consistent across all study groups. The second RCT would randomly assign individuals to one of five lifestyle change support conditions, while keeping the diet and exercise plan consistent across conditions (stated as the primary aim).

With the current design, the results could leave uncertainty about which lifestyle support approach is most effective, given that the choice of diet and exercise plan could vary across participants and across conditions. In addition, some of the diet and exercise plans have not clearly demonstrated efficacy for weight loss. This design problem could possibly be addressed with a moderation or mediation analysis, if statistical power were sufficient, or with a randomization procedure that assigned the selected diet and exercise approaches evenly across the support approach groups.

Major compulsory revisions

1. The title states "..adhere to effective lifestyle change ..", yet the diet and exercise approaches targeted have not all clearly demonstrated efficacy, in prior studies.

2. Abstract: whether or not the diet and exercise approaches proposed to be used in this trial are "suitable" is subjective.

3. pages 7-8: the authors state that is seems "obvious that giving participants
choice over which particular dietary pattern they follow should generally improve adherence and thus enhance weight loss", yet the discussion which follows this statement cites several studies that do not support this point. This section should be revised to more clearly and objectively present what is, and is not, known about the role of choice in promoting weight loss.

4. Reference 46 (page 7) does not appear to support the statement about choice.

5. page 10: is there adequate statistical power to address the third secondary aim?

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests.