

Reviewer's report

Title: Comparison of a Low Carbohydrate and Low Fat Diet for Weight Maintenance in Overweight or Obese Adults Enrolled in a Clinical Weight Management Program

Version: 1 **Date:** 16 February 2007

Reviewer: Holle A Raynor

Reviewer's report:

General

The purpose of the current study was to examine two diets, a low-carbohydrate and a low-fat diet, on weight loss maintenance. As weight loss maintenance continues to be a challenge, studies investigating ways to improve methods for weight loss maintenance are very important. The results of the study found that weight loss maintenance was equivalent between the two diets over a 6-month follow-up.

This manuscript was very clearly written, and comments about this manuscript predominantly are regarding methodology.

1) In the Weight Management Clinic section, the authors indicated that if attendance fell below 75% - participants were terminated – does that mean participants could never come to groups again – or that they were considered terminated for analyses purposes? If they were no longer allowed to come to sessions – had they been informed of this (and was this a fee-for-service clinic)?

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1) For the diets – what occurred in the gradual refeeding stage – was refeeding based upon the dietary prescription they would be aiming for (so for example, did the low-carbohydrate group aim to start consuming foods lower in carbohydrate as soon as they started refeeding)?

2) Also once participants were in month 4 and following their diet – were they recording caloric intake and grams of fat or carbohydrate and aiming for their specific goals based upon the HB equation? No mention was made of recording caloric intake.

3) Most importantly, the authors describe this study as an efficacy study – thereby stressing internal validity – and providing this as a reason for why an intent-to-treat analysis was not conducted. However, it seems for an efficacy study – a better check of actually consuming the diet that was prescribed is needed other than self-report. Thus, perhaps food should have been provided to participants that met the prescription or structured menus that informed participants on exactly what to eat to meet the prescription should have been provided. Other methods to document internal validity might have been to measure ketones – thus if the dietary prescription of the low-carbohydrate diet expected to produce ketones – then they should have been measured. Since the attrition rate was so high (almost 50%) and there really was no way to determine how well participants followed the diet – this reviewer would propose that this is really not an efficacy study – and therefore intent-to-treat analyses should be conducted.

4) Additionally, it is not clear why the analyses were not conducted with a nested design – as clinics were how dietary prescriptions were chosen (or randomized? – it is not clear how clinic assignment was made and this information should be provided) – to more correctly account for that the fact that participants were not randomized to a diet.

5) Percent weight loss should be controlled for in all subsequent analyses of weight loss maintenance.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

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.