Reviewer's report

Title: The effects of four hypocaloric diets containing different levels of sucrose or high fructose corn syrup on weight loss and related parameters.

Version: 2 Date: 27 April 2012

Reviewer: Stijn Soenen

Reviewer's report:

Thank you for clarifying my earlier remarks. Based upon your responses I have some additional suggestions:

1 The abstract mentions that replacement of sucrose with HFCS has been suggested to play a role in the development of obesity, to investigate this objective 4 equally hypocaloric diets (with average achieved deficit of 309 kcal) differing in sucrose or HFCS were compared in overweight/obese subjects. However, the results section do not mention any differences or lack of differences between these 4 groups, only the less interesting (conform the objective of the study to compare 4 conditions) over time differences are presented. The description of results of a 5th group is not completely clear conform the described objective of the study.

2 In addition to your response on comment 7:
The manuscript would benefit from clearly describing an aim and hypothesis, and describing a reasoning behind the groups needed to answer the research aim. The introduction does not mention the reasoning behind the 5th group of exercise without energy restriction, neither is this comparison (energy restriction + exercise vs. exercise) mentioned in a hypothesis or research aim.

3 In addition to your response on comment 9, 14, 17 and 24:
If actual sucrose and/or HFCS consumption in the diets could not be measured; please clearly describe this in the manuscript and discuss the implications to interpret the results, e.g. no differences between the 4 hypocaloric diets were present, however actual sucrose or HFCS content of the diets could not be measured, so actual differences in sucrose and/or HFCS intake between the groups are unknown.

Lines 215-225: Please describe clearly that this does not indicate that an actual difference in sucrose or HFCS was reached between the groups, as it could not be measured.

Please adjust the conclusion ‘containing’ into ‘prescribed’ (Line 347), since it was not measured how much each diet contained.

4 In addition to your response on comment 10:
If there were no differences between the 4 hypocaloric groups (objective of the study) please clearly state so in the results and tables (e.g. tables: clearly
present which groups differ in the time x group interaction, and if none of the 4 hypocaloric diets differ please describe so, tables should be able to be understood by itself). (Lines 228-235) Please rephrase lines 253-157, so that it answers the research aim of the study clearer.

5 In addition to your response on comment 5:  
Please present data on physical activity.

6 In addition to your response (?) on comment 15:  
Please present data of the SF-36 (Line 132).

7 In addition to your response on comment 6:  
The references of validation (31 and 32) are in youth individuals, whereas the population used in the study are overweight and obese individuals aged 25-60 years. Reference 33 uses DXA to validate anthropometric measurements, so does not validate DXA (against the 'gold' standard). If stating that the technique has been validated, please indicate against which standard technique and what the outcome of that validation was in the used population, e.g. the technique over- or under-estimates the absolute and/or difference over time compared to the standard technique.

8 Line 174 Please use the term 'hypocaloric' groups instead of 'intervention' group; prescribed exercise is also an intervention.

9 Lines 76—78: The reference numbers need to be adjusted according to new literature list.

10 Line 9 vs. Line 247 and 323 was the duration of the intervention 10 or 12 weeks?

11 Line 251, line 285, line 318 and line 322: Please use 'prescribing supplements' instead of 'consuming', because actual consumption could not be measured.

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.