Author's response to reviews

Title: Effects of Pistachios on Body Weight and Risk Factors of Metabolic Syndrome

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Author's response to reviews: see over
Reviewer's report
Title: Effects of Pistachios on Risk Factors of Metabolic Syndrome
Version: 2 Date: 23 October 2011
Reviewer: Frank f Greenway

Reviewer's report:

Major Comulsory Revisions:
1. This article was designed as a parallel arm study. Such a study should be analyzed primarily as a comparison between the arms. When the arms are compared there are no statistically significant differences. The authors analyzed the study as if there were no control group and compared each group to its baseline. The authors then express these significant differences as an indication that the study has positive conclusions to draw. Although the secondary analysis comparing the results in the individual arms to baseline could be a justification for contending that the study was underpowered to show a positive result and should be repeated in a larger population, the study should be described as a negative study. If the authors want to describe this as a positive study, they could change purpose or hypothesis to pistashios not causing the weight gain predicted from their fat content.

Response: revised as recommended. The comparison between the study groups are now reported in the results as the primary outcomes. The limitation of the study is added to the discussion section.

Minor Revisions:
1. The abstract on line 6: I believe you should eliminate the "in" immediately after the parenthesis symbol.

Response: revised as recommended.

2. In the introduction in lines 3-6: You list 5 continents and give two percentages for three different definitions of the metabolic syndrome. It is not clear to this reader to what the two percentages refer (eg 9.6%~55.7%). Please restate this sentence so as to make it clearer to what the percentages refer. Is this the range of metabolic syndrome across the various continents? If so, why is the symbol "~" used instead of the symbol "-"?

Response: revised as recommended.

3. In the methods line 6: You say the coordinators and physicians randomized the subjects at the sites. How was this randomization done and was it consistent across sites?

Response: clarified as recommended.

4. Please put error bars on the graphs in your figures.

Response: revised as recommended.
Reviewers report
Title: Effects of Pistachios on Risk Factors of Metabolic Syndrome
Version: 2 Date: 29 November 2011
Reviewer: Sarah Gebauer
Reviewer’s report: Nutrition Journal

Effects of pistachios on risk factors of metabolic syndrome

The parallel study investigates the effects of different doses of pistachios in 90 free-living men and women with metabolic syndrome. The question is new and well-defined; however, more details are needed in the methods, results, and discussion sections before a decision on publication can be reached.

Major Compulsory Revisions
1. Was nutrient intake assessed for each group? These data need to be reported in order to draw conclusions that any changes in outcome variables were due to pistachios and not other changes in diet.
Response: The nutrition intake was assessed by 24 hour food recall for compliance. However due to the diversity of the food choices in China, we were not able to perform qualitative analysis.

Minor Essential Revisions
1. There are many grammatical errors throughout the paper that need to be edited.
Response: Revised as recommended.

2. In the Abstract and Introduction, IDF should be defined.
Response: Revised as recommended.

3. In the Introduction, NCEP ATP should be defined.
Response: NCEP and ATP criteria is not relevant to this study and is deleted.

4. In the Subjects section of the Methods section, describe the run-in diet. Was this a controlled diet?
Response: Clarified as recommended.

5. In the Subjects section of the Methods section, elaborate on the dietary counseling that was provided. What specific dietary guidance was given? Were participants permitted to consume other nuts during the study?
Response: Clarified as recommended.

6. In the Subjects section of the Methods section, how often were the study visits where the pistachios were distributed.
Response: Clarified as recommended.

7. In the Subjects section of the Methods section, indicate how compliance was assessed.
Response: Clarified as recommended.

8. In the Methods section, LDL-C should be defined.
Response: Clarified as recommended.
9. In the vital signs and body weight section of the Methods section, describe what model and company of the stadiometer that was used.
Response: Clarified as recommended.

10. In the vital signs and body weight section of the Methods section, describe how waist/hip ratio was measured.
Response: Revised as recommended.

11. In the Methods section, describe how blood pressure was measured.
Response: Clarified as recommended.

12. In the Biochemistry section of the Methods section, describe all biochemical analyses (LDL, TG, liver function enzymes), including the company and location where assays were purchased.
Response: Clarified as recommended.

13. In the Data Management and Statistical Analyses section, state what statistical package was used.
Response: Clarified as recommended.

14. What covariates were used in the analyses? Were variables adjusted for sex, body mass index, baseline levels of variables? State this in the “Data Management and Statistical Analyses” section.
Response: Sex, BMI and baseline levels of variables were not adjusted in the analyses.

15. In the Results section, as well as tables and graphs, comparisons should be reported between the groups, not just between post-treatment versus baseline values for each group.
Response: Revised as recommended.

16. Many of the values that are reported in the Results section are change scores. In the Data Management and Statistical Analyses section, define how change scores were calculated.
Response: Revised as recommended.

17. In the Blood pressure section of the Results section, it states “there was an increase by 0.8% (0.13 ± 6.36 mmol/L, p=0.685) in the control group (Figure 3)”. This should be revised to say there was no change in the control group since the change is not significant, as indicated by the p-value.
Response: Revised as recommended.

18. Report the concentration values and p-values in the Blood lipids section of the Results section.
Response: Revised as recommended.

19. In the Blood lipids section of the Results section, state that the data are not shown for total cholesterol and HDL-cholesterol.
Response: The data is shown in the table 3.

20. It appears as though the control group is referred to as DCG for most of the manuscript, but also is referred to as CG (which is not defined) in parts of the manuscript. The nomenclature should be consistent throughout the manuscript.
Response: Revised as recommended.

21. In the Discussion section, it is unclear why it says “first” Health Claim approved by the FDA.
Response: Revised as recommended.

22. In the second paragraph of the Discussion section, the following sentences need to be revised because they are copied from the original source: “Recent studies have suggested that lipid from nuts is more poorly absorbed than that from other food sources. The measured energy density of pistachios was found to be 22.6 kJ/g, which is 5% less than the currently accepted energy value of 23.7 kJ/g, as calculated using the Atwater general factors.”
Response: Revised as recommended.

23. In the second paragraph of the Discussion section, it states that pistachio consumption led to a decrease in diastolic blood pressure; however, the change was not significant after 12 weeks. The decrease that was observed was at Week 10 and only in the RSG group.
Response: Revised as recommended.

24. In the fourth paragraph of the Discussion, the following sentence should be revised to state that these findings were only observed in the HSG and not in the RSG: “The results of this study indicated that ingestion of pistachio significantly lowered the 2 hour glucose...”
Response: Revised as recommended.

25. In the fifth paragraph of the Discussion, the data do not support the conclusion that blood lipids were not aggravated in the pistachio groups compared to the control group. Data are not shown for these comparisons. Please include these data. In fact, as stated in the Results section and shown in Table 3, LDL cholesterol increased in the HSG compared to baseline.
Response: Revised as recommended.

26. In the sixth paragraph of the Discussion, state whether AST concentrations were significantly lowered compared to baseline or compared to the control group.
Response: This section is now deleted.

27. In the sixth paragraph of the Discussion, “indicating decreased insulin resistance” is too strong of a statement and is not fully supported by the data.
Response: This section is now deleted.

28. In the sixth paragraph of the Discussion, please comment on why this effect on AST concentrations may have been observed.
Response: This section is now deleted.

29. The discussion should not merely re-state the results – it should elaborate on why the results may have been observed.
Response: Revised as recommended.

30. The error bars should be shown for all figures.
Response: Revised as recommended.

31. In the figures, please indicate significance with an asterisk.
Response: Revised as recommended.

32. In the figure legend for Figure 1, define BMI.
Response: Revised as recommended.

33. In the figure legend for Figure 2, capitalize the ‘w’ in waist.
Response: Revised as recommended.

34. In the title of Table 1, “Metabolic” and “Status” should not be capitalized.
Response: Revised as recommended.

35. In the footnote of Table 1, please elaborate on “and the statistics was F”.
Response: This section is now revised.

36. In the footnote of Table, describe how change was calculated.
Response: Revised as recommended.

37. It is unclear why the supplementary file was included.
Response: it is now deleted.

Discretionary Revisions
1. Report whether activity level was assessed throughout the duration of the study.
Response: Revised as recommended.

2. In Table 1, the p-value column could be removed and it could be indicated in the footnote that baseline characteristics were not significantly different between groups.
Response: Revised as recommended.