Reviewer's report

Title: Dietary factors associated with Metabolic Syndrome in Brazilian adults

Version: 3 Date: 1 February 2012

Reviewer: Ana Elisa Rinaldi

Reviewer's report:

1. Is the question posed by the authors new and well defined?
Yes, this manuscript showed interesting results and the benefits of a healthy diet for metabolic syndrome.

Major Compulsory Revisions

2. Are the methods appropriate and well described, and are sufficient details provided to allow others to evaluate and/or replicate the work?
There are some points and issues in the methods description and results. There are some topics to These points are pointed out below (Subjects and methods section):

   a. Individuals: How these individuals were selected? The authors wrote: “a sub-group of participants clinically selected for the lifestyle modification program “Mexa-se Pró-Saúde” (Move for Health)”. Did these individuals already participate the lifestyle modification before this study conducted? This question was not answered.

   b. Results: In table 1, it is important to describe the percentage of all the categories of variables marital status and education level.

Results: What is the value of R (Pearson Correlation) between diet variety and fruits, vegetables, dairy products, fibers and HEI? Is the correlation was weak or strong?

3. Is the interpretation (discussion and conclusion) well balanced and supported by the data?
Discussion: It is important to explain the limitations of the study and the weak aspects (type of sample, 1 24h dietary recall).

Minor essential revisions

Table 1: it is important to indicate the data expressed in mean and median.

DISCUSSION:

Page 7 (1st paragraph): The authors wrote: “..A positive and week (r<0.3) correlation was observed among the number …week correlation…”. It is necessary to change “week” for “weak”.

Page 8 (5th paragraph): The authors wrote: “…the protective effect of diet variety could be the fact that the individuals whose diet varied the most showed greater fractioning...”. This sentence is difficult to understand. I suggest the authors to
rewrite the sentence (specially this part of the sentence: narrower the diet variety, the greater the inadequacy of nutrient intake)

Page 10 (2st paragraph): The authors wrote: “..Results from several studies using different food inquiry techniques show underestimation in intake reports, both in males and females…”. I suggest to change show by showed.

Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.