Author's response to reviews

Title: Brazilian pregnant and lactating women do not change their food intake to meet the nutritional goals.

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Author's response to reviews: see over
Date: April 1, 2014
To: Editor-in-Chief
From: "Quenia dos Santos"
Subject: Cover Letter – Response to the reviewers

Manuscript: “Brazilian pregnant and lactating women do not change their food intake to meet the nutritional goals.”

Reviewer 1 - : Peter R Berti

• Major Compulsory Revisions

1- The tool for collecting the dietary data, in which the individual recorded their own diet, is quite weak. It is prone to error and bias, and presumably excludes illiterate or marginally literate individuals. The records were “reviewed” by “at-home interviewers”. Does this mean that the interviewer sat down with the respondent and did a careful review of the record? What sort of review was conducted? What prompts were used? Did the interviewers have specific instructions to look for, e.g., fewer meals in a day, or unusually simple dish ingredients (e.g., if “beans” were recorded did they also question if salt, oil, or anything else was included?). Or was the interviewer simply checking for legibility? Please provide much more detail about the data recording process.

Answer:

We really appreciated your comments. We included the requested information in the article, on pages 4 and 5, from line 71 to line 97.

2- Then was there data cleaning carried out? Were any records excluded for being unrealistically high or low or for other reasons?

Answer:

Our study uses data from a larger study, with data for men and women aged 10-60 or more. In our study population there were no excluded records, but when verifying the reliability of the data of the larger study, 29 individuals reporting fewer than five items whose energy consumption seemed unlikely were excluded. In addition, few quantities considered to be unlikely were changed using the hot deck imputation procedure and this information was registered in the database.
3- And then, after describing the process, a discussion of the severe limitations of the dietary tool should be included. At best the data still are weak, with all the well documented limitations of dietary data tools. This does not mean that the data should not be used. There is still a lot of worthwhile information in this dataset. But it needs to be interpreted acknowledging that it is a flawed data set. Like most dietary data, there is surely underreporting here. The average requirement for an adult female with light, moderate or heavy activity is 2000, 2200 and 2550 kcal respectively. The average energy intakes reported (1757 kcal for reproductive age women) are impossible low. There is at least at 10% underreporting, if not more. Would all food items be underreported equally? Or might there be more underreporting of some foods than others? The authors cannot know the answer to this with certainty, but they must discuss the consequences of it.

Answer:

We considered your comments about the limitations of the dietary tool and underreporting of food intake. They are transcribed bellow:

“The limitations of this study are related to the cross-sectional design, which does not allow the investigation of changes in the same women, before and during pregnancy and lactation and the limitations are the same as those of any study based on reported data on consumption, in particular, underreporting of intake. Accuracy in reporting intake may vary greatly between respondents depending on factors such as education, socio-economic status and other respondent characteristics. Also, respondent characteristics may be associated with either inaccurate reporting in diaries or with changing eating patterns during recording periods.

In our study, underreporting of energy consumption was on average 17%, however, among normal weight individuals underreporting was approximately 13% [11]. These results are consistent with those obtained in other reviews of dietary records against doubly labeled water held in Brazil [38, 39].”
Minor questions:

1- Page 5 – “All analyses were performed using SAS software”. I am curious - Does that include the adjustment of the dietary data to remove within person variance? I use PC-SIDE myself (supplied by A. Carriquiry at IowaState U) but I would really like to have SAS code to do it. Can the SAS code be made available as “supplementary material”

Answer: There are two references (references number 12 and 18) where you can find the macros to run NCI method in SAS software.

2- It is unlikely that the iron requirements of most pregnant women in Brazil can be met through the diet alone, even with iron fortification. Daily iron supplements are usually recommended for pregnant women. Can the authors comment on the appropriateness of this recommendation in Brazil?

Answer: We considered your suggestions. They are on page 9, lines 220-232.

3. Table 1 – you present the 95% CI, which is a CI around your estimate of the mean age, schooling and income. But it would be much more useful to know the population distribution in age, schooling and income. So rather than a 95% CI, I would like to see the 5th and 95th percentiles.

Answer: We accepted the suggestion and we included it on table 1.

• Discretionary Revisions

Page 2 – remove “/ or” on last line.

Answer: It was removed.

Page 4 – give reference for “Brazilian Institute of Geography and Statistics 2011”

Answer: We provided the reference.

Page 4 – I have not heard the method referred to previously as “[12]. The method of the National Cancer Institute (NCI)”. Can you check that that is a common name for it?

The method developed by National Cancer Institute, known as NCI Method, is explained on reference 12. It is also explained on NCI site, available on: http://appliedresearch.cancer.gov/diet/usualintakes/method.html.
This is a common name for this method, and it was used in many papers, for example:


Page 7 – “recommendation once they probably were not advised to change their diets.” I do not know what this means. Please edit.

Answer:

It was changed to:

“…it is expected that approximately one-third of them (which probably are in the first trimester) would not reach their nutrient recommendation once their food intake will probably be similar to the pre-pregnancy period.” (page 8, lines 207-209)

Page 8- The translation “The Brazilian Program for Humanization of Prenatal and Birth” sounds awkward in English. Is there a different translation that could be used?

Answer:

It was changed to:

“Brazilian Program for Humanization of Prenatal and Childbirth Care. “

Page 8 – “results of this paper suggest that nutritional guidelines are of concern regarding their effectiveness once we did not see an expected adaptation in the pregnant woman diet.”

Perhaps better written as:

“…results of this paper suggest that nutritional guidelines are ineffective, because there is no apparent adaptation to the higher nutrient requirements in the diet of pregnant woman.”
**Answer:** The suggestion was accepted.

*On page 8 the authors wrote* "The very high prevalence of inadequate intake of vitamin A, calcium and sodium was observed in overall population, indicating a need for changes in the dietary pattern of Brazilians."

The sodium intakes were actually excessive, not inadequate, as demonstrated in their tables. It should be edited accordingly.

**Answer:** We edited it, as seen on page 9, lines 233-235.

*Page 9 – “reproductive-age women also present a diet deficient in nutrients.”*

Perhaps better written as:

“most reproductive-age women have inadequate intakes of various nutrients ”

**Answer:**

We considered the suggestion and edited it.

Table 3. – Change “% of inadequacy” to “% inadequacy”

**Answer:** We changed it.

**Reviewer 2: Jennifer Henderson**

Discretionary revisions

There were a number of grammatical errors. Those I identified were:

1. Details on sampling data collection are available in (?) Brazilian Institute of Geography and Statistics 2011. Is this a document? If so it needs to be cited as a reference.
   **Answer:** We accepted the suggestion and the reference for Brazilian Institute of Geography and Statistics 2011 was given.
Discussion

2. Parity is an important risk factor for obesity in Brazil [22] and elsewhere [23,24], but we have no data on eating refraining (diet?) among pregnant and lactating women in Brazil.

Answer: We changed it to:

“Parity is an important risk factor for obesity in Brazil [26] and elsewhere [27, 28], but we have no data on dietary restriction among pregnant and lactating women in Brazil.” (page 8, lines 198-200).

3. This was the first time that the food consumption of pregnant and lactating women was extensively investigated in Brazil. These results must be seen in the light of some methodological limitations. The cross-sectional design does not allow investigate (the investigation of) changes in the same women, before and during pregnancy and lactation.

Answer: It was changed to: “The limitations of this study are related to the cross-sectional design, which does not allow the investigation of changes in the same women, before and during pregnancy and lactation…” (page 10, lines 254-256)

4. In conclusion, pregnant and lactating women in Brazil do not adequately change their food intake in accordance with their needs, and all women, regardless (of) their reproductive cycle, have a diet of low nutrient density.

Answer: We corrected it.

Minor essential revisions

5 – Results and tables:

a. Table 1 and corresponding text in results section: Please include p-values or state if these differences are significant.

Answer: In our paper, we provided the mean and confidence intervals of pregnant, lactating and reproductive age-women. We could assess whether there are differences between groups by confidence intervals. If the confidence intervals overlap, there are no differences between the groups.
b. *Were the differences in mean energy intake between the three groups significant? Please indicate this.*

**Answer:** It was indicated on page 7, lines 163-164.

c. *Table 2: again indicate the significant differences.*

**Answer:** As the confidence intervals were provided, we could assess whether there are differences between groups by them. If the confidence intervals overlap, there are no differences between the groups.

6. Note: *there are several references in Portuguese that I am unable to review. Do the authors have these references in English?*

**Answer:** There are some references, such as publications of the Brazilian Ministry of Health and some studies in Brazil that are only in Portuguese. There is no an English version of them, but we could find two more references in English (reference number 12 and reference number 23).

Yours sincerely,

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