Reviewer’s report

Title: Mistaken perception of lipid intake and its effects: a randomized trial

Version: 0 Date: 01 Jul 2016

Reviewer: Leila Karhunen

Reviewer's report:

This paper presents a study investigating the questions related to the concordance between perceived and actual food consumption, and its effects on intervention strategies and outcomes. The study question is relevant and has clear implications to the practical work.

There are however some concerns in the paper that need to be taken into account to make it more clear, as listed below:

Title of the study: It is in its current form quite unclear and uninformative. Please, consider reformulating it.

1. Background, line 91: It would be helpful for the reader if the authors would very briefly describe the nature of the previously conducted intervention already here, at least what was the main aim of the intervention.

2.1. Study Design and Participants:

o line 98: is this previously conducted intervention been published? If yes, it would be very helpful to have a reference for it here. Or if it has not been published, perhaps it also could be mentioned.

o line 112: to what study population does this refer to?

o line 116: this sentence refers to the validation of the algorithm. Has the validation study been published? It would be interesting to see also these validation results somewhere, as well as how the validation was done.

o line 117: "118 individuals remained", were there some specific reasons for drop-outs?

2.2. Measures
1. Methods

- Line 128: Please, describe briefly what was the content of the questionnaire applied?

- Line 131: How and in which conditions (e.g., after fasting?) were the anthropometric measurements (weight, height) done?

- Lines 135-138: Please, give more detailed information about the measurement of food consumption: who performed the dietary recalls, how, did the participants know beforehand about them? Is there any reference for the instrument of the Ministry of Health of Brazil? If possible, it would be helpful to give here e.g., examples of typical questions to further describe the instrument.

- Lines 139-142: Are there any references for the Dietwin software or the supplemented food composition tables used in the study?

- Line 149: Was lipid intake evaluated based on the mean values obtained by three 24DRs?

2.3. Intervention

- Line 189: Please, consider using the same terminology throughout the manuscript: meetings or workshops (see e.g., Discussion, lines 313, 346, 367)?

3. Results

- Lines 212-213: Overweight is not a chronic disease. Please, reformulate the sentence.

- Line 235: To what do the "n=7" and "n=2" refer?

- What about the results concerning lipid consumption for TM-IG non-pseudo-maintenance or UCG pseudo-maintenance? And what about the results concerning body perception for the other groups than TM-IG pseudo-maintenance?

4. Discussion

- Lines 321-326: New results? Should these be presented already in the Results section?
line 333: authors could perhaps also discuss what is the impact of the baseline situation, ie. how big changes are needed to obtain lipid intake <30% and how would that have influenced the results?

lines 360-361: I would remove the first sentence or reformulate it; the following sentence does not logically follow the idea of the first sentence.

lines 373: "particularly changes indicating superior results", to what does this refer to?

lines 375-376: based on the 2.3. Intervention (lines 176-177), self-efficacy and decisional balance were already considered when developing the themes of the interventions. So, what do the authors mean by this comment in the Discussion? Please, clarify.

5. Conclusion

At the current form, the conclusions do not fully answer the main study questions. Please, consider revising.

Table 1: line Residents per household: p-values the for the differences between PM-no and PM-yes groups, are they in correct columns?

Table 2: number of subjects in UCG PM-no group, is it correct (n=altogether 16). One missing?

Figure 2: The names of the groups different than in other parts of the manuscript, please revise. The number of the subjects in intervention group/non-pseudo-maintenance/pre-action is missing.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No
Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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