Reviewer's report

Title: Dietary intake in undernourished adults living in Guinea-Bissau; a cross-sectional study

Version: 0 Date: 18 Oct 2018

Reviewer: Jeanne De Vries

Reviewer's report:

This manuscript presents interesting information on the diet in Guinea-Bissau. However, there are some important methodological issues that ask for a more careful interpretation of the data and drawing the conclusion. I will explain these flaws in the paper in more detail and in addition provide my comments by section.

Abstract

- the summing up of the different statistical tests used is not very informative

- Conclusion: "both men and women ... had inadequate nutrition intake. This is unclear. I think the only conclusion that can be drawn is that the mean energy intake is below the requirements.

See also results and discussion.

Background

- line 96: there may be other reasons than insufficient intake
- line 99: this line does not read well
- line 101: on what type of measurements was the 28.3% based?
- line 104: the review by Vila-REal of 2017 in Crit Rev in Food Science and Nutrition may be helpful here.

Methods, participants

- Why do people come to these health centres?

Dietary assessment

- It is a pity that only one single 24-h dietary recall was used. Because of this the within person variation of intake cannot be determined and the distribution of intake cannot be assessed well. Because of this only the population mean intake can be compared to the requirements. This is an important limitation of this study that deserves more attention in the paper.
- why was the survey not performed over a period of 12 months and would that have improved the coverage of the seasonal variation?
- Line 148: what is meant by "strikingly similar"?
- Line 153: how large was the range in portion sizes; was three enough for an accurate estimate?
- Line 160: was there no need to take alcohol and dietary fibre into account when calculating energy intake?
- Line 172: can ADER and MDER be given per gender?
- Why were the food groups regrouped?
- Is the Women's Dietary Diversity Score appropriate for men?

Study size
- What SD was used for the power calculation?

Statistical analyses
- Histograms and QQ-plots were used to EVALUATE WHETHER THE DATA WERE NORMALLY DISTRIBUTED and not to assess normal distribution, right?

Results
- Please explain why one participant was mistakenly included in the study
- what were the criteria for under- and or overreporting and excluding participants?
- Dietary intake: so for 27% it was an atypical day? Have you done a sensitivity analyses so see whethehr these days influenced the results?

Discussion

This data only allow the comparison of mean intake with mean or median requirements. Therefore the first line should be changed into: men and women in this study had a lower MEAN energy intake. Because of the fact that only one single 24hr recall was applied the distribution cannot be assessed accurately and comparison with requirements must be done with care. Also the conclusion should be formulated more carefully e.g. by changing had into seem to have inadequate nutrition intake. This point is especially important for the conclusion on micronutrient intakes because these have a larger day to day variation than energy intake. This limitation of the study should be mentioned clearer in the discussion section

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.

No

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

No
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I am able to assess the statistics

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