Reviewer's report

Title: Food patterns and dietary quality in West-African immigrants in Madrid: Comparing quality indexes

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Reviewer: Satu Mannisto

Reviewer’s report:

We do not know enough on lifestyle, diet and their impacts on health of immigrants. Thus, the authors have concentrated on an important and understudied issue. The presented study on “Food patterns and dietary quality in West-African immigrants in Madrid: Comparing quality indexes” is a cross-sectional study among Bubi immigrants in Spain. The used measures, the Alternative Healthy Eating Index, the Alternative Mediterranean Diet Score and scores based on WHO/FAO recommendations, seemed to be justified in this context.

Reviewer’s suggestion for transmittal to authors:

TITLE

Could you simplify the title (food patterns, dietary qualities, quality indexes...)

METHODS

The response rate was 71%. Who are those who did not participate (e.g., sex, age and so on) - and effects of that on your results?

How suitable are the food composition tables of the US Department of Agriculture for the diet in Spain?

How valid is the FFQ for the Spanish population? How many subjects were included and what was the reference method for the validation study?

It is unclear how the energy was adjusted for in the analyses. Explain in more detail.

There was no need to ask for ethical permission from a medical board?

RESULTS

Table 1 - some interesting findings (for those not so familiar with the Bubis) that are not mentioned. E.g.,

1. The men were not obese even though their physical activity was low. Did they do manual work?

2. The women reported twice as much "fair/poor health" as the men - is there any explanation?
3. There were few smokers.

What does the term "traditional food frequency" mean?

Food consumption (Table 2) - are these results energy-adjusted? I would prefer energy-adjusted (=quality of diet).

You could change the row for "bread" after the row for "cereal and pasta" in Table 2.

Explain the row "mixed dishes". Check also another term "prepared dishes" on page 7.

Food pattern clusters (Table 3) - Mention the method Kmeans already in the method part.

Again the energy issue - why not use a continuous variable as a confounder (throughout the paper)? The differences in background variables are also mentioned, for example, in Table 1. How were these confounding factors handled in the analyses?

The men and women were combined in the dietary pattern analyses. What was the proportion of genders in those "patterns"? Were the analyses adjusted for gender?

Nutrient intakes and diet quality according to food patterns (Table 4) - add the % of subjects with adequate intake.

Table 7 - what would be the results in multi-adjusted analyses?

DISCUSSION

The discussion could be shortened...there are for example repetition throughout the manuscript.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

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

**Declaration of competing interests:**

I declare that I have no competing interests