Reviewer’s report

Title: Possible relation between consumption of different food groups and depression

Version: 1 Date: 21 Dec 2018

Reviewer: Johanna Kissler

Reviewer's report:

Review of PSYO-D-18-00144R1: Possible relation between consumption of different food groups and depression.

This is the revised version of a manuscript that I am reviewing for the first time.

In general, I find the manuscript easy to follow and interesting in its observations and potential implications. However, there are several issues, many of which are relatively minor, that in my view need to be addressed before publication can be considered. I will list them in the following in the order that they occur in the manuscript.

Introduction:

- In the first sentence, there is reference to depression prevalence in the US, but given that this is a Spanish study, it would be interesting to also say something about its prevalence in Spain or Europe. As an aside, it just occurred to me whether prevalence in Spain/on the Balleares could already be influenced by Mediterranean diet?

- The introduction talks about tryptophan and inositol rich foods, but does not actually mention which foods belong to these categories and not everybody will know that. Corresponding information is found in the beginning of the discussion. I suggest that this be moved towards the end of the introduction.

- The fourth to last sentence of the intro talks about Mediterranean diet. Please clarify what it refers to. Also, something seems to be wrong with the structure of this sentence.

- The second to last sentence of the introduction correctly mentions "retrospective" study-it later turns out that this covers a couple of weeks-not years or decades. Please clarify straight away to dispel any lingering concerns by the reader. The hypothesis states that an association with consumption of certain types of foods and depression is expected. Please be more specific here-what direction of association? Which types of foods?

Methods:

- Any available details about the participants in each group should be presented in a table (age, gender distribution, SES estimate as/if available, educational backgrounds and importantly
also types of psychiatric/neurologic disorders that were being treated for. The text says that severe mental health disorders were excluded, but it would still be important to know what disorders the patients had to get an impression about whether their might be any lingering confounds (e.g. eating disorders would clearly present such confounds).

- The questionnaire used is described as non-validated which sounds concerning. Perhaps, for the reader to get an impression just upload the questionnaire and its English translation as a supplement.

- A BDI cut-off of 10 for depression seems relatively low. Please provide rationale and reference.

- T-Student test: I think it's more common to refer to this as Student's t-test.

Discussion:

- As stated above, the info about which food groups contain what should be presented in the intro, where it should be elaborated on.

- P.10 first line. I do not follow what "oxygen species" refers to.

- The discussion focusses on the protective effect of legumes and vegetables which is clearly justifiable. But might there not be also a potential self-medication effect of sugar etc. consumption in depression? This is never mentioned but should also be discussed.

- Other issues that are discussed could be partly clarified and concerns dispelled if the manuscript contained more relevant information on these. I've mentioned come of these before. To re-iterate:

  Retrospective study: yes, not ideal, but at least it does not go very far back.

  Non-validated food survey: Why would that be problematic, what could be an alternative, and what did the survey actually consist of?

  Participants might suffer from some "non-serious disease". Please be more specific-at a medical center it should be possible to come up with info on what they actually had and why we think this is non-serious.

- Conceptually, I think having "clinical controls" has pros (also somehow sick, potentially more similar living conditions) and cons (disorders or medications could also interact with eating behavior) and these should also be discussed.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

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