Reviewer’s report

Title: EFFECT OF VITAMIN D FORTIFIED FOODS ON BONE MARKERS AND MUSCLE STRENGTH IN WOMEN OF PAKISTANI AND DANISH ORIGIN LIVING IN DENMARK: A RANDOMISED CONTROLLED TRIAL

Version: 0 Date: 06 May 2019

Reviewer: Patricia Khashayar

Reviewer's report:

The authors have done a nice job studying the effect of fortified foods on BTMs and muscle strength, though the article needs some corrections before it could be published:

- The introduction section is too long compared with other parts of the article.

- As the article is based on a larger project (ODIN-FOOD), the reference to that project or its protocol is needed. The methods section is also not well explained. More details and reference to the published protocol (if available) would be beneficial.

- More information on the participants is needed for instance their age range, how long have they been living in Denmark.

- Is taking vitamin D supplement also an exclusion? If not how have the authors reduced its effect in their analysis

- More information on the fortified foods and their consumption protocol is needed? Their vitamin D content, with which vitamin d were they fortified, how much were they used per day, how did the researchers made sure that they were actually used

- One of the main concerns is the confounding factors, the authors should discuss it in the limitation and also explain how they have managed to deal with these factors.

- I also agree with the authors that 12 weeks has not been enough to have a significant change in the result

- On line 262, the authors discuss only the pakistani women. What about the Danish women.

- In the same paragraph, they mention that the idea was to study at risk women. I cant find this objective in the methods section where the authors describe the study.

- I assume the references mentioned in this paragraph are all results from the same study. Maybe it should be highlighted. In the whole discussion section, its hard to figure out the phrases are based on the results of the same study or just a Danish study. These should be made clear.
- In the discussion section, the authors should provide more reasons explaining the reason behind the results they found specially the differences between the ethnicities.

- In the limitation section, the authors correctly mention the shortcoming of BTMs due to preanalytical variability and lack of standardized assay but if they have used a single protocol for reducing the modifiable factors like taking blood on special hour in a fasting status and used a single kit to do the measurements then this would be actually their strength!

- In the same section, they also mention the discrepancy because of the subjects becoming familiar with the tests at the end of the study, I thought they mentioned there was an introductory session for the participants.

- the conclusion section should be rewritten. The absence of change in knee extension after intervention is more important than the baseline difference between the women of the two ethnicities.

- On line 275, they discuss the vitamin D status of Pakistani women living in Denmark for 10 years, was this an inclusion criteria.

- updating the references could be beneficial

- Table 1- reporting BMI is more useful than weight alone

- Table 1, it is also useful to have the p-values to decide on the significance of the differences both between ethnicities and the intervention groups

- Table 2, what is the definition of self-rated health

- Table 2, the authors should divide the weight bearing and not weight bearing exercises and activities

- Table 2, I don't understand what the difference between no job and leisure? as they are two different groups

- Table 2, again the p-values could be helpful

- Table 2- sun exposure is an important factor unless the authors claim that the radiation in Denmark in winter is no good for vitamin D production. In this case it should be clearly stated

- Table 3 and 4, p-value for the change is interesting?

- Table 5 and 6 are not well discussed in the text

**Level of interest**
Please indicate how interesting you found the manuscript:
An article of importance in its field

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

Acceptable

**Declaration of competing interests**
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?
2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?
3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?
4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?
5. Do you have any other financial competing interests?
6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

None

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license ([http://creativecommons.org/licenses/by/4.0/](http://creativecommons.org/licenses/by/4.0/)). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal