Reviewer’s report

Title: Oral consumption of flaxseed oil increases serum brain-derived neurotrophic factor (BDNF) and malondialdehyde (MDA) levels in healthy human subjects

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Reviewer: Benoit Chassaing

Reviewer’s report:

This study by Mahmoudreza Hadjighassem et al., investigate the effect of an oral consumption of #-linolenic acid on the blood levels of brain-derived neurotrophic factors and malondialdehyde in human subjects. The authors interestingly found that #-linolenic acid supplementation lead to an increase in plasma levels of both brain-derived neurotrophic factors and malondialdehyde, with some sex differences.

Overall, while the manuscript contains some very interesting data, substantial modifications of data presentation are required in order to make it clear for the readers of Nutrition Journal.

Major Compulsory Revisions
- in the statistical analysis section, it is essential to detail which test was used for the analysis, 1 or 2 tailed, etc...
- in figures presenting pre-treatment versus post-treatment, a better representation has to be graph with point for each individual before after treatment, with line connecting the two point of one individual. This would allow to better appreciate the influence of flaxseed oil capsules on BDNF or MDA levels in an individual basis.
- Figure 1: are the data presented from males or females? What is control vs pre-treatment?
- Figure 2: are the data presented from males or females?
- Are the data from figure 3 exactly the same as table 1? If so, they have to be merged in a combined figure.
- Figure legends are missing and important for the readers of Nutrition Journal.

Minor Essential Revisions
- please edit the manuscript carefully for typo errors (determinedintake, etc...).

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, and I have assessed the statistics in my report.
Declaration of competing interests:

I declare that I have no competing interests.