**Reviewer's report**

**Title:** Are self-reported gastrointestinal symptoms among older adults associated with increased intestinal permeability and psychological distress?

**Version:** 0  **Date:** 05 Feb 2018

**Reviewer:** Melanie Gareau

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The manuscript by Mall et al. describes a relationship between gastrointestinal symptoms and psychological distress in older adults. The authors showed that self-reported gastrointestinal symptoms are associated with increased zonulin plasma levels and increased levels of both anxiety and depression in individuals suffering from GI symptoms and general older adults when compared to senior orienteering athletes. The study needs a few clarifications:

The authors need to state and reference the cut off point for the HADS used to determine the levels of anxiety and depression in the participants. Although the reported levels of both HADS depression/ anxiety scores are statistically significant between the groups they seem to be all below the cut-off point for a typical HADS score (8/21), Bjelland, I; et al. (2002). This needs to be discussed.

In the current version, much of the data seems duplicated in figure and table form, making it seem redundant.

The GI distress group has significantly more females than males, which is in contrast to the control groups. This discrepancy was not addressed in the manuscript, but could significantly impact results and conclusions. This needs to be discussed.

**Are the methods appropriate and well described?**

If not, please specify what is required in your comments to the authors.

Yes
Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.
Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.
No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.
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