Reviewer's report

Title: Obesity, change of body mass index and subsequent physical and mental health functioning: a 12-year follow-up study among ageing employees

Version: 0 Date: 15 May 2017

Reviewer: Subas Neupane

Reviewer's report:

Weight measured as body mass index (BMI) is an active research area and a continuous topic. The effect of weight change on physical and mental health functioning is therefore an important and interesting topic especially among ageing employees. This is an interesting analysis, though from an evidence synthesis perspective the manuscript is somewhat clouded by strong deduced assumption. I have here listed some major and minor concerns for further consideration.

Major and minor comments:

1. The topic is bit confusing and misleading as it says "weight change" which is in fact based on BMI according to the results. This should be made clearer both in the topic and in the study aim (abstract).

2. What does key covariates mean in the background of the abstract?

3. In introduction page 5, line 90-92, the sentence talks about the weight-loss (>6,75 kg), but it is unclear which study was cited for this source as the reference 15 does not match with this.

4. In the title the authors stressed that their study was conducted among ageing employees but background lacks information on why this study/association is important among ageing employees?

5. The second aim of the study was to examine whether "key covariates" affect the association. However how this aim was realized is never clear in the texts or in the statistical analysis.
6. The study participants were municipal employees aged 40-60 at baseline, but how many of them were still working at the subsequent follow-ups should be presented. The physical and mental health function would be different for those who are working currently than those who retired. It would be interesting to see how BMI and physical and mental health functioning changes during retirement transition if you analyses those who retired during follow-ups separately (if possible).

7. The discussion also lacks the perspectives of ageing working employees, which is important.

8. In the study limitation it says that the data covered only middle-aged municipal employees, but if you study also includes retires then that should be taken into account here.

9. Page 2, line 43-44: follow-up response rate is provided as 70% but for which phase (follow-up)?

10. What was calculated as the measure of association should be provided in the methods.

**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.

Yes
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.

I am able to assess the statistics

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Please indicate the quality of language in the manuscript:

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