Reviewer’s report

Title: Associations between family factors and body weight gain from 20 years old

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Reviewer: Marshall Makate

Reviewer's report:

This paper evaluates the association between body weight gain and family-related factors among Japanese men and women aged 35-79 years old. The paper tackles an important public health issue. Below are my comments that might improve the paper.

Comments

* My primary concern with this study is recall bias. I know the authors discuss a bit of this in the discussion. So, for instance, a participant who was aged 56 years at survey date would have been asked to recall her body weight when she was age 20 years (36 years ago)? This is somewhat problematic. Did the authors investigate any potential problems with this? Otherwise, the reported estimates could be very misleading.

* On page 6, lines 19-28, I do not see any action taken by the authors to limit recall bias. They simply state that the Pearson's correlation was calculated and then what? Otherwise, what the authors are doing is an assessment, not "to limit". Limiting entails decisive action to address it, which I did not get from the authors' description. This issue needs to be carefully addressed or at least described appropriately.

* How representative is the sample used in this study? Did any sampling weights applied to ensure representativeness?

* On page 3, the description of the methods need to tell us more concerning the target area. Was the analysis based on data from a particular (single) region or multiple regions? I might have missed this, but I think its not clear from the description.

* Did the authors control for other variables such as household or individual income that might influence weight gain or it was not collected?

* The results reported in Tables 3 and 4, there is no mention of inclusion of controls for the survey year, region/city/place of residence. Are these controlled for in the analysis?
* I think it's still important to clearly define the outcome variable and mention unambiguously that it's binary.

* The authors should also show the results for the overall model that combines both males and females and includes a dummy indicator for gender (i.e. overall sample).

* Given the possibility of recall bias as mentioned earlier, it's important that the authors conduct a series of sensitivity checks. For example, do these results hold for specific regions in Japan; by educational level; or by city, rural/urban locality (if applicable)? The authors need to stratify the results by age groups as well.

* On page 8, lines 28-34, the interpretation of the results here is not clear. Certainly, an OR=1.00 neither implies an increase nor a decrease, and yet authors suggest "decrease and increase…". The authors must carefully check their interpretation of the results especially where they appear to suggest that an OR of 1.00 implies decrease...

* Overall, the results interpretation needs a bit of improvement.

* On page 13, lines 41-47, this sentence needs rephrasing to clarify, it's not very clear.

* General, the paper needs English language editing throughout to clarify points.

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.

No

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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