Reviewer’s report

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

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Reviewer: HENRIQUE MUELA

Reviewer's report:

The authors present a very interesting clinical issue, namely The Associations between family factors and body weight gain from 20 years old: the Shizuoka-Sakuragaoka J-MICC Study. The study aimed to examine the associations between family factors and BWG from 20 years old and they found that marital status and family relationships were associated with decreased and increased risks of BWG in women only and recommended that family factors should be considered when advising women on body weight control.

The manuscript is well written, and the tables are appropriate and of acceptable quality.

I have some major and minor concerns to the authors:

Major

I do understand that the authors have manifested the concern due to recall bias about the information of weight from 20 years old and have highlighted this aspect in the limitation section. However, it is difficult to assume that only because there were very good correlations (r were 0.98 and 0.99, p <0.001 for both in men and women, respectively) between the current BMI according to actual measurement and a self-administrated questionnaire, this would infer that the same correlation on the BMI from 20 years old is true. Moreover, because this information is the crucial data of the study, and consequently of its results, I think that the accuracy of the weight information from 20 years old remains questionable and the results may have been affected.

Minor

Page 6, Lines 39-44, Definition and cases of BWG,

It is not clear why there were stablished two cut-off (≥ 2.5 kg/m2 and ≥3.5 kg/m2) as case definition for BWG and so two different models used on the logistic regression. Is there any difference between the BWG ≥2.5 to <3.5 and ≥3.5? If not, why then the two models instead one based only on BWG ≥2.5?
Tables 1 and 2, correct controls to controls; Footnote: weight to weight

Page 9, Lines 1-6, Discussion

As we can see in the table 4, on the multivariate logistic regression analyses of family factors for body weight gain in women other variables such as Pregnancy and Childbirth were also significant. Why only the marital status and family structure were referred as being associated with BWG?

**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.

Not relevant to this manuscript

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

Acceptable

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