Reviewer's report

Title: Body Image and Body Weight: Gender Differences and Sociodemographic Determinants

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Reviewer: Antonio Palmeira

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Title: Body Image and Body Weight: Gender Differences and Sociodemographic Determinants
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General Impressions
The paper is well written and addresses a significant subject in an understudied population. The results represent an important step towards our understanding of the subject. The question is well defined, although I suggest the use of body dissatisfaction (or body satisfaction) instead of body image in the title and throughout the text. This suggestion is based the multidimensional characteristics of the body image construct [1] by using the expression body dissatisfaction (or body satisfaction), and because the question that was used to access body image seems to be more related to the specific dimension of body satisfaction. Some of the references used in the manuscript, which have used a single measure of the construct, have specified which dimension of body image was measure. For example, the papers from the EAT project [2-5] or the Stice et al paper. Additionally, when body image is used in the title usually there are multiple measures of the construct to access its multidimensional characteristic [6-8].

The methods and data are sound, and the results are well presented in general (but see comments by paper sections below for minor suggestions). The remaining sections are correct, with the exception of the conclusions where, in my opinion, there is a statement related to SES not integrally supported by the results.

Major Compulsory Revisions
1. Abstract – in the conclusions it is stated that “…populations diverse in SES…” may have different associations between BMI and body satisfaction. The data supports that there is such an association for the parental education variable in girls, but not for the annual household income variable (table 2). I suggest the use of “diverse parental education background” instead using “diverse SES” in the text, since this last expression lead to an expectation about economical
status. I have noticed that you have followed Robinson et al (your reference 24) study that have used the parental education as a proxy for SES, but as you have data from the economical status (and their results do not present associations with BMI) I suggest you differentiate the terms.

2. Results – Two questions for this section (the second one is a discretionary revision). The first one is related to the SES results and your conclusions about them (see also the comments on the abstract section above). You state that “Table 2 also shows that girls from parents with low educational attainment…”, and then in the conclusions (in the abstract and in the main body of the manuscript) you use the expression SES that includes the economical status which was not, from the results of Table 2, associated with BMI. Are there any results that you have not included in this section that lead to the conclusion about the overall SES?

Minor Essential Revisions
3. Background – First an editorial note. The references should appear before the punctuation, for example, on the second paragraph there is the following sentence “..has been well-established in prospective studies with adolescent females and males. (3-5) Beyond…”. My guess is that is more appropriate “adolescent females and males (3-5). Beyond…”.

4. Methods – On the study design the information about how normal, overweight and obesity was defined should be specified. The text already has the reference for the Cole et al (27 on your manuscript) paper, but it is included after the BMI calculation information without stating that this criterion was used for the classification of the sample about their weight status.

Discretionary revisions
5. Background - You have not considered the Health Behavior in School Age Children studies (www.hbsc.org to access the list of references). This study has a similar method followed in your study (although they did not measured objectively the height and weight, it is self-reported) and has representative samples from 24 countries. Some of the papers from this project deal with body image and may contribute to your literature review.

6. Results- The second question is related to the girls’ graph on Figure 1. It is more a curiosity than a suggestion or review proposal. What is your reading about the descendent slope that the bottom 95% CI curve has after 27 kg/m2? Do some of the most overweight and obese girls tend to “let go” their worries about body satisfaction – something similar to what Heinberg et al suggested for the relation (inverted U) between body satisfaction and the motivation for healthy dietary behavior [9]?

7. Discussion – My only comment is related to the question above about the slope on the girls’ graph. I think is worth a comment from the authors on the discussion.
References


Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I declare that I have no competing interests