Reviewer's report

Title: Stress and Cardiometabolic Manifestations among Saudi Students Entering Universities: A Cross-Sectional Observational Study

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Reviewer: Kaan Sözmen

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I had the opportunity to review this manuscript, which examines the relationship between perceived stress levels and cardiometabolic risk factors among Saudi University Students during 2010-2011. The manuscript provides information about the anthropometric measurements and biochemical markers stratified by perceived stress levels. I have included some suggestions for the authors to consider.

Major Compulsory Revisions

1. In “methods” section, authors should give more detailed description on sampling procedure. It is not clear whether the study was conducted among students from one university or more in Riyadh.

2. Many public health professionals might not be familiar with the indices provided by Body Fat analyser, BMR, AMC, BCM etc. It would be useful for readers if authors could provide some brief information on these indices.

3. In “statistical analysis” section, there is no information about correlation analysis, but table 4 provides results on correlations between perceived stress and independent variables. In addition, in “results” section authors mention there were significant and positive association between stress level and percent body fat. Interpretation of correlations are more meaningful if magnitude of correlation coefficient is also provided. According to Cohen, correlation coefficients in the order of 0.10 are “small,” those of 0.30 are “medium,” and 0.50 are “large” in terms of magnitude of effect sizes. Interpretating the correlation results adding effects sizes would be more useful for readers.

Minor revisions

1. In Table 1, positioning of the first row and other rows in first column should be corrected.

2. In “methods” section-“anthropometrics” subsection, it would be better to give
classification of obesity based on Body Mass Index in detail; such as individuals with BMI>30 kg/m2 was classified as obese...

3. In “methods” section-“anthropometrics” subsection, abbreviation “BRP” is first time used; it should be defined.

4. In page 6, “results section”, first paragraph, according to text participants with high perceived stress levels had lower HDL-cholesterol levels. However the finding in the Table 2 is the opposite. Finding in the table or the interpretation in the text should be corrected.

5. All first time used abbreviations in first paragraph of results section (BMR, AMC, BCM) should be defined.

6. Only the strengths of the study was provided in the discussion section. It would be better if authors could mention some of the limitations of this study. I believe; even the study has a big sample size, if it was conducted in one university, findings can not be generalized for the entire population and this might be a limitation instead of strength of the study.

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

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests