Reviewer’s report

Title: Association of moderate-to-vigorous physical activity with neck circumference in eight Latin American countries

Version: 0 Date: 08 Feb 2019

Reviewer: Reviewer 2

Reviewer's report:

PEER REVIEWER ASSESSMENTS:

OBJECTIVE - Full research articles: is there a clear objective that addresses a testable research question(s) (brief or other article types: is there a clear objective)?

No - there are major issues

DESIGN - Is the current approach (including controls and analysis protocols) appropriate for the objective?

No - there are major issues

EXECUTION - Are the experiments and analyses performed with technical rigor to allow confidence in the results?

No - there are major issues

Statistics - Is the use of statistics in the manuscript appropriate?

Yes - appropriate statistical analyses have been used in the study

INTERPRETATION - Is the current interpretation/discussion of the results reasonable and not overstated?

No - there are minor issues
OVERALL MANUSCRIPT POTENTIAL - Is the current version of this work technically sound? If not, can revisions be made to make the work technically sound?

Maybe - with major revisions

PEER REVIEWER COMMENTS:

GENERAL COMMENTS: Overall, this manuscript presents some interesting information regarding correlating neck circumference with physical activity. On the surface, this seems like an interesting topic. However, the value of this information is extremely limited.

The overall purpose of research like this is to determine if neck circumference is related to health and physical activity, and there are really no measures of obesity, heart disease risk, or other important health related variables. It is also possible that a person with a larger neck circumference may have more muscle mass and thus a lower risk for untoward health, which needs to somehow be accounted for.

REQUESTED REVISIONS:

As previously mentioned, the lack of health related measures (e.g. body composition, cholesterol levels, etc.) limit the utility of this project.

The analysis of the data that are here are acceptable, but it is the lack of data that hinder this project.

ADDITIONAL REQUESTS/SUGGESTIONS:

The first sentence of the abstract is an incomplete sentence.

There needs to be a better connection between the second and third sentences of the abstract, and it needs to be established that the Latin American countries are not high income countries (is that really a validated classification for a country?).

Is there any kind of validated basis for the categorization of neck circumference?

Page 7, line 42. The methods should be written in past tense (use were instead of are).

Page 8, line 12. Revise "The research team found that the data were completed using…" This is how the data were analyzed, but it's not something the research team found.

Page 8, line 19. The data sampling rate should be reported somewhere other than this paragraph.
Avoid writing in first person (I, we).

The section in the methods about cut points need to be improved.

Throughout the manuscript, the authors need to be more attentive indicating units of measure.

The methods section about neck point classification needs considerable improvement. The way it is written is that people were classified as adults or adolescents based on neck circumference, while I think the authors intends to state that these neck circumferences were used to classify people as obese or not.

Note: This reviewer report can be downloaded - see attached pdf file.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

No

**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.

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.

I am able to assess the statistics

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

Needs some language corrections before being published

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