Reviewer’s report

Title: Physical exercise and body-mass index in young adults a national survey of Norwegian university students

Version: 0 Date: 17 Feb 2019

Reviewer: Miguel Corbi

Reviewer's report:

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GENERAL COMMENTS:

-The sample used in this paper is shown as a weak point of the study. The PA levels of the university students population has presented huge differences depending on the field of knowledge of studies (there are a remarkable research studies about that, mostly done in Spanish spoken countries), so the distribution of the sample in this kind of studies is crucial. In the paper is shown three different criteria or distribution requirement in three different moment during the las decade. At this way, it's impossible to reach an explanation about the results. The first recommendation for this paper is to use a sample similar in the criteria and always stratified by study institutions, faculties, and departments. If the authors have this kind of information in the survey, could be select subjects randomly respecting the strata.

-The proposal of the study is confused. By one side it tries to explain the evolution of the physical activity levels related to BMI, and by other side, it tries to describe the features of the physical activity that students do. Maybe both parts could be in different researchs. My recommendation is to focus in exploring the trend.

OTHER POINTS TO REVIEW:

INTRODUCTION:

-Review the structure that must content what it's known about the topic, what isn't, why it's important to know that, and the objectives of the paper. In this case, the part of why it's important to know that is too weak.

-While is talked about the recommendation, the WHO recommendation are omited. Although these are very similar to showed, it's important to include them too.

-While is talked about the reasons that make university students sedentary, the authors talked about the good health of the students. Consider to include some information about the motives toward PA of this kind of population. It would add more accurate information about that.
METHODS-INSTRUMENT-PA:

- As it's said in the general comments, regarding to explore the trend it's irrelevant to add new questions in the third wave. Use just items that were included in the three waves.

- The option to answer the question "How long does each session last?" doesn't seem good enough. The option for the more extended PA level is just "More than 1 hour" while a lot of people could do just one or more much longer sessions per week, so it includes a lot of kind of people.

METHODS-STATISTICAL ANALYSES:

- Although the use of ORs is original, consider the authors to use other parametric tests to reinforce the significance of the results about the relation between BMI and PA levels.

RESULTS:

- Information about the significance in the graphics should be show, at least, with asterisk or similar.

DISCUSSION:

- Many information is not cited and referenced.

DISCUSSION-METHODOLOGICAL CONSIDERATION:

- The respond rates are not a limitation at all. In fact, the rates showed are very good, considering that a 10% of response is usual in surveys offered by Internet.

- Regarding university population, the sample size could be huge but not good enough if it's not properly stratified.

CONCLUSION:

- This paragraph must be related to the objectives propose in the introduction.

- Read the paper, it's impossible to conclude that "the large majority of young adults fail to meet international recommendations on exercise". That wasn't an objective of this paper.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Unable to assess

Does the work include the necessary controls?
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Unable to assess

Are the conclusions drawn adequately supported by the data shown?
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No

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