Reviewer’s report

Title: Physical Activity and Sedentary Behavior among Chinese Children aged 6–17 years: A Cross-Sectional Analysis of 2010-2012 China National Nutrition and Health Survey

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Reviewer: Abubakr Alfadl

Reviewer's report:

GENERAL
The subject of this paper is important in highlighting healthy and non-healthy behavior with regard to physical activity among Chinese children. It could be worthwhile for policy makers in China. However, the paper shows some serious short comings and needs a lot of upgrading. It would be improved with more inputs in its statistical analysis and results parts.

SPECIFIC
METHOD
Survey using questionnaires is a worrying method in such studies. Asking children to recall time (in minutes) spent in a specific type of physical activity is challenging. If this added to the possibility of a social desirability bias, which could be argued is inherent in all surveys that concern adopting socially undesirable behaviors, validity and reliability of study will be questioned. Although this mentioned in the limitation of this study, but it is hard to be overlooked.

Physical activity and sedentary behaviors assessment
1/ Page 5, line 108; replace the term 'et al' by the term 'etc.'

Statistical analysis
The most thing worrying me with this paper is the absence of inferential analysis for most of the studied variables (variables presented in table 2). All differences and similarities presented in results and discussion sections between studied variables (gender, age groups, locations) are difficult to be assumed of real meaning without knowing whether those differences are statistically significant or not. Authors need to run inferential analysis for these variable and thereafter present differences and similarities. Presentation of this information will, significantly, improve the paper and increase its value.

RESULTS
I think it is better to highlight the significant results while other are already presented in the Tables.

Transportation PA
Page 7, line 154; add unit to the number 38.5±0.83, may be minute.

DISCUSSION
Page 9, lines 201 and 202; it is mentioned that "Compared to girls, boys spent more time doing school-time PA". Do that difference between boys and girls in time spent doing school-time PA
statistically significant? This is necessary to infer something from this difference. As with results section, I prefer to highlight significant differences.

**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.

I am able to assess the statistics

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

Acceptable

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