Reviewer's report

Title: Parental knowledge of paediatric physical activity recommendations in the United Kingdom and its association with parental behaviour: an observational study

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Reviewer: Adilson Marques

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Title: Parental knowledge of paediatric physical activity recommendations in the United Kingdom and its association with parental behaviour: an observational study (1276202433127893)

General comment:
The aim of this study was to assess knowledge of paediatric physical activity recommendations among parents and examined association between knowledge and parental support and modelling physical activity. It is an important topic because knowing how much physical activity young people should do could be a potential facilitator for physical activity. Moreover, there is a lack of knowledge about what people know on physical activity recommendation, so this topic is highly important.

The premise of the study has been appropriately presented. However, the methods section should be improved, because there is lack of information and some parts are not clear. Results section should also be improved, because some parts are difficult to follow. The title of the manuscript must be rethought, it is "parental knowledge", but only 3.3% were fathers. It is clearly a study focus on maternal knowledge.

Specific comments:

Major revisions
1. Abstract is well structured, but needs some improvements. In the first sentence (line 35) it seems that authors assumed that all affluent developed countries have physical activity recommendations. This is not true. So, I suggest removing the word "government". There is no information about the statistical analyses. If it is possible, please provide some briefly information. I also recommend the description of the used socio-demographic variables (line 42).
2. I do recommend writing the p-value after the 95% CI.
3. Line 95 and 96. It is written that children younger than 5 years should achieve a minimum of 180 minutes of activity. However, there is no information about the intensity. I also recommend adding some information related with the benefits of at least 180 minutes of physical activity per day for children younger than 5
years.

4. Line 132. The last part of the sentence (“but differences were small”) should be removed.

It is necessary an explanation on why only 1113 parents from 24002 families took part in this study. Were the parents selected? If so, what were the criteria?

5. Line 153. Maternal characteristics have to be described.

6. Line 162. How the continuous scores (overall levels of support and overall levels of modelling) were calculated? Did you create a composite variable, using the 4 items for parental support and the 3 items for parental modelling? Did you reduce the 5-point Likert scale to a binary variable? This information has to be clear for the readers. Please, rephrase this part of the manuscript.

7. Line 173. Do not use the word “influence”, because it is not a longitudinal investigation, therefore as a cross sectional study is not possible to see the causal relationship.

8. The program used for data analysis is omitted. Add the name and version of the software. Moreover, provide the level of significance.

9. If possible, I would recommend another table with information provided from lines 179 to 186 (and table 1 become table 2 and table 2 become table 3). When reading the manuscript I was trying to follow this information, but the table 1 does not have this information. This new table could be like table 1, but instead of the univariate and multivariate analysis, it could have three new columns. Two columns would have information from those classified as “yes” and “no”. The last could have the results (p-value) from qui-square and t-test. If you decide to follow this recommendation, qui-square has to be performed for the analyses of “knowledge of recommendations” and “maternal education”, maternal ethnicity” and “co-habiting partner”. Obviously, the use of qui-square has to be mentioned in the methods section.

10. I think the fact that only 3.3% of the participants were fathers should be mentioned as a limitation.

Minor revisions

1. Line 48 should read “(OR=2.82, 95% CI: 1.66-4.49, p<…))”

2. Line 149 should read “maternal age, height and weight were self-reported…” After that should be described how BMI was calculated.

3. Line 177 should read “socio-demographic characteristics”

4. Line 188, 189 should read “OR=2.82, 95% CI: 1.66-4.79, p<0.001” and “OR=2.23, 95% CI: 1.29-3.85, p=0.003”

5. Lines 196-198 and 199 should follow the same suggestion for lines 188 and 189.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable
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