Reviewer’s report

Title: The mediating effect of dietary patterns on the association between mother's education level and the physical aggression of five-year-old children: a population-based cohort study

Version: 0 Date: 27 Feb 2020

Reviewer: Matthew Landry

Reviewer's report:

Thank you for the opportunity to review this manuscript. The authors provide a generally well written manuscript that details the mediating effect of dietary patterns on maternal education level and physical aggression among five-year-olds using data from a nationally representative sample of Taiwanese children. The authors provide good justification for the need of the study and provide context for how this study fits into the existing literature in the area. Additional details within the methods are requested to provide additional context for how the study was conducted.

Line 104 - There are several papers on the methodology for the TBCS, suggest referencing some of this literature.
Line 137 - It is unclear if education was dichotomous or it was a continuous scale of 0-17 with 18 different groups. If it's the later, were the sample sizes within each of the different groups large enough for adequate analysis?
Line 141 - Can the authors provide context for why the referent frame of "in the previous week" was used?
Line 142 - The authors should provide further context for how these 11 food groups were chosen? Are these groupings too broad?
Line 142 - With the references provided I'm not understanding why the food groups chosen were the final ones. Particularly for the three unhealthy food items. The two studies referenced don't reflect the intake of Taiwan.
Line 142 - Why weren't equal numbers of "healthy" and "unhealthy" groups used?
Line 158 - I understand the author's rationale for using dietary patterns rather than single nutrients; however, with only two dietary patterns following EFA, I don't feel like they truly encompass usual intake. Can the authors speak more to this?
Line 166 - As physical aggression measurement is a critical component of the study, I would like the authors to elaborate on how the measurement was adapted.
Line 172- The authors utilize an adapted questionnaire which to my understanding has not been assessed for content validity or reliability within even a similar population. If details are available regarding this should be mentioned. If they are not available, the authors should speak to this in the limitations.
Line 177 - Parental marital status was used from what age of the child? It is possible that this could have changed between years 3 and 5.
Line 305 - I have several thoughts following the discussion, is daycare common in Taiwan? Or who is the primary caretaker of children at ages 3 and 5? Out of home care could influence dietary intake as well as physical aggression.
Line 305 - Are there any details about if these families had other children? I believe that would be a strong confounding factor.

Line 321 - The authors should comment on the possibility for under- or over-reporting of socially undesirable answers for physical aggression and dietary habits especially within a face-to-face interview.

Line 321 - The authors should comment on how this study only examined two dietary patterns and that these dietary patterns may not be fully representative of the typical diet.

Table 1: For HSS food groups the authors have "almost every day" what does this equate to? Different terminology is used within the methods. Does this equate to "three to five times"?

Table 1: Please include a footnotes that includes any abbreviations used within the table.

**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.

Yes

**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 recommend additional statistical review

**Quality of written English**

Please indicate the quality of language in the manuscript:

Needs some language corrections before being published
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