Reviewer’s report

Title: Changes in Dietary Intake during Puberty and their Determinants: Results from the GINIplus birth cohort Study

Version: 1 Date: 9 June 2015

Reviewer: Maite Verloigne

Reviewer’s report:

Major revisions

1. The background is rather short and is lacking a rationale for conducting this study. For example, in the second paragraph (r. 68-71), it is described that certain factors are associated with ‘dietary intake’ or ‘food choice patterns’, but these are vague terms, so please be more specific. Also, the direction of associations is not explained. Further, the authors need also to elaborate on the third paragraph, for example, more information on the results of the review, or, describing the most important findings that have been found in the longitudinal studies that have already been conducted. Also, please describe the added value of this study.

2. First sentence of the final paragraph of the Background is more related to the Methods section.

3. Background > research question: The authors should define the variables that are included in this study with regard to the socio-economic environment, individual characteristics and behaviours.

4. Methods > FFQ: Please give all nine frequency categories.

5. Methods > FFQ: why were ‘tea’ and ‘water’ excluded?

6. Methods > FFQ (second paragraph): the first sentence is really difficult to follow, please consider making short sentences.

7. Methods FFQ: could the authors explain the rationale for defining any remaining information as ‘never’? Is it correct to assume this?

8. Methods > Individual characteristics: ‘Screen-time was used as a proxy variable of PA and general lifestyle’ # I think with the current knowledge, it is clear that sedentary behaviour and PA are two different constructs, so please delete this sentence. Also, I don’t understand why there is a different threshold for summer and winter, as the recommendations of spending no more than 2 hours on screen-time behaviours is applicable for the entire year. I would recommend to use one threshold.

9. Methods > Dietary tracking: is it a common method to use tertiles to measure tracking? Are there any other papers using the same method?

10. Methods > Associations with dietary changes: Study intervention arm was included as a covariate; this is new information in this section and could have important consequences for the results, as some of the participants has received
an intervention which could affect dietary changes? Please elaborate on this.

11. Results > associations with dietary changes: ‘those with high family income and low baseline intakes’ # did the authors examine interaction effects between the independent variables?

12. Discussion: To explain the lack of effects for some of the independent variables, the authors state several times that there are possible earlier influences of the exposure variable on dietary intake. What does this imply for this study or for further research? Please elaborate on this, as it is used often to explain the results.

13. Discussion: similar as to the previous comment, it is difficult to understand why the association between lower intakes of fruit, vegetables, whole grain and nuts in subjects with higher Vaseline screen-time are a possible explanation for the fact that screen-time was high in males most likely to reduce sugar-sweetened food intakes.

14. The conclusion is rather vague ‘may have influenced’, ‘were less clear’ # please be more specific. Also, elaborate on the last sentence a bit more.

15. Tables: Why do the authors describe the group that only had data at baseline, this is less important for this paper? (except for the additional analyses maybe?)

Minor revisions
1. Abstract and Method: ‘Data were..’ instead of ‘Data was…’
2. Abstract: Define socio-economic environment, individual characteristics and behaviours already in the Background section in order to give immediately specific information to the reader
3. Abstract Results: First sentence reads difficult; consider to make short sentences.
4. Methods > study participants: ‘…completed by parents’ (r. 93) # but also by children themselves at follow-up? Also, how were the questionnaires delivered to the participants?
5. Methods > FFQ: I would change this subtitle into Dietary data (or something similar), as the authors need to describe what have been measured instead of the measurement method.

Level of interest: An article whose findings are important to those with closely related research interests

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