Reviewer’s report

Title: Maternal pre-pregnancy body mass index, smoking in pregnancy, and alcohol intake in pregnancy in relation to pubertal timing in the children

Version: 0 Date: 17 Jan 2019

Reviewer: Huijing Shi

Reviewer's report:

The present study is based on a large sample birth cohort to explore if prenatal exposure to maternal obesity, smoking, and alcohol intake was associated with timing of puberty. Novel point is the use of height difference between pubertal height in standard deviations and adult height in standard deviations. It's interesting. To improve the validity of the study, the following comments need to be considered.

1. The title is shown as "Maternal lifestyle in pregnancy in relation to pubertal timing in the children". The term "lifestyle" is quite broad, but the author only considered maternal pre-pregnancy body mass index (BMI), maternal smoking in pregnancy, and maternal alcohol intake in pregnancy as prenatal exposures.
2. HD:SDS were found to be correlated moderately with the selected pubertal milestones, and the HD:SDS were estimated on the bases of parents height. So that, for the validity of the study results, it is necessary to conduct sensitive analyses by using some other pubertal milestones in the subsample.
3. From fetal stage to adolescence, there are many years. Pubertal timing might be influenced by not only prenatal factors but also children's lifestyles such as dietary intake and physical activities. But the author only included limited covarites as 'parity' and 'maternal age at delivery' and the 'maternal age at puberty'. It is necessary to explain the rationals of including confounders.

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.

No

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.
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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