Author’s response to reviews

Title: Ethnicity and SES are related to dietary patterns at age 5 in the Amsterdam Born Children and their Development (ABCD) cohort

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Author’s response to reviews:

Dear editor and reviewer,

Thank you very much for your valuable feedback. We are happy that the reviewer recognizes the contribution of our study, our sincere thanks for these compliments. We have adapted the text accordingly and hope the manuscript is now acceptable for publication in BMC Public Health.

Hereby is the point-by-point response:

(1) Please provide an ethics statement within your 'Ethics approval and consent to participate' section.

'Ethics approval and consent to participate' section, line 413-416, page 19.

I have added the following ethics statement:
This study was conducted according to the guidelines of the Declaration of Helsinki and all procedures were approved by the Central Committee on Research Involving Human Subjects, the Medical Research Ethics Committees of the participating hospitals, and the Registration Committee of the municipality of Amsterdam.

Reviewer reports:

Jane Scott (Reviewer 1): This is a well written description of a methodologically sound study. In particular, the FFQ and the statistical methodology used to derive the dietary patterns have been clearly and comprehensively described. A conservative p value of .01 was considered as statistically significant in recognition of the large number of post hoc analyses performed. It is one of few studies to date to explore ethic variation in the dietary patterns of young children. The findings of the study are appropriately interpreted and compared with previous studies.

I have relatively few comments to make:

Minor discretionary

1. Line 104 How was the FFQ administered? For example, by post or by email with a link to an online version of the FFQ?

Methods section, line 105, page 5.

The FFQ was sent by post to the home address. I have added “by post”.

2. Line 122 How were the portion sizes used in the FFQ derived? Were age appropriate portion sizes used (a design strength) or were they based on adult portion sizes (a design limitation)? FFQs for this age bracket are often based on a tool originally designed for adults or older children, the portion sizes of which may be inappropriate and contribute to the common finding of overestimation when FFQs are used.

Methods, line 125-128, page 6

Thank you for this relevant question. We did not use specially designed tools for children, however parents had the possibility to fill in the actual portion size eaten as specifically as possible. The FFQ was validated for energy intake in 5-year old children.
I have added:

Food items were assessed in units (e.g. a piece of fruit and a slice of bread) and in household units (e.g. a glass and a tablespoon). Intake of items such as breakfast cereals, vegetables or pasta were asked in standard tablespoons which could give a reliable idea of the actual eaten portion size for children.

3. Lines 145 to 148. The authors state that ethnicity was based on the country of birth of the pregnant woman and her mother. However, when the country of birth of the pregnant woman and her mother were not the same the pregnant woman's self-registered ethnic origin was used. Surely then, this means that ethnic origin was based on the participant's self-registered ethnic origin as this was used when it agreed or disagreed with the woman's own mother's ethnic origin.

Methods section, line 155-156, page 7.

Thank you for this observation. The statement of ethnicity was, indeed, not accurately worded. We have adjusted the text accordingly. This now reads as:

Ethnicity was based on the country of birth of the pregnant woman and her mother including both first-generation women (born outside the Netherlands) and second generation women (born in the Netherlands but whose mother was born in another country). When the pregnant woman or her mother were born in a country defined as ‘none of the given options’: the participant's self-registered ethnic origin was used [32].

4. Lines 256 to 265 The description of the findings related to SES and diet pattern does not include a description of the Healthy diet pattern which was no longer significantly associated with SES after adjustment in either model 2 or 3.

Results section, line 265-269, page 13.

Thanks for your comment, this was an oversight. We have added:

SES was significantly related to the healthy pattern in the crude model (p<0.01, Table 4) showing low SES children had higher healthy pattern scores (0.217 ± 0.056) compared to middle
(0.004 ± 0.032) and high SES children (-0.049 ± 0.026). After adjustments in either model 2 or 3, SES was no longer significantly associated with the healthy pattern.

Minor grammatical

5. Line 100 should this be first prenatal care visit, rather than parental?

Methods section, line 100, page 5.
Adjusted as suggested

6. Lines 136 to 138 This sentence is ambiguous and awkwardly worded.

Methods section, line 139-141, page 7.
This has been rewritten:
When the FFQ was filled in correctly, FFQ’s of these children were not excluded as we expect that these high or low energy intakes might reflect a realistic intake.

7. Line 164 should read '..independent of its energy content..'

Methods section, line 169, page 8.
Adjusted as suggested.

8. Lines 186 and 187 I recommend that it reads '.. adjusted for child's age(y), gender, maternal age,....'

Methods section, line 191, page 9.
Thank you for this suggestion. We have replaced ‘adjusted for age (y), gender, maternal age (y)’ by ‘adjusted for child's age(y), gender, maternal age’.
9. Line 286 should read 'independently related to..'

Results section, line 290, page 14.

Adjusted as suggested.