Reviewer’s report

Title: Lifestyle factors associated with underweight among Japanese adolescents: a cross-sectional study

Version: 1 Date: 02 May 2017

Reviewer: S Frayon

Reviewer's report:

The authors correctly respond to most of my concerns. However, there is still some points needing clarification.

Even if authors try to explain the used of the birthweight in their models, the reference add by authors showed that birthweight affect BMI of adolescents only in boys. Moreover, the birthweight is not categorized using the gestational stage at birth: a weight of 2500 g may be accurate for premature children?

Gender was used to adjust OR in table 6 but analysis of the effect of the gender as a variable in the model was not made. Please indicate the OR for girls using boys a a reference.

The paragraph comparing underweight in Japan and other country (lines 209-225) need to be rewrite to avoid multiple sentence repetition. Moreover, the method used to obtain underweight prevalence in the reference 26 cited (% of overweight?) is not clear.

Concerning age, even if authors indicated that subjects were asked to fill in their age, i believe that participants indicate a single round value (12 or 13) and not an age determinate by the date of birth (12.1, 12.2, 12.3...). Because BMI cut-off by Cole differs by age decimal range, cut off used need clarification. Did the authors used 12.0 value for all participants with 12 years old age or did they used 12.5 cut off value? In all the case, this need to be indicated in limitations.

Lines 140-142: I dont understand what the authors want to explain?

Lines 154-155: Please simplify: 'Boys were significantly higher and heavier than girls.'

Lines 155-156: Please correct the syntax of the sentence.

Lines 156-157: Please suppress unnecessary information: A statistically significant association between boys and girls was observed in physique;

Lines 231-233: Is not clear if the authors analysed data by others authors or their own results? Total energy intake is not measured in this study so authors may present carrefully their hypothesis and clearly indicate hypothesis and results.
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An article whose findings are important to those with closely related research interests

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