Reviewer's report

Title: Dietary Patterns of Adolescents in Germany - Associations with Nutrient Intake and other health related Lifestyle Characteristics

Version: 1 Date: 5 November 2011

Reviewer: Theodora Mouratidou

Reviewer's report:

- Major Compulsory Revisions

In general, authors tend to be brief which is very refreshing but often leads to lack of information on important sections i.e., methodology

Methods
1. Include the study’s inclusion criteria and state the criteria used for the random sample of the 12-17 yrs old
2. Further information on the Eating Study as KiGGS Module (EsKiMo) will be desirable
3. Discuss the implications on the findings of using self-reported measures of weight, height, PA and SB in the discussion section
4. Do the authors have any information on the validity of the DISHES in younger age groups? In any case, this issue and its implications on study findings should be addressed in the discussion section

Results
5. Did the author examine the influence of age on the observed findings? Surely, dietary habits and influences are changeable between the age of 12 to 17. Were there any influences by age groups i.e., 12-14.9 and 15-17?
6. Analysis was stratified by gender. Does this mean significant differences in the dependent and specified independent variables by gender? If yes please do specify it

Discussion
7. In general, the introduction is poor and there is an extended repetition of the results i.e., first three paragraphs repeat the results which is unnecessary within this context. It needs to be revised and the authors should focus more on relating their findings to existing evidence rather than repeating their results. What are the implications of their findings, what next etc.
8. The authors should expand further on the reasons of the (a) observed difference in % variance explained in boys and girls (5%) and lack of differences between scores and characteristics in girls. Were there any differences between boys and girls that potentially influenced the findings?
- Minor Essential Revisions

Abstract, result and discussion sections:

9. Please address the tense form used. The authors use present tense, which unless otherwise stated by the journals’ guidelines, should be replaced with past form

Background

10. The background section is ok but it lacks further elaboration on the importance of dietary patterns assessment and subsequent diet-disease relations.

11. Paragraph 3 ‘Because people consume....................... single foods or nutrients [13].’ Make it a bit clearer and don’t be so brief.

12. The above mention revisions will also enhance comprehensibility of selecting the specified age group

Methods

13. Was the calculation of the proxy SES based on reference 33?

14. Are we talking about 12.1 to 17.1 or 12.9 to 17.9 years of age? Please specify

15. The authors should address or mention at least the issue of ethnicity. Was the sample homogenous in terms of ethnicity and culture? If not surely its influence should be examined

16. No need for the last 3 lines of page 6

17. ‘According to Hatcher 2007 [38], ............... to |0.4|, may be selected.’ Did the authors follow this? If yes please state it clearly as its of great importance for the reader

18. What was the % of variance explained of the next component respectively for boys and girls?

19. Often, a criterion of >0.30 factor loading is been used which is less strict and in cases more informative. I would suggest that the authors provide information on changes in the observed findings with the application of the >0.30 . If no important change/effect in the direction of the components are observed then the authors could ignore the comment

Results

20. Refine and rephrase the titles of table 2 and 3

21. The authors should provide a brief statement of the possible influences of area of residency and population size on food intake. Furthermore it is unclear why the authors address this aspect. If they are using it as an additional proxy of SES then this needs to be stated

22. Understandably results focus on boys but at some points the author should try to balance it out
Discussion

23. Surely, findings from European population groups are more relevant to those from US, AUS and Asia. The authors should at least address the implications of comparing/relating their findings to such population groups.

24. Was underreporting/misreporting assessed as part of the study? This is important given the fact that the authors examine BMI amongst other potential determinants of reporting.

25. The authors should address further the study limitations

- Discretionary Revisions

1. Supplement usage was available but dietary intakes were based on foods only? Why was that?

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

'1 declare that I have no competing interests'