Author's response to reviews

Title: Social and cultural factors underlying generational differences in overweight: a cross-sectional study among ethnic minorities

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Version: 3 Date: 16 January 2011

Author's response to reviews: see over
Utrecht, Netherlands 14 January 2011

Dear Miss Gabriella Anderson,

Thank you for your e-mail informing us that the first two reviewers are mostly satisfied with the revised manuscript entitled "Social and cultural factors underlying generational differences in overweight: a cross-sectional study among ethnic minorities" (MS: 8053634024040707).

We responded to the additional comments of reviewer 1 and 2 and also responded to the comments made by the third reviewer. We like to thank the reviewers for their useful suggestions which improved the paper.

We hope the revised paper will now be accepted for publication in the BMC Public Health.

Below are the comments of reviewers and our detailed responses (italic). The changes made in the tekst of the manuscript are highlighted with yellow marker.

Kind regards,
Dr. Karen Hosper

Reviewer’s report 1

Title: Social and cultural factors underlying generational differences in overweight: a cross-sectional study among ethnic minorities

Version: 2 Date: 1 November 2010

Reviewer: Seeromanie Harding

Reviewer’s report:
I am happy with the amendments. The text is much improved.

I have one minor comment to make. I am still unclear about the response rates. I apologise for the confusion over my statement. My figures were based on a rough calculation of final sample in the analysis (339+334)/numbers expected to be in the sample(1556+995).

To our knowledge it is common not include the people of whom no correct address is available. In our study people were invited with an invitation letter followed by a home-visit. If the address was incorrect the invitation letter returned and we did not attempt to visit them. Therefore the rough calculation differs from our own calculation.

Having justified the exclusion of the <15y, I think the response rate rates cited should refer to those aged 15-30y. To clarify, the sample attrition should refer to the loss to follow up for the different reasons (incorrect address, refusals, non-response after three attempts to make contact (does this mean there was no one at home or no response to mailed invitations?) and to exclusions due to item-non-response, reported for each group. The analysis was based on x
Turkish and Moroccans (complete case analysis).

As suggested we calculated the response rates for the 15-30 year olds and reported the loss to follow up for the different reasons. Nonresponse after three attempts to make contact means that an interviewer visited the home address of the respondent on three different times but found nobody at home.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests: I declare that I have no competing interests
Reviewer's report 2

Title: Social and cultural factors underlying generational differences in overweight: a cross-sectional study among ethnic minorities

Version: 2 Date: 13 November 2010

Reviewer: C Schooling

Reviewer's report:
This paper is much improved.

There are a few oversights that should be corrected.

MINOR ESSENTIAL REVISIONS

Abstract conclusions
The last sentence should be clarified to
“Further research is necessary to elucidate whether any postulated socio-biological or other processes are relevant to the opposite pattern of overweight among men”

Adjusted.

Background
End of the first paragraph
“We did not find any studies with a similar gender difference”, i.e., where second generation migrant men are fatter than 1st generation migrant men, but 2nd generation migrant women are thinner than 1st generation migrant women. I am sorry to be persistent; however there are previous studies with exactly these findings by migrant generation. So, this sentence should be “We found no exactly similar studies, however a pattern of second generation migrant women being less centrally obese than first generation women with the opposite among men, has been seen before1.”

Thank you for pointing this out, it makes the central research question even more relevant. We adjusted the text accordingly.

Beginning of first paragraph
“The generational differences in body weight are likely...” should be
“The generational differences in body weight could...”

Adjusted.

Analyses section
“First we performed all analyses separately for Turks and Morrocans to check whether there were any interaction effects for ethnicity.”

Normally, people test for interaction effects by carrying out statistical tests rather than solely be stratified analysis, so it would be clearer if this sentence was
worded as “First we performed all analyses separately for Turks and Moroccans to check that the pattern of associations was similar by ethnicity.”

*We agree with your remark. Sentence is adjusted.*

**Discussion**

2nd paragraph

In the interests of accuracy this sentence (“Further research is necessary to explore whether the reversed pattern we found among Turkish and Moroccan young people can be generalized to other populations as well.”) in the text should either be deleted or be replaced by the one suggested below: “Notably a similar pattern has been previously observed by migrant generation from a less to a more developed setting within an ethnic group.”

*We deleted the sentence. Although, the study we mention with the “similar” pattern did not compare generations. We mention this in the text now.*

3rd paragraph

In the interests of accuracy this sentence this sentence (“Further research is necessary to evaluate whether postulated explanations as to why a higher education in male immigrants does not ‘protect’ against overweight are relevant.”) should either be deleted or be replaced by the one suggested below: “Further research is necessary to evaluate whether postulated explanations as to why a higher education in male immigrants does not ‘protect’ against overweight are relevant.”

*Former sentence replaced. Former sentence was: “Further research is necessary to understand why a higher education in male immigrants does not ‘protect’ against overweight.”*

The paragraph starting “Other studies...” (middle of page 15) is very difficult to understand. All except the last sentence could be replaced with the following sentences or something similar

“Alternatively, it has been suggested that biological as well as social processes may be relevant to the changes that take place with improvements in living conditions either through migration from less to more economically developed environments (such as from Turkey or Morocco to the Netherlands) or more generally with economic development.2 Specifically, it has been suggested that the lifelong effects of better living conditions during growth may make women less prone to adiposity and men more so, via environmentally driven changes to pubertal development.2 Second generation ethnic minorities grew up in the Netherlands, whereas first generation migrants were less likely to have. Lifetime experiences may be more predictive for obesity in adulthood than a person’s current socio-economic position.

*We adjusted the paragraph (see page 15).*

**Conclusions**

The last two sentences

“In second generation men, however, no explanations could be found for the
higher prevalence of overweight. Further research is necessary to better understand the generational patterning and, in particular, why a higher socio-economic position of men does not ‘protect’ against overweight.”

Could be replaced by the following or something similar

“In second generation men, however, few explanations could be found for the higher prevalence of overweight. Further research is necessary to evaluate whether postulated explanations contribute to a better understanding of the generational patterning and, in particular, why a higher socio-economic position of men may not ‘protect’ against overweight.”

Adjusted.

Reference List *(included in reference list)*


**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'
Reviewer's report 3

Title: Social and cultural factors underlying generational differences in overweight: a cross-sectional study among ethnic minorities

Version: 1 Date: 23 August 2010

Reviewer: Ronald Stolk

Reviewer's report:
Hosper and colleagues studied the risk factors for overweight in first and second generation immigrants in the Netherlands. They did not find clear associations with the studied factors, which might be due to a number of serious flaws in the design of the study. The included participants represent about 25% of the invited population, which has probably induced selection bias.

We apologize that the paragraph on the response rates was not clear enough. We corrected the paragraph and report now the response rates for the 15-30 year olds.

Given the age range of the participants, both the group of first generation as well as second generation seems a mixed bag to me. The number of years living in the Netherlands is not allowed for.

We checked whether numbers of years in the Netherlands (among the first generation) was associated with overweight. However, no significant associations were found. We do agree however, that when studying first generation migrants (in particular when the age range is broader) it is important to take into account the effect of time spent in the Netherlands.

More important, the social and cultural factors of the parents (apart from occupation) were not taken into account of those participants still living with their parents.

Unfortunately we had no data on education level of the parents. We did ask for total income within the household (indicator of SES), but most young participants could not give an answer to this question, they simply did not know. In the discussion section we mention that socioeconomic conditions during childhood and across the life course might help to understand the different patterns in overweight across generations. We suggest that future studies should take this into account.

Finally, as the authors recognize, self reported weight (used in almost half of the participants) is not a good measure of overweight. Since the cutoff value for overweight is rather arbitrary (and probably different for non-Caucasians), analyses with BMI as continuous value or using a few categories (e.g. quintiles) of BMI should be added.

As stated in the method section, with Chi-square tests we showed that the self-reported and the measured group did not differ on any of the dependent and independent variables used in this study. Therefore, the way of measurement had no effect on the outcomes regarding the main research question.
We used a dichotomous outcome measure because the aim of the main research question was to explain differences in overweight between generations and not just weight differences. We do agree that cut-off points might be different for some populations. However, this would be of importance when comparing prevalence rates of overweight between ethnic groups. We think that it is less important for the research question in our study.

In the discussion, the authors state that the high proportion of overweight is due to a “lack of beneficial effect of education”. This should be revised. The authors do not discuss that in many societies overweight is a marker of good health and more common in those with a higher social economic position.

In the discussion section we do discuss the fact that in many non-western societies the social patterning of overweight is sometimes the opposite from the pattern found in western countries. However, this applies more so to men than to women. In addition, there is evidence that non-western women of the second generation who acculturate tend to take over a wish to be thin while men take over unhealthy habits such as eating snacks and fast-food and are less concerned about their body image [12].

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests: 'I declare that I have no competing interests'