Reviewer’s report

Title: Socioeconomic determinants of weight gain: a prospective cohort study

Version: 2 Date: 2 August 2012

Reviewer: Lauren Williams

Reviewer’s report:

The research question addresses the important topic of weight gain and provides longitudinal data on measures of socioeconomic status and weight gain. The need for such research is well justified, and the title is appropriate.

Major compulsory revisions

Background:
1. Line 106: The aim specifies ‘employed’ people, but there is no rationale for this in the background. Please justify (either here or in the method).

Method:
2. The methods section needs to be more detailed, and the choice of measures and cut-offs more clearly justified in general. In particular: Line 124: Please justify why the figure of 5kg was chosen. This is important given other studies have used 5lb, or a % of baseline weight. The figure chosen obviously affects comparability of results with other studies.
3. Line 151: Why only 2 categories for home ownership (owner occupiers and renters)? Owner-occupiers could own their own home outright or have a large mortgage, and thus the financial stress on the two categories is very different – is this not be the case in Finland? Please justify your choice of categories, and/or note it as a limitation in the discussion.
4. Please explain more fully how the socioeconomic indicators were entered into the statistical model. In particular, whether all 7 determinants were included in every model (eg was education included even when you tested for education?)
5. This paper obviously arises from a bigger piece of work, and some of the points mentioned in the discussion arise from measures that are not described in the measures. For example, in Lines 257-9: you discuss food habits and physical activity, but you have not mentioned these variables in your method. Please do so in order to be able to discuss.
6. Lines 289-91: Again, you are introducing variables (mental health) not shown in method or results.

Conclusions
7. You need to be really clear on what this paper has contributed that we didn’t know before and describe it clearly here.
Minor essential revisions

Abstract:
8.Line 31-33: The sentences under the ‘Background’ section are repetitive. The first sentence could be reworded to state why this topic of research is important.
9.The phraseology needs to be tightened in some sections of the text eg line 41 ‘gained weight at least 5kg...’ should be ‘gained at least 5kg in weight...’ also Line 52: ‘Better economic situation...’ is not correct English. I won’t identify all the other examples. Instead it would be useful for the authors to have the article professionally proofread.

Background
11.Line 75: replace ‘i.e.’ with ‘such as’
12.Lines 80-95: This paragraph lists the findings of various studies, but would benefit from an introductory and/or concluding sentence linking the argument and putting it in context of the research.

Method
13.Line 127: ‘All seven indicators...’ I am not sure what this sentence means? Do you mean the same measures were used in both surveys? Please clarify.
14.Line 150: what do you mean by ‘weights of each person’? please clarify

Discussion
15.The discussion is overly long in comparison to the results and could be tightened. For example, the paragraph Lines 206-215: re-states your results. You could cut or reduce to 1 sentence.
16.Lines 225-6: These claims (about men as breadwinners and about engaging in PA require references – otherwise they are merely speculation. Line 226-7: delete sentence ‘This leads to...’ This is a definitive conclusion, which doesn’t follow on from the previous unreferenced sentences. It could be left in if the section is supported by references.
17.Line 231: re ‘attenuated association...’ Please comment on what you think this means?
18.Lines 232-4: Please reconcile these seemingly contradictory sentences.
19.Line 235: ‘higher BMI’ - which BMI category are you talking about?
20.Line 247-8: ‘...but these variables failed....’ To what are you referring to here? To reference 21 or your study? Please clarify.
21.Line 250: how do these last two sentences add to your point about SEP?
22.Line 252: Why is the weight gain ‘accelerated’? Please justify, or cut this word.

Conclusions
23. Line 321: Delete first sentence as repetitive

References
24. References 1 and 2 are incompletely listed.

Tables
25. Table 1: Please report on the missing numbers for variables in each analysis and show what was included in the model.
26. Table 2: The Table heading could be more descriptive. Missing values should be noted here also. Highlight or indicate statistical significance in some way.

Discretionary revisions

Background
27. Line 82: delete ‘previous’
28. Line 102: delete ‘conclusively’

Methods
29. Line 115: delete ‘to the baseline respondents’
30. Line 130: replace ‘one’ with ‘level’
31. Line 141-142: delete ‘but reflect educational hierarchy in the society’
32. Line 144: delete ‘such’

Discussion
33. Line 221: Replace ‘Better’ with ‘More highly’
34. Line 244: add ‘in this study’ after ‘socioeconomic positions’
35. Line 248: Delete ‘Also’ to read ‘In a middle-aged...’
36. Line 266: delete ‘also’ to read ‘have been more consistent...’
37. Line 270: replace ‘previous’ with ‘US’ for United States
38. Line 276: delete ‘weight’ and add ‘in weight’ after 5kg
39. Lines 275-7: suggest that you cut the sentence in lines 278-9: as repetitive, and join up the remaining short section in 275-7 with the next paragraph
40. Line 305: delete ‘s’ from affects

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

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.

However, I would like to pose a question to the editors. The authors have referenced my work. I did not know this when I accepted the task, and I am sure that this is part of the reason I was invited to review the work. And as an experienced Associate Editor myself I know that this is a common practice. The question is, can it really be strictly free of COI to recommend publication when it means the reviewer would get a citation out of it? Having said all that, I don't feel this has influenced my judgement.