Reviewer’s report

Title: Relation between body mass index and depression: A structural equation modeling approach

Version: 1 Date: 30 November 2006

Reviewer: Hui-Xin Wang

Reviewer’s report:

General

This is a potentially useful paper that use structural equation model to examine the relation between body mass index and depression in a cross-sectional survey in a large sample of Canadian population.

The manuscript would be improved by reorganizing the structure, shortening the content, improving the clarity and modifying the writing more scientifically.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

- The following points should be considered:

1. Content
The content of the manuscript can be condensed. Specifically:
1.1 Methods
The paragraph on page 6 “The weight classification system can be applied …. individuals level” can be shortened by introducing only the relevant parts for the present study.

1.2 Results
Some tables are redundant because the same results have also been presented in figures. For example, Tables 3 can be abolished and the results can be reported in the text. Table 4 can be incorporated with figure 3, in which one can signify the level of significance. Similarly, tables 5 and 6 can be eliminated and the important results can be signified in the corresponding figures 4 and 5, respectively.

2. Structure
The structure of the manuscript would be improved by reconstructing some parts. Specifically:
2.1 Abstract
It is difficult to distinguish the Results and the Conclusion section in the present form. It would be good to place the results in the Results section and a brief conclusion based on the results in the Conclusion section.

2.2 Methods
Some parts of the text should be moved to the Discussion section. For example, under the “Body Mass Index”, from “we used BMI as an index for the measurement of ……” in page 5 up to the end of the page, and from the beginning of page 6 to “In CCHS-2.1 dataset there were 76 pregnant women who were excluded from this analysis”, there is a long discussion about BMI, however, only parts of them are needed in this section whereas most of the content should be placed in the Discussion section.

3. Clarity
There is some unclarity in the manuscript. For example:
3.1 Methods
a. The level of heading is not clear. For example, it seems that “Variables” is a 2nd level heading (if the Methods is the 1st level), “Body Mass Index”, “Depression” … and so on are the 3rd level. Aren’t they? In the present form, however, one would think they are the same level heading.

b. The study design is vague. One knows from the paper that the survey is based on a complex design, but it is not clear how the sample was selected. In addition, it is difficult to find the number and age range of the studied population in the Methods.

3.2 Results
a. What is the definition of “health risk” in Table 1? With the uncleanness, I don’t understand the purpose of the Table 1 and it was not reported in the Results section.
b. Footnotes should be given when there is missing values. In Table 2, except gender, all of other variables have missing values and they should be reported in the footnote.

- Please check the references carefully. There are some format errors.

- What is the reason that RMSEA, NFI and CFI were chosen to describe the model fit whereas there is a lot of other indices, for example, GFI?

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interests.