Reviewer's report

Title: Explanations for female excess morbidity in adolescence: evidence from a school-based cohort in the West of Scotland

Version: 2 Date: 13 September 2007

Reviewer: Torbjorn Torsheim

Reviewer's report:

General
In the revised paper the authors have addressed the major issues that were raised in the first review of the manuscript. The introduction now makes a stronger case for candidate mechanisms in gender differences. The revised analysis strategy makes a stronger link between research question and results, by detailing the exact links between gender, potential mediators, and health outcomes. By including information on the intraclass correlation the methods section now clearly justify why the clustered nature of the data was not modelled. The results section includes a clear description of the findings. The discussion section is well written and addresses the major findings of the study. The limitations of the study are thoroughly addressed.

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

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

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Discretionary Revisions (which the author can choose to ignore)

1. In my opinion, the authors are overly critical about the issue of generalisability of the study, especially on geographical differences in Scotland. These differences might have an impact, but since the intraclass correlation of health complaints in school-based nationally representative samples tends to be weak, one would not expect a strong bias. If the authors would like to stress generalisability, they should also include a statement whether they think geographical selection is a likely threat to the validity of their findings.

2. The discussion could include a clearer contextualisation of findings, and how it relates to previous research. For example, there is an unrecognised overlap in the objectives and the results of the present study and a study done by this reviewer and colleagues (reference number 8), and a study by Wichstrom.

3. Table 3. Should there be no figure for the OR of feeling Dizzy, adjusted for
Physical activity?

**What next?**: Accept after discretionary 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, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests**:

I declare that I have no competing interests