Reviewer's report

Title: Job Strain, Effort -Reward Imbalance and Work Life Balance in Relation to Body Mass Index in a Representative Sample of Australian Workers

Version: 3 Date: 31 August 2005

Reviewer: Johannes Siegrist

Reviewer's report:

General

This study analyses the relationship between psychosocial work conditions, in terms of the two work stress models demand/control and effort-reward imbalance, and overweight/underweight. In addition, work-life balance is assessed. Gender-specific analyses reveal no associations among men, but in women, low occupational status and low control at work were related to underweight. Additional associations with work stress were either weak or non-existing.

The study is of interest as it has the potential of filling a gap in occupational epidemiology. However, in its current form, several shortcomings are obvious.

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

1. The Introduction describes the state of the art. This is useful, but authors should describe their strategy of literature search as there exists at least one important study on the topic which was missed. Kivimäki et al. (2002) documented a strong association of effort-reward imbalance at work and weight gain over a 10 year observation period.

2. The Introduction should also make more explicit the potential links between work stress and weight change (eating behaviour? lack of physical exercise? stress hormones and metabolism?).

3. Sample: Sampling was done with White Page listings of phone numbers. We know from other countries that this is a risky strategy as specific population groups (young people, low status groups) are systematically underrepresented. This issue might be discussed if it exists in Australia as well. In addition, response rates should be given separately for each quota group. For me it is not quite clear how response rates were calculated.

4. Measures: The original demand/control scale contains more items. Authors should describe their measure more precisely. Concerning effort-reward imbalance, authors should indicate how they dichotomised the continuous variables.

5. Results: No description of the exposure variables is given (e.g. percentage of subjects with a ration >1.0 on the effort/reward measure). This information is important when interpreting the odds ratios.

6. No convincing reason was given why authors used logistic regression instead of linear regression. BMI is essentially a continuous variable, and all available information should be explored. Furthermore, choosing a BMI 25 cut point may be misleading as a majority of the sample exhibits values beyond this cut point. Again, dose-response associations might be explored.
7. In the Discussion, the meaning of the negative findings should be discussed, in full recognition of the limitations of the study.


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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)

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

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No

**Declaration of competing interests:**

I declare that I have no competing interests.