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: 7 September 2005

Reviewer: Jussi Vahtera

Reviewer's report:

General

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

TITLE, ABSTRACT, ELSEWHERE
According to the title, the focus is on body mass index (a continuous variable) and according to the abstract on overweight, obesity and underweight. The results, however, are based on the differentiation of those with BMI<18.5 (underweight) and those with BMI>25 (overweight and obesity combined) from those with a normal weight, nor exactly matching the title or the abstract.

INTRODUCTION
A description of the job strain and the effort-reward imbalance models should be given. The literature review could give a more concise summary of the findings so far instead of listing separately earlier studies on this subject. The authors identified 11 studies which used some measures of job stress. At least the following two studies are missing:

METHODS
The number of items used to measure job demands was 3, much less than in the Job Content Questionnaire (ref. 21). Why, which items were used?
The measure for work life balance should be described in more detail as there is no reference for this measure.
Statistical analysis was based on logistic regression using two separate binary variables derived from body mass index: <18.5 vs 18.5-25 (underweight) and >25 vs 18.5-25. A more recommendable strategy would be to apply multinomial logistic regressions to model the associations between work stress and BMI as a variable with three values: underweight, normal weight or overweight (see, eg., Hosmer DW Jr, Lemeshow S. Applied logistic regression. New York: Wiley, 1989).

RESULTS
According to table 1, the number of male and female participants is not 526 and 575, respectively, as argued in the abstract and in the text (p.11).
The authors should focus on the research question (ie. the relationship between job strain, effort-reward imbalance and work life balance, and body mass) rather than describe the adjusted associations between the various covariates and BMI (eg. p.13, 1st paragraph). A table showing the number (percentages) of participants with underweight, normal weight and overweight by the
background variables should be given. The result tables for the association between work stress and BMI would be easier to follow, if the background variables were excluded from them. The number of participants with underweight is small (7 men and 33 women!). Thus, instead of giving separate tables for men and women, the analyses should be based on a combined sample and the sex differences could be analysed by interaction tests. The number of participants should be added to these tables, too.

DISCUSSION
This is not the first study to utilize the effort-reward model (p. 14). See the Kouvonen et al. (2005) study among 46,000 Finnish employees.

The discussion is more a summary of the results than a discussion on the findings. Because there were only 33 women with underweight, the findings regarding underweight should not be highlighted (p. 15, 1st paragraph). This small number is rather something that should be added to the limitations.

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

- Discretionary Revisions (which the author can choose to ignore)

What next?: Reject because too small an advance to publish

Level of interest: An article of limited interest

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

Statistical review: No

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