Reviewer’s report

Title: Obesity, blood pressure, glucose and lipid metabolism among permanent and fixed-term workers in the manufacturing industry: a cross-sectional study

Version: 2  Date: 21 September 2013

Reviewer: John Lewis

Reviewer’s report:

Discretionary Revisions

1. Is the question posed by the authors well defined?
   - See number 8 as I would answer this question in a similar manner.

2. Are the methods appropriate and well defined?
   - I don’t understand why it says “a total of 5,129 employees at the company was studied” because only those engaged in the manufacturing tasks were studied.
   - Why was mental health not an outcome in this study? I suppose you do not want to include subjective data, but can stress actually be operationalized by using BMI, glucose and lipid profiles? The hypothesis stated that there is a greater amount of stress in the fixed-worker population.
   Overall the methods are appropriate and well described.

3. Are the data sound?
   - All other editors’ comments in this section have been answered and corrected. I do not have additional comments. Tables are nicely done.

5. Are the discussion and conclusions well balanced and adequately supported by the data?
   - Do fixed-term workers in this company always receive a lower salary than permanent workers? How did you receive this information without directly measuring it? I do not recall seeing it in the methods section.
   The discussion section is where I start to question some of the logic in this study. “Previous studies have reported that high blood pressure was associated with job insecurity”. What type of job insecurity are they talking about, because in your article, overwork does not play a role. In fact, your results found that permanent workers overwork more than fixed-term workers.

“Different health and lifestyle options might be necessary for different contract types.” This was the last sentence of the article yet I do not feel like it addressed the hypothesis sufficiently. The hypothesis stated that fixed-term workers would have poorer health because of their stress, and it mentioned working hours as a possible factor. However, working hours was found to be greater in the permanent worker population. Are socioeconomic factors the deciding factor in their worse objective measures? Please elaborate and conclude in a way that is
not ambiguous. What types of studies would you conduct next (Future work)?

6. Are limitations of the work clearly stated?

Making a claim that there is a link between health risks and low socioeconomic status without having measured this is an issue that should be addressed, in my opinion. There are too many confounds and without having this data, the study’s implications are not as strong as they could be.

7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?

- Yes, the authors reference their information clearly.

8. Do the title and abstract accurately convey what has been found?

- The abstract is missing key points from the paper and does not coincide fully with the article. The focus appears like it is on BMI, glucose, and lipid profiles, but lifestyle habits contradict one of the three employment factors emphasized in this paper (working hours/overwork). It seems that there was not enough evidence to support the hypothesis that fixed-term workers have more stress and unstable working conditions, besides contract length. The abstract makes it more clear that the differences between the objective outcomes may be linked to socioeconomic status, but not due to working conditions. However, I didn’t think socioeconomic status was analyzed sufficiently to make this claim, because in the Discussion only diabetes is stated as being linked to low socioeconomic status. If socioeconomic status was not measured, and permanent workers work overtime more than fixed-term workers do, there is little to take away from this article. It is only a repeat from a prior study that these outcomes can be associated with a low socioeconomic status, and in this study it is assumed that they have a lower socioeconomic status, as it was not measured.

9. Is the writing acceptable?

- Yes the writing has greatly improved since the first submission.

Other:

What is meant by the precarious workers having fewer rights and what do you think is a result of this? Do they have fewer rights in the workplace or fewer rights in general? If in the workplace, are there working conditions actually similar? What types of rights do they not have that can possibly be linked to their health?

**Level of interest:** An article of limited interest

**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