Reviewer's report

Title: Disability pension by occupational class - the impact of work-related factors: The Hordaland Health Study Cohort

Version: 1 Date: 2 February 2011

Reviewer: Søren Brage

Reviewer's report:

"Disability pension by occupational class - the impact of work-related factors" is a well written, clear and concise paper addressing an important theme. I have minor, but essential revisions to the manuscript.

Minor essential revisions

1. Methods; occupational class: The authors use the EGP scheme, but they do a redistribution of skilled and unskilled manual workers by education. Such an amendment (and free use) of an established scheme is not without problems. I would expect the authors to explain why they did not follow the original EGP distribution, how they did it, and what consequences it has.

2. Methods; work-related factors: In multivariate analysis (table 4) the authors use quintiles for the demand and control subscales. In the bivariate analysis (table 2) they use tertiles. I can see no reason for such differences. It should be explained why this is done.

3. Methods; health: The short list of diagnoses (only 8) that was included in the study as part of the health variable contains a strange mixture of diseases. The list covers only a small part of existing chronic diseases in the Norwegian population. Another list would produce widely different results. I understand that the authors cannot change the questionnaire now, but it should be stressed in the discussion that the list of chronic diseases by no means is exhaustive, and that another and better list probably would increase the effect of the health variables in the regression analyses.

4. Methods; analysis: In the cumulative and separate regression steps, the authors add two work-related factors "en bloc", namely working hours per week and years in current occupation. In my view that is a mistake. These two variables have little to do with one another, and such an "en bloc"-addition conceals the fact that working hours have a large impact on later disability (especially among men - see table 3), while the influence of years in occupation is small. These two variables should be treated separately, and correspondingly should table 4 be corrected.

5. Table 1: The authors should report the number of men and women in the study in the table itself. These figures are reported in the methods section, but, for the convenience of readers, should be repeated in the table.
6. Table 3: A line with one category is missing under job demand. As it now stands only four categories are reported, but there should be five.

Discretionary Revisions

It is surprising that ethnicity is not included as a variable in the study. It certainly has effects on disability pensioning.

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

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests