Reviewer's report

**Title:** Work stress and depressive symptoms in older employees: impact of national labour and social policies

**Version:** 1  **Date:** 11 September 2013

**Reviewer:** Angelo d'Errico

**Reviewer's report:**

**General comments**

In this interesting paper the authors used three longitudinal datasets on older workers (SHARE, ELSA, HRS), coming from 12 European countries and the USA, to assess whether: 1) exposure to psychosocial exposures at work (low control; high effort-reward imbalance) increases prospectively the risk of developing depressive symptoms; 2) these associations are moderated by national labour and social policies. Exposure to control and effort-reward imbalance (ERI) was collected in 2004 by means of short scales derived from the original questionnaires (2 items for control; 2 items for effort and 5 for reward). Depressive symptoms were measured in 2006 through two comparable validated instruments, represented by the short forms of the CES-D scale (in ELSA and HRS) and of the EURO-D depression scale (in SHARE). Information on national labour and social policies was drawn from OECD online databases, extracting six macro-structural indicators on active labour market policies (3 indicators), degree of employment protection (2 indicators) and income inequalities (measured by means of the Gini’s coefficient). Countries were divided in two groups (protected or not), according to their rank in each policy indicator. Data were analyzed by multilevel logistic regression models, separately for the each psychosocial exposure, adjusting for potential confounders (sex, age, education, income, type of employment, work time, functional limitation and self-reported chronic conditions) and excluding prevalent cases at baseline. The modifying effect of the policies was assessed testing the interaction between exposure to low control or ERI and presence of each policy.

The authors found significantly increased risks of depressive symptoms associated with exposure to both psychosocial dimensions, with similar strength. Furthermore, the effect of ERI on depressive symptoms was found significantly moderated by the presence of four out of six protective policies.

The subject is relevant, due to the high social costs of depression and the wide diffusion of exposure to the psychosocial factors considered. It is also original, since very few cross-national studies have examined the impact of national policies in moderating the association between psychosocial exposures at work and depression among older workers. The manuscript is in general well written, objectives are clearly stated, methods are sound, results are properly reported and discussed.
I have only a few comments and questions to the authors.

Major Compulsory Revisions

1- Regarding the demand-control model, only the control dimension was considered, on the ground that “the predictive power (on depression, I believe) of ‘control’ exceeded the power of ‘demand’ in some studies”. Actually, the results of two of the most recent reviews on the subject concluded that high demand is more strongly associated with depression than low control (Bonde, 2008; Netterstrom et al., 2008).

2 - Please comment on your choice of examining the effect of low control and ERI on depression in two separated models. The Phi coefficient =0.24 indicates that they are potentially mutual confounders of the relation with depression, but not that they are collinear.

3 - Please report attrition during 2004-2006, also in relation to exposure to the psychosocial factors at baseline, and discuss its possible consequences on the results.

4 - Please report percent of missing data at least for control, ERI and depressive symptoms.

5 - The multivariate models presented in table 3 contain also variable for which no category was significant. I believe that the simplest model should be preferred.

6 - The indicators of national policies which moderated significantly the effect of ERI appear more related to employment, rather than to work context, so I wonder whether these policies actually moderate mainly the effect of job insecurity, which is partly captured by the ERI dimension. Please discuss this issue.

7 - To improve understanding by the readers, I suggest adding a box with the questions used to built the scales of control, effort and reward.

Minor Essential Revisions

Methods:

Page 7, last sentence: “employment status” actually refers to the employment condition of the subjects (employed, unemployed). I would replace it with “type of employment”.

Page 9, 2nd and 9th row: please erase “increased” from the sentences containing “increased depressive symptoms”.

Results:

Page 11, 3rd row: in parenthesis is written “results not shown”, but these results, for what I understood, are actually presented in table 3.

Discussion

Page 13, 6th row: the authors state to have observed “independent associations”
of low control and ERI with depressive symptoms, but this is not true, since their effect was not adjusted for each other. Please change the sentence.

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

**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