Reviewer's report

Title: Socio-economic differences in self-reported insomnia and stress in Finland from 1979 to 2002: a population-based repeated cross-sectional survey.

Version: 1 Date: 23 November 2011

Reviewer: Jane Ferrie

Reviewer's report:

This paper uses prevalence data on self-reported insomnia and self-reported stress from annual cross-sectional surveys of Finns aged 25-64 drawn from random samples of the general population to examine changes in socioeconomic differentials between 1979 and 2002. The paper appears to be a companion paper to that on self-reported depression published by the same authors using the same data. While few studies have such a wealth of general population data over time and this paper has the potential to make a contribution to the literature, I feel there are a number of issues that need to be addressed before that potential is fully realised.

Major Compulsory Revisions

1. I do not understand why the data on prevalence in Figure 1 are presented in 5-year groups. This seems to miss the point of annual data, which would show exactly when trajectories start to change.

2. I am concerned by the decision to dichotomise the self-reported stress variable into 'unbearable'/'bearable'; a split that results with 2.5% in the exposed and 97.5% in the unexposed groups. This dichotomy is justified by two references but neither reference provides evidence of a threshold effect. I would like to see these data reanalysed with response categories 1 and 2 combined to form the stress exposure group. At a minimum, these findings should be presented as sensitivity analyses in the text.

3. The authors have published previously on the psychological symptom data in this study. In their previous paper they look at self-reported depression (reference 6). This paper similarly found that there had been little change in socio-economic inequalities in self-reported depression over the 24 years reported. With insomnia included in the diagnostic criteria for depression the assumption in the past always tended to be that insomnia was a symptom of depression. However, studies over the last decade show insomnia to be a separate condition; albeit one that has high co-morbidity with depression. The present study is limited if findings for insomnia are presented without adjustment for self-reported depression. A similar argument can be made for self-reported...
stress.

4. In the categorisation of employment all those in employment are put into the same category. This method of categorisation completely ignores the large body of work that has demonstrated social gradients in many health outcomes; including insomnia e.g. Sara Arber’s work and stress e.g. the Whitehall II study.

5. The group labelled ‘retired’ are actually ‘early retirees’. The implications of this need to be spelled out and discussed. Recent work has shown self-rated health and sleep problems in longitudinal studies of the same individuals to improve after statutory retirement.


Minor Essential Revisions

1. Unless the authors have used measures of gender please could they use the term sex when they present separate findings for women and men.

2. I am not sure if the word ‘unbearable stress’ was used in the questionnaire. If not maybe the authors could use a less hyperbolic term such as high stress.

Discretionary Revisions

None

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

**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.