Reviewer’s report

Title: Are environmental characteristics in the municipal eldercare, more closely associated with frequent short sick leave spells among employees than with total sick leave? A cross-sectional study.

Version: 1 Date: 23 March 2013

Reviewer: Velibor Peters

Reviewer’s report:

Dear authors,

Thank you for letting me review your interesting work. It was a pleasure to review your work, which in my opinion could make a valid contribution to the field of elderly care and to the field of research on sick leave. I have a couple of suggestions though:

Major Compulsory Revisions

1. In the research question the association between sick leave patterns and psychosocial work factors is mentioned. This assumes a correlational research which is underlined in the method section on page 7. However, on page 17, a hypothetical intermediate factor (general health) is mentioned and on other places ‘independent’ or ‘dependent’ variables are mentioned which seems to suggest a causal pathway. General theoretical findings are described in the literature between job demand, decision authority and social support, which by the way are not all used in the method (social support). Why not use a general theoretical framework like the Job Demands Resources model (e.g. Schaufeli, et al., 2009) which describes relationships of demands and resources with health and sick leave. Not to test the model, but to elucidate the theoretical relationships found in the literature between psychosocial work characteristics and sick leave. This framework would also underpin your hypothesized function of general health as an intermediate variable and increases the relationship between background and method section.

2. To enhance the international relevance of this study and to support the cutoff of 14 days the suggestion is to add other international literature on defining sick leave per year in that part (First, sick leave was measured as the total number of sick leave days including all spells ended in 2005).

3. Conclusions were drawn with respect to table 3 in the results section (e.g. ‘higher’ ‘were more likely’). Using t-tests between and/or ANOVA for the differences between the several groups could underpin these conclusions. Please provide a rationale why this was not done.

4. The comparisons with other studies at page 14 could be improved by including comparisons with the study mentioned at page 5 in the introduction (NRCWE) and by using literature on the specific work characteristics mentioned in the study.
(work pace, bullying, emotional demands, etc.) (see for example Beemsterboer et al., 2009). This could also underpin the innovative way of measuring sick leave to sort out the relationships between work characteristics and sick leave. Furthermore, you probably won’t have to use new analyses in the discussion of which most of them are not shown. Removing these analyses will improve the outline of and produce a more concise discussion.

Discretionary Revisions

5. On page 5: ‘It was hypothesized that differences in psycho-social and physical working environment along with lifestyle factors explained the higher sick leave level : it is unclear if this was the conclusion of that study.

6. On page 5: maybe you should add a reference to the sentence: ‘However, few studies have analysed if psychosocial work factors are more strongly associated with frequent short-term sick leave than with long-term sick leave’ or add ‘among elderly care workers’.

7. On page 6: Provide a rationale for the age moderation in the associations based on literature

8. On page 7: the aim or purpose is to launch interventions at improving the work environment. This contradicts with the statement in the discussion section that a crosssectional study doesn’t allow to draw conclusions ……

9. On page 9: can you elucidate why a cutoff point of 40 years is used

10. On page 9: information about reliability (e.g. Cronbachs alpha) would add extra value to the method section and consequently to the discussion with respect to the method.

11. On page 13: information about which test is used to test for differences between the groups (the test showed an overall significant……(table 5))

12. On page 18: Donders et al. (2012) published a study on the moderating role of age, maybe this is useful for your discussion.

**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'