Author's response to reviews

Title: Work-related psychosocial events as triggers of sick leave - results from a Swedish case-crossover study.

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Version: 3 Date: 29 December 2010

Author's response to reviews: see over
Re: Manuscript ID 5521901204115356
"Work-related psychosocial events as triggers of sick leave – results from a Swedish case-crossover study" written by Hanna Hultin, Johan Hallqvist, Kristina Alexanderson, Gun Johansson, Christina Lindholm, Ingvar Lundberg and Jette Möller.

Dear Editor,

thank you for giving us another opportunity to improve our manuscript. We have now revised the manuscript and addressed the comments made by the reviewers. We have also had the language checked by a native English speaker. The enclosed document contains both the comments made by the reviewers and our answers (printed in italics).

Part from language corrections we have made the following main changes in the manuscript:

- To enhance the clarity of the manuscript, we have moved the paragraph in which the case periods are defined from “statistical analyses” to “exposure”.
- We now consequently use the term “matched pair control period” throughout the manuscript.
- We have tried to tone down the language when reporting and discussing results that are not statistically significant.
- We have tried to clarify the theoretically based and data driven assumptions we made when translating the hazard periods into the chosen case periods.

Furthermore, we have corrected two typos in the results, which slightly change the effect estimates and surrounding confidence intervals for two exposures.

Detailed answers to all reviewer comments follow below. All changes to the manuscript have been made with “track changes”. If you have additional comments or questions, please do not hesitate to contact us.

Best regards,
Hanna Hultin, on behalf of the authors
Reviewer's report
Title: Work-related psychosocial events as triggers of sick leave - results from a Swedish case-crossover study.
Version: 2 Date: 30 November 2010
Reviewer: Petra Koopmans
Reviewer's report:
I am satisfied with the author's responses and modifications.

Two minor points:
They use matched control and matched pairs interchangeably. I prefer to choose one of both wordings throughout the manuscript.

We agree that this may confuse the reader. We have therefore changed this expression to “matched-pair control period” throughout the manuscript. However, when discussing the different analytical approaches we still use the term “matched-pair interval approach” since this is most common in the methodological literature.

In some cases non-significant results are presented as support for the research hypotheses. For example for the matched pair comparisons of relationship with colleagues and the relationship with the superior. And also in the next sentence: both subgroups showed increased ORs, but the effect estimates were not statistically significant. When non-significant no statements can be made about an increased OR.

We agree that one should not over-interpret results that are not statistically significant. However we do believe that since the point estimate is the most likely given the data at hand, the size and direction of it is always of interest, even if the 95% confidence interval covers unity. We have tried to tone down the language in the part of the manuscript that considers these non-significant results.

Reviewer's report
Title: Work-related psychosocial events as triggers of sick leave - results from a Swedish case-crossover study.
Version: 2 Date: 2 December 2010
Reviewer: Martin Lindhardt Nielsen
Reviewer's report:
Review comments to revised manuscript by Hultin et al.
In general, I find the response and changes satisfying. A few minor problems remain that reduce the clarity of the message – partly language problems. Maybe it would be wise to consult native English speakers again.

Response to reviewers
Page 9, numbers of exposed/unexposed added as footnotes. This makes the table somewhat clumsy, but I don’t have obvious proposals for improvement. The rather small numbers of exposed workers are interesting in itself. This may be mentioned/discussed.

We agree that including the numbers as footnotes is not ideal, however we expect that when presented in the journals proper format it may not be as clumsy as it may appear. We also agree that the relatively small numbers are interesting in themselves, since this has implications for the absolute effect of exposure. We have therefore included a comment on this in the revised manuscript (Discussion, ninth paragraph, 19th line).

Page 9, point 12 and 13: These are very important points regarding the hypotheses about triggers, but not very clearly explained. Including a language detail: One continuum can probably not be “slightly above no work ability and slightly below full work ability”, but rather “from slightly above… to slightly below…”. Even so, the point is not very clear. This distracts the reader from understanding the central point on interaction between perceived illness and triggers.

Thank you for pointing this out. We have tried to make these aspects clearer in the revised manuscript and the expression continuum has been excluded (discussion, tenth paragraph, eighth line).

Page 11, first point: The authors still use the expression “earlier work history” about the control period (Abstract and Methods). As an occupational health physician, I am used to interview patients about work histories ranging 10-50 years back in time. In such a setting, “earlier work history” is not perceived to be about the last two weeks, but about what happened in previous jobs, maybe many years ago. This confused the understanding of the concept of control periods, when I read it.

Thank you for sharing your important perspective on this point. We clearly do not want to confuse our readers in this way. We have excluded the expression earlier work history from the abstract and instead refer to the two-week period prior to sick leave (abstract, third paragraph, fifth line).

Page 11, point 5: The authors still write “since more than 30 days”. According to my English textbook, you can talk about “since when” or “for how long”. I.e. “for more than 30 days” or “since more than 30 days ago”. Although “since” is closer to the Swedish “sedan”/”sen”, it is quite confusing here, and I still don’t know if the excluded workers were absent for the full 30 days or just had any absence within the last 30 days.

We have now changed the expression to “currently on sick leave for more than 30 days” (methods, fourth paragraph, third line).
Revised manuscript
Page 10, top: was assessed ... was assessed.

This has been changed in the revised manuscript.

Page 10, last paragraph before “Background factors”: “...excluding the case period”. The case period is not defined at this point. At least, it could be stated that it is explained in figure 1. It is confusing that the difference between the two types of matched control periods is not explained until page 12, and that there is no explanation for the decision to have two different periods (one or two days before the case period). As the concepts of case and control periods are the core of the whole article, this should be very clear.

We have moved the paragraph in which the case periods are defined to just after the paragraph you are referring to (methods, 14th paragraph). Furthermore we have included a reference to figure 1.

However, we do believe that our reasons for choosing the case periods we have are better discussed in the discussion part of the paper, as they in essence belong to the discussion about the hazard periods. We have now elaborated on the chosen case periods in this section (discussion, fifth paragraph, eighth line).

Page 12-3, last paragraph of the Methods section: A number of alternative analyses are mentioned, but the reason for the analyses is not stated here. The last example is “An estimated sick-leave incidence rate was calculated, for participants and non-participants, with person-time based on calendar days, including both the days on sick leave and work-free days”. What was this used for? Are the results reported?

We would rather not lengthen the methods section by explaining the specific rationale for every alternative analysis, especially since these are thoroughly described in relation to the methodological discussions. However, we have changed the text somewhat, pointing out that all the alternative analyses are done mainly to assess the influence of biases (methods, 20th paragraph, eighth line).

The estimated sick-leave incidence rate is used as a basic descriptive measure of outcome occurrence in the cohort that produced the included cases. It is also a way to compare the participants in the cohort with the non-participants. We report the estimated sick-leave incidence in the first paragraph of the results section and then again in the eighth paragraph of the discussion section.
Page 13 top line: “were” should be “where”

*Changed accordingly.*

Page 13 ff: the word “respective” is used several times without contributing to the meaning.

*Excluded in the revised manuscript.*

Page 14, last line before “Discussion”: “The potentially triggering effect of exposure to … was inconsistent and non-significant”. Non-significant is true, but why inconsistent? There are no negative associations and the only OR=1 is based on only 3 cases.

*We agree that the result we refer to is based on very few cases, and have excluded the expression inconsistent.*

Page 15, second last line: “…we coded uncertain exposure events as unexposed and as missing”. They were probably coded unexposed or missing?

*This refers to two different sub-analyses. In one we coded the uncertain exposure events as unexposed and in one we coded them as missing. We have tried to clarify this in the revised manuscript by referring to two alternative analyses.*

Page 26, bottom line: [HH1] ?

*Excluded from manuscript.*