Reviewer’s report

Title: Interaction effects of multidisciplinary intervention and workplace factors on return to work in sick-listed employees with low back pain in a randomised comparative trial.

Version: 1 Date: 20 December 2010

Reviewer: Ivan Steenstra

Reviewer’s report:

1. Is the question posed by the authors well defined?
- What about some objectives/ hypotheses to conclude the introduction.

2. Are the methods appropriate and well described?
- I like the validation part of this study, it adds rigor to the study.
- However, it is unclear why these factors were tested for interaction. I would expect some biological plausibility for the choice, but that is water under the bridge. (An appropriate comparison since it has now turned into a bit of a fishing expedition). What remains is that this paper lacks a discussion of plausibility. What characterises these interventions that they work differently for these subgroups.
- Did you exclude claimants from the new study?
- It seems that the most obvious subgroup in this study is claimants vs non claimants, it is not clear to me why claimants are excluded from the analysis.
- I miss a solid reference in your analysis section. What about multi co linearity? You mention that it is the case which might mean that it might be you are consistently reporting on the same/similar groups of workers (but classified under a different name).
- You seem to be doing a multivariable analysis (multivariate is when you have multiple outcomes).

3. Are the data sound?
- Did you know at inclusion in the study which participant was a claimant and which one wasn’t? If not, you shouldn’t exclude claimants (if at all). (Major compulsory revision, might be a fatal flaw to the study if claim status was determined at a later stage).
- It is not clear whether you have enough power to do any of these analyses. I am not clear about the number in the sample you used in your analysis. (Needs addressing!)

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?
- I would like the authors to follow the STARD standard, although a standard for
reporting on subgroups is still missing. (Major compulsory)
- The Figures showing survival curves are a bit too crude. Information on what they are on is missing and that information should be added to the figures. (Minor compulsory)
- It is unclear whether you are copy pasting the results from your intention to treat analysis of your RCT on your entire population or whether you have already excluded claimants. (major compulsory)

5. Are the discussion and conclusions well balanced and adequately supported by the data?
- This paper lacks a discussion of plausibility. What characterizes these interventions that they work differently for these subgroups.
- I don’t get the discussion on prognosis. Moderators or mediators are different from prognostic factors. The discussion should be on how these factors mediate or moderate the effects of the interventions.
- Heymans et al also found that it didn’t matter whether a short or a longer intervention was given.

6. Are limitations of the work clearly stated?
- Not clearly stated, a paragraph on limitations could easily be added to the Discussion. Every critical reader will contemplate whether this is a fishing expedition and this issue needs to be addressed.

7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?
- Yes

8. Do the title and abstract accurately convey what has been found?
- Yes

9. Is the writing acceptable?
- There are some language errors in the text that need edits. For instance: Workplace not work place

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

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**
I declare that I have no competing interests.