Author's response to reviews

Title: Determinants for return to work among sickness certified patients in general practice

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Author's response to reviews: see over
Dear Editor,

One of the reviewers wants further clarification on a few comments.

1. **Comment**: Comment 1) About causality: I agree that the longitudinal design allows firmer conclusions about causality. However there also has to be a rational logic or mechanisms behind the associations found to allow conclusions about causality. An example: there is a straightforward causal link between adverse health (diagnosis and sick leave history). But was is the causal link between civil status, country of birth, citizenship and return to work? These variables are more of a sort of proxy variables for different socioeconomic hardship and should in my opinion be treated as a chunk. That is what I meant in my comment 19) as stepwise (not computer-driven, instead researcher-driven stepwise introduction of new sets of variables). Your results also indicate that the health related variables are without contest the most important in the RTW process. (Are you as medical professionals surprised? Shouldn't these differences in the status of different variables be more clearly stated in the background section? What are your hypotheses?)

   **Response**: The wording has been changed throughout the manuscript.

2. **Comment**: Comment 2) Disability pension. The first sentence of the Background section should be revised. Do the authors sincerely believe that income security in the case of longstanding illness an inability to work (=disability pension) in itself is harmful to health? (Whats the theory here? Mechanisms?) I would suggest that the paragraph starts with the second sentence instead with disability pension in the end: "Long-term sickness absence...for permanent exit out of the labour market through disability pension.

   **Response**: The sentence has been reworded.

3. **Comment**: If the use of the c-index is standard procedure, there must be a standard reference to provide? [the reference list is lengthy already, maybe some other references could be omitted?]

   **Response**: The reference has been provided, and the Statistical methods text has been clarified.

9. **Comment**: Comment 9) The sex variable. My point was that if there is no gender differences, this is an interesting finding which needs to be discussed. On page 8 the second paragraph I do not understand the statement: "...the results for women and men were similar, not surprisingly since the number of men and women was similar." Sample size has nothing to do with associations as far as I know.

   **Response**: We stratified the analyses for sex and arrived at the same result as when sex was used as a covariate. Furthermore, in multivariate analysis sex had no significant influence. The Statistical methods text has been revised accordingly.

17. **Comment**: "Rehabilitation programme"? What is that? Medical, vocational? Please clarify and provide rationale for exclusion of these individuals. How many where excluded? I understand that these could have prolonged sick leave periods due to "locked in effects". But couldn't you just have controlled for enrollment in a rehabilitation programme? I guess that would give the same kind of associations as sick leave history and diagnosis. Another approach would be to just analyse factors associated with RTW among patients WITHOUT
sick leave history! The ones with an extensive history are to a great extent "lost cases". If you really want to get people back to work or keep them in work early detection in these cases would be a great benefit!

**Response:** The term “Rehabilitation programme” has been specified. We have chosen not to include those already included in or being on their way into rehabilitation programmes. Analysing only those with no sick leave history would be rather uninteresting from a medical point of view.

Fort the author group

Anna-Sophia von Celsing