Author’s response to reviews

Title: Comorbidities, Intensity, Frequency and Duration of Pain, Daily functioning and Health Care Seeking in Local, Regional, and Widespread Pain - a Descriptive Population-based Survey

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Author’s response to reviews: see over
# Point-to-point Reply

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<th>Comments of the Reviewer</th>
<th>Our comments and changes</th>
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<td><strong>Reviewer Andrew Kittelson</strong></td>
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<tr>
<td>I am glad to see this paper again. Epidemiological examinations such as this are valuable to our understanding of pain in society.</td>
<td>Thank you for the positive comment!</td>
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## Minor Essential Revisions

The introduction is a bit disorganized. It seems the authors are trying to suggest some problems with our understanding of pain in society: 1) we rarely assess pain in society--out understanding is mostly limited to clinical populations, 2) we define pain in a variety of different ways and it’s not clear if our definitions are really relevant to the clinical picture, and (perhaps) 3) because of the complexity of pain, the interaction of pain with other health issues or demographic factors is often not considered, even though these contextual factors are likely to be important in how we view pain. Although this may not quite describe the authors' intention, I think they should try to shorten and focus the introduction around their main points. The bullet-points at the end of the introduction are quite succinct, in my opinion, and could be used as a guide.

Point taken. The introduction is now shortened; several sentences have been omitted. This has been done in order to focus the introduction according to the constructive comments of the reviewer.

I still do not like the phrase “implications of pain.” I recommend stating more explicitly what was examined (i.e. differences in daily functioning and healthcare seeking). The same goes for phrasing such as “pain aspects and consequences of pain,” and "severe characteristics." These terms are just too vague and make it difficult to interpret the actual meaning of results.

Points taken. Due to this comment the title of the manuscript has been revised. We also have revised the text including headings and subheadings throughout the manuscript.

I disagree with the following statement (discussion): “the issue of multiple testing is here not a major concern as the study is more a descriptive study rather than a hypothesis testing study....” In fact, the authors are testing hypotheses and using inferential statistics to do so. It is true that multiple testing is not likely to cause type I error with extremely small p-values, but not all "significant" p-values are vanishingly small in this report. Setting statistical significance at 0.05 seems suspect.

Point taken. We agree that a more careful approach could be correct and have now change the significance level used in the manuscript to 0.01 and adjusted results and tables according to this. Due to the comment we also have revised this text, which now has the following wording: "A methodological issue important to note is the large amount of pairwise comparisons included in the study, therefore a significance level of 0.01 was chosen rather than 0.05. This
lower p-value was chosen as some inferential conclusions are drawn, even if the main aim of the study is of a more descriptive nature. The issue of multiple testing might therefore not be a major concern both due to the descriptive nature of the study, and due to the fact that many of the p-values appear in nice patterns, not randomly.”

The differences between pain categories remain difficult to conceptualize. Perhaps the authors could provide example manikins (either in the paper itself or in a supplement) to illustrate the different categories.

Point taken. We are not convinced that this new issue raised by the reviewer is constructive. Anyhow, we have made a figure showing examples of manikins in order to illustrate the three pain categories.

Could the authors also report the average number of bodily pain sites for each pain category so that “spreading” is described numerically as well as theoretically/categorically?

Point taken. We now have added the following information in the Results: “The three pain categories (LP, RP and WSP) were quite distinct when it comes to the number of pain sites out of 45 anatomical regions on the body manikin. All responders with LP had only 1 to 2 pain sites, by definition, and with median of 1 pain site. The responders in RP reported a median number of pain sites of 4, and the 10th and 90th percentile were 2 to 10 respectively. For the responders in WSP the median number of pain sites were 25, and the 10th and 90th percentile were 11 to 40 respectively.”

DISCRETIONARY REVISIONS

I understand numeric pain rating is an ordinal scale, but I still recommend treating it as continuous data when reporting. Mean (SD) is more informative than median (range), especially when range is 0-10 in all cases.

Point taken. We agree that range is not informative. We have deleted the range (the presentation of this aspect was not consequent with respect to the way other variables were presented). Due to the fact that the pain intensity is measured using an ordinal scale we have kept the median value in the table and instead of ranges is now reported 1st and 3rd quartiles. Moreover, mean values (±1SD) are reported below the table.

In the discussion: It does not follow that, because the IASP definition of pain is used by the authors, the self-report of bodily pain sites is necessarily valid and clinically relevant. I have administered pain assessments including body manikins in my own work, and it is not uncommon for a patient to simply forget to mark a site where they have pain (especially, in my experience, if it is less interfering or more intermittent than another marked site).

Points taken. We agree with this; the text has been revised and now is pointed out that the pain categories reflect subjective aspects. We have added that the natural fluctuations in spreading of pain per se may be due to due to neurobiological, psychological and social factors. In the revised version is now have mentioned with respect to reliability aspects: “A part of the reliability aspect may be that the subject forget
Regardless, I question whether small changes in pain report (resulting in assignment to a different pain category--LP v RP v WSP) should really influence the clinical impression.

areas with intermittent or less interfering pain and instead focus upon the areas with most intense pain intensity when reporting in the questionnaire. “

Finally we have added the following sentence in the end of this paragraph: “In the clinical situation most patients with long standing problems are repeatedly assessed in order to make a clinical characterization of the pain condition.”