Reviewer’s report

Title: Illness beliefs among patients with chronic widespread pain - associations with self-reported health-status, anxiety and depressive symptoms and impact of pain

Version: 0 Date: 05 Apr 2017

Reviewer: Sara Edmond

Reviewer's report:

Although exploring illness beliefs among patients with chronic widespread pain is an important and interesting topic, I have several concerns about the manuscript.

Introduction:

1. It would be helpful if the authors defined facilitating and constraining beliefs rather than just labeling one as useful and the other as impeding recovery (page 4, lines 4-5).

2. As currently incorporated in the manuscript, the description of the effects of catastrophizing and self-efficacy on pain related outcomes does not enhance the introduction, as neither of these constructs are measured in the study (page 4, lines 18-20). If this is meant to build evidence for the idea that illness beliefs relate to important outcomes, it should perhaps be incorporated into your definition of illness beliefs instead of discussed in a separate paragraph.

3. The flow and organizational structure of the introduction could be improved. For example, the flow is interrupted by describing CWP in the second paragraph and then returning to more examples of illness beliefs in the third paragraph, and the transition from discussing the IPQ-R to self-reported health and other variables of interest is choppy.

4. The statement "It is hypothesized that CWP is associated with…" (page 6, line 51-54) reads as if this is the hypothesis being tested in the paper; however, it is not. The aim stated in the next sentence is clearer, but it leaves this reviewer wondering what hypotheses the authors have regarding the association between illness beliefs and health-status / mental health symptoms. It is also not entirely clear which variables are meant to be predictors and which are meant to be outcomes.
Method

1. The IPC-R description suggests that the Swedish version of the IPQ-R is reliable and valid when the Identify and Cause dimensions are excluded. However, the authors did not exclude these dimensions in their work and in fact report on the results from these dimensions. Please give a stronger rationale for why these dimensions were retained given your description of the measure (page 8, lines 106-109), and provide data about the psychometric properties in the current study if you plan to use these scales.

2. I do not see the utility in labeling the degree of rank correlations as very weak, weak, etc.; furthermore, Cohen's interpretations of effect sizes and correlation coefficients may be more appropriate than the citation used by these authors (page 10, line 147-148).

Results

1. You report on page 10 that 75% were confirmed to have CWP via questionnaire methods, yet you appear to include all survey respondents in your analyses. Is there a risk that you are not sampling the intended population? Please provide a stronger rationale for using chart-review CWP rather than self-report, or consider sub analyses to see if group differences emerge.

2. The results section sends a relatively large amount of space describing simple descriptive analyses of questionnaires and very little time addressing the stated aim of examining the relationship between illness beliefs, health status, and anxiety/depression symptoms. Rather than simply referring to the correlation tables (line 200), it would be helpful to expand on what relationships you found and whether or not they were in line with your hypotheses.

3. Similarly, the regression analyses (line 201-204) are not well-described in the results section. Some interpretation of significant predictors of PCS and MCS in this section would be useful, rather than simply referring to a table. For example - is greater belief that the illness has negative consequences related to worse or better mental and physical health?

4. The way Tables 5 and 6 are set up, it appears you are considering MCS, PCS, pain, anxiety, and depression each as 5 outcomes with illness belief dimensions as potential predictors. However, in table 7, only PCS and MCS are regressed as outcomes. This presentation, along with aims that are not stated very clearly and no clear hypothesis, make it difficult to interpret results. Furthermore, I wonder to what degree illness beliefs are correlated with one another and whether or not it is appropriate to consider many of them in one regression model.
5. No mention of examining demographic or clinical variables as they related to illness beliefs or outcomes was mentioned. For example, is length of illness related to PCS? If so, should it be included as a covariate in regression analyses?

Discussion

1. In the paragraph beginning on line 227, the authors compared their IPQ-R scores to scores from other samples. Describing the results as higher or lower than other samples without a detailed examination of the means and standard deviations of other samples seems beyond the scope of this current paper, and I'm not sure this paragraph adds much value to the manuscript.

2. With a response rate of 46% (as noted on line 156, page 10), some discussion of limitations of your data collection method is warranted.

3. Not accounting for missing data is another limitation that should be noted.

Tables

1. Seven tables seems excessive. Is it possible to condense, or report more of this in the text rather than having so many tables? For example, table 4 could be described in the text along with more thorough descriptions of the meaning of each dimension; tables 5 and 6 could be combined.

2. Tables 1 and 2 could be improved by having separate lines for each category rather than using a slash to combine categories per line (e.g., single / single with children on one line is confusing; separate out education levels on separate lines, anxiety and depression symptoms)

3. Table 2 - if you only planned to analyze data regarding the overall MCS, PCS, and pain item, it may not be necessary to report other scores such as PF, RP, VT, SF, etc.

4. If your aim is to examine variables such as illness beliefs, BP, anxiety and depression as predictors of PCS and MCS, your tables should be set up in a way that we can see BP, anxiety, and depression's relationship to PCS and MCS, rather than the way they are currently presented.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Unable to assess

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