Author's response to reviews

Title: Reliability and validity of the Brief Illness Perception Questionnaire for use in acute low back pain patients.

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Version: 8 Date: 28 December 2012

Author's response to reviews:


Subject: Submission of revised manuscript MS: 4585530177236273.

Dear Mr. Reynaldo Aldea,

Please find enclosed the revised manuscript “Reliability and validity of the Brief Illness Perception Questionnaire for use in acute low back pain patients” for publication in BMC Musculoskeletal Disorders.

We thank the associate editor and the reviewer for their precise and constructive criticism. We have addressed all the comments. Consequently a revision of the paper is performed and we think the revised manuscript is substantially improved.

All authors contributed to answering the questions and have given their consent for submission of this revised manuscript.

Sincerely,

Hank Hallegraeff.

Contact:

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Associate Editor’s comments:

1. I see no structured abstract or keywords in the file and attachments of your revision. Please be sure these are included so that I can see your complete final version.

Answer: Unfortunately we have forgotten to enclose the changed Abstract in the previous revised version. In the revised version the phrase “compared with the mental health component of the Short Form 36 health Survey. Although these correlation values were adequate, the limits of agreement were large” is deleted in the “Results” section and in the “Conclusion” section “Concurrent validity is adequate, however, the instrument may be unsuitable for detecting changes in low back pain perception over time” is inserted. Find enclosed the revised Abstract.

2. There seems to be a discrepancy that is being missed. You correctly say that for the IPQ-B higher scores reflect more negative perceptions. You later report that the mean scores are 52 and 56 at your two time points. As I pointed out earlier, from these results it looks like the participants develop slightly more negative perceptions over time. I asked you why might this be - it seems backward? Yet on page 9 in your discussion the interpretations you offer are confusing. You say that the "participants performed significantly better on the IPQ-B retest." By "better" you presumably mean that they report more positive perceptions. Again, your data do not seem to show this. Could you please reconcile this?

Answer: Indeed, with the term “better” we referred to more positive perceptions. By reversing some items of the IPQ-B a positive correlation with the MCS of the SF-36 was ensured in the reverse phrased version, which reflects more positive perceptions. We agree this caused ambiguity in the paper. Therefore, in order to avoid confusion we deleted the sum scores in the “Results” section and in the “Discussion” we changed the following phrase “The participants performed significantly better on the IPQ-B retest than test (t – 3.5, P < 0.05), indicating that the instrument’s reliability diminish somewhat over time”, into “Participants reported more positive perceptions on the IPQ-B retest than test (t – 3.5, P < 0.05)”. See line 182 – 183.

3. Just after the comment on better scores you say that "the instrument's reliability diminishes somewhat over time." This statement is either obvious, redundant, inaccurate, or complex. Please clarify. You only have one time period, so you cannot track changes in reliability as the interval changes. You simply have one sample of scores over time and from these the temporal consistency seems inadequate for some purposes. I hope you are following the logic of this.
There is no process of diminishing reliability - you simply have evidence for inadequate temporal consistency, end of story.

Answer: We agree with your comment that this statement is rather redundant and inaccurate. Reliability cannot change over time. We meant that the IPQ-B score diminish over time, according to natural course. In the revised manuscript the phrase is changed from “The participants performed significantly better on the IPQ-B retest than test (t = 3.5, P < 0.05), indicating that the instrument’s reliability diminish somewhat over time”, into “One problem inherent of this kind is to minimize treatment influence; hence, all data was collected just before the two interventions. However, an explanation of the changed IPQ-B score might be that internal and/or external influences between both administrations have affected patients’ perceptions of low back pain”. See line 223 – 227.

4. Please soften your conclusion. As one of the reviewer points out, there is an alternative explanation for the change in scores, albeit a somewhat counterintuitive one, that there is something that is happening standardly between the two administrations and this is affecting the scores. What is counterintuitive about it is that the participants' perceptions seem to move in a negative direction after having a physical exam! You may consider saying "the instrument may be unsuitable for detecting change."

Answer: Our conclusions are softened due to the following phrases we inserted in the “Discussion”: "...; hence, all data was collected just before the two interventions. However, an explanation of the changed IPQ-B score might be that internal and/or external influences between both administrations have affected patients’ perceptions of low back pain”. See line 224 – 227.

In the conclusion we added "...another criterion measure and with..." and changed "...not suitable" into “may be unsuitable for detecting change”. See line 246 – 247.

In reply to the reviewer’s comments on December 5th.

Comment 1.

Answer: Only intake has taken place between the two administrations and to reduce the influence of the physical therapist on the course of acute nonspecific low back pain, reassurance was not provided. As a result patients may be more or less concerned or reassured after the first consultation.

Comment 2.

Answer: We agree with your comment that the IPQ-R is designed for use in several medical groups, however, psychometric properties of the IPQ-R in acute
nonspecific low back pain is lacking, which is supported by recent evidence: Nicholls et al, 2013. We agree that further research is necessary for use of the IPQ-R in primary care musculoskeletal patients.