Reviewer's report

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

Version: 7 Date: 5 December 2012

Reviewer: Christopher Graham

Reviewer's report:

Upon re-reviewing the paper and considering the authors comments I still feel unable to recommend the paper. This is because the covering letter replying to my comments has served to confirm my previous concerns - major concerns which I believe cannot be resolved if the paper is to be considered an evaluation of the psychometric properties of the Brief IPQ.

(1) In their reply to my previous comments the authors have confirmed that all participants are assessed by physiotherapy and a medical history is taken between the test-retest timepoints. I refer you to Leventhal's Self-regulatory Model (the model from which the Brief IPQ is derived), this intervention would likely provide either reassurance or concern to patients: if physiotherapists are instructed to assess physically and take a history but provide no reassurance (as is put forward in the author's reply to my comments) this would cause concern. Either way we have good reason to expect this (physiotherapy assessment and medical history) to affect illness perceptions – especially over a short period of time. Therefore the test re-test part of the paper is, in my opinion, critically flawed. It would be misleading to the field to consider this a valid assessment of reliability.

(2) This is a smaller issue compared to the one above, but I am still puzzled by the use of the SF-36 to validate the measure. Below I will explain why:

Please see the reply to the question posed in my first review below:

"REVIEWER 2: Also, would the IPQ-R or other illness beliefs questionnaires be more useful for concurrent validity?"

AUTHORS Answer: We have discussed this opportunity. However, our concern was that the IPQ-R is validated in medical diseases and not in musculoskeletal disorders. Besides, the SF-36 is a generic measure and can be used in various medical and musculoskeletal disorders including nonspecific low back pain. In contrast with a disease-specific health survey this generic health survey can be
used across ages with several disorders and treatment groups."
This answer is inaccurate for a couple of reasons. First, the IPQ-R is designed to be used with all medical groups. It is made in such a way that word 'illness' can be replaced with the disease/problem investigated (see Moss-morris et al., 2002). Indeed the IPQ-R is even available for healthy people without any 'medical conditions' at all - see:
http://www.uib.no/ipq/pdf/IPQ-Healthy_People.pdf
Second, the IPQ-R has been used with the population under study in this paper (or an over-lapping one) before: a very quick availability search revealed a paper by Foster et al., (2010) in the flagship journal in the field 'Pain' (See http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2831173/ ) which has used the IPQ-R - I would be surprised if there weren't others. Indeed, there are many papers where the IPQ-R is used with other musculoskeletal disorders. This therefore makes it surprising that the authors considered the IPQ-R, but then rejected it in favour of the SF-36.

Apologies for a frank review and I write with deepest respect but I cannot recommend this paper in its current form. Indeed the paper may work as a study of the impact of physiotherapy assessment on illness perceptions.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests