Reviewer's report

Title: Recovery From Acute Low Back Pain is Marked by Variability: An Internet-Based Pilot Study

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Reviewer: Markus Hübscher

Reviewer's report:

This is a well-designed and well reported prospective cohort study that provides new and important information fundamental to back pain prognosis. First, the study helps to better understand the clinical course of acute low back pain, i.e. the change/variability in pain over time (6 weeks), by employing frequent serial assessments (internet-based data collection) of perceived pain intensity and flare occurrence. Second, it indicates that self-reported flares of pain during acute LBP correspond to discrete increases in self-reported pain intensity measured via numeric rating scales. Third, flare frequency during an acute phase of pain might be an important factor associated with recovery (in terms of return to function) that should be considered in future outcome prediction studies. Overall, the rationale for the study is clearly stated, the methods, including statistical analyses, seem appropriate, the results presented largely support the conclusions drawn, and limitations (e.g. small sample size) are adequately acknowledged. Thus, the manuscript merits publication in BMC Musculoskeletal Disorders. Discretionary revisions are indicated below.

Discretionary Revisions

Study objectives

Apparently, one important objective of your designated pilot study is “to examine the feasibility of measuring pain variability and flares […] with frequent serial assessments”. Even though there are many different definitions of pilot studies in the literature, the rationale for a pilot study can be grouped under several broad classifications (e.g. Thabane et al. BMC Med Res Methodol. 2010): process (e.g. determining recruitment rates understanding of the online questionnaire), resources (e.g. how long does it take to fill out the online questionnaire), management (e.g. personal and data management), and scientific (e.g. identifying prognostic factors, measurability of flares). Different classifications and sub-classifications frequently lead to different understandings of pilot studies, impeding the reader's comprehension of the study rationale, interpretation of results, and conclusions. I therefore suggest providing more clear definitions of the feasibility objectives and the corresponding criteria for success of the pilot study.

Analysis/Results

1. Since baseline pain intensity has been shown to be associated with recovery
in terms of improvement of disability, return to work and relief of pain (e.g. Henschke et al. BMJ 2008), I suggest considering pain intensity as a potential adjustment factor for the bivariate analyses to see whether baseline values are related to the outcome of ODI score.

2. It would be interesting if you could also present the longitudinal changes in disability (measured at the 7-day intervals) as a function of time and its longitudinal associations with flare status and/or pain intensity. Graphical presentation of the predicted course of recovery from disability (analogous to Figure 2) would be desirable.

3. In addition, it would be interesting to see whether flare frequency is independently associated with pain intensity at 6 weeks. This information could especially be used to inform future prognostic studies that assess recovery in terms of disability and/or pain intensity.

Level of interest: An article of importance in its field

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.