Reviewer's report

Title: The course of pain drawings during a 10-week treatment period in patients with acute and sub-acute low back pain

Version: 1 Date: 1 March 2006

Reviewer: janet freburger

Reviewer's report:

General

I had several concerns with this paper as outlined below. Some of the problems can be addressed by providing more detail or elaboration especially in regard to the measures and the data analysis. In addition, one pressing question is what is the relevance of this study? The authors have not convinced me that this information is important.

I also believe there are some issues that threaten the internal or external validity of the study.
1) I am not convinced that the sample is representative of the population and question the sample size considering the prevalence of LBP and the length of the study.
2) I question the usefulness of examining change over time in a group of subjects that received different treatments over time.
3) I question the authors choice of counting/assessing pain in areas not related to LBP and limiting some analyses to individuals with only marks below the waist. Why not focus on just marks related to LBP (ie, in area of low back and lower extremities)? I suggest redoing the analyses and just focusing on marks in the areas related to LBP. This will increas your N for some of the analyses

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Background

The authors have failed to make an argument for the relevance of their objectives. Why study the pain drawings? Why investigate how they change over time? And why correlate the pain modalities with other measures? How is this information useful?

I also question the validity of assessing change over time in the entire sample when half the subjects received a different treatment than the other half. Also, as one would expect in an acute/subacute group of LBP patients, pain improved over time. What is this adding to the literature?

Methods

Design and sampling – Considering a recruitment population of 19,000 and a 5 year study, why were only 316 patients referred? I would suspect the number referred to be significantly higher considering prevalence rates of LBP (even with a conservative estimate of 10%).

Data Collection – The authors imply there are 34 areas on the pain diagram, but I count 40 areas including the head. I also question the validity of including areas not related to LBP in the analyses. Why not limit the analyses to the low back area and lower extremities? In addition, why only look at dominating pain modality in individuals who had no pain above the waist? Couldn’t you still look for
dominating pain modality in the areas associated with LBP?

How did the observer rank pain modality dominance? What was the method?

Please provide more detail on how pain and disability were measured. What were subjects asked? What daily activities were assessed? How were the disability measures scored? A sum of 12 items or the mean? I believe it is important to include this information in the article to help understand the results.

Statistics – Suggest using the term Data Analysis. Please elaborate on the logistic regression technique. What were the dependent and independent variables? Did you conduct an analysis for each time point (baseline, 5 wks, 10 wks)? Also, you did subgroup analyses based on radiation of pain, please clarify this. Didn’t you also assess the relationships between PDS and pain score and between PDS and disability score? How was this done?

Results

Pain Distribution – I don’t believe knowing the mean number of modalities is useful without knowing the types of modalities. Figure 2 is much more helpful.

Pain Drawing, Pain, and Functional Areas – Did you assess the relationship of PDS and pain and PDS and disability at each time point?

Figure 3a Why assess how pain modality varies in radiating vs non-radiating pain? What is the relevance of this?

Discussion

I am not convinced that the study population was population-based or representative.

Some of the information in this section would be more appropriate earlier in the methods when presenting the measures of the study, e.g., the discussion on pain drawing score, validity/reliability of pain drawings, number of areas)

No discussion of clinical relevance of study and limitations.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Figure Legends - Fig 1 - as noted earlier, number of anatomical areas is unclear
Fig 3 - please indicate that this was at the 10 week time period
Providing N's in the tables

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Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of limited interest
Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:
I declare that I have no competing interests