Reviewer's report

Title: A randomised controlled trial to assess the effectiveness of massage for chronic pain

Version: 2 Date: 13 February 2008

Reviewer: Dan Cherkin

Reviewer's report:

The study team has done a nice study of the very short-term effects of massage on patients with chronic pain. The is a nice article contained in the manuscript that will emerge with a bit of simplification and shortening.

Major Compulsory Revisions

1. The authors should explain their rationale for including a control group that talked about their pain. Is there existing literature that would suggest that this should or should not be helpful to this type of patients? Could this be viewed as a "nocebo" treatment that made outcomes worse than they would have been had the control patients been able to do their usual thing (pop pills mostly)?

2. The very large drop-out rates for at 2 and 3 hours after treatment make these results uninterpretable. I suggest mentioning this problem early in the results section and state that because of these high dropout rates the results are not interpretable and therefore not presented. Then delete all further mention in the text and tables.

3. In general, an hour of relief from a massage will not be viewed as an important outcome for persons with chronic pain unless it persists over time. Therefore, the paper would be greatly strengthened if the background presents concrete examples of circumstances where having nurses perform massage could benefit the patient and the care experience. For example, if the patient is anxious or fearful about an a procedure they are about to undergo, then maybe a 15 minute massage by the nurse could be extremely worthwhile.

Minor Essential Revisions

1. The title, abstract, and section of the text should be modified to reflect that this was a study of immediate or very short term outcomes.

2. The first full paragraph on page 4 describing the literature search seems unnecessary and should be deleted. The next paragraph can then be modified as necessary. It should also clarify if the studies of massage for low back pain didn’t include measures of anxiety if massage was not found effective for anxiety.

3. Clarify in the Aim (page 5) that the aim was to determine if a brief nurse-administered massage was effective in reducing pain and anxiety.
4. In the last paragraph on page 5, line 2, you mention that persons experiencing back pain were eligible for the study, but on page 9, you state that only 87% actually had back pain at the time of the study. Please revise the manuscript to avoid this apparent contradiction.

5. On page 6, line 10 of the first paragraph, clarify that the control treatment is representative of usual care in this particular pain clinic, not in general.

6. Explain somewhere, probably in the data analysis section on page 8, that box plots include the 25th, 50th and 75th percentiles so readers understand this is not the full range of values.

7. The Results section can be shortened in a manner that will make it easier for readers to understand your most important findings. For example, the first sentence in the last paragraph on page 9 can be added to the end of the preceding paragraph and the rest of that last paragraph and all of the first full paragraph on page 10 can be deleted because they don’t add any additional information. There are other parts of the Results section that repeat data in the tables or do not add much to the thrust of your results. The last paragraph on page 12 (continuing onto page 13) could be condensed into a single sentence.

8. It is not clear what the results from the blind reviewers mean. Either explain this better or delete. Clearly the patients’ views are what really matter.

9. How do you reconcile your finding that 92% in the control group rated the ‘treatment’ as only fair or poor, but 60% would like the treatment again (page 14, first full paragraph). Could the latter statistic be biased by participants wishes to give a socially desirable (pleasing) answer. This then raises the ‘nocebo’ concern raised above.

10. The 2nd and 3rd paragraphs in the Discussion should be deleted because they don’t distract from the value of your findings. Because you did find a statistically significant difference, the issue of underpowering is not relevant. The Discussion should be shortened and more focused the importance of the findings for nursing practice, as was discussed in the revised introduction.

11. Table 2 repeats data included in Figure 1 and therefore can be deleted. Why are the baseline sample sizes in Tables 3 and 5 below 50? Table 4 can be deleted since the results can easily be described in the text. Table 6 can be deleted (data can easily be described in the text), especially if the blind observer data is not presented as suggested above.

Discretionary Revisions
1. The 50% relief criterion mentioned for the first time on page 12 comes out of the blue. Did you have a specific rationale for using this such as this criterion is used for certain types of studies? If so, mention this in the data analysis section and cite a reference. I believe this criterion is commonly used in studies of psychotherapy.
2. I'm not sure that Figures 2 and 4 (boxplots) add much.

**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 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'