Reviewer's report

Title: The long-term effects of naprapathic manual therapy on back and neck pain. Results from a pragmatic randomized controlled trial

Version: 2 Date: 11 November 2009

Reviewer: Jerrilyn Cambron

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Major Compulsory Revisions:
1. The Background section is rather interesting. However, the first paragraph second sentence includes only one neck pain reference (6) even though the paragraph insinuates neck and back literature.

2. The first sentence of paragraph 3 of the Background section begins the discussion on “spinal manipulation/mobilization.” However, the paragraph then only discusses manipulation.

3. The Methods section somewhat described the duration of neck and/or back pain as present pain that brought about marked dysfunction for at least two weeks. Does that mean during the previous two weeks or any two weeks in the past year or any two weeks in their lifetime? Also, what is an “acute slipped disc?” Do you mean disc herniation or bulge?

4. The index group received six treatments within six weeks and the control group received one treatment which occurred during the examination. Of course there might be some treatment effect due to the attention. Please discuss this limitation a bit more in the discussion section including how this might have affected the results.

5. In the Methods section on Statistical Analysis, the authors state that GEE models analyzed the effect on pain and disability. They continue with “The final model included the following terms in addition to the treatment variable…” However, the outcome pain and disability measures were not included in this statement. Should I assume that the pain and disability measures were included in the final model?

6. The Methods section on Statistical Analysis states “In the analysis of the outcomes improvement in pain and improvement in disability, subjects with scores at baseline less than required to attain these improvements were excluded.” How many subjects were excluded from analysis? How did these subjects get enrolled in the study in the first place?

7. The last statement of the discussion states that “We plan to report on the more public health oriented outcomes as cost effectiveness and sick leave as observed in the present trial, when such data have been analyzed.” Why wouldn’t you include that information in the current article? These outcomes are not the
primary outcomes of the study and therefore could be included in this current manuscript.

Minor Essential Revisions:
1. Reference 8 is an older systematic review of manipulation for back pain. The newest is most likely Bronfort et al 2008.
2. In Table 1, please indicate which variables are significantly different.
3. In Tables 2 and 3, please indicate which outcomes are statistically significant.
4. In Figure 1, the term “study population” should technically be the “target population” or “general population.” Study population means that all people contacted the research office and were potentially enrolled.

Discretionary Revisions:
1. Figure 2 included pain and disability scores divided by neck or back pain. However, the analysis and discussion combine the two categories. Is there a reason why the authors did not analyze the data in these categories and compare control and index neck pain groups and control and index back pain groups? This would improve the chances of this clinical trial being used for future systematic reviews on back or neck pain.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

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