Reviewer's report

Title: Osteopathic Manipulative Treatment for Low Back Pain: A Systematic Review and Meta-Analysis of Randomized Controlled Trials

Version: 2 Date: 10 March 2005

Reviewer: Dan Cherkin

Reviewer's report:

General
I remain uncomfortable with several key aspects of the manuscript (see below).

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

1) I do not believe that the assertion that osteopathic and chiropractic manipulation are different is adequately substantiated and, in the absence of more convincing evidence, the distinction between the techniques of these two professions needs to be stated in less definitive terms. There are numerous chiropractic and osteopathic manipulative techniques and the fact that the "AAOS' outpatient osteopathic SOAP Note Form has check boxes for 14 OMT methods" suggests there is substantial variability in the manipulative techniques performed by osteopaths.

2) The assertion that it is acceptable to meta-analyze data from a small number of heterogenous studies because others have done it is not a very convincing argument for its use. It's use is either appropriate or inappropriate. In addition, given the small number of studies in each strata (country, type of control, and duration of follow-up), it is hard to believe that any statistically meaningful conclusions can be reached about intra-stata differences.

3) While OMT may have effect sizes that are equivalent to those of other treatments for back pain, these effect sizes are not very large. This needs to be clarified in the results and conclusions. Clinicians and patients will be interested not only in whether OMT is effective, but also in how effective it is.

4) The conclusion that the benefits of OMT "appears to persist through the first year of treatment" is based on a single trial with follow-up exceeding 6 months. As a result, it is premature to conclude that the effects of OMT have been proven to persist at least one year and that "additional research is warranted to...determine if OMT benefits extend beyond the first year of treatment". This sentence should be revised to state that "additional research is warranted to...confirm if OMT benefits are long lasting".

5) In order to reassure readers that the studies included in the meta-analyses are indeed of high quality, the text or tables should provide evidence that few, if any, trials had loss to follow-up rates exceeding 15% and that there were not large differences in the follow-up rates across treatment groups.

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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)

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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 whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes

Declaration of competing interests:

'I declare that I have no competing interests'