**Article Full Title**

Manipulative Therapy for Pregnancy and Related Conditions: A Systematic Review

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**Paper Abstract**

The objective of this review is to evaluate the evidence on the effects of Spinal Manipulative Therapy (SMT) on back pain and other related symptoms during pregnancy. A literature search was conducted using Pubmed, Manual, Alternative and Natural Therapy Index System, Cumulated Index to Nursing and Allied Health, Index to Chiropractic Literature, the Cochrane Library, and Google Scholar. In addition hand searches and reference tracking were also performed, and the citation list was assessed for comprehensiveness by content experts. This review was limited to peer-reviewed manuscripts published in English from 1966 until September 2008. The initial search strategy yielded 140 citations of which 12 studies were reviewed for quality. The methodological quality of the included studies was assessed independently using quality checklists of the Scottish Intercollegiate Guidelines Network and Council on Chiropractic Guidelines and Practice Parameters. The review indicates that the use of SMT during pregnancy to reduce back pain and other related symptoms is supported by limited evidence. Overall, this body of evidence is best described as emergent. However, since effective treatments for pregnancy-related back pain are limited, clinicians may want to consider SMT as a treatment option, if no contraindications are present.

**NIH Risk of Bias Tool**

Quality Assessment of Systematic Reviews and Meta-Analyses

**Is the review based on a focused question that is adequately formulated and described?**

No

**Were eligibility criteria for included and excluded studies predefined and specified?**

Yes

**Did the literature search strategy use a comprehensive, systematic approach?**

Yes

**Were titles, abstracts, and full-text articles dually and independently reviewed for inclusion and exclusion to minimize bias?**

Yes

**Was the quality of each included study rated independently by two or more reviewers using a standard method to appraise its internal validity?**

Yes

**Were the included studies listed along with important characteristics and results of each study?**

**Was publication bias assessed?**

Yes

**Was heterogeneity assessed? (This question applies only to meta-analyses.)**

Not Applicable

**Key Finding #1**

At the time of publication, evidence to support manipulative therapies during pregnancy to reduce back pain and other symptoms was limited.

**Key Finding #2**

While there was no definitive evidence supporting the effectiveness of this treatment, there was also no definitive evidence supporting a lack of effectiveness.

**Key Finding #3**

The treatment options for low back pain in pregnancy are limited.

**Key Finding #4**

Research available on the use of manipulative therapies during pregnancy could be described as emergent at best.

**Please provide your summary of the paper**

Majority of women experience some form of musculoskeletal pain or related symptoms during their pregnancy. This systematic review was performed in an attempt to evaluate evidence of the effects of spinal manipulative therapy (SMT) on back pain and other related symptoms experienced during pregnancy. This was accomplished by evaluating peer-reviewed manuscripts ranging from the mid 1960s to the late 2000s. Both available research and evidence on the effectiveness of this treatment were limited at the time of publication. While the reviewed publications failed to prove significant effectiveness, they also failed to prove any lack thereof. The resulting conclusion is that the research surrounding this treatment method is emergent at best and requires further development.

**Please provide your clinical interpretation of this paper. Include how this study may impact clinical practice and how the results can be implemented.**

The findings of this review may be of interest to any manual therapy practitioners (or other healthcare professionals with the ability to refer patients outward) who are, or intend to, treat persons in the postpartum period. Exploration of definitive effects of manipulative therapies continues to be limited by the scarcity of literature. Future trials and studies are needed with larger sample sizes, longer durationo f follow-up, control of co-interventions, in-detail descriptions of manipulative therapy procedures, and much more to fully investigate the eeffectiveness of this treatment option.