

Osteopathic manipulative treatment for pregnant or postpartum women: a summary of recent relevant research (September 2018)

Author: Paul Vaucher for the [National Council for Osteopathic Research](#)

• Key Messages:

- There is low to moderate evidence that supports osteopathic manual treatment (OMT) for pelvic, girdle or low back pain during pregnancy and postpartum.
- Non-specific effects of therapy play a role in outcomes as OMT was never shown to be superior to sham treatment even though it was shown to be superior to usual care or relaxation.
- Overall, trials were mainly of small size and investigated treatments and protocols were very heterogeneous between studies.

Context

This article is intended to give a brief overview of predominantly manual therapy and osteopathic-relevant research, with references provided for further reading. It is not intended to be an exhaustive account of the literature.

Background

Usual care for women during pregnancy and breast-feeding periods can often be limited. Manual therapy is often sought by patients as an adjunct treatment.¹ There is however much uncertainty about the effectiveness and safety about manual therapy-based care for pregnant or post-partum women. Rationales for justifying manual treatment and choosing modalities of treatments are most often theory driven rather than evidence based. Identifying the active part of a manual treatment is difficult given that treatments are most often complex and include therapeutic education, psychological support and reassurance, lifestyle advice and guidance, mindfulness, and self-administrated exercise. This review will therefore focus on the effectiveness rather than efficacy.

Aim

This rapid review aims to summarise the latest evidence available for the effectiveness of osteopathic manual treatment for pregnant or post-partum women.

Methods

ISI Web of Knowledge, including Medline, was searched using the keywords “(pregnancy OR postpartum) AND osteopath* AND systematic review” to identify recent systematic reviews on the topic. Data were then extracted for describing the studies, summarizing results and assessing study quality. The overall evidence for efficiency of osteopathic manual treatment over pelvic, girdle or low back pain was assessed using the Grading of Recommendations, Assessment, Development, and Evaluation (GRADE) approach².

GRADE.

Results

Four systematic reviews,³⁻⁶ two of which included meta-analysis^{3,5} were identified. Three reviews concerned pelvic and low back pain^{3,4,6} and one concerned all gynaecology and obstetrical related treatments.⁵

Benefits for low back and pelvic pain

There was low to medium-quality of evidence of benefits of manual therapy for pelvic or low back pain and disabilities for women during pregnancy. Low-quality evidence of benefit was found also for postpartum care (**Table 1**). However, benefits could be due to non-specific treatment effects given that studies were not able to show additional benefits of OMT over sham treatment, which appears to be just as acceptable for patients.

Benefits for other conditions

Ruffini et al. investigated other conditions.⁵ One RCT, one observational study and two case-studies suggest that osteopathic care could reduce pain during labour, drug use during delivery, and caesarean sections, perineal laceration, and episiotomy. Isolated studies suggest possible benefits of OMT for dysmenorrhea, frequency and intensity of hot flushes during menopause, and fertility. However, these results need to be interpreted with care due to the very low quality of evidence to support them.

Condition	Outcomes	Author (year)	Results	Level of evidence
Pregnancy	Pain	Frank et al 2017	5 RCTs with 677 participants. The mean pain reduction was of 16.75 pts [95%CI 1.7 to 31.8].	Moderate-quality evidence due to inconsistency.
		Gutke et al. 2015	3 RCTs. Two with significant benefits of manual therapy over disability, one with a non-significant effect.	Low-quality evidence due to imprecision and inconsistency.
		Hall et al. 2016	8 RCTs comparing to usual care (N=865), 2 comparing to relaxation (N=82), 1 comparing to exercise (N=77), and 2 comparing to SHAM (N=364). OMT was superior to usual care (SMD=-0.7; 95%CI -1.1 to -0.3) and relaxation (SMD=-0.8; 95%CI -1.2 to -0.3), but not to exercise (SMD=-0.1; 95%CI -0.6 to 0.4), nor sham (SMD=0.0; 95%CI -0.1 to 0.3).	Moderate-quality evidence of superiority to usual care and low-quality evidence of absence of superiority to sham.
	Function / Disability	Frank et al 2017	5 RCTs with 677 participants. The standardised mean difference on function was of -0.5 [95%CI -0.9 to -0.7].	Moderate-quality evidence due to inconsistency.
		Gutke et al. 2015	3 RCTs. Three with significant benefits of manual therapy on disability.	Low-quality evidence due to imprecision and inconsistency.
		Hall et al. 2016	5 RCTs comparing to usual care (N=601), 1 comparing to exercise (N=55), and 2 comparing to SHAM (N=366). Superior to usual care (SMD=-0.6; 95%CI -0.9 to -0.3), but not to exercise (SMD=-0.2; 95%CI -0.8 to 0.3) nor sham (SMD=-0.1; 95%CI -0.4 to 0.2).	Moderate-quality evidence of superiority to usual care.
	Acceptability	Hall et al. 2016	5 RCTs comparing to usual care (N=750), 1 comparing to exercise (N=57), and 2 comparing to SHAM (N=364). No significant effect over usual care (OR=0.6; 95%CI 0.2 to 2.0), exercise (OR=0.4; 95%CI 0.1 to 1.3) nor sham (OR=1.1; 95%CI 0.6 to 1.9).	Inconclusive due to the low number of studies and lack of overall power.
Postpartum	Pain	Frank et al 2017	3 RCTs with 180 participants. The mean pain reduction was of 38.0 pts [95%CI 29.2 to 46.7].	Low-quality evidence due to imprecision and inconsistency.
	Function / Disability	Frank et al 2017	3 RCTs with 180 participants. The standardised mean difference on function was of -2.1 [95%CI -3.0 to -1.2].	Low-quality evidence due to imprecision and inconsistency.

Table 1. Summary of evidence for osteopathic manipulative treatment on pregnant or postpartum women with low back pain or pelvic pain.

Adverse events

Adverse events were reviewed, extracted and clearly reported by Franke et al.³ None were reported among the 90 patients who received OMT. Hall et al.⁴ reported one study mentioning early contractions in a control group but nothing in the active treatment group. Other areas monitored for safety were use of ventilator assistance, premature births, and birth complications but none were reported in this study.

Conclusion

All four systematic reviews concluded there was low to moderate evidence of benefits from osteopathic manipulative treatment for pelvic and low back pain in pregnant women. Two reviews concluded low evidence of benefits of osteopathic manipulative treatment for pelvic and low back pain for women following delivery. Evidence is lacking to support or reject the usefulness of osteopathic care for other conditions associated with pregnancy and postpartum care.

References

1. Vaucher P, Macdonald RJD, Carnes D. The role of osteopathy in the Swiss primary health care system: a practice review. *BMJ Open*. 2018;8(8). doi:10.1136/bmjopen-2018-023770
2. Guyatt GH, Oxman AD, Vist GE, Kunz R, Falck-Ytter Y, Alonso-Coello P, Schünemann HJ; GRADE Working Group. GRADE: an emerging consensus on rating quality of evidence and strength of recommendations. *British Medical Journal*. 2008;336(7650):924-6. doi: 10.1136/bmj.39489.470347.AD.
3. Franke H, Franke J-D, Belz S, Fryer G. Osteopathic manipulative treatment for low back and pelvic girdle pain during and after pregnancy: A systematic review and meta-analysis. *Journal of Bodywork and Movement Therapies*. 2017;21(4):752-762. doi:10.1016/j.jbmt.2017.05.014
4. Hall H, Cramer H, Sundberg T, et al. The effectiveness of complementary manual therapies for pregnancy-related back and pelvic pain: A systematic review with meta-analysis. *Medicine*. 2016;95(38):e4723. doi:10.1097/MD.0000000000004723
5. Ruffini N, D'Alessandro G, Cardinali L, Frondaroli F, Cerritelli F. Osteopathic manipulative treatment in gynecology and obstetrics: A systematic review. *Complementary Therapies in Medicine*. 2016;26:72-78. doi:10.1016/j.ctim.2016.03.005
6. Gutke A, Betten C, Degerskar K, Pousette S, Olsen MF. Treatments for pregnancy-related lumbopelvic pain: a systematic review of physiotherapy modalities. *Acta Obstetrica Et Gynecologica Scandinavica*. 2015;94(11):1156-1167. doi:10.1111/aogs.12681