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RAPID RESEARCH

April 2022

Inside This Week: Spinal Manipulation: Myths & Realities

- ✓ Do Accuracy of Spinal Manipulations Matter?
- ✓ Benefits & Harms of SMT to Treat Chronic Low Back Pain
- ✓ Predictors of Instant Low Back Pain Relief with SMT



DO ACCURACY OF SPINAL MANIPULATIONS MATTER?

[Click for Full Text](#)
([Nim et al 2021](#))

This systematic review investigated whether clinical effects are superior when spinal manipulation therapy (SMT) is targeted at clinically relevant joint vs. elsewhere (non-candidate sites).



KEY FINDINGS

10 studies included; reporting **33 between group differences**

- 5 compared treatments within the same spinal region
- 5 compared treatments at different spinal regions.

None of the 9 studies with low or moderate risk of bias reported statistically significant between-group differences for any outcome.

The 10th study reported a small beneficial effect on pain. However, had a high risk of bias.

No findings suggested accurate and “clinically-relevant” SMT has a superior outcome on the measured outcomes compared to “not clinically-relevant” SMT.

MAIN TAKEAWAYS

Current evidence does not support that SMT applied at a supposedly “clinically relevant” candidate site is superior to SMT applied at a “not clinically relevant” site for individuals with spinal pain.

Whether this is true for objective outcomes is unknown.

A model addressing specificity in spinal manipulation needs to be established and systematically tested for validity.

BENEFITS & HARMS OF SMT TO TREAT CHRONIC LOW BACK PAIN

[Click for Full Text](#)
[\(Rubinstein et al.](#)
[2019](#)

This systematic review & meta-analysis assessed the benefits and harms of spinal manipulative therapy (SMT) for the treatment of chronic low back pain.



KEY FINDINGS

47 RCTs included with 9211 participants.

Most compared SMT with recommended therapies.

Moderate quality evidence suggested SMT Provides:

- Similar effects as other therapies for short term pain relief.
- Small, clinically better improvements in function.

High quality evidence suggested that SMT Provides:

- Small short term pain relief vs. non-recommended therapies.
- Small-moderate clinically better improvement in function.
- Results were similar for intermediate and long term outcomes.

Adverse Events:

- Most were mild-moderate musculoskeletal related & transient
- 1 study showed no increased risk of an adverse event vs. placebo.
- 1 study showed a serious adverse event to be possibly related to SMT.

MAIN TAKEAWAYS

Spinal Manipulative Therapy produces similar effects to recommended therapies for chronic low back pain.

However, can result in clinically better effects for short term improvement in function compared with non-recommended therapies, sham therapy, or when added as an adjuvant therapy.

Clinicians should inform their patients of the potential risks of adverse events associated with SMT.

PREDICTORS OF INSTANT LOW BACK PAIN RELIEF WITH SMT

[Click for Full Text
\(Innes et al. 2020\)](#)

This study interviewed SMT experts to categorize possible clinical predictors of patients likely to receive instant LBP relief with SMT intervention.



KEY FINDINGS

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19 HVLA experts
55 potential signs and symptoms & 'other factors'

Agreement was minimal
(range 10–80%).

18 final predictors.

The Best Rated Predictor:

'A history including a good response to previous spinal manipulation'.

Patient factors

Patient history of a good response to previous SMT

Patient has trust and high confidence in the practitioner

Patient susceptible to placebo effect

Patient has a comprehensive understanding of condition

Practitioner factors

Good patient-practitioner relationship

Professional opinion of health status - excellent/ very good

Practitioner understanding of patient expectations and goals

Professional opinion of health status – good

Signs and symptoms of NSLBP presentation

Duration of symptoms < 16 Days

Pain improves with exercise, but not rest

No symptoms in the lower extremities

Patient has an acute condition (< 14 days)

No symptoms distal to the knee

Decreased active range of motion

Decreased passive range of motion

Close reproduction of symptoms on spinal springing and/or end range loading

An instrument of measurement (FABQ)

Fear Avoidance Beliefs Questionnaire work scale score less than 19 out of a high of 42

The presence of a cavitation following SMT

The production of a the clicking sound (cavitation) at the moment of thrust

MAIN TAKEAWAYS

There is a wide-range of expert consensus regarding predictors of successful SMT.

The 18 factors identified in this study could be used clinically to predict those NSLBP patients who will receive instantaneous relief post-SMT.

History of successful SMT is the strongest predictor among expert consensus.

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