

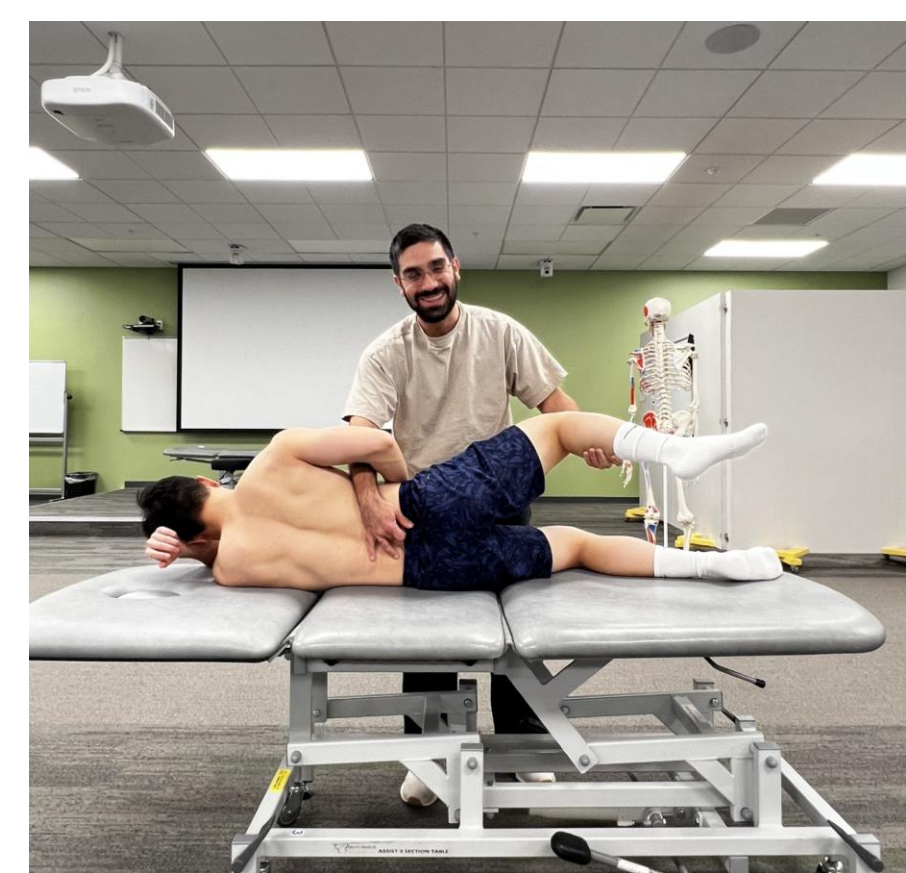
A COMPARATIVE STUDY OF TUINA AND OSTEOPATHIC MANIPULATIVE TREATMENT FOR LOWER BACK PAIN

Dereck Chiu ^{*1}; Nuri Son¹; Florence A. Juwana¹; Zhiru Liu¹; Albert Nguyen¹; Payam Norouzi¹; Lynne Graves Stephenson, MEd²
¹OMS-II, College of Osteopathic Medicine, Rocky Vista University, Ivins, UT ²Library Services, Rocky Vista University, Ivins, UT



INTRODUCTION

Tuina therapy in Chinese Medicine and Osteopathic Manipulative Treatment (OMT) in Osteopathic Medicine are both hands-on, non-invasive treatment approaches for musculoskeletal issues such as nonspecific back pain. Low back pain is the most common musculoskeletal complaint patients come in for globally.¹ OMT involves hands-on manipulation of the body structures to promote homeostasis and natural healing by targeting the nervous, lymphatic, immune, and vascular systems.² In comparison, Tuina is "one of the four main branches of traditional Chinese medicine" that emphasizes achieving harmony and balance for the body's yin and yang and one's environment for true health through hands on massage therapy.³ Currently, there is limited research comparing the two techniques. Our goal is to identify this gap by evaluating existing studies on both modalities. We also aim to explore the similarities and difference between OMT and Tuina. Further research on this topic may allow physicians to promote more targeted clinical decision-making, guide future comparative studies, and facilitate the development of integrative treatment protocols between Western and Eastern Medicine.



Muscle energy technique (OMT)



HVLA technique (OMT)

METHOD

- **Database searched:** PubMed, Embase
- **Date searched:** 2010-2025
- **Search term used** (MeSH terms, entry terms, and keywords): "Low Back Pain"[MeSH], "Manipulation, Osteopathic"[MeSH], "Osteopathic Medicine"[MeSH], "Complementary Therapies"[MeSH], "Traditional Medicine Practitioners"[MeSH], Tuina, Tui Na, Chinese Massage, Traditional Chinese Massage, Osteopathic Manipulative Treatment, OMT, lumbar pain, lumbago, mechanism, physiologic effect, neurophysiology, biomechanical, safety, adverse effect, complication, tolerability, pain, function, disability, quality of life
- Articles were managed using **Zotero** and **Excel**
- The articles are categorized based on study type and treatment effectiveness using criteria such as reduction of pain levels and researcher-defined benchmarks.

RESULTS

Tuina	Effective	Minimal effect	No significant effect	Adverse effect
Randomized control trials	6	0	0	0
Case study	0	0	0	0
Retrospective study	0	0	0	0

OMT	Effective	Minimal effect	No significant effect	Adverse effect
Randomized control trials	40	4	0	0
Case study	7	0	1	0
Retrospective study	7	0	2	0
Controlled study	1	0	0	0
Cohort study	2	0	0	0
Prospective observational study	1	0	0	0

- **OMT:** 58 out of 76 studies (\approx **76%**) reported effective outcomes
- **Tuina:** 6 out of 7 studies (\approx **86%**) reported effective outcomes
- While Tuina showed a **slightly higher percentage of effectiveness**, the **overall research volume on Tuina was more than 10 times smaller** than that of OMT, indicating a significant gap in available evidence and the need for further studies.

DISCUSSION

Similarity between OMT and Tuina

- Both Tuina and OMT are effective in improving psychosocial factors such as depression and anxiety in patients with chronic lower back pain^{4,5}.
- Both Tuina and OMT can be used to address lower back pain during pregnancy. Tuina has been shown to reduce back pain and lumbar muscle tenderness, while OMT has been shown to prevent the progression of lumbar back pain associated with pregnancy^{6,7,8}.

Differences between OMT and Tuina

- OMT decreases need for analgesic use, but Tuina doesn't explicitly report reduced analgesic or prescription use⁹
- While Tuina primarily works by promoting blood flow and energy circulation using Heavenly Star and Earth points
- Muscle Energy Technique focuses on the myofascial system as a source of movement limitations and compensatory mechanisms of the musculoskeletal system^{6,10}.

Strengths and Weaknesses in current research

OMT has significantly more research backing its effectiveness than Tuina, especially in high-quality studies like RCTs. Tuina shows promise but lacks comprehensive data across study types. Historically, objective markers for pain in both OMT and Tuina research are not easily defined. Interestingly, recent studies are starting to utilize fMRI to measure treatment response to OMT^{11,12}. However, individual variability in brain anatomy and pain threshold can still affect results and pose a significant challenge in comparing data between different experiments. Case reports in our search may also provide weaker evidence due to the lack of control groups, small sample sizes, and reliance on anecdotal data^{13,14}. Fortunately, as OMT becomes popularized, datasets with a large patient population are available for retrospective study¹⁵. Currently, adverse effects for both therapies are rarely documented, but the absence of data does not confirm the absence of risk.

Implications Future directions

The effectiveness of OMT is well-documented; however, further research is necessary to establish the benefits of Tuina. Current evidence suggests that manual therapy provides pain relief for patients. However, the exact magnitude of the effectiveness of these manual therapies remains elusive. More subjective measures of pain need to be developed. Additionally, retrospective cohort studies can be conducted to mitigate the lack of quality patient population, but controlled clinical trials remain the gold standard. Further comparison of OMT and Tuina can help guide evidence-based treatment decisions.

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