



CRITICAL REVIEW

# Osteopathic manipulative treatment for chronic nonspecific neck pain: A systematic review and meta-analysis



Helge Franke<sup>a</sup>, Jan-David Franke<sup>a</sup>, Gary Fryer<sup>b,c,\*</sup>

<sup>a</sup> INIOST-Institute for Osteopathic Studies, Fürst-Bülow-Str. 10, 57074 Siegen, Germany

<sup>b</sup> Centre for Chronic Disease Prevention and Management, College of Health and Biomedicine, Institute of Sport, Exercise and Active Living, Victoria University, Melbourne, Australia

<sup>c</sup> A.T. Still Research Institute, A.T. Still University, Kirksville, MO, USA

Received 22 December 2014; revised 7 May 2015; accepted 11 May 2015

## KEYWORDS

Neck pain;  
Osteopathic manipulative treatment;  
Spinal manipulation;  
Systematic review

**Abstract Objectives:** Nonspecific neck pain is common, disabling, and costly. The objective of the current review was to assess the effectiveness of osteopathic manipulative treatment (OMT) in the management of chronic nonspecific neck pain regarding pain, functional status, and adverse events.

**Study selection:** A systematic literature search unrestricted by language was performed in March 2014 in several electronic databases and in databases of ongoing trials. A manual search of reference lists and personal communication with experts identified additional studies. Only randomized clinical trials were included, and studies of specific neck pain or single treatment techniques were excluded. Primary outcomes were pain and functional status, and secondary outcome was adverse events.

**Data extraction:** Studies were independently reviewed using a standardized data extraction form. Mean difference (MD) or standard mean difference (SMD) with 95% confidence intervals (CIs) and overall effect size were calculated for primary outcomes. GRADE was used to assess quality of the evidence.

**Data synthesis:** Of 299 identified studies, 18 were evaluated and 15 excluded. The 3 reviewed studies had low risk of bias. Moderate-quality evidence suggested OMT had a significant and clinically relevant effect on pain relief (MD: −13.04, 95% CI: −20.64 to −5.44) in chronic nonspecific neck pain, and moderate-quality evidence

\* Corresponding author. College of Health & Biomedicine, Victoria University, PO Box 14428 MCMC, Melbourne 8001, Australia. Tel.: +61 3 99191065.

E-mail addresses: [info@iniost.de](mailto:info@iniost.de) (H. Franke), [jan-david@franke-center.de](mailto:jan-david@franke-center.de) (J.-D. Franke), [gary.fryer@vu.edu.au](mailto:gary.fryer@vu.edu.au) (G. Fryer).

suggested a non-significant difference in favour of OMT for functional status (SMD:  $-0.38$ , 95% CI:  $-0.88$  to  $0.11$ ). No serious adverse events were reported.

**Conclusion:** Based on the 3 included studies, the review suggested clinically relevant effects of OMT for reducing pain in patients with chronic nonspecific neck pain. Given the small sample sizes, different comparison groups, and lack of long-term measurements in the few available studies, larger, high-quality randomized controlled trials with robust comparison groups are recommended.

© 2015 Elsevier Ltd. All rights reserved.

### Implications for practice

- The review suggested clinically relevant effects of OMT for reducing pain in patients with chronic nonspecific neck pain.
- This finding will be useful for osteopaths because it supports the use of OMT for patients with neck pain.
- Readers should be aware that the evidence is of moderate quality, and that larger, high-quality randomized controlled trials are required to confirm these findings.

### Introduction

Neck pain is experienced by people of all ages; it is as ubiquitous as headaches, abdominal pain, or back pain, and often follows an episodic course similar to low back pain.<sup>1,2</sup> Common in the general population, neck pain has 12-month prevalence estimates ranging from 30% to 50% in adults and from 21% to 42% in children and adolescents.<sup>2</sup> Although neck pain may be persistent and debilitating, neck pain that limits activity is less common than disabling low back pain.<sup>2</sup> Neck pain of unknown origin is commonly referred to as nonspecific neck pain.<sup>1</sup>

Osteopathy is a health approach that emphasizes the role of the musculoskeletal system in health and promotes optimal function of the tissues of the body.<sup>3</sup> Osteopathic manipulative treatment (OMT) typically involves a range of manual techniques. Treatment is characterized by a holistic approach to the patient, and OMT may be applied to many regions and tissues of the body, sometimes remote from the symptomatic area, at the clinical judgement of the practitioner.<sup>3–5</sup>

Even though patients with neck pain visit osteopaths for treatment, the number of patients consulting osteopaths is unclear. In the United Kingdom, osteopaths were estimated to perform 4.38 million treatments in 1998.<sup>6</sup> Neck symptoms are a common presenting complaint of patients in osteopathic practice in the United Kingdom, second only to low back symptoms, and accounted for 15% of presenting symptoms in a national pilot survey<sup>7</sup> and 37% in a snap-shot survey.<sup>8</sup> Similarly, in Australia neck symptoms accounted for 24.5% of complaints, second to low back symptoms.<sup>9</sup> In the United States, where osteopathic physicians have full medical licence, neck pain has been reported to account for 11% of musculoskeletal presentations, following lumbar spine, head, and thoracic spine symptoms.<sup>10</sup>

To our knowledge, no systematic review exists for the treatment of neck pain with OMT. Although research funding bodies favour technique-specific treatment protocols rather than discipline-specific approaches, reviews of discipline-specific treatment of musculoskeletal pain still have an important role and are found in discipline and non-discipline-specific journals alike.<sup>11–17</sup> There is a need for systematic reviews of the effectiveness of OMT. The osteopathic profession in many countries is emerging and unregulated and such reviews are important for the justification of services and regulation. An osteopathic treatment approach is arguably different from single manual technique interventions and other manual therapy treatments and it is unknown whether OMT produces benefits to patients with neck pain and, if so, the magnitude of treatment effects. The objective of this review was to assess the effectiveness of OMT in the management of chronic nonspecific neck pain regarding pain, functional status, and adverse events in randomized clinical trials with adult patients compared with control treatments (no treatment, sham, and all other treatments).

Download English Version:

<https://daneshyari.com/en/article/2618011>

Download Persian Version:

<https://daneshyari.com/article/2618011>

[Daneshyari.com](https://daneshyari.com)