

Lay Summary

A review to establish the effectiveness and cost effectiveness of manual therapies was conducted by the Health Sciences Research Institute at the University of Warwick for The College of Chiropractors.

Despite a noted shortfall in the quality of the evidence, one of the main findings was “moderate (positive)” evidence in favour of spinal manipulation/mobilisation for acute low back pain. The review also found “moderate (positive)” evidence for:

- ◆ The use of manipulation and/or mobilisation combined with exercise for neck pain of any duration;
- ◆ The use of combined chiropractic care for low back pain;
- ◆ The management of acute whiplash-associated disorder with a combination of mobilisation and exercise;
- ◆ The use of manual mobilisation combined with exercise for knee osteoarthritis;
- ◆ The use of manipulation/mobilisation for hip osteoarthritis;
- ◆ The use of manipulation/mobilisation with exercise for plantar fasciitis;
- ◆ The use of manipulation/mobilisation combined with exercise therapy in patellofemoral pain syndrome;
- ◆ The use of spinal manipulative therapy in migraine.

The Warwick report also concluded that, for patients with neck pain, low back pain, and shoulder pain, osteopathic spinal manipulation, physiotherapy and chiropractic manipulation appeared to be more cost effective than:

- ◆ Usual GP care (alone or with exercise);
- ◆ Spinal stabilisation;
- ◆ GP advice;
- ◆ Advice to remain active;
- ◆ Brief pain management.

The review is the second major review of the evidence for the effectiveness of manual therapies in recent years. In 2010, Bronfort et al. reviewed more than 100 studies, including recent systematic reviews and randomised controlled trials, in order to evaluate the effectiveness of manual therapies in the treatment of a range of conditions. The current review considered the same studies, as well as identifying other relevant studies, and new research published since the report by Bronfort et al.

For the Warwick review, researchers identified and considered just over 1000 studies. Most of these were randomised controlled trials (where comparable patients were allocated at random to different treatments and the outcomes compared) and systematic reviews. About 1 in 6 of the studies had been published since the Bronfort review was carried out. In addition, the team examined more than 40 publications of cost effectiveness of manual therapies. However, few cost effectiveness evaluations had been done and the design of many of these studies lacked scientific rigour.

The Warwick review updated evidence in a number of areas. For example, Warwick researchers rated the evidence for the use of spinal manipulation/mobilisation for acute low back pain as “moderate (positive)”. But in contrast to the Bronfort et al. review the Warwick review reclassified the evidence for chronic low back pain as only “moderate (positive)”.

For treatment of one type of shoulder disorder (manipulation / mobilisation with exercise for rotator cuff disorder) Bronfort et al. rated the evidence as “inconclusive (favourable)”, but the Warwick review identified new evidence and was able to reclassify the body of evidence as “moderate (positive)”. Likewise, the evidence for the treatment of cervicogenic and miscellaneous headaches changed the conclusions drawn by Bronfort et al. from “inconclusive (unclear)” to “moderate (positive)”.

Both Bronfort et al. and Warwick considered the evidence for treating a large range of non-musculoskeletal conditions but despite finding additional evidence in some cases, the Warwick review was unable to change the inconclusive evidence ratings for these conditions including:

- ◆ Asthma using osteopathic manual therapy;
- ◆ Paediatric nocturnal enuresis using spinal manipulation;
- ◆ Infant colic using spinal manipulation;
- ◆ Cranial osteopathic manual therapy;
- ◆ Dysmenorrhoea using spinal manipulation;
- ◆ Premenstrual syndrome using spinal manipulation;
- ◆ Stage 1 hypertension using spinal manipulation added to diet;
- ◆ Otitis media and pneumonia in elderly adults using osteopathic manual therapy.

The Warwick review also assessed a considerable number of additional non-musculoskeletal conditions not reported by Bronfort et al. However, the new evidence on these non-musculoskeletal conditions was in the majority of cases rated as “inconclusive (favourable or unclear)”.

One of the overarching conclusions of the Warwick review is that the available evidence on the effectiveness and cost-effectiveness of various manual therapies—including those delivered by chiropractors—is of such poor quality that it is generally impossible to tell whether these therapies are successful.

Having reviewed the evidence, the researchers have concluded that they cannot rely on the conclusions reached in many studies, because these were so poorly designed. In many cases, studies that would have helped establish the effectiveness or otherwise of various manual therapies are simply non-existent. Chiropractors need to understand the importance of undertaking high-quality research, the review notes.

The Warwick report concludes that its findings provide a platform for further research into the clinical effectiveness, and cost effectiveness, of manual therapy for the management of a variety of musculoskeletal and non-musculoskeletal conditions.

The review identified a range of further research that is now needed:

- ◆ High-quality, long-term, large randomised trials reporting on the effectiveness and cost effectiveness of manual therapy, in order to provide clinically relevant and validated efficacy outcomes;
- ◆ Where ethically appropriate, trials should include a no-treatment arm to allow researchers to assess and separate factors such as patients' expectations;
- ◆ More research into non-musculoskeletal conditions;
- ◆ Research into methods that would make it possible to explore patient's attitudes, patient satisfaction and the acceptability of manual therapy to patients;
- ◆ Work to improve the consistency of the definitions used in research studies (e.g., types of treatments and outcomes obtained);
- ◆ Studies that consider the whole package of care, not just single manipulation or mobilisation interventions.

The Warwick team concludes that if the complexities of this important discipline in health care are to be addressed, further research and good-quality evidence from well-conducted studies will be essential to draw more definitive conclusions and to provide valid recommendations for policy making.