Collected Scientific Research Relating to the Use of Osteopathy with Spinal mobility

Important:

1) Osteopathy involves helping people's own self-healing abilities to work better, rather that focussing primarily on particular conditions.

2) Each person is different, and osteopathy treats them differently.

Therefore people respond to osteopathic treatment in different ways. Treatments that work for one person cannot be guaranteed to work for another person in the same way. The fact that there is scientific research supporting a treatment in a group of people does not mean that it will always work in the same way (which is probably true of all research).

A number of things make research into osteopathy challenging. These include the two aspects of osteopathy mentioned above, and also the lack of major commercial interests to provide funding in expectation of financial returns. At the same time, there is an emerging body of research demonstrating the usefulness of osteopathic treatment.

Please note: there is room for debate about the classifications used for these studies. Please let John Smartt know if you believe that any of these classifications are incorrect.

These studies are from peer-reviewed journals

Number of studies: 3

Clinically and statistically significant results

Number of studies: 3

Randomised controlled trials

Number of studies: 1

Licciardone JC, Kearns CM, Crow WT 2014 **Changes in biomechanical dysfunction and low back pain reduction with osteopathic manual treatment: Results from the OSTEOPATHIC Trial** Manual Therapy Vol 19 (4) pages 324-330 *http://www.sciencedirect.com/science/article/pii/S1356689X14000381*

> "The purpose of this study was to measure changes in biomechanical dysfunction following osteopathic manual treatment (OMT) and to assess how such changes predict subsequent low back pain (LBP) outcomes. Secondary analyses were performed with data collected during the OSTEOPATHIC Trial wherein a randomized, double-blind, sham-controlled, 2 × 2 factorial design was used to study OMT for chronic LBP. At baseline, prevalence rates of non-neutral lumbar dysfunction, pubic shear, innominate shear, restricted sacral nutation, and psoas syndrome were determined in 230 patients who received OMT. Five OMT sessions were provided at weeks 0, 1, 2, 4, and 6, and the prevalence of each biomechanical dysfunction was again measured at week 8 immediately before the final OMT session. Moderate pain improvement (≥30% reduction on a 100-mm visual analogue scale) at week 12 defined a successful LBP response to treatment. Prevalence rates at baseline were: non-neutral lumbar dysfunction, 124 (54%); pubic shear, 191 (83%); innominate shear, 69 (30%); restricted sacral nutation, 87 (38%), and psoas syndrome, 117 (51%). Significant improvements in each biomechanical dysfunction were observed with OMT"

Case contolled studies

Number of studies: 1

Burns DK, Wells MR 2006 **Gross range of motion in the cervical spine: the effects of osteopathic muscle energy technique in asymptomatic subjects.** J Am Osteopath Assoc Mar;106(3):137-42 *http://www.ncbi.nlm.nih.gov/pubmed/16585381*

> "To determine the efficacy of this osteopathic manipulative technique, the authors compared active cervical range of motion among asymptomatic young and middle-aged adults (n=18) before and after this treatment protocol, comparing those results against matched control subjects (n=14) who received sham manipulative treatment. Range of motion was measured in three planes (flexion/extension, lateral bending, rotation) on all subjects (N=32) using a motion-analysis system."
> "The muscle energy technique produced a significant increase in overall regional cervical range of motion in the treatment group (approximately 4 degrees) when compared with control subjects (P<.001). Significant differences were also observed in the magnitude of change in the three planes of movement (rotation, P<.002; lateral bending, P<.01), with flexion/extension being the least affected (P=.2). These data demonstrate that the application of the muscle energy technique can produce acute increases in the active cervical range of motion in asymptomatic subjects."

Non-human studies

Number of studies: 1

Reed WR, Long CR, Pickar JG. 2013 **Effects of unilateral facet fixation and facetectomy on muscle spindle responsiveness during simulated spinal manipulation in an animal model.** Journal of Manipulative and Physiological Therapeutics Nov-Dec;36(9):585-94 *http://www.ncbi.nlm.nih.gov/pubmed/24161386*

> "Intervertebral mobility at a single segmental level alters paraspinal sensory response during clinically relevant high-velocity, low-amplitude SM thrust durations (≤ 150 milliseconds). The relationship between intervertebral joint mobility and alterations of primary afferent activity during and after various manual therapy interventions may be used to help to identify patient subpopulations who respond to different types of manual therapy and better inform practitioners (eg, chiropractic and osteopathic) delivering the therapeutic intervention."