Collected Scientific Research Relating to the Use of Osteopathy with Brain plasticity

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: 1

Clinically and statistically significant results

Number of studies: 1

Other controlled clinical trials

Number of studies: 1

Ponzo V, Cinnera AM, Mommo F, Caltagirone C, Koch G, Tramontano M, 2018 **Osteopathic Manipulative Therapy Potentiates Motor Cortical Plasticity** J Am Osteopath Assoc June, Vol. 118, 396-402. doi:10.7556/jaoa.2018.084 *http://jaoa.org/article.aspx?articleid=2683115*

> "Context: Osteopathic manipulative therapy (OMTh; manipulative care provided by foreign-trained osteopaths) is effective in managing pain caused by a variety of clinical conditions. Nevertheless, the physiologic mechanisms at the basis of the clinical improvement are poorly understood.
> Objective: To investigate the effects of OMTh, muscle stretching, and soft touch interventions on motor cortical excitability through a rapid-rate paired associative stimulation (PAS) protocol.
> Methods: In this crossover study, participants underwent OMTh, muscle stretching, and soft touch interventions. A rapid-rate PAS transcranial magnetic stimulation protocol was performed immediately after each intervention session, which consisted of 600 pairs of stimuli continuously delivered to the left primary motor cortex and to the right median nerve at a rate of 5 Hz for 2 minutes. The interstimulus intervals between the peripheral stimulus and the transcranial magnetic stimulation was set at 25 milliseconds. Before and after rapid-rate PAS (immediately after and 15 minutes after), changes in the amplitude of the motor evoked potentials were measured in the right abductor pollicis brevis and the right first dorsal interosseous.
> Results: Of the potential 15 participants initially recruited, 12 fit the inclusion criteria. Two of the 12 participants were excluded from the final analysis because of excessive artifact movements. Rapid-rate PAS induced a more pronounced, longer-lasting increase in cortical excitability in the abductor pollicis brevis muscle in patients 15 minutes after the OMTh intervention than after the muscle stretching or sham interventions (P=.016).
> Conclusion: Results of the current study provide support for the effects of OMTh on cortical plasticity."