Focussed Response

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Efficacy of chiropractic treatment

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The Research Team are unable to ensure that the information listed below provides an accurate & up-to-date snapshot of these matters

Research question: Is chiropractic treatment effective in comparison to other recommended treatments such as physiotherapy?

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Reviewed: 05/12/2023

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1. Contents

2. Summary

Review (December 2023): We considered additional relevant research published since August 2022 and findings of RES 322 Manual therapy to address neuromusculoskeletal function. Evidence from clinical guidelines into musculoskeletal conditions suggests manual therapy including chiropractic should only be recommended alongside active exercise. A 2023 systematic review of 28 randomised controlled trials found very low certainty evidence that spinal manipulation therapy reduces pain and disability more than other treatments in persistent non-specific neck pain. New evidence does not alter this paper's previous conclusions.

There is moderate level evidence that spinal manipulation therapy (SMT) as practiced by chiropractors is comparable to other recommended interventions for the treatment of lower back pain. Evidence regarding effectiveness of chiropractic treatment on other musculoskeletal conditions is more tentative.

There is evidence that SMT is not effective in the treatment of non-musculoskeletal conditions.

3. Review, December 2023

3.1 Other TAPIB research

RES 322 Manual therapy to address neuromusculoskeletal function considered efficacy and recommendations around manual therapy in general. This can include spinal manipulation therapy performed by a chiropractor, but also other manual techniques including massage and joint mobilisation offered by osteopaths and massage therapists. RES 322 found evidence that:

manual therapy can be effective at managing pain and discomforsct and improving physical functioning for people with musculoskeletal-related pain conditions, especially low back pain and neck pain. Minimal evidence exists related to improvements in function for people with non-pain related conditions. While some evidence points to improvements in quality of life, most functional outcomes relate to improving range of motion or mobility. No evidence was found that manual therapy leads to a reduction in other activity limitations or participation restrictions.

Clinical practice guidelines generally offer conditional acceptance of manual therapy. Stronger evidence exists for the benefits of short-term manual therapy, with less evidence that it is efficacious as a long-term management strategy. Further, evidence suggests manual therapy is most optimally delivered alongside active exercise treatment. However, there is also some suggestion that manual therapy, as a form of passive exercise, may be offered as an alternative to patients who are unable to engage in an active exercise program.

Regarding chiropractic, RES 322 reviews a Delphi consensus statement of 58 Doctors of Chiropractic regarding best practice treatment for musculoskeletal pain. They recommend active exercise alongside manual therapy. This contrasts with other clinical guidelines which suggest manual therapy should only be prescribed if active exercise is also prescribed.

3.2 Recent external research

Minucci et al (2023) reviewed 28 randomised controlled trials and found very low certainty evidence that SMT is more effective than guideline-recommended interventions for reducing pain and disability in persistent non-specific neck pain.

Gorrell et al (2023) reviewed 154 studies of spinal manipulation to determine reporting of adverse events. 61% of studies reported adverse events. No serious adverse events were reported in any of the studies. However, there was considerable variation in terms and only 23% of studies offered a definition of adverse event.

Kushnir et al (2023) reviewed 35 articles relating to SMT for people with neurological conditions. Evidence was too limited to draw conclusions regarding the efficacy of SMT on neurological symptoms.

Grabowski et al (2022) reviewed evidence that chiropractic care may reduce the incidence of falls. The authors found evidence that chiropractic may affect risk factors associated with falls, but there is insufficient evidence to determine whether chiropractic does reduce the frequency or severity of falls.

Fernandez et al (2022) reviewed 15 studies and found most chiropractors were confident in discussing and supportive of exercise and physical activity alongside their other recommendations. However, the included studies were all moderate to high risk of bias.

4. Musculoskeletal conditions

Rubinstein et al (2019) and Blanchette et al (2016) found moderate quality evidence that SMT has similar effects to other recommended therapies (e.g physiotherapy) for treatment of chronic low back pain. However, the authors note limitations including high level of heterogeneity between studies, the potential for conflict of interest and publication bias and the overall small number of good quality clinical trials. The results of Rubinstein et al (2019) and Blanchette et al (2016) differ from earlier studies mainly in upgrading evidence from low/very low to moderate (Rubenstein et al, 2012).

Coulter et al (2019) found low-moderate quality evidence that different types of manual therapy will reduce pain and improve function for chronic nonspecific neck pain compared to other interventions. The same team found moderate quality evidence that manual therapy will reduce pain and improve function for chronic low back pain (Coulter et al, 2018). However, these studies merge results from chiropractic, osteopathic and physiotherapy settings and so effect of manual therapy in a chiropractic setting is not clear.

Prevost et al (2019) reviewed the literature on manual therapy for children under 18 years. They found moderate quality evidence for benefit in low back pain and pulled elbow and inconclusive results for all other conditions including scoliosis, torticollis, cerebral palsy and postural asymmetry.

A 2019 systematic review considered the use of maintenance care among chiropractors, that is, ongoing preventative treatment for patients not necessarily presenting with symptoms (Iben et al, 2019). The authors conclude that maintenance care can be considered an evidence based preventative method. However, they draw this conclusion without considering the quality of the included studies and despite 2 out of 3 effectiveness studies showing no benefit to maintenance care.

5. Non-musculoskeletal conditions

An international group of researchers and representatives from chiropractic organisations recommend that SMT should not be used to treat non-musculoskeletal conditions. In particular, they found SMT is not effective for treating infantile colic, childhood asthma, hypertension, primary dysmenorrhea or migraine (Cote et al, 2021).

This systematic review agrees with other studies including high quality clinical trials. For example, in their 2018 systematic review, Goncalves et al found no evidence of effectiveness of chiropractic care on prevention or early treatment of any condition. Of the reviewed articles, the authors found only 2 which were of sufficient methodological quality and level of evidence to demonstrate an effect. One article found no effect of SMT on prehypertension or stage 1 hypertension. The other found no effect of SMT on primary dysfunctional breathing (Goncalves et al, 2018).

Cote et al also contrasts with some other systematic reviews. For example, Rist et al (2019) found that spinal manipulation may be an effective therapeutic technique to reduce migraine days and pain/intensity of headache. However, significant concerns with methodological quality and risk of bias in included studies means the results of the systematic review are preliminary at best.

Cote et al note that the reviews which show a likely effect of chiropractic treatment on non-musculoskeletal conditions all suffer from significant methodological issues, include low quality studies, or include study designs which do not demonstrate efficacy (for a brief overall assessment of the evidence see Cote et al, 2021, pp.17-18).

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