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RESEARCH REPORT

Efficacy of osteopathy and other manual treatment approaches for malocclusion – A systematic review of evidence

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Myofunctional therapy

Abstract *Background and objectives:* The osteopathic literature often underlines the need for manual treatment of malocclusion. This literature review will investigate the efficacy of osteopathic and other manual treatment approaches for malocclusion.

Data sources: A systematic literature review was undertaken by searching medical and osteopathic databases (Pubmed, DIMDI, Osteopathic Research Digital Repository, Physiotherapy Evidence Database (PEDro), www.chiroindex.org, www.osteopathic-research.com). Other relevant osteopathic journals that are not indexed (e.g. Osteopathische Medizin, Osteopathic Medicine and Primary Care) were also searched. The keywords 'dental occlusion' and 'malocclusion' were combined with keywords for various manual treatment approaches.

Study selection and data extraction: As few hits were anticipated, the inclusion criteria were fairly wide and not too strict in terms of quality. Identified studies were categorized according to Sackett's levels of evidence, and assessed using Downs and Black's quality checklist for healthcare interventions.

Results: Of 30 articles that met the inclusion criteria, 13 were experts' opinions with hardly any evidence. As such, this review focused on the remaining 17 studies: 12 case series, three case–control studies, one systematic review of case–control studies, and one methodologically weak randomized controlled trial. Most of the studies in this review were of poor quality. By applying Downs and Black's quality assessment tool problems with internal and external validity could be identified. Most of the studies had confounding or selection bias. Only three studies attained more than half of the maximum score on the Downs and Black's quality assessment tool.

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