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# Aussagen systematischer Übersichtsarbeiten zur Osteopathie

Kurzfassung

Stand: 01.07.2020

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## Aussagen systematischer Übersichtsarbeiten zur Osteopathie

- Deutlich verkürzte Krankenhausverweildauer bei Frühgeborenen durch die osteopathische Behandlung. (Bagagiolo et al., 2016)
- Klinisch relevante Effekte der Osteopathie hinsichtlich Schmerzreduktion und der Verbesserung des funktionellen Status bei Patienten mit akuten und chronischen unspezifischem Rückenschmerzen sowie bei Schwangeren und Frauen post partum. (Franke et al., 2014)
- Positive Auswirkungen der osteopathischen Behandlung auf Ängste, Angstvermeidung, Lebensqualität und den allgemeinen Gesundheitszustand in Bevölkerungsgruppen mit anhaltenden Schmerzen. (Saracutu et al., 2019)
- Einfluss der osteopathische Behandlung auf das autonome Nervensystem. (Amoroso Borges et al., 2018)
- Positive Berichte über Patientenerfahrungen, Patientenzufriedenheit sowie Patientenerwartungen hinsichtlich der osteopathischen Behandlung. (Lam et al., 2019)
- Die Osteopathie erweist sich im Vergleich zur üblichen Behandlung als überlegene (Schmerzen im unteren Rückenbereich) und kosteneffektive Strategie (Nackenschmerzen). (Verhaeghe et al., 2018)

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### Studie:

Bagagiolo, D., et al. (2016). "Osteopathic Manipulative Treatment in Pediatric and Neonatal Patients and Disorders: Clinical Considerations and Updated Review of the Existing Literature." Am J Perinatol **33**(11): 1050-1054.

### Studienart:

Systematische Übersichtsarbeit

### Aussage:

„Die verfügbaren Studien zu Neugeborenen belegen, dass OMT die Krankenhausverweildauer der behandelten Säuglinge wirksam verkürzt. Daher legen sie nahe, dass robuste Kosten-Effektivitäts-Analysen in das Design zukünftiger klinischer Studien aufgenommen werden sollten, um neue mögliche OMT Strategien innerhalb der Gesundheitsversorgung von Neugeborenen zu etablieren.“

### Abstract:

Osteopathic medicine is a form of complementary and alternative medicine. Osteopathic practitioners treat patients of all ages: according to the Osteopathic International Alliance's 2012 survey, about one-third of all treated patients are aged between 31 and 50 years and nearly a quarter (23.4%) are pediatric patients, with 8.7% of them being younger than 2 years. In 2013 a systematic review evaluated the effectiveness of osteopathic manipulative treatment (OMT) in pediatric patients with different underlying disorders, but due to the paucity and low methodological quality of the primary studies the results were inconclusive. The aim of this review is therefore to update the evidence concerning OMT in perinatal and pediatric disorders and to assess its clinical impact. Most published studies favor OMT, but the generally small sample sizes in these studies cannot support ultimate conclusions about the efficacy of osteopathic therapy in pediatric age. In turn, clinical trials of OMT in premature infants might represent an important step in the osteopathic research because they can address both cost-effectiveness issues, and an innovative, multidisciplinary approach to the management of specific pediatric diseases cared for by the same, common health care system. The available studies in neonatal settings provide evidence that OMT is effective in reducing the hospital length of stay of the treated infants, therefore, suggesting that robust cost-effectiveness analyses should be included in the future clinical trials' design to establish new possible OMT-shared strategies within the health care services provided to newborns.

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## Studie:

Franke, H., et al. (2014). "Osteopathic manipulative treatment for nonspecific low back pain: a systematic review and meta-analysis." BMC Musculoskelet Disord **15**: 286.

## Studienart:

Systematische Übersichtsarbeit

**Aussage:** „Klinisch relevante Effekte der OMT wurden für die Schmerzreduktion und die Verbesserung des funktionellen Status bei Patienten mit akuten und chronischen unspezifischem Rückenschmerzen sowie bei Schwangeren und Frauen post partum mit Rückenschmerzen 3 Monate nach der Behandlung gefunden. Weitere größere, qualitativ hochwertige randomisierte kontrollierte Studien mit robusten Vergleichsgruppen werden empfohlen.“

## Abstract:

**BACKGROUND:** Nonspecific back pain is common, disabling, and costly. Therefore, we assessed effectiveness of osteopathic manipulative treatment (OMT) in the management of nonspecific low back pain (LBP) regarding pain and functional status. **METHODS:** A systematic literature search unrestricted by language was performed in October 2013 in electronic and ongoing trials databases. Searches of reference lists and personal communications identified additional studies. Only randomized clinical trials were included; specific back pain or single treatment techniques studies were excluded. Outcomes were pain and functional status. Studies were independently reviewed using a standardized form. The mean difference (MD) or standard mean difference (SMD) with 95% confidence intervals (CIs) and overall effect size were calculated at 3 months posttreatment. GRADE was used to assess quality of evidence. **RESULTS:** We identified 307 studies. Thirty-one were evaluated and 16 excluded. Of the 15 studies reviewed, 10 investigated effectiveness of OMT for nonspecific LBP, 3 effect of OMT for LBP in pregnant women, and 2 effect of OMT for LBP in postpartum women. Twelve had a low risk of bias. Moderate-quality evidence suggested OMT had a significant effect on pain relief (MD, -12.91; 95% CI, -20.00 to -5.82) and functional status (SMD, -0.36; 95% CI, -0.58 to -0.14) in acute and chronic nonspecific LBP. In chronic nonspecific LBP, moderate-quality evidence suggested a significant difference in favour of OMT regarding pain (MD, -14.93; 95% CI, -25.18 to -4.68) and functional status (SMD, -0.32; 95% CI, -0.58 to -0.07). For nonspecific LBP in pregnancy, low-quality evidence suggested a significant difference in favour of OMT for pain (MD, -23.01; 95% CI, -44.13 to -1.88) and functional status (SMD, -0.80; 95% CI, -1.36 to -0.23), whereas moderate-quality evidence suggested a significant difference in favour of OMT for pain (MD, -41.85; 95% CI, -49.43 to -34.27) and functional status (SMD, -1.78; 95% CI, -2.21 to -1.35) in nonspecific LBP postpartum. **CONCLUSION:** Clinically relevant effects of OMT were found for reducing pain and improving functional status in patients with acute and chronic nonspecific LBP and for LBP in pregnant and postpartum women at 3 months posttreatment. However, larger, high-quality randomized controlled trials with robust comparison groups are recommended.

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### Studie:

Saracutu, M., et al. (2018). "The effects of osteopathic treatment on psychosocial factors in people with persistent pain: A systematic review." International Journal of Osteopathic Medicine **27**: 23-33.

### Studienart:

Systematische Übersichtsarbeit

**Aussage:** „Die Ergebnisse dieser Untersuchung sind ermutigend; sie deuten darauf hin, dass die osteopathische Behandlung einige Auswirkungen auf Ängste, Angstvermeidung, Lebensqualität und den allgemeinen Gesundheitszustand in Bevölkerungsgruppen mit anhaltenden Schmerzen haben kann.“

### Abstract:

Persistent pain is considered a complex biopsychosocial phenomenon whose understanding and management is yet to be improved. More research is needed to determine the common paths that lead to developing persistent pain, to identify the populations most at risk and to develop and evaluate interventions. The last decades have seen a shift in pain management, from the biomedical model to a biopsychosocial model. There is also a significant body of evidence emphasizing the effects of osteopathy in persistent pain management. Given the relevance of psychosocial factors in aetiology and maintenance of pain, it is essential to investigate whether osteopathy has an influence on depression, anxiety, fear avoidance or pain catastrophizing. This review will identify and synthesize relevant primary research focused on the effects of osteopathic interventions on psychosocial factors in patients living with different pain conditions. Studies were identified by searching seven databases (Medline complete, CINAHL, Cochrane Library, Psycinfo, Psycharticles, Web of Science and Scopus) between 1980 and 2017. Peer reviewed articles reporting effects of: Osteopathic manual therapy, Osteopathic Manipulation, Mobilization, Spinal manipulation, high velocity and low amplitude manipulation, massage and soft tissue treatment were extracted. A total of 16 RCTs were selected. Two out of five reported significant differences in depression; in regards to anxiety, all the four trials found significant effects; two out of three trials reported a significant reduction in fear avoidance while six out of seven trials found a significant enhancement of health status and three out of four found an increase in quality of life. The findings of this review are encouraging; suggesting that osteopathic treatment may have some effects on anxiety, fear avoidance, quality of life and general health status in populations living with persistent pain.

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### Studie:

Amoroso Borges, B. L., et al. (2018). "Effects of spinal manipulation and myofascial techniques on heart rate variability: A systematic review." J Bodyw Mov Ther **22**(1): 203-208

### Studienart:

Systematische Übersichtsarbeit

**Aussage:** „Den Befunden zufolge übt die Osteopathie je nach Ort und Art der Stimulation einen Einfluss auf das autonome Nervensystem aus. Es wurde eine stärkere parasympathische Reaktion gefunden, wenn die Stimulation im Hals- und Lendenwirbelbereich durchgeführt wurde, während eine stärkere sympathische Reaktion stattfand, wenn die Stimulation im Brustbereich erfolgte.“

### Abstract:

**BACKGROUND:** The analysis of heart rate variability is important to the investigation of stimuli from the autonomic nervous system. Osteopathy is a form of treatment that can influence this system in healthy individuals as well as those with a disorder or disease. **OBJECTIVES:** The aim of the present study was to perform a systematic review of the literature regarding the effect of spinal manipulation and myofascial techniques on heart rate variability. **METHODS:** Searches were performed of the Pubmed, Scielo, Lilacs, PEDro, Ibescio, Cochrane and Scopus databases for relevant studies. The PEDro scale was used to assess the methodological quality of each study selected. **RESULTS:** A total of 505 articles were retrieved during the initial search. After an analysis of the abstracts, nine studies were selected for the present review. **CONCLUSION:** Based on the findings, osteopathy exerts an influence on the autonomic nervous system depending on the stimulation site and type. A greater parasympathetic response was found when stimulation was performed in the cervical and lumbar regions, whereas a greater sympathetic response was found when stimulation was performed in the thoracic region.

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### Studie:

Lam, M. T., et al. (2019). "Patient experience, satisfaction, perception and expectation of osteopathic manipulative treatment: A systematic review." International Journal of Osteopathic Medicine **32**: 28-43.

### Studienart:

Systematische Übersichtsarbeit

**Aussage:** „Die Primärliteratur berichtete hauptsächlich über positive Patientenerfahrungen, -zufriedenheit und -erwartungen hinsichtlich der osteopathischen Behandlung. Die Osteopathie als Behandlungsform weist viele positive Eigenschaften auf.“

### Abstract:

Introduction: Patient experience, satisfaction, perception and expectation are some related measures valued by patient-centered health care. Patient experience (PE) usually refers to objective, observable events or facts; while patient satisfaction, perception and expectation (PS) are measures which focus on a patient's subjective evaluation of the health care process. These concepts have been studied in osteopathic manipulative treatment (OMT), a therapeutic intervention practiced by osteopathic practitioners in many countries and by some medical doctors in USA and Canada. Objective: To systematically review and summarize the primary research literature pertaining to PE and PS of OMT. Methods: A comprehensive literature search was performed on seven databases: Ovid MEDLINE, Embase, Cochrane Central, Cinahl, AMED, Osteopathic Research Web, and OSTMED.DR to identify primary research that surveyed the PE or PS of OMT. Findings from relevant studies were summarized. Results: The literature search identified 322 references, of which 16 were included in this review, including 7 qualitative, 8 quantitative and 1 dual-method study. The quantitative studies with various research instruments reported on a number of PE & PS aspects, with data showing mostly positive responses from patients. The qualitative studies revealed patients' perception of OMT which may be summarized as being patient-centered, holistic, thorough, a treatment option that could be effective for certain conditions and one that offered good clinician-patient partnership but with possible adverse effects and futility. Conclusion: The primary literature reported mainly positive PE and PS of OMT. OMT as a treatment was found to have many positive characteristics.

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### Studie:

Verhaeghe, N., et al. (2018). "Osteopathic care for low back pain and neck pain: A cost-utility analysis." Complementary Therapies in Medicine **40**: 207-213.

### Studienart:

Systematische Übersichtsarbeit

**Aussage:** „Die Osteopathie erwies sich im Vergleich zur üblichen Behandlung als "überlegene" (Schmerzen im unteren Rückenbereich) und kosteneffektive Strategie (Nackenschmerzen). Weitere gesundheitsökonomische Evaluationsstudien, die ein breiteres Spektrum von Kostenelementen und einen längeren Zeithorizont berücksichtigen, sind erforderlich.“

### Abstract:

A decision tree model considering a one-year time horizon was applied. The analysis occurred from a health insurance perspective only considering direct medical costs. The health effects were expressed as quality-adjusted life years (QALYs). Main outcomes: The main outcome was the incremental cost-effectiveness ratio (ICER). The uncertainty around key input parameters was addressed applying one-way and probabilistic sensitivity analyses (5000 simulations). Results: For low back pain, osteopathy resulted in cost savings (€385.1 vs €501.8/patient) at improved QALYs (0.666 vs. 0.614) compared to usual care. For neck pain, osteopathy resulted in additional costs (€577.3 vs. €521.0) and improved QALYs (0.639 vs. 0.609) resulting in an ICER of €1,870/QALY. The one-way sensitivity analysis identified the hospitalization cost (back) and osteopathy cost (neck) as major cost drivers. The probabilistic sensitivity analysis resulted in an average net saving of €163 (95%CI –€260, -€49.1) and a QALY gain of 0.06 (95%CI –0.06, 0.17) for low back pain and an average additional cost of €55.1 (95%CI €20.9, €129) and improved QALY gain of 0.03 (95%CI –0.06, 0.12) for neck pain. Conclusions: Osteopathy was found to be a 'dominant' (low back pain) and cost-effective strategy (neck pain) compared to usual care. Further health economic evaluation studies considering a broader range of cost items and longer time horizon are required.