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in good hands

Systematic reviews and meta-analyses of massage therapy

An overview of current evidence

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Contents

Background

In 2013, the Association of Massage Therapists (AMT) published a Classified Massage Therapy Research Database using the National Health and Medical Research Council evidence hierarchy. The establishment of this resource was a response to the Australian Government 2014 Natural Therapies Review call for submissions.

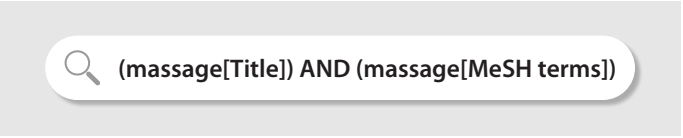
The classified database was updated with new studies annually until 2018.

In 2024, AMT embarked on a project to update its classified research resource, using new bibliographic tools and artificial intelligence to critically appraise and grade evidence. The first stage of this project encompasses systematic reviews and meta-analyses of massage therapy. This tranche of work was completed in March 2024.

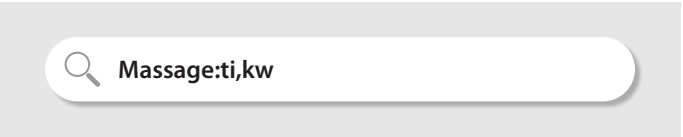
Searches

An electronic search for systematic reviews and meta-analyses from 2000 to 2024 was conducted.

The following search string was used to search PubMed, a free resource supporting the search and retrieval of biomedical and life sciences literature:



The following search string was used to search the Cochrane Library, a collection of high-quality, independent evidence to inform healthcare decision-making:



MeSH stands for Medical Subject Headings and is the system used to index articles in the National Library of Medicine's repository, PubMed.

kw stands for keyword and is the indexing system used in the Cochrane Library.

Summary of the systematic review evidence for massage therapy

Within the established hierarchy of medical evidence, systematic reviews are considered the gold standard for providing high-quality evidence in healthcare. They synthesise the data from multiple studies to provide more reliable and consolidated conclusions about the efficacy, effectiveness, and safety of treatments.

Here is a summary of the systematic review evidence for massage therapy in relation to conditions and populations.

Cancer populations

In 2022, there were 1.2 million people alive in Australia who were either living with or had lived with cancer.[1]

Evidence for the positive effects of massage therapy in the management of cancer patients has continued to burgeon over the past decade. Although massage therapy is obviously not a treatment for cancer itself, there is growing body of evidence showing its effectiveness in the management of symptom distress and palliation, including fatigue, pain, and nausea. It can also ameliorate the mood effects of a cancer diagnosis, such as stress, anxiety, and depression.

Pain is the most common complaint among patients with cancer, with massage therapy being increasingly used for symptom relief.

A 2015 Cochrane meta-analysis by Lee et al.[2] found that massage is effective in reducing cancer pain, with a significant benefit observed across various types of massage and cancer, especially for surgery-related pain. Massage therapy significantly reduced cancer pain compared with no massage treatment or conventional care.

Boyd et al.'s 2016 systematic review and meta-analysis[3] rigorously assessed the quality of massage therapy research and evidence for its efficacy in treating pain, function, and health-related quality of life in cancer populations. The review suggests potential benefits of massage therapy in managing pain, fatigue, and anxiety in cancer populations.

A 2008 systematic review by Wilkinson et al.[4] also suggests that massage may reduce anxiety in patients with cancer in the short term and have a beneficial effect on physical symptoms, such as pain and nausea. While this review suggests potential short-term benefits of massage therapy, it also highlights the methodological limitations of the included studies and the need for further rigorous research. The cautious presentation of the findings reflects a balanced and critical approach to the available evidence.

Along similar lines, a 2008 methodological perspective of massage and cancer conducted by Jane et al.[5] examined the inconsistencies of study findings on massage interventions for adults with cancer. Methodological issues identified in the massage and cancer literature included less rigorous inclusion criteria, failure to consider potential confounding variables, less than rigorous research designs, inconsistent massage doses and protocols, measurement errors related to sensitivity of instruments and timing of measurements, and inadequate statistical power. These issues are common across the massage research literature.

A systematic review by Rodríguez-Mansilla et al.[6] provides evidence of the potential benefits of massage for children with cancer, indicating improvements in various symptoms associated with both the disease and its treatment.

Musculoskeletal pain, including low back pain

Low back pain

Low-back pain (LBP) is one of the most common and costly musculoskeletal problems in modern society. It is experienced by 70% to 80% of adults at some time in their lives. Massage therapy has increasingly been used by low back pain patients to minimise pain and facilitate a return to normal function.

Furlan et al.'s original Cochrane Review of massage and low back pain[7] has been updated 4 times over the past 20 years. In the most recent review[8], the authors concluded that massage only improved pain outcomes in acute, sub-acute and chronic low back pain in the short-term. Similarly, short term functional improvement was observed with sub-acute and chronic low back pain when compared with inactive controls.

Variability in study quality, potential biases, and the imprecision of some results were flagged as barriers to making a strong recommendation based on the available evidence.

Neck pain

In a study investigating massage therapy usage in Australia, 65% of patients reported attending a massage therapist for the treatment of neck pain.[9]

A recent systematic review of western massage therapies and neck pain[10] concluded that myofascial release therapy and connective tissue massage may improve neck pain. However, western massage therapies were not superior to other active therapies for improving neck pain and effects were only immediate and short-term.

Patel et al.'s 2012 Cochrane review of massage for mechanical neck disorders[11] highlighted the need for higher-quality research to better understand the effectiveness and safety of massage as a treatment option. As a standalone treatment, massage was found to provide immediate or short-term effectiveness in pain and tenderness.

Shoulder pain

A 2014 review of the effectiveness of soft tissue massage and exercise for non-specific shoulder pain[12] suggests that soft tissue massage can offer short-term improvements in pain, function, and range of motion. The results are likely applicable to a broad adult population with non-specific shoulder pain, making the findings relevant for clinical practice, although the authors urge cautious interpretation due to the overall quality of evidence.

Fibromyalgia

A methodologically rigorous systematic review[13] found that massage therapy improves pain, anxiety, and depression in patients with fibromyalgia, particularly with treatments lasting more than five weeks. The same review found that massage did not lead to improvements in sleep disturbance.

A 2015 meta-analysis[14] examined the effectiveness of various styles of massage therapy for relief of fibromyalgia symptoms. This review showed most styles of massage therapy consistently improved the quality of life of fibromyalgia patients, with some styles having superior effects.

A series of systematic reviews published in 2016 investigated the impact of massage on pain in the general population, in cancer patients, and in surgical populations.[15,16,17] The review of general pain populations, investigated the use of massage therapy on musculoskeletal pain, headache, visceral pain, chronic pain, including fibromyalgia, spinal cord pain, and venous insufficiency populations. The review concluded that massage therapy effectively treats pain compared to sham treatment, no treatment, and active comparators. Compared to active comparators, massage therapy was also beneficial for treating anxiety and health-related quality of life.[18]

Osteoarthritis and rheumatoid arthritis

Osteoarthritis is the most common form of arthritis in Australia: an estimated 2.2 million (9.3%) people reported having osteoarthritis in 2017–18.[19]

Rheumatoid arthritis also represents a significant disease burden in the category of musculoskeletal disorders. An estimated 456,000 (1.9%) people in Australia reported having rheumatoid arthritis in 2017–18.[20]

A 2017 systematic review investigated massage therapy as a standalone treatment on pain and functional outcomes among those with osteoarthritis or rheumatoid arthritis.[21] It found low to moderate-quality evidence that massage therapy is superior to nonactive therapies in reducing pain and improving certain functional outcomes.

A separate systematic review of the efficacy of massage therapy alone in osteoarthritis found some improvement in pain, stiffness, and functionality scores in the short term but not in the long term.[22] Aromatherapy massage was not found to be any better than standard massage therapy. Caution in interpreting the results is warranted given the methodological heterogeneity amongst trials and small sample size of the studies.

Knee osteoarthritis is one of the most prevalent forms of this degenerative joint disease and is associated with pain, functional impairment, and a high economic cost. The results of a 2022 systematic review investigating massage therapy in combination with acupuncture found improvements in pain, stiffness, and joint function.[23] However, the limitations in study quality, potential biases, and the applicability of the findings to broader populations warrant a cautious interpretation of the results.

Neurological disease

A 2020 systematic review[24] provides evidence that massage therapy may benefit Parkinson's Disease patients by improving motor and non-motor symptoms, and quality of life.

A systematic review of massage as a complementary approach to multiple sclerosis[25] indicated that different massage therapy approaches may have beneficial effects on motor and non-motor symptoms of MS. Massage effectively improved symptoms such as fatigue, pain, anxiety, depression, and spasticity.

Mood

Anxiety reduction is one of the most well-established effects of massage therapy with evidence for this crossing multiple presenting conditions and populations. In a 2004 meta-analysis of 37 studies, reductions in trait anxiety and depression were identified as massage therapy's largest effects.[26] The limitations of a medical model of MT are discussed in this review, which proposes that new massage therapy hypotheses and research use a psychotherapy perspective instead. It found that single applications of massage therapy reduced state anxiety, blood pressure, and heart rate but not negative mood, immediate assessment of pain, and cortisol level. Multiple applications of massage therapy reduced delayed assessment of pain. Reductions of trait anxiety and depression were massage therapy's largest effects, with a course of treatment providing benefits similar in magnitude to those of psychotherapy.

The findings of a 2011 quantitative review challenge the commonly held belief that cortisol reduction is a primary mechanism through which massage achieves its therapeutic effects, suggesting that other factors are at play.[27]

It found massage therapy's effect on cortisol is generally very small and, in most cases, not statistically distinguishable from zero. The authors concluded that cortisol reduction cannot be the cause of the well-established and statistically larger beneficial effects of massage on anxiety, depression, and pain. For example, RCT evidence has shown that massage therapy increases oxytocin, which may be a better candidate than cortisol for the mediating effect of massage on anxiety.

The evidence for the effectiveness of massage therapy in ameliorating anxiety crosses an enormous range of conditions and populations, including Parkinson's Disease[28], cancer patients[29 30 31], multiple sclerosis[32], palliative care[33 34], patients with burns scars[35], and dementia[36 37].

Evidence for massage therapy and depression crosses the same populations and conditions noted above.

Blood pressure/hypertension

High blood pressure is a major risk factor for chronic conditions including stroke, coronary heart disease, heart failure and chronic kidney disease. In 2015, 5.8% of the total burden of disease in Australia was due to high blood pressure.[38]

Non-pharmaceutical approaches to achieving blood pressure goals are a key part of management of hypertension.

A 2016 systematic review evaluated the evidence concerning the effect of massage therapy on blood pressure in patients with hypertension or prehypertension.[39] It found a medium effect of massage on systolic blood pressure and a small effect on diastolic blood pressure in patients with hypertension or prehypertension. Moyer et al. also found reductions in blood pressure from a single application of massage therapy.[40]

Hospital-based massage therapy

Systematic reviews provide evidence that hospital-based massage therapy has significant efficacy in improving various patient outcomes, such as reduced pain, decreased anxiety, and enhanced overall patient satisfaction in various clinical settings and contexts.

Perioperative

Non-pharmaceutical approaches to perioperative pain and anxiety reduce reliance on medications that can have side effects and complications. They can also potentially address psychological aspects of pain and anxiety, and enhance patient engagement and empowerment, fostering a sense of control and self-efficacy.

A 2020 systematic review investigating the effectiveness of massage for peri-operative anxiety found that massage could significantly reduce anxiety for most types of surgical patients.[41] The findings suggest potential clinical implications for incorporating massage therapy in peri-operative care, although further research and consideration of practical aspects, such as training and resources, is critical to implementation.

The results of a 2017 systematic review suggest that massage therapy can significantly reduce acute postoperative pain in thoracic surgery patients when added to standard analgesia.[42] Another review provides evidence that massage therapy can be beneficial in managing post-operative pain, particularly after cardiac surgeries and with single dosage applications.[43]

The most recent systematic review of post-operative massage therapy found that it is effective in reducing pain across various types of surgeries and patient demographics.[44]

Labour/perinatal

A 2012 Cochrane review of manual therapy for pain management in labour[45] provides evidence supporting the use of massage therapy, indicating potential benefits in reducing both pain and anxiety.

Infant/Paediatric

A 2004 Cochrane Systematic Review[46] found that massage of pre-term or low-weight infants improved daily weight gain by 5.1 grams and appeared to reduce the length of hospital stay by 4.5 days.

Another Cochrane review[47] found evidence of benefits in connection with mother-infant interaction, sleeping and crying, and on hormones influencing stress levels.

Wang et al.'s meta-analysis[48] concluded that massage therapy may be a safe and cost-effective practice to improve weight gain and decrease the hospital stay of clinically stable pre-term infants.

In their 2020 review Lu et al.[49] also found that massage therapy is beneficial for weight gain of preterm infants.

The findings of another 2020 review suggest that massage therapy is beneficial for reducing feeding intolerance in preterm infants.[50]

Finally, Zhang et al.'s systematic review of massage for neonates with hyperbilirubinemia[51] suggests that massage therapy can significantly reduce bilirubin levels in neonates within four days of treatment.

Burns

A 2018 systematic review[52] provides preliminary evidence supporting the use of scar massage for hypertrophic burn scars.

A more recent review by Miri et al.[53] concluded that massage therapy can significantly reduce pain and anxiety intensity in burn patients.

Dementia

A 2006 Cochrane review of massage and touch for dementia[54] found that massage therapy may serve as an alternative or complement to other therapies for the management of behavioural, emotional, and other conditions associated with dementia. In particular, the review provides evidence of reductions in agitated behaviour and improved nutritional intake.

The findings of Wu et al.'s 2017 systematic review[55] also suggest that massage and touch interventions can be effective in managing behavioural and psychological symptoms of dementia. A 2019 systematic review had similar findings.[56]

Athletes/performance recovery

Post-exercise massage is one of the most frequently applied interventions to enhance the recovery of athletes.

A systematic review by Poppendieck et al.[57] provides a comprehensive analysis of the available evidence on the efficacy of massage for performance recovery. The findings highlight the context-dependent nature of massage effects, with potential benefits under specific conditions. A tendency was found for shorter massage (5-12 min) to have larger effects than massage lasting more than 12 min. After high-intensity mixed exercise, massage yielded medium positive effects, while effects after strength and endurance exercise were smaller. Also, a tendency was found for untrained subjects to benefit more from massage than trained athletes.

HIV

A 2010 Cochrane Review[58] found evidence to support the use of massage therapy to improve the quality of life of people living with AIDS/HIV.

1. Australian Institute of Health and Welfare, https://www.aihw.gov.au/reports/australias-health/cancer-screening-and-treatment, accessed 07/04/2024.
2. Lee, S.-H., Kim, J.-Y., Yeo, S., Kim, S.-H., & Lim, S. (2015). Meta-Analysis of Massage Therapy on Cancer Pain. *Integrative Cancer Therapies*, 14(4), 297–304. https://doi.org/10.1177/1534735415572885
3. Boyd, C., Crawford, C., Paat, C. F., Price, A., Xenakis, L., Zhang, W., & Evidence for Massage Therapy (EMT) Working Group. (2016). The Impact of Massage Therapy on Function in Pain Populations-A Systematic Review and Meta-Analysis of Randomized Controlled Trials: Part II, Cancer Pain Populations. *Pain Medicine (Malden, Mass.),* 17(8), 1553–1568. https://doi.org/10.1093/pm/pnw100
4. Wilkinson, S., Barnes, K., & Storey, L. (2008). Massage for symptom relief in patients with cancer: Systematic review. *Journal of Advanced Nursing, 63*(5), 430–439. https://doi.org/10.1111/j.1365-2648.2008.04712.
5. Jane, S.-W., Wilkie, D. J., Gallucci, B. B., & Beaton, R. D. (2008). Systematic review of massage intervention for adult patients with cancer: A methodological perspective. *Cancer Nursing, 31*(6), E24-35. https://doi.org/10.1097/01.NCC.0000339242.51291.85
6. Rodríguez-Mansilla, J., González-Sánchez, B., Torres-Piles, S., Martín, J. G., Jiménez-Palomares, M., & Bellino, M. N. (2017). Effects of the application of therapeutic massage in children with cancer: A systematic review. *Revista Latino-Americana De Enfermagem, 25*, e2903. https://doi.org/10.1590/1518-8345.1774.2903
7. Furlan, A. D., Brosseau, L., Imamura, M., & Irvin, E. (2002). Massage for low back pain. *The Cochrane Database of Systematic Reviews, 2*, CD001929. https://doi.org/10.1002/14651858.CD001929
8. Furlan, A. D., Giraldo, M., Baskwill, A., Irvin, E., & Imamura, M. (2015). Massage for low-back pain. *The Cochrane Database of Systematic Reviews, 2015*(9), CD001929. https://doi.org/10.1002/14651858.CD001929.pub3
9. Barnett, R. (2016). Survey of consecutive clients attending a massage therapy practice over a two-day period in five Australian capital cities [data Set] Association of Massage Therapists. https://www.amt.org.au/
10. Mete, O., Kaya, D. O., Keskin, M., & Celenay, S. T. (2023). Western Massage Therapies in the Management of Neck Pain: A Systematic Review. *Journal of Manipulative and Physiological Therapeutics, 46*(1), 37–51. https://doi.org/10.1016/j.jmpt.2023.05.003
11. Patel, K. C., Gross, A., Graham, N., Goldsmith, C. H., Ezzo, J., Morien, A., & Peloso, P. M. J. (2012). Massage for mechanical neck disorders. *The Cochrane Database of Systematic Reviews, 9*, CD004871. https://doi.org/10.1002/14651858.CD004871.pub4
12. van den Dolder, P. A., Ferreira, P. H., & Refshauge, K. M. (2014). Effectiveness of soft tissue massage and exercise for the treatment of non-specific shoulder pain: A systematic review with meta-analysis. *British Journal of Sports Medicine, 48*(16), 1216–1226. https://doi.org/10.1136/bjsports-2011-090553
13. Li, Y., Wang, F., Feng, C., Yang, X., & Sun, Y. (2014). Massage therapy for fibromyalgia: A systematic review and meta-analysis of randomized controlled trials. *PloS One, 9*(2), e89304. https://doi.org/10.1371/journal.pone.0089304
14. Yuan, S. L. K., Matsutani, L. A., & Marques, A. P. (2015). Effectiveness of different styles of massage therapy in fibromyalgia: A systematic review and meta-analysis. *Manual Therapy, 20*(2), 257–264. https://doi.org/10.1016/j.math.2014.09.003
15. Boyd, C., Crawford, C., Paat, C. F., Price, A., Xenakis, L., Zhang, W., & Evidence for Massage Therapy (EMT) Working Group. (2016). The Impact of Massage Therapy on Function in Pain Populations-A Systematic Review and Meta-Analysis of Randomized Controlled Trials: Part III, Surgical Pain Populations. *Pain Medicine (Malden, Mass.), 17*(9), 1757–1772. https://doi.org/10.1093/pm/pnw101
16. Boyd, C., Crawford, C., Paat, C. F., Price, A., Xenakis, L., Zhang, W., & Evidence for Massage Therapy (EMT) Working Group. (2016). The Impact of Massage Therapy on Function in Pain Populations-A Systematic Review and Meta-Analysis of Randomized Controlled Trials: Part II, Cancer Pain Populations. *Pain Medicine (Malden, Mass.), 17*(8), 1553–1568. https://doi.org/10.1093/pm/pnw100
17. Crawford, C., Boyd, C., Paat, C. F., Price, A., Xenakis, L., Yang, E., Zhang, W., & Evidence for Massage Therapy (EMT) Working Group. (2016). The Impact of Massage Therapy on Function in Pain Populations-A Systematic Review and Meta-Analysis of Randomized Controlled Trials: Part I, Patients Experiencing Pain in the General Population. *Pain Medicine (Malden, Mass.), 17*(7), 1353–1375. https://doi.org/10.1093/pm/pnw099
18. Crawford et al. (2016)
19. Australian Institute of Health and Wellbeing, https://www.aihw.gov.au/reports/chronic-musculoskeletal-conditions/osteoarthritis, accessed 07/04/2024.
20. Australian Institute of Health and Wellbeing, https://www.aihw.gov.au/reports/chronic-musculoskeletal-conditions/rheumatoid-arthritis, 07/04/2024
21. Nelson, N. L., & Churilla, J. R. (2017). Massage Therapy for Pain and Function in Patients with Arthritis: A Systematic Review of Randomized Controlled Trials. *American Journal of Physical Medicine & Rehabilitation, 96(9)*, 665–672. https://doi.org/10.1097/PHM.0000000000000712
22. Wu, Q., Zhao, J., & Guo, W. (2022). Efficacy of massage therapy in improving outcomes in knee osteoarthritis: A systematic review and meta-analysis. *Complementary Therapies in Clinical Practice, 46,* 101522. https://doi.org/10.1016/j.ctcp.2021.101522

23. Wang, Z., Wang, Y., Wang, C., Li, X., Zhou, Z., Zhang, L., Li, M., Pan, Y., Jiao, T., Shi, X., & Liu, Q. (2022). Systematic Review and Network Meta-analysis of Acupuncture Combined with Massage in Treating Knee Osteoarthritis. *BioMed Research International, 2022,* 4048550. https://doi.org/10.1155/2022/4048550

24. Angelopoulou, E., Anagnostouli, M., Chrousos, G. P., & Bougea, A. (2020). Massage therapy as a complementary treatment for Parkinson's disease: A Systematic Literature Review. *Complementary Therapies in Medicine, 49*, 102340. https://doi.org/10.1016/j.ctim.2020.102340

25. Heidari, Z., Shahrbanian, S., & Chiu, C. (2022). Massage therapy as a complementary and alternative approach for people with multiple sclerosis: A systematic review. *Disability and Rehabilitation, 44*(20), 5758–5769. https://doi.org/10.1080/09638288.2021.1949051

26. Moyer, C. A., Rounds, J., & Hannum, J. W. (2004). A meta-analysis of massage therapy research. *Psychological Bulletin, 130*(1), 3–18. https://doi.org/10.1037/0033-2909.130.1.3

27. Moyer, C. A., Seefeldt, L., Mann, E. S., & Jackley, L. M. (2011). Does massage therapy reduce cortisol? A comprehensive quantitative review. *Journal of Bodywork and Movement Therapies, 15*(1), 3–14. https://doi.org/10.1016/j.jbmt.2010.06.001

28. Angelopoulou, E., Anagnostouli, M., Chrousos, G. P., & Bougea, A. (2020). Massage therapy as a complementary treatment for Parkinson's disease: A Systematic Literature Review. *Complementary Therapies in Medicine, 49*, 102340. https://doi.org/10.1016/j.ctim.2020.102340

29. Fellowes, D., Barnes, K., & Wilkinson, S. (2004). Aromatherapy and massage for symptom relief in patients with cancer. *The Cochrane Database of Systematic Reviews, 2*, CD002287. https://doi.org/10.1002/14651858.CD002287.pub2

30. Lee, P. L. T., Tam, K.-W., Yeh, M.-L., & Wu, W.-W. (2016). Acupoint stimulation, massage therapy and expressive writing for breast cancer: A systematic review and meta-analysis of randomized controlled trials. *Complementary Therapies in Medicine, 27*, 87–101. https://doi.org/10.1016/j.ctim.2016.06.003

31. Pan, Y. Q., Yang, K. H., Wang, Y. L., Zhang, L. P., & Liang, H. Q. (2014). Massage interventions and treatment-related side effects of breast cancer: A systematic review and meta-analysis. *International Journal of Clinical Oncology, 19*(5), 829–841. https://doi.org/10.1007/s10147-013-0635-5

32. Heidari, Z., Shahrbanian, S., & Chiu, C. (2022). Massage therapy as a complementary and alternative approach for people with multiple sclerosis: A systematic review. *Disability and Rehabilitation, 44*(20), 5758–5769. https://doi.org/10.1080/09638288.2021.1949051

33. Hsu, C.-H., Chi, C.-C., Chen, P.-S., Wang, S.-H., Tung, T.-H., & Wu, S.-C. (2019). The effects of aromatherapy massage on improvement of anxiety among patients receiving palliative care: A systematic review of randomized controlled trials. *Medicine, 98*(9), e14720. https://doi.org/10.1097/MD.0000000000014720

34. Lafferty, W. E., Downey, L., McCarty, R. L., Standish, L. J., & Patrick, D. L. (2006). Evaluating CAM treatment at the end of life: A review of clinical trials for massage and meditation. *Complementary Therapies in Medicine, 14*(2), 100–112. https://doi.org/10.1016/j.ctim.2006.01.009

35. Miri, S., Hosseini, S. J., Ghorbani Vajargah, P., Firooz, M., Takasi, P., Mollaei, A., Ramezani, S., Tolouei, M., Emami Zeydi, A., Osuji, J., Farzan, R., & Karkhah, S. (2023). Effects of massage therapy on pain and anxiety intensity in patients with burns: A systematic review and meta-analysis. *International Wound Journal, 20*(6), 2440–2458. https://doi.org/10.1111/iwj.14089

36. Viggo Hansen, N., Jørgensen, T., & Ørtenblad, L. (2006). Massage and touch for dementia. *The Cochrane Database of Systematic Reviews, 2006*(4), CD004989. https://doi.org/10.1002/14651858.CD004989.pub2

37. Wu, J., Wang, Y., & Wang, Z. (2017). The effectiveness of massage and touch on behavioural and psychological symptoms of dementia: A quantitative systematic review and meta-analysis. *Journal of Advanced Nursing, 73*(10), 2283–2295. https://doi.org/10.1111/jan.13311

38. Australian Institute of Health and Welfare, https://www.aihw.gov.au/reports/risk-factors/high-blood-pressure/contents/summary, accessed 07/04/2024

39. Liao, I.-C., Chen, S.-L., Wang, M.-Y., & Tsai, P.-S. (2016). Effects of Massage on Blood Pressure in Patients with Hypertension and Prehypertension: A Meta-analysis of Randomized Controlled Trials. *The Journal of Cardiovascular Nursing, 31*(1), 73–83. https://doi.org/10.1097/JCN.0000000000000217

40. Moyer et al. (2004)

41. Guo, P.-P., Fan, S.-L., Li, P., Zhang, X.-H., Liu, N., Wang, J., Chen, D.-D., Sun, W.-J., Yu, L., Yang, S., & Zhang, W. (2020). The effectiveness of massage on peri-operative anxiety in adults: A meta-analysis of randomized controlled trials and controlled clinical trials. *Complementary Therapies in Clinical Practice, 41*, 101240. https://doi.org/10.1016/j.ctcp.2020.101240

42. Boitor, M., Gélinas, C., Richard-Lalonde, M., & Thombs, B. D. (2017). The Effect of Massage on Acute Postoperative Pain in Critically and Acutely Ill Adults Post-Thoracic Surgery: Systematic Review and Meta-analysis of Randomized Controlled Trials. Heart & Lung: *The Journal of Critical Care, 46*(5), 339–346. https://doi.org/10.1016/j.hrtlng.2017.05.005

43. Boitor, M., Gélinas, C., Richard-Lalonde, M., & Thombs, B. D. (2017). The Effect of Massage on Acute Postoperative Pain in Critically and Acutely Ill Adults Post-Thoracic Surgery: Systematic Review and Meta-analysis of Randomized Controlled Trials. Heart & Lung: *The Journal of Critical Care, 46*(5), 339–346. https://doi.org/10.1016/j.hrtlng.2017.05.005

44. Liu, C., Chen, X., & Wu, S. (2022). The effect of massage therapy on pain after surgery: A comprehensive meta-analysis. *Complementary Therapies in Medicine, 71*, 102892. https://doi.org/10.1016/j.ctim.2022.102892

45. Smith, C. A., Levett, K. M., Collins, C. T., & Jones, L. (2012). Massage, reflexology and other manual methods for pain management in labour. *The Cochrane Database of Systematic Reviews, 2*, CD009290. https://doi.org/10.1002/14651858.CD009290.pub2

46. Vickers, A., Ohlsson, A., Lacy, J. B., & Horsley, A. (2004). Massage for promoting growth and development of preterm and/or low birth-weight infants. *The Cochrane Database of Systematic Reviews, 2004*(2), CD000390. https://doi.org/10.1002/14651858.CD000390.pub2

47. Underdown, A., Barlow, J., Chung, V., & Stewart-Brown, S. (2006). Massage intervention for promoting mental and physical health in infants aged under six months. *The Cochrane Database of Systematic Reviews, 4*, CD005038. https://doi.org/10.1002/14651858.CD005038.pub2

48. Wang, L., He, J. L., & Zhang, X. H. (2013). The efficacy of massage on preterm infants: A meta-analysis. *American Journal of Perinatology, 30*(9), 731–738. https://doi.org/10.1055/s-0032-1332801

49. Lu, L.-C., Lan, S.-H., Hsieh, Y.-P., Lin, L.-Y., Chen, J.-C., & Lan, S.-J. (2020). Massage therapy for weight gain in preterm neonates: A systematic review and meta-analysis of randomized controlled trials. *Complementary Therapies in Clinical Practice, 39*, 101168. https://doi.org/10.1016/j.ctcp.2020.101168

50. Seiiedi-Biarag, L., & Mirghafourvand, M. (2020). The effect of massage on feeding intolerance in preterm infants: A systematic review and meta-analysis study. *Italian Journal of Pediatrics, 46*(1), 52. https://doi.org/10.1186/s13052-020-0818-4

51. Zhang, M., Wang, L., Wang, Y., & Tang, J. (2019). The influence of massage on neonatal hyperbilirubinemia: A meta-analysis of randomized controlled trials. *The Journal of Maternal-Fetal & Neonatal Medicine: The Official Journal of the European Association of Perinatal Medicine, the Federation of Asia and Oceania Perinatal Societies, the International Society of Perinatal Obstetricians, 32*(18), 3109–3114. https://doi.org/10.1080/14767058.2018.1455183

52. Ault, P., Plaza, A., & Paratz, J. (2018). Scar massage for hypertrophic burns scarring-A systematic review. *Burns: Journal of the International Society for Burn Injuries, 44*(1), 24–38. https://doi.org/10.1016/j.burns.2017.05.006

53. Miri, S., Hosseini, S. J., Ghorbani Vajargah, P., Firooz, M., Takasi, P., Mollaei, A., Ramezani, S., Tolouei, M., Emami Zeydi, A., Osuji, J., Farzan, R., & Karkhah, S. (2023). Effects of massage therapy on pain and anxiety intensity in patients with burns: A systematic review and meta-analysis. *International Wound Journal, 20*(6), 2440–2458. https://doi.org/10.1111/iwj.14089

54. Viggo Hansen, N., Jørgensen, T., & Ørtenblad, L. (2006). Massage and touch for dementia. *The Cochrane Database of Systematic Reviews, 2006*(4), CD004989. https://doi.org/10.1002/14651858.CD004989.pub2

55. Wu, J., Wang, Y., & Wang, Z. (2017). The effectiveness of massage and touch on behavioural and psychological symptoms of dementia: A quantitative systematic review and meta-analysis. *Journal of Advanced Nursing, 73*(10), 2283–2295. https://doi.org/10.1111/jan.13311

56. Margenfeld, F., Klocke, C., & Joos, S. (2019). Manual massage for persons living with dementia: A systematic review and meta-analysis. *International Journal of Nursing Studies, 96*, 132–142. https://doi.org/10.1016/j.ijnurstu.2018.12.012

57. Poppendieck, W., Wegmann, M., Ferrauti, A., Kellmann, M., Pfeiffer, M., & Meyer, T. (2016). Massage and Performance Recovery: A Meta-Analytical Review. *Sports Medicine (Auckland, N.Z.)*, 46(2), 183–204. https://doi.org/10.1007/s40279-015-0420-x

58. Hillier, S. L., Louw, Q., Morris, L., Uwimana, J., & Statham, S. (2010). Massage therapy for people with HIV/AIDS. *The Cochrane Database of Systematic Reviews, 2010*(1), CD007502. https://doi.org/10.1002/14651858.CD007502.pub2

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