Table 8: Systematic reviews of massage therapy for cancer

Source: Karen Pilkington, CAM-Cancer Consortium. Massage [online document]. https://cam-cancer.org/en/massage-classicalswedish, February 15th, 2021.

First author (year)	Main outcomes	Number of studies Type of studies Number of patients included	Methods, quality assessment	Main results/conclusion
Boyd (2016)	Pain, function-related and health-related QOL, all cancer patients.	16 CTs (n=2034) Meta-analysis conducted on 15 studies.	At least 4 (not specified in text) electronic databases were searched through February 2014 in English. Samueli Institute's systematic Rapid Evidence Assessment of Literature review process was utilised. Eligible RCTs assessed using the SIGN 50 Checklist. Methodological limitations: Only trials reported in English were included which may introduce bias.	Massage vs active comparator. **Stress,** Mood, and Health-Related QOL 8 studies (n=620) 3 studies (n=234) included in Meta-analysis. (SMD, −1.24 (95% CI, −2.44 to −0.03; I2 = 93.56%).
Calcagni (2019)	Wide range of psychological and physical outcomes – categorised as symptom, quality of life, mood	41 RCTs (24 of massage; n=1584)	6 databases were searched to Sept 2018 with no language restrictions Jadad was used to assess quality. Median score of 2 (range 1-5). Authors state that studies reported both significant and non-significant results	Massage vs control (no additional treatment or visit by staff or non massage touch therapy) **Symptoms** 15 studies showed an improvement in symptoms in the intervention group but most had small samples and a Jadad score of 0 to 3.
Greenlee (2017)	Wide range of outcomes	8 RCTs (n not reported)	4 databases were searched to December 2015 restricted to English Each article was scored according to the quality of design and reporting based on the Jadad scoring	Massage vs control (not specified) **Radiation therapy-induced toxicity outcomes** Insufficient evidence

			scale and a modified scale adapted from the Delphi scoring system. Grades of evidence for a specific outcome using a modified version of the US Preventive Services Task Force grading system.	
Pan (2014)	Breast cancer-related symptoms	18 RCTs (n=950)	3 electronic databases searched for studies published through June 2013 in English. Risk of bias evaluated using the Cochrane Handbook 5.2 standards. Anxiety, depression and pain states were inadequately controlled for non-specific effects (analgesics and anti-emetics were used by some of the participants). Small number of databases searched Methodological limitations of some of the included trials: lack of control of non-specific effects and inadequate control groups). Control groups varied from self-initiated support (n=4), standard healthcare (n=7), health educations classes (n=2), visit (n=1), modified massage treatment (n=1), bandaging (n=1) and self-administered support (n=1).	Significantly greater reductions in: **anger** (n=4) SMD -0.67; 95% CI, −0.98, -0.36; p<0.0001 No significant differences in: **upper limb lymphedema** (n=3) SMD, 0.00; 95% CI, −0.39, 0.38; p=0.98) **cortisol** (n=4) SMD, -0.29; 95% CI, −0.56, 0.10; p=0.17
Radossi (2016)	Range of outcomes including anxiety, nausea and vomiting and pain	9 RCTs (n= 645)	5 databases were searched to September 2016 with no language restrictions Quality scores were calculated for eligible studies using the National Institute of Health's Quality Assessment Tool for Controlled Intervention Studies, a 14-point scale. Six studies were of poor quality and three were of fair quality	Massage vs control (not specified) **Various outcomes** One trial (poor quality) found that Swedish massage improved muscle soreness, discomfort, respiratory rate, anxiety, emotional symptoms, and clinical progress scores.

Rodríguez-Mansilla (2017)	Symptoms in children with cancer) (pain, nausea, stress, anxiety, white blood cells and neutrophils)	7 RCTs (n=383)	6 databases searched to November 2014 restricted to English or Spanish Methodological quality was analysed using the Physiotherapy Evidence Database scale 4 trials were assessed as good and 3 as fair quality	Massage vs. control (not specified) Other effects included beneficial effects on the **immune system, heart and respiratory rates**.
Shin (2016)	Pain, psychological symptoms, all cancer patients.	19 studies (n=1274) Meta-analysis conducted on 5 studies.	8 electronic databases searched for studies published through August 2015 with no language restriction. Methodological components of the trials assessed and classified according to the Cochrane Handbook for Systematic Reviews of Interventions Evidence assessed using GRADE (Grading of Recommendations Assessment, Development and Evaluation). The GRADE quality of evidence was downgraded for all outcomes to very low because of observed imprecision, indirectness, imbalance between groups in many studies, and limitations of study design. Fourteen studies had a high risk of bias related to sample size and 15 studies had a low risk of bias for blinding the outcome assessment. The studies were judged to be at unclear risk of bias overall. Most studies were too small to be reliable and key outcomes were not reported.	**Massage with aromatherapy vs no-massage** **Long-term symptoms** relating to the breast in people with breast cancer (1 RCT, n = 86, MD -9.80, 95% CI -19.13 to -0.47) greater for intervention group - not considered clinically significant.