Table 5: Systematic reviews of massage therapy for cancer-related anxiety

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 of life	Main results/Conclusion
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) **Mood** 4 studies showed a significant decrease in anger, anxiety, depression, stress and mood disturbance but were at high risk of bias.
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 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.	Massage vs control (not specified) **Anxiety** Massage can be considered for reducing anxiety (3 of 4 studies reported positive findings) C
Lee (2016)	Quality of life, negative emotions and disease-related symptoms in women with breast cancer	7 RCTs (n= 704)	5 databases were searched to January 2015 with no language restrictions Two of the 7 trials compared reflexology, and either scalp massage or foot manipulation against control. Cochrane risk of bias (ROB) and Jadad score used for assessment. Four studies were at high risk of bias according to ROB and 2 were unclear. The remaining study was assessed as low risk.	Anxiety 5 studies – significant difference but also significant heterogeneity (SMD = −0.38, 95% CI = −0.75 to −0.01, I2= 66%)

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: anxiety (n=8) SMD, -0.08; 95% CI, −0.44, 0.28; p=0.65)
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) **Anxiety** 3 trials (all poor quality) demonstrated a statistically significant reduction in child's anxiety
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) **Anxiety** 2 RCTs reported reduced anxiety (both fair quality)
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	**Massage compared with no-massage** Data for **anxiety** (STAI-state) relief. No significant between group difference (3 RCTs, n = 98, combined MD -5.36, 95% CI -16.06 to 5.34). Subgroup analysis for anxiety

			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.	for children. Anxiety relief greater for the intervention group (1 RCT, n = 30, MD -14.70, 95% CI -19.33 to -10.07). **Massage with aromatherapy vs no-massage** **Anxiety** (2 RCTs, n = 253, combined MD -4.50, 95% CI -7.70 to -1.30)