# AMTA Position Statement Proposal

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#### **BACKGROUND INFORMATION:**

According to the National Institute of Neurological Disorders and Stroke, "Americans spend at least \$50 billion each year on low back pain, the most common cause of job-related disability and a leading contributor to missed work. Back pain is the second most common neurological ailment in the United States." The National Center for Complementary and Alternative Medicine (NCCAM) is funding a large study (399 participants) focusing on the effects of massage therapy and lower back pain.2, i

Research has shown that massage:

- reduces disability associated with low back pain  $^3$  reduces low back pain  $^{3,\,4,\,5,\,6,\,7,\,8,\,9,\,10,\,11}$
- helps over time to maintain the reduction of low back pain 3, 5, 6, 7, 9
- increases functionality in those with low back pain 3, 4, 6, 8, 9, 10
- reduces the anxiety and/or depression associated with low back pain 5, 6, 8, 10

# **RATIONALE:**

Research indicates that therapeutic massage decreases low back pain, therefore those with low back pain will benefit from massage therapy from professional massage therapists working within their scope of practice.

The position statement supports the following AMTA Core Values:

- We are a diverse and nurturing community working with integrity, respect and dignity.
- We endorse professional standards.
- We believe in the benefits of massage.

The position statement supports the 10-30 Year Vivid Descriptions of the AMTA:

- The public will view professional massage as an important contribution toward wellness, and will receive massage on a regular basis.
- People recognize the power of touch to affect the mind, body and spirit.

- AMTA is a trusted resource for information and current research about massage therapy.
- There is significant information in scientific literature on the use, safety and effects of therapeutic massage.
- Massage therapy is an essential part of integrative health care.
- The value of massage is recognized internationally and AMTA is viewed as a global resource for the massage therapy profession.
- AMTA is instrumental in building consensus and maintaining an environment of cooperation across the profession of massage therapy.
- AMTA members are viewed as trusted professionals who abide by the highest standard of ethical behavior.

#### **POSITION STATEMENT:**

It is the position of the American Massage Therapy Association (AMTA) that massage therapy can be effective in reducing low back pain.

#### **REFERENCES:**

- National Institutes of Health. (2003). "Low Back Pain Fact Sheet" NINDS. NIH Publication No. 03-5161. Retrieved on April 8, 2009, from National Institute of Neurological Disorders and Stroke Web site: <a href="http://www.ninds.nih.gov/disorders/backpain/detail\_backpain.htm">http://www.ninds.nih.gov/disorders/backpain/detail\_backpain.htm</a>
- Cherkin, D., NCCAM. (2009). Effect of Massage on Chronic Lower Back Pain, Retrieved on April 8, 2009, from Clinical Trials.gov Web site: http://clinicaltrials.gov/ct2/show/NCT00371384 i

### Primary Outcome Measures:

- Dysfunction at 10 weeks [ Time Frame: 10 weeks ]
- Symptom bothersomeness at 10 weeks

## Secondary Outcome Measures:

- Dysfunction at 26 and 52 weeks [Time Frame: 26 and 52 weeks]
- Symptom bothersomeness at 26 and 52 weeks [Time Frame: 26 adn 52 weeks]
- Anxiety at 10, 26 and 52 weeks [Time Frame: 10 16 and 52 weeks]
- Depression at 10, 26 and 52 weeks [Time Frame: 10 26 and 52 weeks]
- Perceived stress at 10, 26 and 52 weeks [Time Frame: 10 26 and 52 weeks]
- Fear avoidance at 10, 26 and 52 weeks [Time Frame: 10 26 and 52 weeks]
- Satisfaction with back care at 10 and 26 weeks [Time Frame: 10 and 26 weeks]
- General health status (SF-36) at 10, 26 and 52 weeks [Time Frame: 10, 26 and 52 weeks]
- Disability days at 10, 26 and 52 weeks [Time Frame: 10 26 52 weeks]
- Medication use at 10, 26 and 52 weeks [ Time Frame: 10 26 52 weeks ]
- Adverse experiences at 10 weeks [ Time Frame: 10 weeks ]
- Perceptions of massage treatments at 10, 26 and 52 weeks [Time Frame: 10 26 52 weeks] [
- Use and cost of health care services for back pain at 10, 26 and 52 weeks [Time Frame: 10 26 52 weeks]

Detailed Description: Americans are increasingly seeking care from massage therapists for relief of chronic back pain. However, while initial studies suggest that massage is beneficial for back pain, we have no information about which of the many types of massage is most helpful. We will be conducting a study that compares two distinct therapeutic massage protocols with each other and with usual care for treating chronic back pain. This study is designed to determine which of these massage protocols will be most

effective in reducing pain and increasing functionality in people with low back pain. 399 Group Health members with non-specific low back pain lasting at least 3 months will be randomized to one of the two massage groups or to a control group that receives no treatment beyond their usual care. Massage therapists will provide each participant with 10 treatments over 10 weeks. The primary outcomes, function and bothersomeness of low back pain will be assessed before treatment begins and 10, 26 and 52 weeks after randomization by interviewers who do not know which treatment the participant received. The results of this study will clarify the value of two different types of massage for treating one of the most common, challenging, and expensive health problems plaguing developed countries. The findings will help physicians make informed and confident referrals, consumers and insurers make safe and cost-effective choices, and massage schools make responsible curriculum decisions.

3. Hsieh, L.L., Kuo, C.H., Lee, L.H., Yen, A.M., Chien, K.L., Chen, T.H., (2006). Treatment of low back pain by acupressure and physical therapy: randomised controlled trial. *BMJ*, 332(7543):696-700.

OBJECTIVE: To evaluate the effectiveness of acupressure in terms of disability, pain scores, and functional status. DESIGN: Randomised controlled trial.

SETTING: Orthopaedic clinic in Kaohsiung, Taiwan. PARTICIPANTS: 129 patients with chronic low back pain.

INTERVENTION: Acupressure or physical therapy for one month.

MAIN OUTCOME MEASURES: Self administered Chinese versions of standard outcome measures for low back pain (primary outcome: Roland and Morris disability questionnaire) at baseline, after treatment, and at six month follow-up.

RESULTS: The mean total Roland and Morris disability questionnaire score after treatment was significantly lower in the acupressure group than in the physical therapy group regardless of the difference in absolute score (- 3.8, 95% confidence interval - 5.7 to - 1.9) or mean change from the baseline (- 4.64, - 6.39 to - 2.89). Acupressure conferred an 89% (95% confidence interval 61% to 97%) reduction in significant disability compared with physical therapy. The improvement in disability score in the acupressure group compared with the physical group remained at six month follow-up. Statistically significant differences also occurred between the two groups for all six domains of the core outcome, pain visual scale, and modified Oswestry disability questionnaire after treatment and at six month follow-up.

CONCLUSIONS: Acupressure was effective in reducing low back pain in terms of disability, pain scores, and functional status. The benefit was sustained for six months.

4. Dryden, T., Baskwill, A., Preyde, M., (2004). Massage therapy for the orthopaedic patient: a review. *Orthop Nurs*, 23(5):327-32.

The effectiveness of massage therapy for the orthopaedic patient has not been documented; thus, a review of the published literature was warranted. A considerable proportion of the population experience orthopaedic problems, and many use massage therapy. A review and analysis of the literature between January 1973 and June 2003 yielded tentative results. It appears that massage therapy may be effective for orthopaedic patients with low back problems and potentially beneficial for patients with other orthopaedic problems. Massage therapy appears to be safe, to have high patient satisfaction, and to reduce pain and dysfunction.

5. Walach, H., Güthlin, C., König, M. (2003). Efficacy of massage therapy in chronic pain: a pragmatic randomized trial. *J Altern Complement Med*, 9(6):837-46.

BACKGROUND: Although classic massage is used widely in Germany and elsewhere for treating chronic pain conditions, there are no randomized controlled trials (RCT).

DESIGN: Pragmatic RCT of classic massage compared to standard medical care (SMC) in chronic pain conditions of back, neck, shoulders, head and limbs.

OUTCOME MEASURE: Pain rating (nine-point Likert-scale; predefined main outcome criterion) at pretreatment, post-treatment, and 3 month follow-up, as well as pain adjective list, depression, anxiety, mood, and body concept.

RESULTS: Because of political and organizational problems, only 29 patients were randomized, 19 to received massage, 10 to SMC. Pain improved significantly in both groups, but only in the massage group was it still significantly improved at follow-up. Depression and anxiety were improved significantly by both treatments, yet only in the massage group maintained at follow-up.

CONCLUSION: Despite its limitation resulting from problems with numbers and randomization this study shows that massage can be at least as effective as SMC in chronic pain syndromes. Relative changes are equal, but tend to last longer and to generalize more into psychologic domains. Because this is a pilot study, the results need replication, but our experiences might be useful for other researchers.

 Brady, L.H., Henry, K., Luth, J.F. 2nd, Casper-Bruett, K.K. (2001). The effects of shiatsu on lower back pain, J Holist Nurs, 19(1):57-70.

Shiatsu, a specific type of massage, was used as an intervention in this study of 66 individuals complaining of lower back pain. Each individual was measured on state/trait anxiety and pain level before and after four shiatsu treatments. Each subject was then called 2 days following each treatment and asked to quantify the level of pain. Both pain and anxiety decreased significantly over time. Extraneous variables such as gender, age, gender of therapist, length of history with lower back pain, and medications taken for lower back pain did not alter the significant results. These subjects would recommend shiatsu massage for others suffering from lower back pain and indicated the treatments decreased the major inconveniences they experienced with their lower back pain.

7. Cherkin, D.C., Eisenberg, D., Sherman, K.J., Barlow, W., Kaptchuk, T.J., Street, J., Deyo, R.A. (2001). Randomized trial comparing traditional Chinese medical acupuncture, therapeutic massage, and self-care education for chronic low back pain. *Arch Intern Med*, 161(8):1081-8.

BACKGROUND: Because the value of popular forms of alternative care for chronic back pain remains uncertain, we compared the effectiveness of acupuncture, therapeutic massage, and self-care education for persistent back pain.

METHODS: We randomized 262 patients aged 20 to 70 years who had persistent back pain to receive Traditional Chinese Medical acupuncture (n = 94), therapeutic massage (n = 78), or self-care educational materials (n = 90). Up to 10 massage or acupuncture visits were permitted over 10 weeks. Symptoms (0-10 scale) and dysfunction (0-23 scale) were assessed by telephone interviewers masked to treatment group. Follow-up was available for 95% of patients after 4, 10, and 52 weeks, and none withdrew for adverse effects.

RESULTS: Treatment groups were compared after adjustment for prerandomization covariates using an intent-to-treat analysis. At 10 weeks, massage was superior to self-care on the symptom scale (3.41 vs 4.71, respectively; P = .01) and the disability scale (5.88 vs 8.92, respectively; P < .001). Massage was also superior to acupuncture on the disability scale (5.89 vs 8.25, respectively; P = .01). After 1 year, massage was not better than self-care but was better than acupuncture (symptom scale: 3.08 vs 4.74, respectively; P = .002; dysfunction scale: 6.29 vs 8.21, respectively; P = .05). The massage group used the least medications (P < .05) and had the lowest costs of subsequent care.

CONCLUSIONS: Therapeutic massage was effective for persistent low back pain, apparently providing long-lasting benefits. Traditional Chinese Medical acupuncture was relatively ineffective. Massage might be an effective alternative to conventional medical care for persistent back pain.

8. Hernandez-Reif, M., Field, T., Krasnegor, J., Theakston, H. (2001) Lower back pain is reduced and range of motion increased after massage therapy. *Int J Neurosci*, 106(3-4):131-45.

STUDY DESIGN: A randomized between-groups design evaluated massage therapy versus relaxation for chronic low back pain.

OBJECTIVES: Treatment effects were evaluated for reducing pain, depression, anxiety and stress hormones, and sleeplessness and for improving trunk range of motion associated with chronic low back pain.

SUMMARY of BACKGROUND DATA: Twenty-four adults (M age=39.6 years) with low back pain of nociceptive origin with a duration of at least 6 months participated in the study. The groups did not differ on age, socioeconomic status, ethnicity or gender.

METHODS: Twenty-four adults (12 women) with lower back pain were randomly assigned to a massage therapy or a progressive muscle relaxation group. Sessions were 30 minutes long twice a week for five weeks. On the first and last day of the 5-week study participants completed questionnaires, provided a urine sample and were assessed for range of motion.

RESULTS: By the end of the study, the massage therapy group, as compared to the relaxation group, reported experiencing less pain, depression, anxiety and improved sleep. They also showed improved trunk and pain flexion performance, and their serotonin and dopamine levels were higher.

CONCLUSIONS: Massage therapy is effective in reducing pain, stress hormones and symptoms associated with chronic low back pain.

PRECIS: Adults (M age=39.6 years) with low back pain with a duration of at least 6 months received two 30-min massage or relaxation therapy sessions per week for 5 weeks. Participants receiving massage therapy reported experiencing less pain, depression, anxiety and their sleep had improved. They also showed improved trunk and pain flexion performance, and their serotonin and dopamine levels were higher.

9. Preyde, M. (2000). Effectiveness of massage therapy for subacute low-back pain: a randomized controlled trial. *CMAJ*, 162(13):1815-20.

BACKGROUND: The effectiveness of massage therapy for low-back pain has not been documented. This randomized controlled trial compared comprehensive massage therapy (soft-tissue manipulation, remedial exercise and posture education), 2 components of massage therapy and placebo in the treatment of subacute (between 1 week and 8 months) low-back pain.

METHODS: Subjects with subacute low-back pain were randomly assigned to 1 of 4 groups: comprehensive massage therapy (n = 25), soft-tissue manipulation only (n = 25), remedial exercise with posture education only (n = 22) or a placebo of sham laser therapy (n = 26). Each subject received 6 treatments within approximately 1 month. Outcome measures obtained at baseline, after treatment and at 1-month follow-up consisted of the Roland Disability Questionnaire (RDQ), the McGill Pain Questionnaire (PPI and PRI), the State Anxiety Index and the Modified Schober test (lumbar range of motion).

RESULTS: Of the 107 subjects who passed screening, 98 (92%) completed post-treatment tests and 91 (85%) completed follow-up tests. Statistically significant differences were noted after treatment and at follow-up. The comprehensive massage therapy group had improved function (mean RDQ score 1.54 v. 2.86-6.5, p < 0.001), less intense pain (mean PPI score 0.42 v. 1.18-1.75, p < 0.001) and a decrease in the quality of pain (mean PRI score 2.29 v. 4.55-7.71, p = 0.006) compared with the other 3 groups. Clinical significance was evident for the comprehensive massage therapy group and the soft-tissue manipulation group on the measure of function. At 1-month follow-up 63% of subjects in the comprehensive massage therapy group reported no pain as compared with 27% of the soft-tissue manipulation group, 14% of the remedial exercise group and 0% of the sham laser therapy group.

INTERPRETATION: Patients with subacute low-back pain were shown to benefit from massage therapy, as regulated by the College of Massage Therapists of Ontario and delivered by experienced massage therapists.

10. Field, T., Hernandes-Reif, M., Diego, M., Fraser, M. (2007). Lower back pain and sleep disturbance are reduced following massage therapy. *JBMT*, 11(2) 141-145.

Summary: A randomized between-groups design was used to evaluate massage therapy versus relaxation therapy effects on chronic low back pain. Treatment effects were evaluated for reducing pain, depression, anxiety and sleep disturbances, for improving trunk range of motion (ROM) and for reducing job absenteeism and increasing job productivity. Thirty adults (*M* age=41 years) with low back pain with a duration of at least 6 months participated in the study. The groups did not differ on age, socioeconomic status, ethnicity or gender. Sessions were 30 min long twice a week for 5 weeks. On the first and last day of the 5-week study participants completed questionnaires and were assessed for ROM. By the end of the study, the massage therapy group, as compared to the relaxation group, reported experiencing less pain, depression, anxiety and sleep disturbance. They also showed improved trunk and pain flexion performance.

11. Bronfort, G., Haas, M., Evans, R., Leiniger, B., Triano, J. (2010). Effectiveness of manual therapies: the UK evidence report. <a href="Chiropr Osteopat.">Chiropr Osteopat.</a> 2010 Feb 25;18(1):3. [Epub ahead of print]. Retrieved March 16, 2010 from PubMed website: <a href="http://www.ncbi.nlm.nih.gov/pubmed/20184717">http://www.ncbi.nlm.nih.gov/pubmed/20184717</a>.

ABSTRACT: BACKGROUND: The purpose of this report is to provide a succinct but comprehensive summary of the scientific evidence regarding the effectiveness of manual treatment for the management of a variety of musculoskeletal and non-musculoskeletal conditions.

METHODS: The conclusions are based on the results of systematic reviews of randomized clinical trials (RCTs), widely accepted and primarily UK and United States evidence-based clinical guidelines, plus the results of all RCTs not yet included in the first three categories. The strength/quality of the evidence regarding effectiveness was based on an adapted version of the grading system developed by the US Preventive Services Task Force and a study risk of bias assessment tool for the recent RCTs.

RESULTS: By September 2009, 26 categories of conditions were located containing RCT evidence for the use of manual therapy: 13 musculoskeletal conditions, four types of chronic headache and nine non-musculoskeletal conditions. We identified 49 recent relevant systematic reviews and 16 evidence-based clinical guidelines plus an additional 46 RCTs not yet included in systematic reviews and guidelines. Additionally, brief references are made to other effective non-pharmacological, non-invasive physical treatments.

CONCLUSIONS: Spinal manipulation/mobilization is effective in adults for: acute, subacute, and chronic low back pain; migraine and cervicogenic headache; cervicogenic dizziness; manipulation/mobilization is effective for several extremity joint conditions; and thoracic manipulation/mobilization is effective for acute/subacute neck pain. The evidence is inconclusive for cervical manipulation/mobilization alone for neck pain of any duration, and for manipulation/mobilization for mid back pain, sciatica, tension-type headache, coccydynia, temporomandibular joint disorders, fibromyalgia, premenstrual syndrome, and pneumonia in older adults. Spinal manipulation is not effective for asthma and dysmenorrhea when compared to sham manipulation, or for Stage 1 hypertension when added to an antihypertensive diet. In children, the evidence is inconclusive regarding the effectiveness for otitis media and enuresis, and it is not effective for infantile colic and asthma when compared to sham manipulation. Massage is effective in adults for chronic low back pain and chronic neck pain. The evidence is inconclusive for knee osteoarthritis, fibromyalgia, myofascial pain syndrome, migraine headache, and premenstrual syndrome. In children, the evidence is inconclusive for asthma and infantile colic.

<sup>i</sup> As of March 16, 2010 no study results had been posted on the U.S. National Institutes of Health website: <a href="http://clinicaltrials.gov/ct2/show/related/NCT00371384">http://clinicaltrials.gov/ct2/show/related/NCT00371384</a>.