Immediate Effects of SMT on Regional Antinociceptive Effects in Myofascial Tissues

John Z. Srbely, DC, PhD, et al.

Objective: The purpose of this study was to investigate if spinal manipulative therapy (SMT) can evoke immediate regional antinociceptive effects in myofascial tissues by increasing pressure pain thresholds (PPTs) over myofascial trigger points in healthy young adults.

Methods: A total of 36 participants (19 men, 17 women; age, 28.0 [5.3] years; body mass index, 26.5 [5.7] kg/m2) with clinically identifiable myofascial trigger points in the infraspinatus and gluteus medius muscles were recruited from the University of Guelph, Ontario, Canada. Participants were randomly allocated to 2 groups. Participants in the test group received chiropractic SMT targeted to the C5-C6 spinal segment. Participants in the control group received sham SMT. The PPT was recorded from the right infraspinatus and gluteus medius muscles at baseline (preintervention) and 1, 5, 10, and 15 minutes postintervention.

Results: Three participants were disqualified, resulting in a total of 33 participants analyzed. Significant increases in the PPT (decreased pain sensitivity) were observed in the test infraspinatus group when compared with test gluteus medius, control infraspinatus, and control gluteus medius groups ($P < .05$). No significant differences in PPT were observed at any time point when comparing test gluteus medius, control infraspinatus, and control gluteus medius groups ($P > .05$).
Conclusions: This study showed that SMT evokes short-term regional increases in PPT within myofascial tissues in healthy young adults.

Association Between Asymmetric Hip Mobility and Neck Pain in Young Adults

Hsin-Yi Lee, PhD, et al.

Objective: The objective of this cross-sectional observational study was to determine whether asymmetric hip mobility was associated with neck pain in young adults.

Methods: Three hundred twenty-seven freshmen students were recruited from an urban university and underwent the Patrick’s flexion, abduction, external rotation, extension (FABERE) test for comparison of the functional mobility of bilateral hip joints during the health examination. A logistic regression model was constructed to determine whether the asymmetry measured by the Patrick’s FABERE test was associated with neck pain after adjusting for factors of sex and exercise habits.

Results: The frequency of asymmetric results of the Patrick’s FABERE test among the students who reported neck pain was significantly higher than that of those without neck pain (54.2% vs 26.5%; P < .001). After adjusting for the above confounders, the odds ratio of asymmetric results of a Patrick’s FABERE test was 2.99 (95% confidence interval, 1.57-5.72; P < .001).

Conclusion: Imbalanced mobility of the hip joints might be associated with an increased incidence of neck pain.

Prevalence of Burnout Among Doctors of Chiropractic in the Northeastern U.S.

Shawn Williams, DC, PhD, et al.

Objective: The purpose of this study was to measure the prevalence of burnout among doctors of chiropractic (DCs) in the New York, New Jersey, and Pennsylvania geographical region and compare these results with burnout data from other health care professions.

Methods: This exploratory study applied cross-sectional data collection methods. Using nonprobability convenience sampling, a New York–New Jersey–Pennsylvania chiropractic governance body provided contact information of a randomized sample of licensed DCs from their membership directory. Participants
included any DC licensed to practice chiropractic whose primary occupation encompassed the chiropractic profession. The Maslach Burnout Inventory–Human Services Survey (MBI-HSS) and a demographic questionnaire were e-mailed to a randomized sample of licensed DCs.

Results: Of the 772 surveys deployed, 90 returned the survey with usable data. Nearly 40% of the DCs reported a moderate (24%) or high (18%) level of emotional exhaustion, whereas the majority of respondents scored a high (72%) level of personal accomplishment. In total, only two participants (2%) met the criteria for high burnout, whereas 42 participants (47%) were low. Statistically significant relationships ($P < .001$) were found between burnout subscales and the effect of time dedicated to administrative duties, the type of practice setting, the varying chiropractic philosophical perspectives, the public’s opinion of chiropractic, and the effect of suffering from a work-related injury. When compared with data from previously published studies using the MBI-HSS for other health professions (i.e., medical, nursing, physical therapy, occupational therapy, and dentistry), the values for DCs were significantly lower.

Conclusions: The sample of DCs in this study fared more favorably on all three dimensions of burnout. They reported lower emotional exhaustion and depersonalization scores and higher personal accomplishment scores than their medical, nursing, physical therapy, occupational therapy, and dentistry colleagues who have been evaluated using the MBI-HSS. However, the levels of emotional exhaustion remain a concern for this professional group.

Orthotics and Usual Care vs. UC Alone for Chronic LBP After Work-Related Injury

*Robert Ferrari, MD, MSc (Med)*

Objective: The objective of this study was to compare the effect of customized foot orthotics in addition to usual care (UC) compared with UC alone for the treatment of patients with chronic low back pain after work-related injury.

Methods: Sixty-two consecutive patients presenting with chronic (more than three months), nonspecific, low back pain following work-related low back injury were included in the study. A total of 30 patients in the UC group were given a six-week exercise therapy program along with prescription analgesics. The intervention group, composed of 32 patients, received UC in addition to customized foot orthotics (orthotics group). All subjects completed the Oswestry Disability Index at the initiation of the study and at eight-week follow-up. Work disability, as defined by working at usual, preinjury job labor level, was recorded at
baseline and eight-week follow-up.

**Results:** A total of 28 subjects in the UC group and 32 in the orthotics group completed the study. The two groups were well-matched in terms of age, sex distribution, and duration of low back pain as well as baseline Oswestry Disability Index score. At eight weeks, both groups had improved. The orthotics group had a lower Oswestry Disability Index than the UC group ($P < .01$), with a smaller proportion of the orthotics group using any form of prescribed analgesics for back pain ($P < .05$).

**Conclusions:** The findings showed that patients in this study with chronic, nonspecific low back pain following work-related low back injury had greater improvement in short-term outcomes with orthotics and UC than with UC alone.

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