Influence of Fascial Manipulation on Range of motion, Pain and Functions in Individuals with Chronic Shoulder Pain

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Introduction/Background

The shoulder disorders accounts for 15% to 30% of the common musculoskeletal pain in which 50% of the patients complains of chronic pain (1). Various anatomical studies have shown the existence of myofascial chains linked by deep fascia along the upper extremity. Any alterations in these deep fascia could be a source of shoulder pain (2). So treatment methods considering the entire myofascial sequences (MS) may be crucial in managing such conditions. Fascial manipulation (FM) involves kneading of the deep fascia at certain points called center of co-ordination(CC) along these MS which might restores the gliding of the intra-fascial fibers thereby reducing pain and improving functions. The objective of this study is to find the effect of FM in pain, ROM and functions in individuals with chronic shoulder pain.

Methods

Study Design: Single group pre-test post-test study design

Subjects: After obtaining approval from the Institutional Research and Ethical committee, 18 individuals with chronic shoulder pain aged 18-45 years were recruited.

Setting: Manipal Academy of Higher Education

Outcome Measures:

Numerical Pain Rating Scale (NPRS), Range of motion (ROM) using goniometer, Disability of Arm, Shoulder and Hand (DASH) score, Pain pressure threshold (PPT) using algometer.

All outcomes except DASH were measured before and immediately after FM as well as on the 7th day. DASH was assessed prior to FM intervention and then on the 7th day.

Results:

Sixteen participants have completed the trial. Friedman test was used to analyze the collected data which showed that there was a statistically significant differences in ROM and NPRS before and after FM on the first day as well as between day 1 and day 7 (p < 0.05). Wilcoxon signed rank test showed statistically significant difference I the DASH scores between day 1 and day 7 (p < 0.05). Repeated measures ANOVA revealed no statistically significant differences in the pain pressure threshold of upper trapezius, pectoralis minor, infraspinatus and teres minor (p > 0.05).

Conclusion:

FM can be used as an effective treatment strategy in improving the ROM and functions as well as decreasing the pain in chronic painful shoulder conditions.
References:
