

The Effects of Vibratory Muscle Stimulation on Pain and Cranio- Vertebral Angle for University Students with Forward Head Posture

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Abstract

Introduction: Neck pain is a prevalent musculoskeletal disorder among university students, often leading to altered postural behaviours. Prolonged sitting during study sessions is a common trigger for chronic neck pain, which can alter the biomechanics of the cervical spine, resulting in a forward head posture. Over 60% of neck pain patients are reported to have a forward head posture. This study aimed to investigate the effects of vibratory muscle stimulation on pain and cranio-vertebral angle in university students with forward head postures.

Methods: A sample of 10 subjects with forward head postures was selected through simple random sampling for this study. The participants were recruited from Saveetha Hospital.

Results: The post-treatment mean value of the Cranio-vertebral angle was 50, whereas the standard deviation was 1.911 in the pre-test and 1.490 in the post-test. Data acquired for VAS was statistically significant between the pre-test and post-test where the p-value is <0.001, the mean value is 6 before testing and 3.2 after the test and a standard deviation of 0.81 before the test and 0.78 after the test, according to the statistical analysis performed on the quantitative data.

Conclusion: The study unequivocally demonstrates the effectiveness of vibratory muscle stimulation as a non-invasive intervention for forward head posture and its significant impact on pain among university students with forward head posture. The statistical significance of the results further strengthens the credibility of the study. Given the novelty of this topic, further research is warranted.