Abstract

Background: The prevalence of neck pain (NP) is rising, and the financial and societal implications of this condition are also rising. Neck pain is a prevalent musculoskeletal disorder that significantly impacts individuals' quality of life and productivity. Its increasing prevalence has led to significant economic and social costs worldwide. Various factors contribute to the development and persistence of NP, including sedentary lifestyles, poor posture, and psychosocial stressors. Therefore, the objective of the study was to investigate the correlation between cervical flexor strength and its endurance among university students with non-specific neck pain (NSNP).

Study design: This is a correlation study.

Methodology: Forty-five involved non-specific neck pain patients (28 male and 17 female), with mean age 21.13±2.08 of years, were included in the study. The Cervical flexor strength was measured by a hydraulic handheld dynamometer, and the cervical flexor endurance was measured by pressure biofeedback.

Results: Spearman's correlation coefficient test showed that there is highly correlation between mean and SD of cervical flexor strength and cervical flexor endurance ($r = 0.72$, $p < 0.01$). The mean cervical flexor strength (CFS)for total patients was 7.72±2.71 kg. For male patients the mean cervical flexor strength (CFS) was 9.22±2.30 kg. Similarly in female patients it was 5.25±0.92 kg. The cervical flexor endurance (CFE, performance index) for total patients was 56.88±24.84. For male patients the cervical flexor endurance (CFE, performance index) was 68.57±21.38. Similarly in female patients it was 37.64±17.14.

Conclusion: There is a high correlation between the cervical flexor strength and cervical flexor endurance, which indicates that as the cervical muscle strength decreases, cervical flexor endurance decreases in patients with non-specific neck pain.

Keywords: Non–specific neck pain, cervical flexor muscle strength, handheld dynamometer, pressure biofeedback device, correlation study.

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