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Posture and time spent using a smartphone are not correlated with neck pain and disability in young adults: A cross-sectional study

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Abstract

Purpose: To determine the impact of smartphone use on neck impairment and functional limitation in university students.

Methods: A cross-sectional correlational study was conducted in a sample of students selected through convenience sampling between September 2016 and March 2017. The inclusion criteria were university students at the School of Medicine and Surgery, routine/daily use of mobile devices with advanced computing and connectivity capability built on an operating system, and aged 18-30 years. Participants completed questionnaires that measured general characteristics of smartphone use and demographic characteristics. Neck pain was assessed using a visual analogue pain score (VAS) and a pain drawing (PD); disability status was measured using the Neck Disability Index (NDI-I); and cervical

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postures while using the phone were captured using the Deluxe Cervical Range of Motion (CROM) device.

Results: A total of 238 volunteers were recruited (22.4 ± 2.2 years of age, 53.4% males), 35.9% of whom were overweight (>25 BMI). Regarding neck pain, 42.4% reported mild pain, 8.4% had moderate pain, and the remaining 49.2% had no pain. NDI-I and VAS were 3.8 ± 3.8 and 13.6 ± 18.4 mm, respectively. The pain categories did not influence the variables. No significant correlations were observed between the number of hours spent and posture (CROM) while using a smartphone and neck pain and NDI-I.

Conclusion: While half of young medical students reported neck pain, the use of smartphones was not correlated with neck pain and disability. While we wait for future prospective studies, there is no reason to recommend a change in smartphone use habits among young adults in the meantime.

Keywords: Musculoskeletal disorders; Pain; Posture; Smartphone.

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