Correlation between craniovertebral angle and forward shoulder posture in dental students with and without neck pain

A majority of dental students as well as dentists usually work in a sustained non-neural spinal posture for long periods of time. Neck pain can be a consequence of poor posture, especially forward head posture and forward shoulder posture, during clinical practice. The objectives of this study was to examine the correlation between the craniovertebral angle (CV angle) and forward shoulder posture angle (FSP angle) in dental students with neck pain. Eighteen dental students with neck pain were measured the CV angle and the FSP angle by Three-point Marker detection software (ICC>0.99). Pearson correlation coefficient was used to analyze the correlation between the CV angle and the FSP angle. The result found that, a moderate positive correlation existed between the CV angle and FSP angle (r = .04; p < .05). A decrease in CV angle indicated forward head posture and a decrease in FSP angles indicated round shoulder posture in the dental students with neck pain. The poor posture of dental students with neck pain, may contribute to MSDs among dentists and may also lead to shoulder pain. The specific treatment will be applied to those in the dental professional practices to improve or correct poor posture in order to prevent future MSDs problems.

Keywords: craniovertebral angle (CV angle), forward shoulder posture angle (FSP angle), neck pain

ABSTRACT

A majority of dental students as well as dentists usually work in a sustained non-neural spinal posture for long periods of time. Neck pain can be a consequence of poor posture, especially forward head posture and forward shoulder posture, during clinical practice. The objectives of this study was to examine the correlation between the craniovertebral angle (CV angle) and forward shoulder posture angle (FSP angle) in dental students with neck pain. Eighteen dental students with neck pain were measured the CV angle and the FSP angle by Three-point Marker detection software (ICC>0.99). Pearson correlation coefficient was used to analyze the correlation between the CV angle and the FSP angle. The result found that, a moderate positive correlation existed between the CV angle and FSP angle (r = .04; p < .05). A decrease in CV angle indicated forward head posture and a decrease in FSP angles indicated round shoulder posture in the dental students with neck pain. The poor posture of dental students with neck pain, may contribute to MSDs among dentists and may also lead to shoulder pain. The specific treatment will be applied to those in the dental professional practices to improve or correct poor posture in order to prevent future MSDs problems.

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