



Analysis of sleep, pain and anxiety correlation in individuals with TMD: an analytic transversal study

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Introduction

Temporomandibular disorder (TMD) is a pathology of the stomatognathic system, considered the main cause of non-dental orofacial pain. Several signs and symptoms are present in the face from this pathology, and among them, there is the possibility of pain in the joint and associated regions.

Pain is defined by International Association Study of Pain as an unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage. Although it relates to adaptive processes, it can cause adverse effects on social and psychological function and well-being, influenced to different degrees by biological, psychological and social factors. Individuals with chronic pain, further to the pains, have oscillation in their emotional behaviors and sleep disturbances.

The anxiety and depression in the pathogenesis of temporomandibular disorders have been investigated since the entry of Research Diagnostic Criteria (RDC) for TMD in 1992, approached in Axis II of this instrument. Studies indicate that the health of the individual and quality of life are influenced negatively by the pain and/or for the stress caused by TMD, which can compromise daily activities, cognitive and affective balance, the physical activities and sleep.

As shown above, TMD is considered an important health problem nowadays, and is also important to consider the psychological aspects related to it and the impacts on the quality of the individuals affected by this disorder.

Objective

The aim of this study is to analyze the correlation of sleep, pain and anxiety in individuals with TMD.

Methods

This work is a cross-sectional study that uses data from research realized in Federal University of Pernambuco (UFPE), approved by the Ethics and Research Committee and labeled under the number 81287.9.0000.5208. In a sample of 35 people were analyzed sleep issues of Axis II of RDC, tissue sensitivity to pain measured on the algometer, and the level of anxiety recorded in the Hamilton scale and analyzed statistically using Spearman correlation test, considering the significance of $p < 0,05$.

Results

This work showed a positive correlation between sleep and anxiety, and a negative correlation between sleep and tissue pain threshold of the left masseter and upper trapezius muscle. The recording of anxiety showed a direct relation with the sensitivity of the left medial temporal muscle. Bases on the results, individuals with TMD presented negative sleep alteration, anxiety qualified by Hamilton and greater tissue sensitivity to pain.

Conclusion

In the correlation analysis, the data showed the worse the sleep, the greater the anxiety. Moreover, the lower the pain sensitivity, the better the quality of sleep, and the lower the anxiety.

Keywords: Temporomandibular disorder, Pain, Anxiety, Sleep.