



EVALUATION OF SLEEP QUALITY AND PREVALENCE OF MUSCULAR TMD IN DENTISTRY UNDERGRADUATE STUDENTS.

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Abstract

Temporomandibular dysfunctions (TMD) cover a set of craniofacial alterations, which may involve the temporomandibular joint (TMJ), chewing muscles and/or associated structures, with characteristics of chronic inflammation. The dentistry students compose a group susceptible to sleep disorders, due to the curricular load at full time schedule, and the strong pressure and stress, requiring high performance and time-demand studies.

Key words:

Sleep, TMD, anxiety.

Introduction

Factors such as age, sex, hormones, trauma and psychological stress may lead to physiological adaptation or, otherwise, to the disorganization of TMJ (Figueroba et al., 2014). Sleep quality and psychological stress are described as possible predisposing or perpetuating factors. However, the relationship between pain and sleep is not unidirectional. Deficient sleep also influences the perception of pain (Edwards et al. 2009). The American Academy of sleep Medicine defines sleep bruxism as a parasomnia, being an undesirable physical phenomenon that occurs predominantly during sleep (Mesko et al., 2017). The objectives of this study were to evaluate the quality of sleep, anxiety and pain in the face.

Results and Discussion

We evaluated 161 randomly students chosen from the first to the fifth year of graduation, of both sexes, aging 18 years or older, all enrolled at the school of Dentistry of Piracicaba – UNICAMP. Ethics Committee approved the study (2.802.221). The criteria for TMD determination were based on evidence by the DC/TMD (Schiffman et al., 2014), Pittsburgh Sleep Quality Index (PSQI) and the Epworth sleepiness scale (Bertolazzi et al., 2011) and evaluation of the state of anxiety (STAI - State-Trait Personality Inventory). The data obtained were submitted to the Shapiro-Wilk test to evaluate the normality of the Levene's test to observe the equivalence of variances. The significance level adopted was 5% ($\alpha = 5\%$).

Figure 1. Students with TMD presented higher sleep scale score ($P = 0.0053$), higher tendency of sleep disorders, and there were no statistically significant differences between the two groups in relation to time to sleep ($P = 0.10$) and total sleep time ($p = 0.24$).

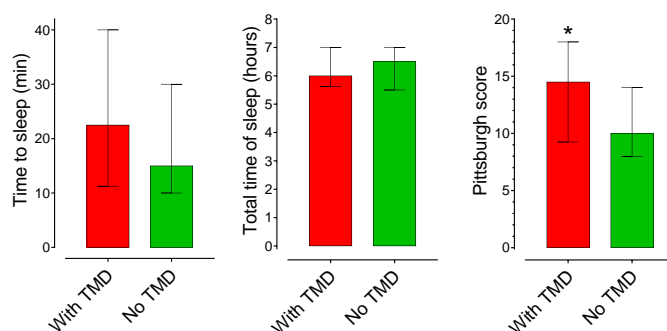


Table 1.

		No TMD	With TMD	p
YG	1 st e 2 nd	70	17	0.0408
	3 rd	22	15	
	4 th e 5 th	29	8	
QGS	G/VG	89	17	0.0007
	B/VB	32	23	
Pain in the face	Nome	114	9	< 0.0001
	Any	7	31	
AL	Moderate	108	39	0.1233
	Severe	13	1	

Year Graduation (YG), general quality sleep (QGS), level of anxiety (AL), Good/Very good (G/VG), Bad/Very bad (B/VB).

Conclusions

Our study shows that the quality of SLEEP may be a factor in the development of facial PAIN and that the level of ANXIETY does not interfere.

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