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INTRODUCTION

There is an extensive evidence that psychosocial factors and sleep quality have an impact on pain persistence as well as on Temporomandibular Disorder (TMD) treatment. Several standardized self-report questionnaires assessing some dimensions of the psychosocial profile have been developed. Psychological factors are involved in perception of pain and, since pain and poor sleep may affect psychological well-being, studies of these factors could help understand TMD patient individually and personalize their treatment.

AIMS

The present study aimed to determine the prevalence of sleep quality, depression and anxiety T-score discordance in a group with painful TMD in comparison with age and gender-matched healthy controls. It was hypothesized that at least 50% of TMD myofascial pain patients shows discordance in T-score compared with healthy controls.

MATERIAL AND METHODS

SAMPLE: ✓ **85** healthy individuals (reference data group)
✓ **118** TMD myofascial pain patients (according to AAOP)

At Baseline: participants completed **three questionnaires** to access **psychosocial and sleep quality conditions:**

- ✓ Beck Anxiety Inventory - **BAI**
- ✓ Beck Depression Inventory - **BDI**
- ✓ Pittsburg Sleep Quality Index - **PSQI**

STATISTICAL ANALYSIS:

Group difference for BAI, BDI and PSQI total score was analyzed with **t test**, and after that, the total score for all questionnaires and groups were transformed into **T-scores** based on the reference data. The **T-score** data was plotted in a graph.

***The T-scores between 40 and 60 were considered the normal range and above 60, considered higher than the healthy reference group. Thus, scores above 70 were considered unusually high compared with the reference data and were termed as absolute psychosocial distress, while a T score below 30 was considered unusually low compared with the reference data.

RESULTS

TMD pain patients showed significantly impaired sleep quality compared with healthy controls. Also, the results showed a significantly impaired psychological condition in TMD patient when compared to control group (TABLE 1). The **T-score above 60** had significant difference between groups for the 3 variables (PSQI, BAI and BDI) as showed on TABLE 2.

Variables	TMD patients (n=118)	Controls (n=85)	p value
Age, mean (±SD)	36.2 (11.5)	34.4 (10.6)	0.268
Sex, n (%)			
Female	106 (89.8)	76 (89.4)	
Male	12 (10.2)	9 (10.6)	
PSQI score	8.33 (3.87)	5.83 (3.05)	<0.001
BAI score	13.2 (8.72)	7.45 (6.97)	<0.001
BDI score	11.2 (8.7)	7.12 (6.41)	<0.001

TABLE 1: Statistic t-test results for the variables of the present study.

	Reference data (n=85)			Patient data (n=118)			T Score differences p value
	T-score mean (SD)	Above 60 n(%)	Above 70 n(%)	T score mean (SD)	Above 60 n(%)	Above 70 n(%)	
PSQI	50 (10)	9	2	58.2 (12.65)	43	17	<0.001
BAI	50 (10)	15	2	58.23 (12.55)	51	20	<0.001
BDI	50 (10)	11	5	56.23 (13.6)	39	21	<0.001

TABLE 2: T-scores mean of the questionnaires' results of TMD myofascial pain patients compared with healthy controls and the frequency of patients and healthy controls showing T scores above 60.

CONCLUSION

Psychological factors and sleep quality could be involved in the perception of TMD pain patients. The T-score psychosocial profiles analysis creates an easy overview of psychosocial function in TMD pain patients and contributes for elaborate a personalized TMD treatment plan.