

Original Research

Identify the presence of oral Habits (OHs) and their association with the trait of anxiety in pediatric patients with possible sleep bruxism

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ABSTRACT

Background: The present study was conducted to assess identify the presence of OHs and their association with the trait of anxiety in pediatric patients with possible sleep bruxism (PSB). **Materials & Methods:** The present study was conducted on 50 bruxism children age ranged 5- 12 years of both genders. The scores reported in the STAI-C questionnaire showed a cutoff equal to 41 points. The total score was categorized according to the following ranges: 0–40 points denoted the absence of anxiety and 41–102 points denoted the presence of anxiety. **Results:** We found that out of 50 patients, both boys and girls were 25 in number. Artificial feeding was present in 30, natural in 10 and both in 10, finger sucking in 25, pacifier use in 35 and biting object in 28. The difference was significant ($P < 0.05$). There was significant difference in anxiety trait and oral habits in children with presence and absence of anxiety ($P < 0.05$). **Conclusion:** Author found no relation between STAI-C and OH in pediatric patients with PSB.

Key words: Anxiety, Children, STAI-C

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INTRODUCTION

grinding, rubbing, tapping, and clenching. Recently, bruxism with concomitant tooth grinding was reclassified as a sleep-related oral-motor movement disorder. Some authors also distinguish between diurnal and nocturnal, or sleep bruxism (SB). The difference between the two types is that the latter has a totally involuntary motion.¹

Sleep disorders that have been reported to be concomitant with bruxism include obstructive sleep apnea, parasomnias, restless legs syndrome, oral mandibular myoclonus, and rapid eye movement behavior disorders.² Despite the controversy around the exact area of the nervous system where bruxism is triggered, *i.e.*, peripheral or central, the main consequences of bruxism can be observed in the oral-dental area. Such consequences may include tooth destruction, dental work failure, temporomandibular joint and jaw muscle pain or jaw movement limitation, and temporal headache.³

Investigators have been working for years to obtain a more profound degree of knowledge on the risks for and associated factors of bruxism.⁴ In this regard, evidence is growing in support of a multifactorial etiology, with a genetic influence and potential relevance of emotional factors as well. In general, people have certain personality features as well as a trait of anxiety that lead them to react either as nervous or independent and secure depending on the situation. Furthermore, stress sensitivity has been found to be a key psychological factor associated with bruxism among children, teenagers, and adults.⁵ The present study was conducted to assess identify the presence of OHs and their association with the trait of anxiety in pediatric patients with possible sleep bruxism (PSB).

MATERIALS & METHODS

The present study was conducted in the department of Pedodontics. It comprised of 50 bruxism children age

ranged 5- 12 years of both genders . Ethical clearance was obtained prior to the study. Consent was obtained from parents of all children before the procedure.

Information such as name, age, gender etc. was recorded. Sociodemographic and OH data in pediatric patients with PSB were classified as present or absent and were descriptively analyzed through their absolute and relative frequencies. The scores reported in the STAI-C questionnaire showed a cutoff equal to 41 points. The total score was categorized according to the following ranges: 0–40 points denoted the absence of anxiety and 41–102 points denoted the presence of anxiety. P value less than 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Groups	Group I	Group II
Number	25	25

Table I shows that out of 50 patients, both boys and girls were 25 in number.

Table II Frequency of oral habits in pediatric patients with possible sleep bruxism

OHS	Number	P value
Artificial feeding	30	0.01
Natural feeding	10	
Both	10	
Finger sucking yes	25	0.05
No	25	
Pacifier Yes	35	0.04
No	15	
Biting object Yes	28	0.02
No	22	

Table II shows that artificial feeding was present in 30, natural in 10 and both in 10, finger sucking in 25, pacifier use in 35 and biting object in 28. The difference was significant (P< 0.05).

DISCUSSION

Anxiety in children is a common occurrence in clinical pediatric psychiatry. Its prevalence is 2.5% to 5% in the general population and 10.6% to 24% in the clinical population. In recent years, a large number of studies aimed to better identify and understand the characteristics of this symptom in the pediatric population. Different from the adult population, the symptoms were related to anxiety change according to the phases of child development, which often makes identification difficult.⁶

Graph I Frequency of oral habits in pediatric patients with possible sleep bruxism

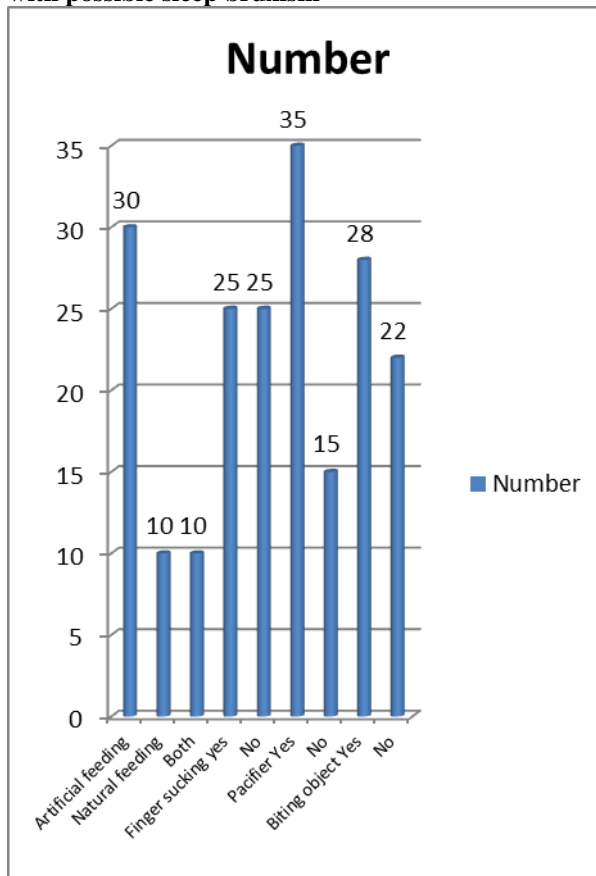


Table III Association between oral habits and the absence or presence of anxiety trait in patients with possible sleep bruxism

OHS	Present	Absent	P value
Artificial feeding	20	10	0.04
Natural feeding	6	4	
Both	5	5	
Finger sucking yes	17	8	0.05
No	18	7	
Pacifier Yes	25	10	0.01
No	10	5	
Biting object Yes	20	0	0.02
No	10	12	

Table III shows that there was significant difference in anxiety trait and oral habits in children with presence and absence of anxiety ($P < 0.05$).

Bruxism is considered a parafunctional OH and is characterized as a repetitive jaw muscle activity involving a clenching or grinding of the teeth and/or bracing or thrusting of the mandible. It is known at this time that its etiology is not limited to occlusal problems, stress, or medical disorders affecting dopamine; rather, there is a consensus today about the multifactorial nature of bruxism.⁷ However, psychological factors seem to play a key role in the development of the condition. In addition, the patient's lifestyle exerts a great influence on the frequency, duration, and severity of bruxism. Some theoreticians of the psychoanalytic tradition suggest that bruxism is a symptom of a serious underlying emotional disease and/or the response to anxiety, frustration, and hostility. In some cases, the trait of anxiety may also be involved with different levels of dental wear and bruxism can also be triggered by different psychological stimuli, resulting from the distressing behavior in the environment.⁸ We found that out of 50 patients, both boys and girls were 25 in number. Artificial feeding was present in 30, natural in 10 and both in 10, finger sucking in 25, pacifier use in 35 and biting object in 28. The difference was significant ($P < 0.05$). There was significant difference in anxiety trait and oral habits in children with presence and absence of anxiety ($P < 0.05$).

Esenyel et al⁹ separately reported an association between bruxism and other parafunctional habits in young children. OHs and sucking habits are the most frequent examples of driving dental needs. 53% of the children had at least one habit and that the habit of nail biting was the most prevalent at 35%.

Serra¹⁰ observed the existence of an association between bruxism and the use of pacifiers, biting of the lips, and biting of the nails. Children who used pacifiers had a sevenfold increased risk of developing bruxism and a fivefold increased risk of chewing on their lips. They concluded that there is an association between bruxism and other parafunctions in children. These children tend to bite objects and are more susceptible to the development of bruxism.

CONCLUSION

Author found no relation between STAI-C and OH in pediatric patients with PSB.

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