

Awareness of Bruxism among Dental Students

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Abstract:-

➤ Introduction:

Bruxism is an oral para functional activity in which involuntary rhythmic or spasmodic non functional gnashing ,grinding,clenching of teeth which may lead to occlusal trauma. Bruxism is considered a detrimental motor activity, potentially causes overloaded of stomatognathic structures. It is not related to functions which are normal as communicating and gobbling. A key challenge with bruxism is that it is much harder for people to be aware that they are grinding their teeth.

➤ Aim and Objectives:

The aim of this article is to interpret their level of perception, awareness, knowledge.

➤ Materials and Methodology:

The cross sectional questionnaire survey was conducted amongst 150 students of our college of age between 18-28 years during the pandemic period. The questionnaire consisted of 22 question including demographic details(age and year of study).

➤ Results:

The mean age of the study population was 22.24 and standard deviation+/-2.95

➤ Conclusion:

Hence the results of this study revealed that the dental students have greater awareness and knowledge.

Keywords:- Bruxism, Tooth Grinding, Clenching of Tooth.

I. INTRODUCTION

Tooth clenching is an activity particularly important to the dentist because of breakage of dental restoration, tooth damage, induction of temporal headache and temporomandibular disorders (1).

Bruxism is repetitive jaw muscle activity characterized by the clenching ,gnashing of teeth and or bracing or thrusting of the mandible (2). It is noted as the commonest of the many parafunctional habits of dental and facial system (3).

The term 'la bruxomanie' was first introduced by Marie pietkiewicz in 1907 and latter it was adopted by frohman in 1931 as "bruxism" to describe gnashing and grinding of the teeth occurring without a functional purpose. Bruxism was originated from Greek word "brychein"

According to glossory of prosthodontics terms (GPT8) defines bruxism as parafunctional grinding of teeth or an oral habit consists of involuntary rhythmic or grinding ,clenching of teeth in other than chewing movements of the mandible which may leads to occlusal trauma. Bruxism will be categories into awake bruxism(AB) and sleep bruxism (SB). Bruxism can occur during wakefulness or during sleep. The prevalence range is from 8- 13%in the general population and 14-20%in children.

Bruxism is the most prominent clinical signs is abnormal wearing of the teeth. The etiology of bruxism is not completely resolved(4). The anatomy, morphology and dental occlusion are associated to bruxism. (5)

This type of disorder can also be observed in younger people and it is more

common in females. Additional reasons include interceptive occlusal contacts, malocclusion, rheumatism and masticatory system inflammation (6).

In most of the cases bruxism does not cause serious complications, but in severe conditions it can leads to damage of teeth and restoration, tension type headaches, facial or jaw pain and temporomandibular disorders.

Hence a proper diagnosis and management of bruxism is a major concern, in order to prevent complications.

II. MATERIALS AND METHODOLOGY

A cross sectional questionnaire survey was conducted to access the awareness of bruxism among dental students between 18- 28years. The survey was conducted among dental students of our college.

The study was conducted during covid19 lockdown period. An electronic questionnaire comprising of 24 questions including the demographic detail (age and year of study)and it was prepared on the format using google forms. Then the link was circulated on various social media platforms such as whatsapp messenger and Instagram with a note explaining the purpose.The questionnaire was designed mostly with closed ended questions (yes/no responses) and few with open ended questions to offer the subjects, the opportunity to express.

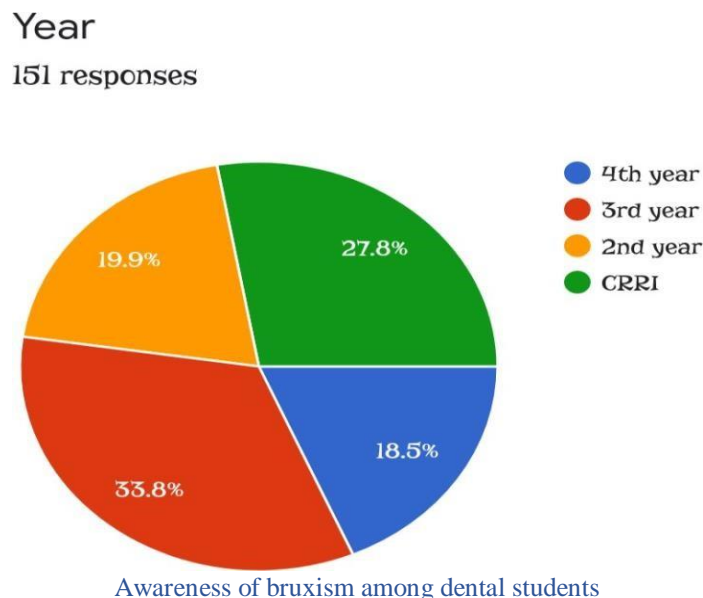
The participants were asked to complete and submit the responses to this online survey. It took about 5 to 7 minutes to complete the survey. Total of 150 samples were received with willingness. Form limiter was used to limit the

multiple responses form same participant and to limit the data collection upto 150 responses.

The questions were framed to access the awareness of bruxism among dental students.

III. RESULTS

A descriptive cross sectional survey was conducted to evaluate the awareness of bruxism among dental students. The age of the study population ranged from 18 -28 years.



		Frequency(n)	Percentage (%)
1. What is bruxism?	Clenching of teeth	33	22.0
	Grinding of teeth	60	40.0
	All of the above	54	36.0
	None	3	2.0
2.causes of bruxism?	Psychosocial factor	37	24.7
	Peripheral factor	52	34.7
	Pathophysiology	29	19.3
	All of the above	32	21.3
3.Bruxism is more common in	Young	75	50.0
	Adult	75	50.0
4.Bruxism is found to occur predominantly among	Male	89	59.3
	Female	61	40.7
5.prevalence rate of bruxism at younger population	14-20%	38	25.3
	22-28%	77	51.3
	6-12%	35	23.3
6.Are you aware that bruxism show signs greater wear than normal?	Yes	60	40.0
	No	55	36.7
	I don"t know	35	23.3
7.Do you know that bruxism can cause teeth or gums sore when wake up in the morning	Yes	55	36.7
	No	67	44.7
	I don"t know	28	18.7
8.Do you know that grinding of teeth can occur during daytime Or nighttime	Yes	57	38.0
	No	58	38.7
	May be	35	23.3
9.Are you aware that Anxiety, stress or tension can cause clenching of teeth.	Yes	61	40.7
	No	56	37.3
	May be	33	22.0

10. Do you know that caffeine, nicotine or other drugs can cause bruxism?	Yes	61	40.7
	No	50	33.3
	May be	39	26.0
11. Do you know that bruxism can cause facial pain?	Yes	53	35.3
	No	62	41.3
	I don't know	35	23.3
12. Are you aware that smoking or alcohol consumption can cause bruxism?	Yes	66	44.0
	No	53	35.3
	May be	31	20.7
13. Do you familiar with that bruxism can cause jaw clicking sound?	Yes	63	42.0
	No	58	38.7
	I don't know	29	19.3
14. Are you aware that malocclusion can cause bruxism?	Yes	56	37.3
	No	57	38.0
	May be	37	24.7
15. Do you familiar with that bruxism can cause any of the following symptoms when wake up in the morning?	Tiredness, tightness or pain in the jaw	32	21.3
	Clicking sound	44	29.3
	A sensation of tension in the Temporomandibular jaw	49	32.7
	None of the above	25	16.7
16. Do you know that bruxism can cause jaw tired or sore when wake up in the morning	Yes	58	38.7
	No	66	44.0
	May be	26	17.3
17. Are you aware that bruxism can cause difficulty In opening or closing of our mouth?	Yes	57	38.0
	No	57	38.0
	May be	36	24.0
18. Do you know that bruxism can cause the chewed tissues inside your cheek?	Yes	50	33.3
	No	54	36.0
	I don't know	46	30.7
19. Have you ever created awareness among patient?	Yes	90	60.0
	No	60	40.0
20. Treatment for bruxism	Occlusal Therapy	16	10.7
	Behavioural therapy	35	23.3
	Both a and b	85	56.7
	None	14	9.3

IV. DISCUSSION

Early diagnosis of bruxism is necessary to avoid damage to the temporomandibular joint and other oral Or facial structures such as teeth and masticatory muscles. Bruxism is present as an unconscious habit every day.

Bruxism diagnosis is usually made clinically and is based on the clinical history of the patient and the presence of typical signs, including tooth mobility, damage of teeth, masseteric hypertrophy, indenting the tongue, hypersensitive teeth, and pain in the masticatory muscles. It is possible for cracking or locking of the temporomandibular to appear(7)

Dental occlusion is a major unit in clinical dentistry and plays a vital role in physiologic masticatory function(8). The treatment for bruxism required a multidisciplinary approach, including psychology, psychotherapy and speech therapy (9)

Early treatment involved reducing the psychological stress through the use of relaxation methods like exercise, massages and physiotherapy (10)

The treatment reduces symptoms but does not remove the cause. The habit may be reactivated when the tolerance of the patient to occlusal change decrease.

Planning the therapy must be with meticulous attention to details. The purpose is to reduce physical and mental stress, treating signs and symptoms(11).

Pharmacological treatment with drugs such as dopamine agonist, anxiolytics, buspirone, nonbenzodiazepamic hypnotics, anticonvulsant and botulinum toxins are appropriate when bruxism is very pronounced. (12) By learning what is bruxism dental professionals will understand the better diagnosis, risk factors, prevention and treatment methods used.(13).Prevention should be considered as a essential measure in the treatment of bruxism and avoiding the risk of

development of various oral disease with their complications and improving patients lives.

V. CONCLUSION

Our study observed that dental undergraduate students have fair knowledge about bruxism. This survey was conducted among a particular group of students and does not indicate it is appropriate to everyone. The therapeutic perspective mainly focuses to stop further damage and to treat the pathological effects of bruxism on the structure of the masticatory apparatus.

Therefore continues educational and training workshops on bruxism should be given to students to enhance their clinical practice.

Splints for bruxism is a temporary treatment they are only therapeutic not a permanent solution. Splints won't help in breaking bruxism habit in severe cases. Bruxism will lead to muscle hypertrophic the intensity of bruxism has to be reduced by the patient conscious. Bruxism will cause permanent tooth wear which can be prevented by splints depending upon if it's awake bruxism or sleep bruxism.

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