

TOOTH SENSITIVITY AMONG RESIDENTIAL UNIVERSITY STUDENTS IN CHENNAI

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ABSTRACT

Objective: To assess the experience of TS of residential university students from different universities in Chennai.**Methods:** Students of different colleges were given questionnaires on TS. The answered questionnaires were then analyzed in SPSS online software and the results were found**Results:** From the data, it is inferred that the knowledge of treatment for TS isn't well-known among students and improper brushing techniques and soft drink consumption are main reasons for TS.**Conclusion:** From the data, one can infer that TS has become quite prevalent in today's society and with less awareness on its treatment. The people should be taught to maintain their oral hygiene, and proper brushing techniques should be taught and diet should be altered according to health. Soft drinks should be avoided to the highest extent and treatment for sensitivity should be taken promptly.**Keywords:** Dentin, sensitivity, students.© 2016 The Authors. Published by Innovare Academic Sciences Pvt Ltd. This is an open access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>) DOI: <http://dx.doi.org/10.22159/ajpcr.2016.v9s2.13228>

INTRODUCTION

Tooth sensitivity (TS) or dentine hypersensitivity has been defined as the sudden or transient pain arising from exposed dentine on contact with chemical, thermal, tactile, or osmotic stimuli, which does not arise due to any dental defect or pathology [1]. Cold and air stimulations are known to be the most common trigger [2,3], which has shown to have a significant potential in evoking dentine sensitivity [4]. This sensitivity can be explained by one of the most accepted theories, which is the hydrodynamic theory which states that the flow of fluid in dentinal tubules trigger receptors within the tooth. It is the most widely accepted theory explaining TS from the other stated theories [5]. Dentine hypersensitivity affects eating, drinking, and breathing. Increased sensitivity hampers the ability to control dental plaque effectively and can thereby disturb the maintenance of one's oral health. Severe hypersensitivity may even result in emotional changes that can alter lifestyle [6]. In general, a slightly higher incidence of dentine hypersensitivity is reported in females [7,8], which was said to reflect their overall health care and better oral hygiene awareness [9]. The reasons for improper care for dentinal sensitivity as the conditions for stimulated, so they develop adaptive behavior of restricting self from stimulants and seldom avoid using the affected side of the mouth [10,11]. This survey is done to find the prevalence of TS and the habits and lifestyles of the people affected by dentine hypersensitivity in residential students and thereby provide an insight into the leading causes of TS and thereby provide treatment and help to provide awareness.

METHODS

The survey was conducted on the residential students of five universities situated in Chennai. The students were randomly asked if they suffered from TS and were given questionnaires which were filled with the consent of the students who suffered from TS. The numbers of students without TS were also noted. These data were then analyzed using SPSS software and put in the form of tables.

RESULTS

The survey mainly focused on the students suffering from TS and from questioning almost 217 students, 110 students were found to suffer from TS. The following data show the habits and potential causes of dentin hypersensitivity.

Students with tooth sensitivity

Valid	Frequency	Percentage	Valid percentage	Cumulative percentage
Male	67	60.9	60.9	60.9
Female	43	39.1	39.1	100.0
Total	110	100.0	100.0	

Stimulus

Valid	Frequency	Percentage	Valid percentage	Cumulative percentage
Cold	87	79.1	79.1	79.1
Hot	5	4.5	4.5	83.6
Both	18	16.4	16.4	100.0
Total	110	100.0	100.0	

Avoiding pain

Valid	Frequency	Percentage	Valid percentage	Cumulative percentage
Normal temperature	89	80.9	80.9	80.9
Avoid food	21	19.1	19.1	100.0
Total	110	100.0	100.0	

Type of tooth brush				
Valid	Frequency	Percentage	Valid percentage	Cumulative percentage
Soft	10	9.1	9.1	9.1
Medium	68	61.8	61.8	70.9
Hard	32	29.1	29.1	100.0
Total	110	100.0	100.0	

Force of brushing				
Valid	Frequency	Percentage	Valid percentage	Cumulative percentage
Vigorous	59	53.6	53.6	53.6
Mild	44	40.0	40.0	93.6
Soft	7	6.4	6.4	100.0
Total	110	100.0	100.0	

Frequency of brushing				
Valid	Frequency	Percentage	Valid percentage	Cumulative percentage
Once	92	83.6	83.6	83.6
Twice	18	16.4	16.4	100.0
Total	110	100.0	100.0	

Duration of sensitivity				
Valid (years)	Frequency	Percentage	Valid percentage	Cumulative percentage
1-2	42	38.2	38.2	38.2
>2	68	61.8	61.8	100.0
Total	110	100.0	100.0	

Soft drink intake per week				
Valid	Frequency	Percentage	Valid percentage	Cumulative percentage
None	4	3.6	3.6	3.6
Once	31	28.2	28.2	31.8
Twice	54	49.1	49.1	80.9
four times	21	19.1	19.1	100.0
Total	110	100.0	100.0	

Gastric problem				
Valid	Frequency (%)	Percentage	Valid percentage	Cumulative percentage
Yes	24	21.8	21.8	21.8
No	86	78.2	78.2	100.0
Total	110	100.0	100.0	

Gum problem				
Valid	Frequency (%)	Percentage	Valid percentage	Cumulative percentage
Yes	12	10.9	10.9	10.9
No	98	89.1	89.1	100.0
Total	110	100.0	100.0	

Grinding				
Valid	Frequency (%)	Percentage	Valid percentage	Cumulative percentage
Yes	5	4.5	4.5	4.5
No	105	95.5	95.5	100.0
Total	110	100.0	100.0	

Smoking				
Valid	Frequency (%)	Percentage	Valid percentage	Cumulative percentage
Yes	48	43.6	43.6	43.6
No	62	56.4	56.4	100.0
Total	110	100.0	100.0	

Alcohol consumption				
Valid	Frequency (%)	Percentage	Valid percentage	Cumulative percentage
Yes	32	29.1	29.1	29.1
No	78	70.9	70.9	100.0
Total	110	100.0	100.0	

Dental procedures done				
Valid	Frequency (%)	Percentage	Valid percentage	Cumulative percentage
Scaling	14 (12.7)	12.7	50.0	50.0
Orthodontic	10 (9.1)	9.1	35.7	85.7
RCT	4 (3.6)	3.6	14.3	100.0
Total	28 (25.5)	25.5	100.0	
Missing System	82	74.5		
Total	110	100.0		

DISCUSSION

From the data, it was evident that almost half of students were affected by dentine hypersensitivity who responded to the questionnaire. It was found that males were found to be more prone to TS when compared females. The major stimulus for sensitivity was cold [7,12-14]. In the case of the food having sensitive temperatures, people often wait for the food to come to normal temperature which may lead to social discomfort in the presence of other people. It was also found that medium bristles toothbrushes were found to be more in use, and the force of brushing was found to be vigorous in nature which may lead to many gum problems such as gum bleeding and gum recession which may expose the underlying dentin [15]. Hard brushing may also lead to enamel erosion which also exposes the dentin [16]. Unorthodox tooth brushing such as using hard brushes, excessive forces, excessive scrubbing at the cervical areas or even lack of brushing would lead to accumulation of plaque and gingival recession [17,18]. It was found that many students were suffering from TS for more than 2 years without any treatment, this may be explained by scientists who have postulated that many patients assume that their condition is a natural occurrence developing with age or that it is untreatable [11]. It was interesting to note that more than half of the students had soft drinks regularly and this may also play a good role in TS due to enamel erosion from bad brushing habits. Erosive agents also play an important role in the progression of TS as they tend to remove or erode the enamel or open up the dentinal tubules, thereby exposing them [19,20]. It was also found almost 80% of the students brush their teeth only once per day. Few students who had sensitivity from dental procedures showed the scaling procedure to be one of the main causes of TS [21]. Gum problems and gastric problems along with grinding of teeth were found to be low among the students which are in relevance with another study made before [22]. Smoking was found in less than half of the students while alcohol consumption was very low.

CONCLUSION

From the data, one can infer that TS has become quite prevalent in today's society and with less awareness on its treatment. The people should be taught to maintain their oral hygiene, and proper brushing techniques should be taught and diet should be altered according to health. Soft drinks should be avoided to the highest extent and treatment for sensitivity should be taken promptly.

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