



"LET THE SCHOOL BELLS SPARKLE YOUR SMILE" - KNOWLEDGE AND AWARENESS REGARDING ORAL HEALTH AND TRAUMATIC DENTAL INJURIES AMONG SCHOOL TEACHERS IN MOGAPPAIR, CHENNAI.

Dental Science

Gayathri Krishnan*	Third year Postgraduate student, Department of Pedodontics and Preventive dentistry, Thai Moogambigai Dental College and Hospital, Chennai.*Corresponding Author
C. Chrishantha Joybell	Senior Lecturer, Department of Pedodontics and Preventive dentistry, Thai Moogambigai Dental College and Hospital, Chennai.
P. Agisha Raaje	First year Postgraduate student, Department of Pedodontics and Preventive dentistry, Thai Moogambigai Dental College and Hospital, Chennai
Joyson Moses	Professor and Head, Department of Pedodontics and Preventive dentistry, Thai Moogambigai Dental College and Hospital, Chennai

ABSTRACT

INTRODUCTION

Schools are the most favourable environment to impart oral health education to children and hence school teachers play an important role in promoting a good oral health among children.

AIM OF THE STUDY:

The aim of the study was to assess the knowledge and awareness regarding oral health and traumatic dental injuries amongst government school teachers, in the area Mogappair, Chennai.

MATERIALS AND METHODS

A questionnaire containing 15 close ended questions assessed the knowledge of 96 school teachers on oral health and on the emergency management of traumatic dental injuries.

RESULTS

Following statistical analysis, the results obtained in the study revealed that all the teachers (100%) had insufficient knowledge on management of traumatic dental injuries.

CONCLUSION

The study emphasizes the need for oral health training programs to be conducted as a part of teachers training curriculum.

KEYWORDS

Oral health, traumatic dental injuries, school teachers

INTRODUCTION

"Oral health is the mirror of general health" and it plays a vital role in the total well being of an individual. It has been reported that 60-90% of school children worldwide are affected with dental caries.¹ In a study done by Anand Hiremath et al in 2016, the caries prevalence was 78.9% in primary school children of India.²

Oral health education is one of the powerful tools to impart the essential knowledge and awareness about oral diseases. The most appropriate environment to impart oral health education to children is schools because healthy oral habits are developed early in life and children spend most of their time at school. Thus, promotion of a healthy lifestyle and good oral health can be established with the assistance and support of school teachers.

Traumatic dental injuries (TDIs) are very common in childhood. Epidemiological studies have shown that most of the traumatic dental injuries are observed in children belonging to the age group of 8-11 years.³ Accidents in the school environment resulting from falls is very common and is the main etiological factor of traumatic tooth injury at school.⁴ In such situations, a school teacher has the prime responsibility to handle such an emergency and refer the child to the concerned dental surgeon for further needful care. Hence the present study was aimed to assess the knowledge, awareness, and practises of oral health amongst government school teachers, in the area Mogappair, Chennai. The study also focussed to gauge the level of knowledge among the participated school teachers towards the emergency management of dental trauma.

MATERIALS AND METHODS

A cross-sectional survey was conducted over a period of 3 months in the area, Mogappair in Chennai city, Tamilnadu, among 96 high school teachers employed in 4 government schools. The study was approved by the institutional review board and ethical clearance was obtained to conduct the study. Prior permission was taken from the Head of the institutions of various schools through a letter explaining

the purpose and the procedures of the study. A written informed consent was obtained from the teachers before each one was enrolled in the study. A questionnaire with 15 closed ended questions was prepared and checked for its reliability. It was then distributed to all the teachers of the selected schools both in English and the local vernacular language Tamil for ease of communication. The duly filled questionnaires were collected next day from the respondents. The results obtained in the study was tabulated and subjected to statistical analysis using the statistical package for social sciences (SPSS) software.

RESULTS

Out of the 96 teachers who participated in the study, 12.5% were males and 87.5% were females. The mean age of the study group was 38.72. Table 1 depicts the different age group of teachers who participated in the study. Table 2 represents the responses of the teachers for queries related to their knowledge and awareness on oral health and traumatic dental injuries. Overall, 25% teachers responded that their knowledge on oral health is sufficient while 75% teachers responded that their knowledge on oral health is insufficient. All the teachers (100%) reported that their knowledge on management of traumatic dental injuries in school children is insufficient and they are willing to attend oral health education programs/ training programs to increase their awareness on the importance of oral health and management of traumatic dental injuries in school children.

TABLE 1- Distribution of different age group of school teachers

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	21 - 30 Years	24	25.0	25.0
	31 - 40 Years	33	34.4	59.4
	41 - 50 Years	24	25.0	84.4
	> 50 Years	15	15.6	100.0
	Total	96	100.0	100.0

TABLE 2- Response of the teachers to the questionnaire

Question	Response	Frequency	Percent	Valid Percent	Cumulative Percent
Is there any relationship between brushing and dental caries?	Yes	93	96.9	96.9	96.9
	No	3	3.1	3.1	100
	Total	96	100	100	
Do food habits influence dental caries?	Yes	96	100	100	100
How many times will u brush a day ?	Once	24	25	25	25
	Twice	72	75	75	100
	Total	96	100	100	
Do you use mouth wash?	Yes	45	46.9	46.9	46.9
	No	51	53.1	53.1	100
	Total	96	100	100	
Do you rinse your mouth after every meal?	Yes	96	100	100	100
What are the medications prescribed for dental pain ?	Pain killer	39	40.6	40.6	40.6
	Antibiotic and pain killer	21	21.9	21.9	62.5
	No idea	36	37.5	37.5	100
	Total	96	100	100	
Do you provide oral health education to your students?	Yes	96	100	100	100
Do you motivate your students for regular dental check-up?	Yes	96	100	100	100
How do you manage when a student complains of dental pain?	Give medication to the student	9	9.4	9.4	9.4
	Inform parent	75	78.1	78.1	87.5
	Take him to a dentist	12	12.5	12.5	100
	Total	96	100	100	
What first aid do you give to a student who had a traumatic injury to tooth?	Place ice on the region of trauma	15	15.6	15.6	15.6
	Rinse the region of trauma with water	48	50	50	65.6
	Don't know. Will take to the doctor immediately	33	34.4	34.4	100
	Total	96	100	100	
Have you received any first aid training for management of dental trauma?	NO	96	100	100	100
What will you do if a tooth comes out of tooth socket due to injury	Roll the tooth in cotton and take the student to dentist immediately	48	50	50	50
	Place the tooth in water and take the student to dentist immediately	18	18.8	18.8	68.8
	Place the tooth in milk / tender coconut and take the student to dentist immediately	12	12.5	12.5	81.3
	Discard the tooth	15	15.6	15.6	96.9
	No idea	3	3.1	3.1	100
	Total	96	100	100	
Do you think your knowledge and awareness on the importance of oral health is sufficient?	Yes	24	25	25	25
	No	72	75	75	100
	Total	96	100	100	
Do you think your knowledge on management of traumatic dental injuries in school children is sufficient?	No	96	100	100	100
Are you willing to attend oral health education camps to increase the awareness on the importance of oral health and management of traumatic dental injuries in school children?	Yes	96	100	100	100

DISCUSSION

School teachers play a vital role in planning and implementing oral health preventive programs at school level. The National Oral Health Policy emphasizes to train and equip school teachers with knowledge and resources regarding prevention of oral diseases by means of training programs.⁵ In a previous study conducted by Tasneem in 2016 among 530 government and private schools of Kashmir, it was shown that only 20.2% of government school teachers agreed that they try to impart oral health education to their students in schools.⁶ Hence the present cross sectional self administered questionnaire study was undertaken to assess the knowledge, awareness and practises of oral health and emergency management of traumatic dental injuries among government school teachers.

In the present study, 96.9% of the participants responded that there is a relationship between brushing and dental caries, which is similar to the study conducted by Ramroop et al where 96.7% of the study group were aware that tooth brushing prevents dental decay.⁷ In the current study, all the 96 participants responded that food habits can influence dental caries This result is comparable with the study conducted by

John et al , where majority of the teachers (83.9%) were aware that cariogenic foods can be the etiological factor for dental caries.⁸

In the present study, 46.9% of the teachers reported the use of mouth wash , additional to tooth brushing and the reason for this discrepancy in the use of mouth wash might be due to the active promotion of mouthwashes in visual media and newspapers. In the current study, all the 96 participants reported that they motivate their students for a regular dental check up and they provide oral health education to children which is comparable to the study conducted by Prabhadevi et al , where 83.33 % of the teachers reported that they provide oral health education to children.⁹

On query related to the medications prescribed for dental pain, 40.6 % stated that only a pain killer is prescribed for dental pain while 21.9% teachers stated that an antibiotic and pain killer is prescribed for dental pain. This awareness on medications might be attributed to the previous dental experience of the teachers. The medications may either be prescribed by a dentist or a pharmacist since it is a common practise in our country where public have access to various types of medicines

directly from the pharmacists without prescription. 37.5% of the teachers in the present study reported that they are not aware of the medications prescribed for dental pain. When asked how to manage if a student complains of dental pain at school, 9.4% teachers reported that they would give medication to the student, 78.1% teachers stated that they would inform the student's parents and 12.5% teachers reported that they would take him to a dentist.

Facial esthetics play an important role in self-identification, self-image, self-presentation and interpersonal confidence.¹⁰ Accidents in the school environment resulting from falls is very is the main etiological factor of traumatic tooth injury at school. Since, school teachers are likely to be in contact with the child soon after the traumatic injury at school, their knowledge of emergency measures to be taken is critical to ensure a better prognosis of the clinical treatment.

In the present study, on query related to the first aid treatment to be given to a student who had a traumatic injury to tooth, 15.6% teachers responded that they would keep ice on the region of trauma, 50% teachers stated that they would rinse the region of trauma with water, 34.4% of them responded that they are not aware of the first aid treatment and will take the student to doctor immediately. All the teachers reported that they had not received any first aid training for management of dental trauma. Similar findings were reported in a study done by Bhandary and Shetty where 75.3% of the teachers had not received training for management of dental trauma.¹¹ Regarding the action to be taken in case of a avulsed tooth, 50% teachers responded that they would roll the tooth in cotton and take the student to dentist immediately, 18.8% teachers stated that they would place the tooth in water and take the student to dentist, 12.5% teachers stated that they would place the tooth in milk / tender coconut and take the student to dentist, 15.6% teachers reported that they would discard the tooth while 3.1% teachers reported that they are not aware of the action to be taken and will be unwilling to react to the situation. The teachers were not aware of the the correct storage medium for an avulsed tooth or the correct protocol for cleaning of a dirty avulsed tooth. These findings are similar to the study done by de Lima Ludgero et al¹² and Hashim¹³ where only 5% and 4.3% school teachers, respectively, were aware of correct storage medium and protocol for managing an avulsed tooth.

Although the results obtained in the present study revealed that the knowledge, awareness and practises of oral health among school teachers was fairly good, the teachers accepted that their knowledge towards the emergency management of dental trauma was inadequate and they were willing to attend oral health education / training programs to upgrade their knowledge on importance of oral health and management of dental trauma in children.

CONCLUSION

This study reveals the lack of knowledge and awareness among school teachers regarding emergency management of traumatic dental injuries and emphasizes the need for training programs to be conducted in order to familiarize them with the situation and management of emergencies. It is also imperative that the school management and organisation should provide the adequate resources for the training of teachers. "An ounce of prevention is worth a pound of cure", therefore, it is vital to empower school teachers in promoting positive health behaviours among students for the well being of their future.

ACKNOWLEDGEMENTS

Head of institution, teachers of Government schools in Mogappair, Chennai.

REFERENCES

1. WHO. What is the burden of oral disease (2014).
2. Hiremath A et al. Prevalence of Dental Caries Among Primary School Children of India- A Cross-Sectional Study. J Clin Diagn Res. 2016;10(10):ZC47-ZC50.
3. Caglar E, Ferreira LP, Kargul B. Dental trauma management knowledge among a group of teachers in two South European cities. Dent Traumatol 2005;21:258-62.
4. Borssén E, Holm AK. Traumatic dental injuries in a cohort of 16 year olds in Northern Sweden. Endod Dent Traumatol 1997;13:276-80.
5. Petersen PE. The World Oral Health Report 2003: continuous improvement of oral health in the 21st century—the approach of the WHO Global Oral Health Programme. Community Dent Oral Epidemiol. 2003;1:31(s1):3-24.
6. Tasneem S Ain. Knowledge, Attitude and Practice of School Teachers Towards Oral Health In Srinagar, Kashmir. IOSR Journal of Dental and Medical Sciences (IOSR-JDMS). 2016;15(10):88-90
7. Ramroop V, Wright D, Naidu R. Dental health knowledge and attitudes of primary school teachers towards developing dental health education. West Indian Med J .2011;60(5):576

8. John J. R et al. Oral Health Awareness Among School Teachers in Thiruvallur District of Tamilnadu. Journal of Oral Health & Community Dentistry. 2016; 10(1):26-29
9. Maganur PC et al. Knowledge, Attitudes, and Practices of School Teachers toward Oral Health in Davangere, India. Int J Clin Pediatr Dent 2017;10(1):89-95
10. Andreasen JO, Andreasen FM, Andreasen L. Textbook and color atlas of traumatic injuries to the teeth (4th ed) 2007.
11. Bhandary S and Shetty SD. Knowledge of Physical education teachers regarding dental trauma and its management in karnataka. Int J Res Dent 2014; 4(1): 20-31
12. de Lima Ludgero A et al. Knowledge regarding emergency management of avulsed teeth among elementary school teachers in Jaboaão dos Guararapes, Pernambuco, Brazil. Indian J Dent Res 2012;23:585-90
13. Hashim R. Dental trauma management awareness among primary school teachers in the Emirate of Ajman, United Arab Emirates. Eur J Paediatr Dent 2011;12:99-102.