

# AWARENESS AMONG PRESCHOOL TEACHERS TOWARDS DENTAL TRAUMA

**Harrita.S**  
I BDS student  
Saveetha University  
Chennai-600 077.

**Dr.Marian Anand Bennis**  
MDS (prosthodontics)  
Senior lecturer department of prosthodontics  
Saveetha University  
Chennai-600 077.

## **Abstract:**

**AIM:** This study aims to evaluate the knowledge and create awareness among preschool teachers about the management of dental trauma.

**OBJECTIVE:** This study is done to create awareness among preschool teachers about management of dental trauma through a framed questionnaire.

**BACKGROUND:** Dental trauma in children should be handled with care because it may lead to future complications. Immediate management must be done which will help in the prognosis of the tooth. Since most of the trauma takes place at school preceding home. This study is done to create awareness among the preschool teachers.

**MATERIALS AND METHOD:** A total of 40 teachers from various preschool of Chennai participated in the study. A framed questionnaire was used, which includes the demographic questions and also questions to evaluate the knowledge of preschool school about dental trauma management.

**REASON:** Dental emergencies are as important as medical emergencies. This study is done to create awareness among preschool teachers who are at first hand help for children. More awareness must be created about the management of dental trauma.

**CONCLUSION:** The study shows that the knowledge among preschool teachers are at a moderate level. Thus inclusion of dental trauma management in first aid course will increase the knowledge of teachers to an adequate level. The teachers must also be motivated to learn and become aware about management of dental trauma.

**Keywords:** dental trauma, teachers, children.

## **INTRODUCTION:**

Dental trauma in children is a serious problem which causes pain and distress. Of those children who have experienced such a trauma, about thirty percent have sustained injuries to their primary dentition and twenty-two percent to their permanent dentition.<sup>1</sup> Dental trauma or accidents usually happen at home and the next place where there is more probability for trauma is school. The children below age of 8 are more exposed to dental trauma.

Lethargy toward dental emergencies may lead to serious complications in the future which includes poor aesthetic of the child and difficulties in the treatment.

The teachers and non-teaching staffs are at the first hand help to the children. They should have proper knowledge and idea about how to handle the different kinds of trauma that can happen, however, many studies have presented that treatment needs of traumatic dental injuries are not properly met. In Finland only 25% and in the United Kingdom only 10-15% of children with traumatised teeth had received proper treatment.<sup>2</sup>

Most of the teachers don't have proper knowledge about how to act in case of a dental trauma, In Jordan, possibly due to people's lack of knowledge, lots of traumatic dental injuries in children have been neglected, resulting in unfavourable long-term prognosis.<sup>3</sup> Thus this study aims to evaluate and create awareness among the preschool teachers of various schools in Chennai.

## **MATERIALS AND METHODS:**

A cross sectional study was conducted, 50 elementary school teachers from randomly selected preschools in Chennai too part in the study. A questionnaire was used to evaluate the teacher's knowledge about dental trauma by referring the questionnaire from a similar study conducted in Mashhad, Iran.<sup>4</sup> Necessary changes were made and finally a questionnaire consisting of 10 close ended questions was prepared which includes imaginary dental trauma incidents.

The questionnaire is prepared using Google forms and was sent to the teachers via electronic mail. The link to the questionnaire is attached here by,

[https://docs.google.com/forms/d/1oXXhZe\\_uL6wb6dYTETfbp2Udit1ila\\_MRzJ8moHEWew/viewform?c=0&w=1&usp=mail\\_for\\_m\\_link](https://docs.google.com/forms/d/1oXXhZe_uL6wb6dYTETfbp2Udit1ila_MRzJ8moHEWew/viewform?c=0&w=1&usp=mail_for_m_link)

The questionnaire consist of three sections.

Section 1: Questions related to demographic data.

Section 2: Questions based on imaginary dental trauma incident.

Section 3: Questions based on dental trauma emergency, avulsion, transport media.

The questionnaires were submitted online and the data was collected and analysed.

The results are expressed in the form of value and percentage form the answers collected from the teachers using SPSS software.

## **RESULT:**

Questionnaire was sent to teachers from randomly selected preschools in Chennai. 100% of all the teachers were female in which 51.2% percent of them had a bachelor's degree and 31.7% had master's degree and rest were diploma holders. 82.9% teachers underwent teacher training course among which only 58.5% had first aid component in it and only 15% of the teacher training course included dental trauma management.

**TABLE 1: LEVEL OF OVERALL AWARENESS:**

SNO	LEVEL OF AWARENESS	NO OF TEACHERS	PERCENTAGE
1.	Inadequate awareness	14	29.2%
2.	Moderate awareness	22	45.8%
3.	Adequate awareness	12	25%

**TABLE 2: NUMBER OF TEACHERS WHO GAVE THE CORRECT ANSWER:**

Q.NO	QUESTION	CORRECT ANSWER	NO OF TEACHERS WHO GAVE THE CORRECT ANSWER
1.	To which dentition does the broken tooth belong to?	Primary dentition	47
2.	What will be your next step?	Contact his parents and ask them to take him to the dentist	34
3.	What will be your immediate action in this case?	Place the tooth carefully into the socket and take her to the dentist	31
4.	In case of dental emergency when will you take the child to the dentist?	Immediately	31
5.	In case of contamination due to dental trauma, which vaccine is necessary?	Tetanus vaccine	29
6.	When the time between trauma and treatment increases, what happens to the success of the rate?	Decreases	34
7.	Have you ever seen a child who had avulsion of tooth?	Yes	21
8.	Is it important to replace knocked out baby tooth?	Yes	21
9.	Why is HBSS solution considered the best solution to transfer knocked out tooth?	Both a and b	46
10.	Which liquid is suitable to transport the knocked out tooth, if HBSS solution is not available?	Milk	9

**TABLE 3: BASED ON AGE**

Q.NO	QUESTION	CORRECT ANSWER	P-VALUE
1.	To which dentition does the broken tooth belong to?	Primary dentition	0.417
2.	What will be your next step?	Contact his parents and ask them to take him to the dentist	0.152
3.	What will be your immediate action in this case?	Place the tooth carefully into the socket and take her to the dentist	0.951
4.	In case of dental emergency when will you take the child to the dentist?	Immediately	0.398
5.	In case of contamination due to dental trauma, which vaccine is necessary?	Tetanus vaccine	0.403
6.	When the time between trauma and treatment increases, what happens to the success of the rate?	Decreases	0.408
7.	Have you ever seen a child who had avulsion of tooth?	Yes	0.151
8.	Is it important to replace knocked out baby tooth?	Yes	0.052
9.	Why is HBSS solution considered the best solution to transfer knocked out tooth?	Both a and b	0.335
10.	Which liquid is suitable to transport the knocked out tooth, if HBSS solution is not available?	Milk	0.286

**TABLE 4: BASED ON EDUCATIONAL QUALIFICATION:**

Q.NO	QUESTION	CORRECT ANSWER	P-VALUE
1.	To which dentition does the broken tooth belong to?	Primary dentition	0.144
2.	What will be your next step?	Contact his parents and ask them to take him to the dentist	0.561
3.	What will be your immediate action in this case?	Place the tooth carefully into the socket and take her to the dentist	0.226
4.	In case of dental emergency when will you take the child to the dentist?	Immediately	0.539
5.	In case of contamination due to dental trauma, which vaccine is necessary?	Tetanus vaccine	0.384
6.	When the time between trauma and treatment increases, what happens to the success of the rate?	Decreases	0.539
7.	Have you ever seen a child who had avulsion of tooth?	Yes	0.434
8.	Is it important to replace knocked out baby tooth?	Yes	0.633
9.	Why is HBSS solution considered the best solution to transfer knocked out tooth?	Both a and b	0.749
10.	Which liquid is suitable to transport the knocked out tooth, if HBSS solution is not available?	Milk	0.731

**TABLE 5: BASED ON TEACHER TRAINING COURSE:**

Q.NO	QUESTION	CORRECT ANSWER	P-VALUE
1.	To which dentition does the broken tooth belong to?	Primary dentition	0.792
2.	What will be your next step?	Contact his parents and ask them to take him to the dentist	0.847
3.	What will be your immediate action in this case?	Place the tooth carefully into the socket and take her to the dentist	0.817
4.	In case of dental emergency when will you take the child to the dentist?	Immediately	0.235
5.	In case of contamination due to dental trauma, which vaccine is necessary?	Tetanus vaccine	0.343
6.	When the time between trauma and treatment increases, what happens to the success of the rate?	Decreases	0.977
7.	Have you ever seen a child who had avulsion of tooth?	Yes	0.088
8.	Is it important to replace knocked out baby tooth?	Yes	0.268
9.	Why is HBSS solution considered the best solution to transfer knocked out tooth?	Both a and b	0.377
10.	Which liquid is suitable to transport the knocked out tooth, if HBSS solution is not available?	Milk	0.633

**TABLE 6: BASED ON FIRST AID COMPONENT:**

Q.NO	QUESTION	CORRECT ANSWER	P-VALUE
1.	To which dentition does the broken tooth belong to?	Primary dentition	0.563
2.	What will be your next step?	Contact his parents and ask them to take him to the dentist	0.929
3.	What will be your immediate action in this case?	Place the tooth carefully into the socket and take her to the dentist	0.918
4.	In case of dental emergency when will you take the child to the dentist?	Immediately	0.105
5.	In case of contamination due to dental trauma, which vaccine is necessary?	Tetanus vaccine	0.097
6.	When the time between trauma and treatment increases, what happens to the success of the rate?	Decreases	0.420
7.	Have you ever seen a child who had avulsion of tooth?	Yes	0.344
8.	Is it important to replace knocked out baby tooth?	Yes	0.026
9.	Why is HBSS solution considered the best solution to transfer knocked out tooth?	Both a and b	0.689
10.	Which liquid is suitable to transport the knocked out tooth, if HBSS solution is not available?	Milk	0.056

**TABLE 7: BASED ON DENTAL TRAUMA EDUCATION:**

Q.NO	QUESTION	CORRECT ANSWER	P-VALUE
1.	To which dentition does the broken tooth belong to?	Primary dentition	0.875
2.	What will be your next step?	Contact his parents and ask them to take him to the dentist	0.014
3.	What will be your immediate action in this case?	Place the tooth carefully into the socket and take her to the dentist	0.465
4.	In case of dental emergency when will you take the child to the dentist?	Immediately	0.295
5.	In case of contamination due to dental trauma, which vaccine is necessary?	Tetanus vaccine	0.446
6.	When the time between trauma and treatment increases, what happens to the success of the rate?	Decreases	0.724
7.	Have you ever seen a child who had avulsion of tooth?	Yes	0.537
8.	Is it important to replace knocked out baby tooth?	Yes	0.463
9.	Why is HBSS solution considered the best solution to transfer knocked out tooth?	Both a and b	0.237
10.	Which liquid is suitable to transport the knocked out tooth, if HBSS solution is not available?	Milk	0.759

**DISCUSSION:**

The survey indicates that 45.8% of the teachers are moderately aware about management of dental trauma. The overall p value was greater than 0.05 ( $p > 0.05$ ) this is because the study is basically a pilot study which included only 48 teachers from Chennai. The knowledge of teachers were only moderate, this can be due to less awareness about dental trauma among the teachers.

The level of knowledge didn't vary much with age however people who had bachelors or master's degree had a better hand at handling dental emergencies. Different imaginary dental emergency cases were included in the questionnaire to evaluate the teacher's knowledge.

About 97.9% of the teachers identified that the tooth belonged to primary dentition.

About 70.8% of the teachers opted to call the student's parent and ask them to take him to the dentist which is similar to the study of mehrabkhani et al.<sup>4</sup>

Also in case of avulsion about 64.6% of the teachers chose to put the teeth back into the socket and take the student to the dentist which is more than blakytyn et al (25.5%)<sup>5</sup> and mehrabkhani et al (47.2%).<sup>4</sup> 60.4% teachers identified that tetanus vaccine should be given in cause of contamination similar to the study by mehrabkhani et al (66.3%)<sup>4</sup>. Only 18.8% choose milk as the best transport media for avulsed tooth which is less than the results observed in other studies, mehrabkhani et al (33.1%)<sup>4</sup> and blakytyn et al (45.6%).<sup>5</sup>

Thus more dental trauma awareness camps must be conducted to create more awareness among the teachers and also dental trauma management must be included in first aid courses.

**CONCLUSION:**

The study shows that the knowledge among preschool teachers are at a moderate level. Thus inclusion of dental trauma management in first aid course will increase the knowledge of teachers to an adequate level. The teachers must also be motivated to learn and become aware about management of dental trauma.

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