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Assessment of Traumatic Injury Awareness in School Teachers in Saudi Arabia

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ABSTRACT

Background: The prevalence of traumatic dental injuries to children's teeth is high. It is known that majority of dental injuries is seen in children between ages of 8 and 11 years. The present study was conducted to assess traumatic injury awareness in school teachers.

Materials & Methods: 140 school teachers of both genders were given a questionnaire which comprised of length of service, section in school and level of education, subjects' knowledge with regard to dentition and dental trauma and the attitudes of the teachers towards dental trauma and their experience was recorded.

Results: Out of 140 teachers, males were 80 and females were 60.0-10 years experience was present in 45, 10-20 years in 70 and >20 years in 25. Education was diploma in 30, degree in 50 and postgraduate in 60. Section was primary in 62, high in 44 and secondary in 34. The most commonly involved teeth in traumawas upper incisors in 65%, lower incisors in 25% and upper back in 10%. Most commonly avulsed teethwas upper front in 50%, lower incisors in 30% and don't knowin 20%. Knowledge about management was replaced immediately in 45%, replacing tooth back to socket in 40% and taken to the dentist to reimplant in 15%. Knowledge about washing medium was rinse with saline in 28%, rinse with antiseptic in 32% and in socket with saliva in 40%. The difference was significant (P< 0.05).

Conclusion: Most of teachers had sufficient knowledge regarding traumatic tooth injuries. Most of them knew that most commonly involved traumatic teeth and avulsed teeth was upper incisors.

Key words: Education, Knowledge, Traumatic tooth injuries.

Introduction

Children and mishaps are inseparable. Kids while playing are more prone to get hurt. The most commonly affected part of the body during accidents and sports injuries in kids are teeth and the surrounding structures.[1] Traumatic dental injuries are a major pediatric concern for the dentist, parents and the society. School is one of the locations with the greatest prevalence of traumatic dental injuries. A significant number of school-aged children experience trauma of some sort to primary or permanent dentition where teachers are generally present at the time dental trauma occurs, as such accidents often take place during or after school activities.[2]

The prevalence of traumatic dental injuries to children's teeth is high. It is known that majority of dental injuries is seen in children between ages of 8 and 11 years. The prevalence of dental injuries is 60% out of which over 48% involve maxillary teeth. Over 16% was in the school environment and 19% of the injury due to fall elsewhere. Thirty percent of the children sustained injuries to the primary dentition and 20% to the permanent dentition. The general causes of injuries include falls, collision, fighting or pushing.[3]

Dental trauma may vary from minor tooth fracture to extensive dentoalveolar damage involving supporting structures and tooth displacement or avulsion. Its treatment is complicated and can be quite expensive.[4] In addition, follow-up visits may be necessary for many years which adds to the total expenditure on the patients' side. Boys usually report more TDIs than girls because of their active participation in sports and games. The peak incidence in boys is 2–4 and 9–10 years and in girls is 2–3 years. The teeth most commonly involved are maxillary central incisor (37%), mandibular central incisor (18%), mandibular lateral incisor (6%) and maxillary lateral incisor (3%).[5] The present study was conducted to assess traumatic injury awareness in school teachers.

Materials & Methods

The present study comprised of 140 school teachers of both genders. All were enrolled with their written consent.

Demographic data such as name, age, gender etc. was recorded. The questionnaire was prepared which comprised of length of service, section in school and level of education,

subjects' knowledge with regard to dentition and dental trauma and the attitudes of the teachers towards dental trauma and their experience was recorded. Results thus obtained were subjected to statistical analysis. P value less than 0.05 was considered significant.

Results

Table I Distribution of teachers

Total- 140		
Gender	**Males**	**Females**
Number	80	60

Out of 140 teachers, males were 80 and females were 60.

Table II Demographic characteristics

Parameters	Variables	Number	P value
Year of experience	0-10	45	0.02
	10-20	70	
	>20	25	
Education	Diploma	30	0.05
	Degree	50	
	Postgraduate	60	
Section in school	Primary	62	0.04
	High	44	
	Secondary	34	

Table II, graph I shows that 0-10 years experience was present in 45, 10-20 years in 70 and >20 years in 25. Education was diploma in 30, degree in 50 and postgraduate in 60. Section was primary in 62, high in 44 and secondary in 34. The difference was significant (P< 0.05).

Graph I: Demographic characteristics

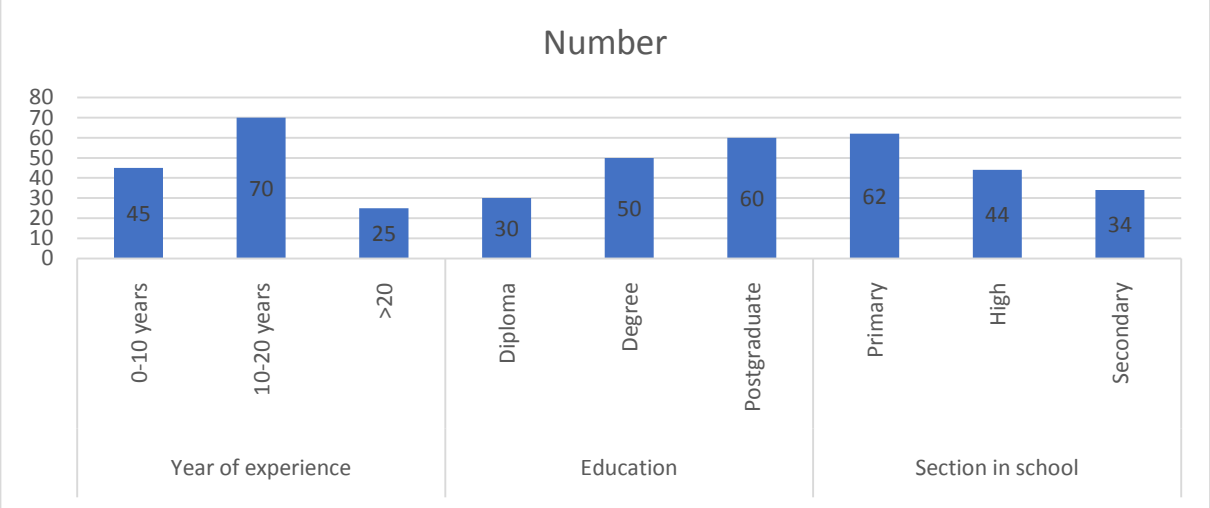
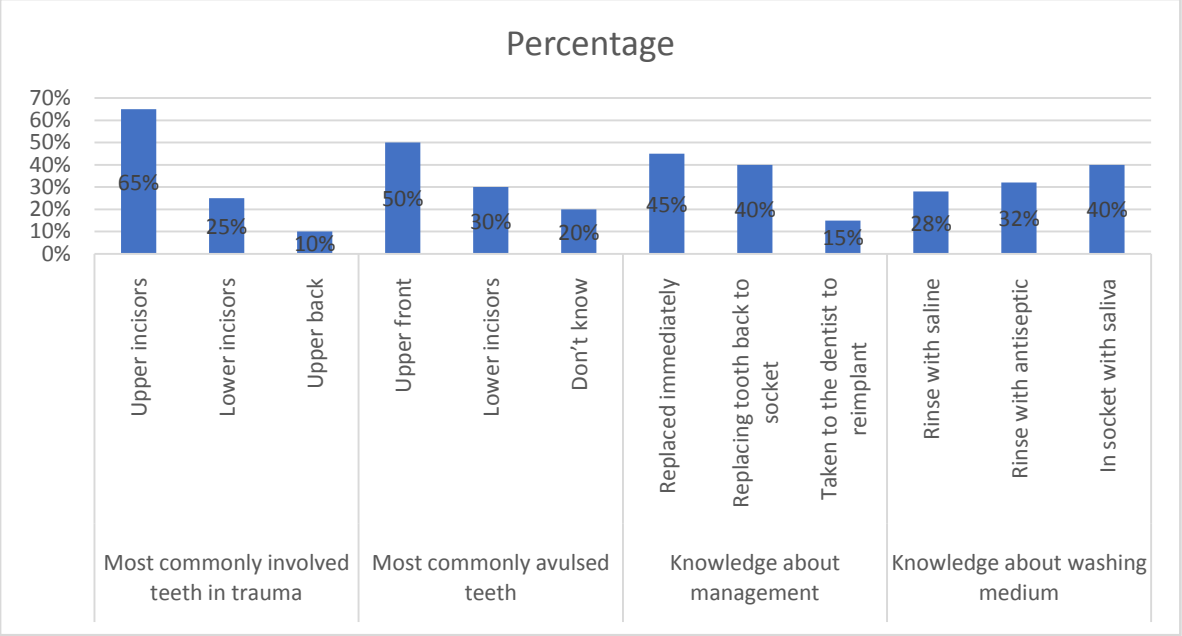


Table III Teachers knowledge

Parameters	Variables	Percentage	P value
Most commonly involved teeth in trauma	Upper incisors	65%	0.02
	Lower incisors	25%	
	Upper back	10%	
Most commonly avulsed teeth	Upper front	50%	0.04
	Lower incisors	30%	
	Don't know	20%	
Knowledge about management	Replaced immediately	45%	0.05
	Replacing tooth back to socket	40%	
	Taken to the dentist to reimplant	15%	
Knowledge about washing medium	Rinse with saline	28%	0.03
	Rinse with antiseptic	32%	
	In socket with saliva	40%	

Table III, graph II shows that most commonly involved teeth in trauma was upper incisors in 65%, lower incisors in 25% and upper back in 10%. Most commonly avulsed teethwas upper front in 50%, lower incisors in 30% and don't know in 20%. Knowledge about management was replaced immediately in 45%, replacing tooth back to socket in 40% and taken to the dentist to reimplant in 15%. Knowledge about washing medium was rinse with saline in 28%, rinse with antiseptic in 32% and in socket with saliva in 40%. The difference was significant (P< 0.05).

Graph II: Teachers knowledge



Discussion

While small enamel loss or cracks represent minor TDIs and do not require immediate attention, severe TDIs that involve both hard and soft tissues require prompt emergency treatment. Such an action would ensure pain control, restoration of function/esthetics and prevention of social or psychological consequences.[6] However, technical knowledge and clinical experience are essential to establish an accurate diagnosis and provide a rational treatment. For some types of traumatic injuries, prognosis is highly dependent upon proper emergency management immediately after the traumatic incident as well as timely attention by a professional.[7]The development of the occlusion both functionally and esthetically during childhood is dependent on the satisfactory presence of teeth. When a trauma is inadequately treated, disastrous results can occur as malformed, malpositioned teeth, premature tooth loss, and pulpal death with abscess formation. The prognosis of the injured tooth depends on the crucial hours following the accidents.[8] Educational initiatives planned to inform teachers can positively influence their knowledge and attitudes towards emergency management of dental trauma, consequently leading to a more favorable prognosis. Therefore, it is necessary that not just the parents but also teachers present at the site of the accidents should be well trained in dealing with such unwanted events.[9]The present study was conducted to assess traumatic injury awareness in school teachers.

In present study, out of 140 teachers, males were 80 and females were 60.Nirwan et al[10] used a self-designed questionnaire which was administered to 300 primary school teachers. A total of 278 teachers responded to the survey. The collected data were subjected to statistical analysis. It was found that most of the respondents had accepted poor knowledge regarding dental trauma, with a mean knowledge of 10.56 ± 2.58.

We found that 0-10 years experience was present in 45, 10-20 years in 70 and >20 years in 25. Education was diploma in 30, degree in 50 and postgraduate in 60. Section was primary in 62, high in 44 and secondary in 34.Chandukutty et al[11] in their study a statistically significant association was found between the teacher's knowledge regarding trauma and their teaching experience. Out of the total school teachers who participated in the study, 90.1% responded correctly that the teeth most frequently affected by traumatic accidents are the upper front teeth. Nearly 23.4% responded correctly regarding management of traumatic tooth fracture. Almost 46.5% had correct knowledge regarding the reimplantation of avulsed permanent teeth. Only 14.2% responded correctly to the proper storage medium for avulsed teeth.

We found that most commonly involved teeth in trauma was upper incisors in 65%, lower incisors in 25% and upper back in 10%. Most commonly avulsed teethwas upper front in 50%, lower incisors in 30% and don't knowin 20%. Knowledge about management was replaced immediately in 45%, replacing tooth back to socket in 40% and taken to the dentist to reimplant in 15%. Knowledge about washing medium was rinse with saline in 28%, rinse with antiseptic in 32% and in socket with saliva in 40%. Sharma et al[12] in their study two stage sampling procedure was followed in the section of the study participants during the first stage by applying simple random sampling procedure, 24 schools out of the total 471 schools from the entire district were selected. In the second stage by considering each selected school as a cluster/unit, the total number of school teachers in each cluster who were present on the day was 285 included as study participants; thus a total of 285 school teachers constituted the

final sample. Out of the 285 teachers who participated in the study, 136 had less than 6 years teaching experience 68 had 6-10 years, 39 had 11-15 years 23 had 16-20 and 19 teachers had more than 20 years of experience.

Conclusion

Authors found that most of teachers had sufficient knowledge regarding traumatic tooth injuries. Most of them knew that most commonly involved traumatic teeth and avulsed teeth was upper incisors.

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