

## Original Research

### Assessment of school teacher's knowledge and awareness regarding traumatic dental injuries

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#### ABSTRACT:

**Background:** Dental traumas are injuries of the teeth, periodontium, and surrounding soft tissues. The present study was conducted to assess the primary school teachers' knowledge and attitude regarding traumatic dental injuries. **Materials & Methods:** 60 school teachers of both genders were provided with a standardized questionnaire consisting of multiple-choice questions and response was recorded. **Results:** Out of 60 subjects, males were 30 and females were 30. 24 School teachers experienced teeth trauma cases in children and 36 school teachers did not. In response to what will you do when one of the tooth of your student is either broken or totally out of the mouth, the reply was to consult a dentist by 55 and to just inform in 5. Which type of dental injury you come across in children and reply was soft tissue injury in 22 and hard tissue injury in 38. Most common type of dental injury you come across in children was shaken tooth in 10, knocked out tooth in 34 and soft tissue (Lip, chin) injury in 16. 8 were satisfied with the level of knowledge in managing dental injuries and 52 not. How do you manage bleeding in soft tissue injury (lip, tongue) and the response was wipe the area neatly and apply turmeric in 4, apply an ointment/antiseptic liquid/spirit in 14, control bleeding and visit a dentist in 30 and control bleeding and send the child home in 2. Is knocked out tooth an emergency and response was yes in 55 and no in 5. How fast do you think it is to seek dentist help if a permanent tooth has been knocked out and response was immediately in 28, within few hours in 14 and within 30 minutes in 18. Do you have to try to find the knocked out tooth which is fallen on ground and response was yes in 60. The difference was significant ( $P < 0.05$ ). **Conclusion:** The school teachers had sufficient knowledge and awareness regarding traumatic dental injuries.

**Key words:** Avulsed tooth, dental trauma, soft tissue

Received: 16 August, 2022

Accepted: 20 September, 2022

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**This article may be cited as:** Nisar R, Tiwari P, Kumar V. Assessment of school teacher's knowledge and awareness regarding traumatic dental injuries. J Adv Med Dent Sci Res 2022;10(10):93-97.

#### INTRODUCTION

Dental traumas are injuries of the teeth, periodontium, and surrounding soft tissues. Being quite common in dentistry, they include 5% of all traumatic injuries when people seek first aid.<sup>1</sup> According to the WHO, 16%–40% of children aged 6–12 years' experience mild or severe dental traumas because of different reasons: unsafe playing in playgrounds, accidents at schools, accidents during car crashes, or violence. Children dental traumas are a big issue nowadays not only for their possible negative outcome and for being common but also because they can reduce the quality of life.<sup>2</sup>

According to International association of dental traumatology, one-third of children (primary teeth) and one-fifth of adolescents and adults (permanent

teeth) sustain a traumatic dental injury.<sup>3</sup> Children while playing, running tend to fall and also can come in contact with blunt objects during physical activities with or without their mistake. These accidents may lead to dental injuries. Traumatic injuries to the teeth and teeth supporting structures are one of the few areas of dentistry that should be considered as an emergency situation.<sup>4</sup>

Immediate management of dental injuries has shown a favourable outcomes.<sup>5</sup> In avulsion, for instance, immediate replantation or placing the avulsed tooth in a correct storage medium could reduce the risk of negative complications such as external inflammatory root resorption and ankyloses.<sup>6</sup> Certainly, due to the high prevalence of dental trauma among children and the negative impacts following dental injuries, these

warrant reasonable attention from the school teachers because children spend many hours at their school.<sup>7</sup>The present study was conducted to assess the primary school teachers' knowledge and attitude regarding traumatic dental injuries.

**MATERIALS & METHODS**

The present study was conducted among 60 school teachers of both genders. All gave their written consent for active participation.

A detailed standardized questionnaire consisting of multiple-choice questions was provided to all teachers. It comprised of questions such as did you experience any teeth trauma cases in your teaching experience? What will you do when one of the tooth

of your student is either broken or totally out of the mouth? Which type of dental injury you come across in children?

Most common type of dental injury you come across in children? Are you satisfied with the level of knowledge you are having in managing dental injuries? How do you manage bleeding in soft tissue injury (lip, tongue)? Is knocked out (fallen out) tooth an emergency? How fast do you think it is to seek dentist help if a permanent tooth has been knocked out? Do you have to try to find the knocked out (fallen out) tooth which is fallen on ground? Data thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

**RESULTS**

**Table I Distribution of subjects**

Total- 60		
Gender	Males	Females
Number	30	30

Table I shows that out of 60 subjects, males were 30 and females were 30.

**Table II Questionnaire used in study**

Questionnaire	Response	Number	P value
Did you experience any teeth trauma cases in your teaching experience?	Yes	24	0.05
	No	36	
What will you do when one of the tooth of your student is either broken or totally out of the mouth?	Consult dentist	55	0.01
	Just inform the parents and wait	5	
Which type of dental injury you come across in children?	Soft tissue injury	22	0.01
	Hard tissue injury	38	
Most common type of dental injury you come across in children?	Shaken tooth	10	0.02
	Knocked out tooth	34	
	Soft tissue injury	16	
Are you satisfied with the level of knowledge you are having in managing dental injuries?	Yes	8	0.05
	Require training regarding managing dental injury	52	
How do you manage bleeding in soft tissue injury (lip, tongue)?	Wipe the area neatly and apply turmeric	4	0.04
	Apply an ointment/antiseptic liquid/spirit	14	
	Control bleeding and visit dentist	30	
	Control bleeding and send the child home	2	
Is knocked out tooth an emergency?	Yes	55	0.02
	No	5	
How fast do you think it is to seek dentist help if a permanent tooth has been knocked out?	Immediately	28	0.05
	Within few hours	14	
	Before next day	0	
	Within 30 minutes	18	
Do you have to try to find the knocked-out tooth which is fallen on ground?	Yes	60	0.04
	No	0	

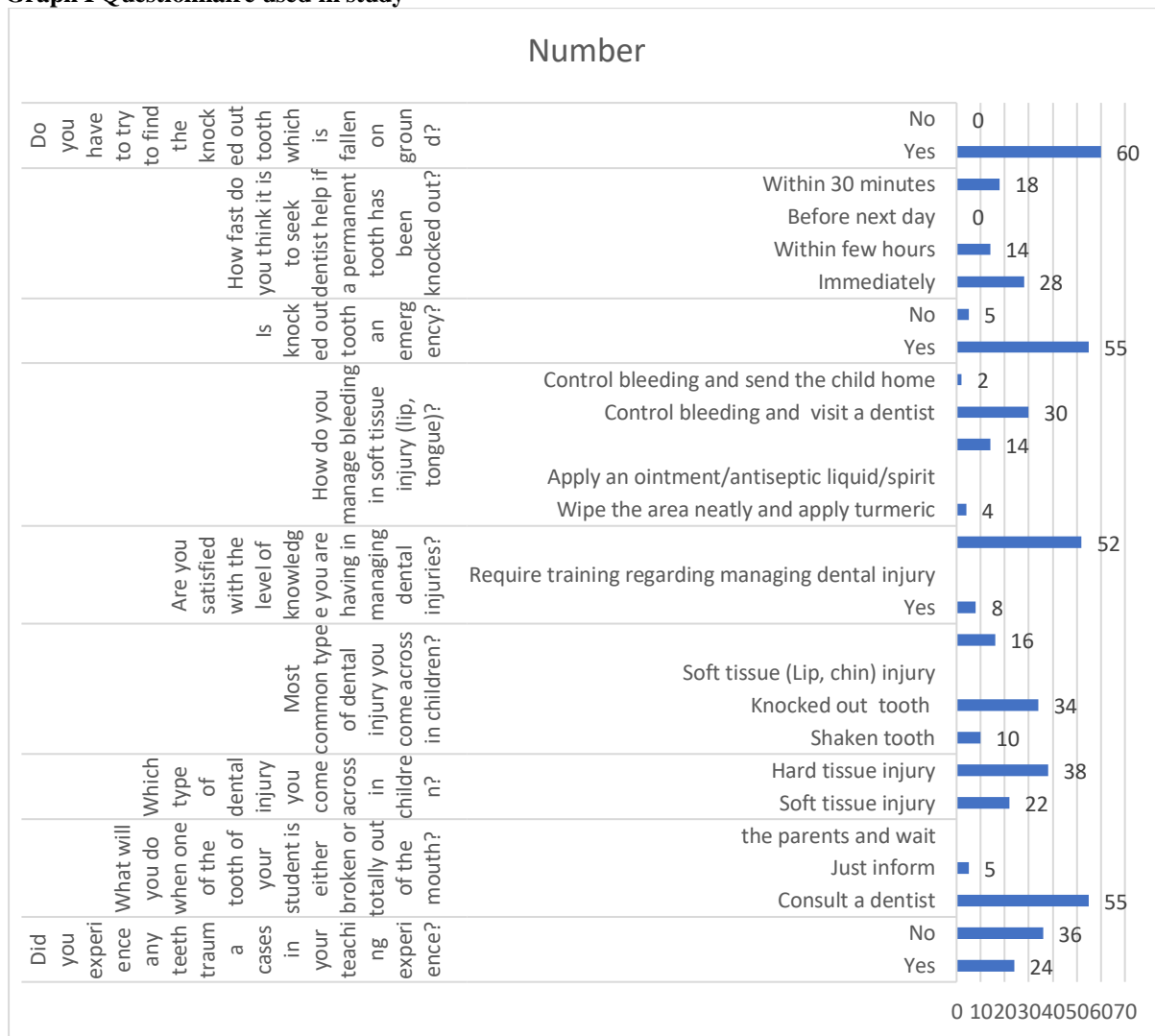
Table II, graph I shows that 24 school teachers experienced teeth trauma cases in children and 36 school teachers did not. In response to what will you do when one of the tooth of your student is either broken or totally out of the mouth, the reply was to consult a dentist by 55 and to just inform in 5. Which

type of dental injury you come across in children and reply was soft tissue injury in 22 and hard tissue injury in 38. Most common type of dental injury you come across in children was shaken tooth in 10, knocked out tooth in 34 and soft tissue (Lip, chin) injury in 16. 8 were satisfied with the level of

knowledge in managing dental injuries and 52 not. How do you manage bleeding in soft tissue injury (lip, tongue) and the response was wipe the area neatly and apply turmeric in 4, apply an ointment/antiseptic liquid/spirit in 14, control bleeding and visit a dentist in 30 and control bleeding and send the child home in 2. Is knocked out tooth an emergency and

response was yes in 55 and no in 5. How fast do you think it is to seek dentist help if a permanent tooth has been knocked out and response was immediately in 28, within few hours in 14 and within 30 minutes in 18. Do you have to try to find the knocked out tooth which is fallen on ground and response was yes in 60. The difference was significant ( $P < 0.05$ ).

**Graph I Questionnaire used in study**



**DISCUSSION**

A traumatic dental injury and its sequelae are of concern to both the clinicians and the parents of affected children.<sup>8</sup> So, every dentist who treats children must be well prepared to meet the child emergencies/challenges.<sup>9</sup> It is important for the dentist to prevent and also educate the care giver to manage the dental trauma situation whenever possible and to restore them skill-fully to their original appearance. If dental traumatic emergency situation is not handled with proper care and left untreated can affect children psychological, physical, emotional and social status.<sup>10</sup> The common reported cause of dental trauma in children is fall, sports activity and adventurous games.<sup>11</sup> Nowadays adventurous sports are becoming

very popular both indoor and outdoor and also children are showing a great deal of interest in these adventurous sports, apart from this accidents and fighting have also been reported.<sup>12</sup> As children spend majority of time at school and home, the most common place for occurrence of traumatic injuries is reported to be at school followed by home and other places. Now smartphones are serving as multipurpose device, allows to browse internet and very important to download apps.<sup>13</sup> The present study was conducted to assess the primary school teachers' knowledge and attitude regarding traumatic dental injuries. We found that out of 60 subjects, males were 30 and females were 30. Daupare et al<sup>14</sup> assessed primary school teachers' knowledge and attitude regarding

TDI and describe their behavior in emergency situations. More than half of teachers (56.6%) have witnessed TDI. Almost all respondents (94.3%) indicated that in case of dental trauma is important to take emergency management as soon as possible. However, two-thirds of them (75.5%) thought that teachers cannot provide appropriate emergency management in case of TDI. In addition, teachers had little knowledge regarding TDI and the proper emergency management: 91.3% of participants do not know the right storage media for the avulsed tooth, 40.6% have thought that tooth replantation is impossible, and 17.1% would throw an avulsed tooth away, when it falls on the ground.

We found that 24 school teachers experienced teeth trauma cases in children and 36 school teachers did not. In response to what will you do when one of the tooth of your student is either broken or totally out of the mouth, the reply was to consult a dentist by 55 and to just inform in 5. Which type of dental injury you come across in children and reply was soft tissue injury in 22 and hard tissue injury in 38. Kurnaz et al<sup>15</sup> determined teachers' knowledge and attitudes about TDI. 1,634 completed questionnaires were returned (65% response rate). 92.5% of the teachers were not satisfied with their DT knowledge, and almost all (97.8%) had never received DT training, although 28.1% had witnessed at least one case of DT. In the case of tooth avulsion, 26.4% believed that an avulsed tooth would be permanently lost, whereas 28.9% knew that a permanent tooth could be replanted.

We observed that most common type of dental injury you come across in children was shaken tooth in 10, knocked out tooth in 34 and soft tissue (Lip, chin) injury in 16. 8 were satisfied with the level of knowledge in managing dental injuries and 52 not. How do you manage bleeding in soft tissue injury (lip, tongue) and the response was wipe the area neatly and apply turmeric in 4, apply an ointment/antiseptic liquid/spirit in 14, control bleeding and visit a dentist in 30 and control bleeding and send the child home in 2. Is knocked out tooth an emergency and response was yes in 55 and no in 5. How fast do you think it is to seek dentist help if a permanent tooth has been knocked out and response was immediately in 28, within few hours in 14 and within 30 minutes in 18. Do you have to try to find the knocked out tooth which is fallen on ground and response was yes in 60. Baharin et al<sup>16</sup> in their study one hundred and twenty teachers (n = 120) were randomly selected and responded to a set of a self-administered questionnaire. The questionnaire consisted of general characteristics, knowledge, and attitude towards dental trauma. A total of 120 primary school teachers, predominantly female teachers (74.2%) participated in this study. More than half of the teachers (62.5%) have more than 15 years of teaching experience. One-third of the teachers (34.2%) have completed first aid training; however, dental trauma management subject

was lacking (1.7%). About 31.7% of the respondent had experienced dental trauma case. Eighty-five percent of the teachers did not opt for tooth replantation in the case of avulsion and almost all the teachers (97.5%) did not choose fresh milk as the medium storage of the avulsed tooth.

## CONCLUSION

Authors found that the school teachers had sufficient knowledge and awareness regarding traumatic dental injuries.

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