

Original Research

Parents' awareness regarding management of on- site traumatic dental injuries

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ABSTRACT:

Background: Children's dental trauma is a major global oral health concern. They range from little scratches on the enamel to large-scale injury to the maxillofacial structures, including tooth displacement or avulsion. The present study was conducted to assess parents' awareness regarding management of on- site traumatic dental injuries. **Materials & Methods:** 120 parents who accompanied their children age ranged 6- 14 years of both genders were selected. A questionnaire was prepared and submitted to all parents and their response about awareness of on- site dental trauma was recorded. **Results:** Out of 120 parents, 68 were males and 52 were females. 75 parents had their child dental trauma in past. In response to if your child fell and broke an upper front tooth, the broken piece of the tooth should be saved, 80 replied yes, 23 no and 17 don't know. 78 parents replied a tooth can be completely knocked out. 96 parents thought primary teeth should be put back in, after they were knocked out. In response to how urgent it is necessary to seek professional help, 64 replied immediately, 36 later and 20 only if any pain or other symptoms are noticed. 102 think use of mouthguard is appropriate for child during sport activity. 86 replied the follow-up of the child by dentist important. 104 received any information regarding traumatic dental injuries previously. 85 parents replied that put the tooth back into the socket, if the tooth was completely out of the socket, but still in the child's mouth, 15 replied leave the tooth inside the mouth and 20 replied remove the tooth from the mouth. The difference was significant ($P < 0.05$). **Conclusion:** Parents knew enough about how to treat traumatic dental injuries that occurred on the job site.

Keywords: children, mouthguard, trauma

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INTRODUCTION

Children's dental trauma is a major global oral health concern. They range from little scratches on the enamel to large-scale injury to the maxillofacial structures, including tooth displacement or avulsion.¹ Car accidents, arguments, falls at home, and sports are the most frequent causes of dentoalveolar injuries. These serious tooth injuries have been associated with difficulties masticating food, difficulty maintaining a positive attitude, and embarrassment when laughing or smiling. Traumatic dental injuries are therefore thought to reduce a person's quality of life.² Dental injuries are also considered emergencies that need to be treated right away. These injuries are distressing events that affect children and their parents or other caregivers. It takes adequate knowledge, prompt

decision-making, and decisive action to manage these kinds of problems.³ Parents or other caregivers and the child's pediatric dentist are essential in restoring the child's dental and mental well-being. Parents must take immediate, appropriate action because most oral injuries occur at home, with schools following suit.⁴ Parents can greatly improve their child's prognosis for traumatic dental injury to permanent teeth if they know what to do in the case of an accident and what first aid procedures to follow. The prognosis of the teeth may be impacted by the parents' knowledge of and proficiency in handling these emergency situations.⁵ The present study was conducted to assess parents' awareness regarding management of on- site traumatic dental injuries.

MATERIALS & METHODS

The present study comprised of 120 parents who accompanied their children age ranging 6- 14 years of both genders. All gave their written consent to participate in the study.

Data such as name, age, gender etc. was recorded. All parents were given a questionnaire, and their answers regarding their awareness of on-site dental trauma were noted. Data thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

RESULTS

Table: I Distribution of patients

| Total- 120 | | |
|------------|------|--------|
| Gender | Male | Female |
| Number | 68 | 52 |

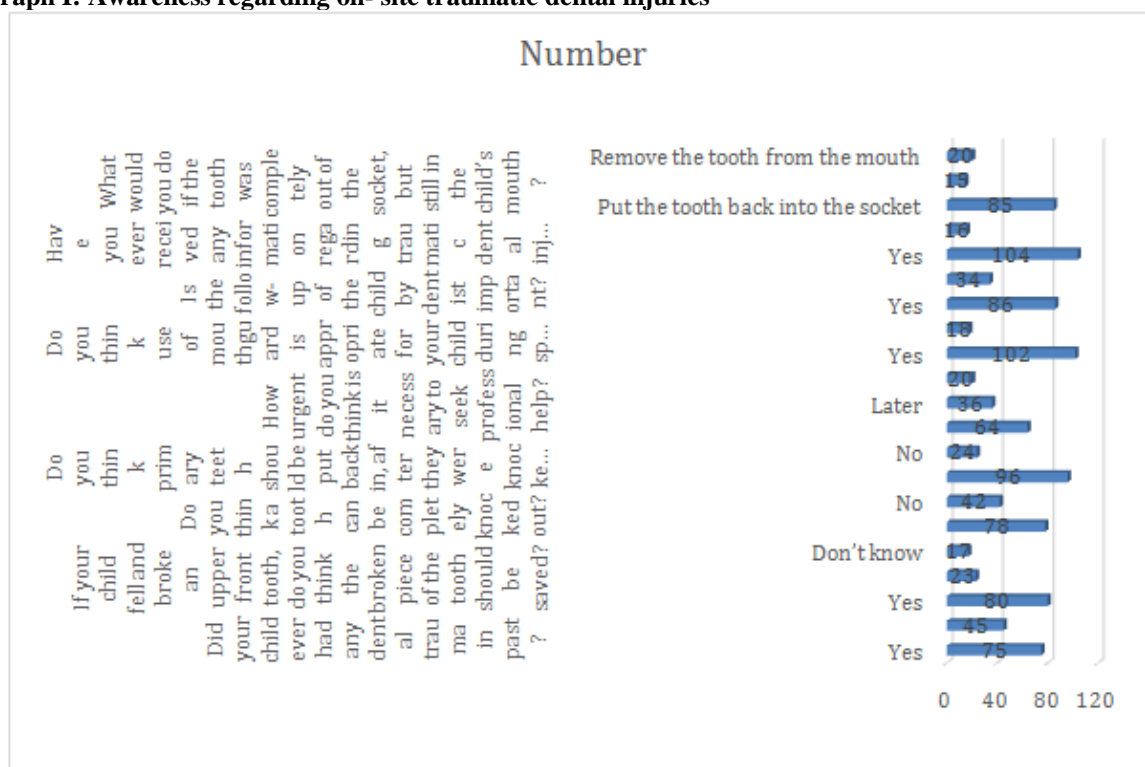
Table I shows that out of 120 parents, 68 were males and 52 were females.

Table: II Awareness regarding on- site traumatic dental injuries

| Questionnaire | Response | Number | P value |
|--|--|--------|---------|
| Did your child ever had any dental trauma in past? | Yes | 75 | 0.05 |
| | No | 45 | |
| If your child fell and broke an upper front tooth, do you think the broken piece of the tooth should be saved? | Yes | 80 | 0.85 |
| | No | 23 | |
| | Don't know | 17 | |
| Do you think a tooth can be completely knocked out? | Yes | 78 | 0.58 |
| | No | 42 | |
| Do you think primary teeth should be put back in, after they were knocked out? | Yes | 96 | 0.01 |
| | No | 24 | |
| How urgent do you think is it necessary to seek professional help? | Immediately | 64 | 0.74 |
| | Later | 36 | |
| | Only if any pain or other symptoms are noticed | 20 | |
| Do you think use of mouthguard is appropriate for your child during sport activity? | Yes | 102 | 0.02 |
| | No | 18 | |
| Is the follow-up of the child by dentist important? | Yes | 86 | 0.01 |
| | No | 34 | |
| Have you ever received any information regarding traumatic dental injuries previously? | Yes | 104 | 0.01 |
| | No | 16 | |
| What would you do if the tooth was completely out of the socket, but still in the child's mouth? | Put the tooth back into the socket | 85 | 0.05 |
| | Leave the tooth inside the mouth | 15 | |
| | Remove the tooth from the mouth | 20 | |

Table II, graph I shows that 75 parents had their child dental trauma in past. In response to if your child fell and broke an upper front tooth, the broken piece of the tooth should be saved, 80 replied yes, 23 no and 17 don't know. 78 parents replied a tooth can be completely knocked out. 96 parents thought primary teeth should be put back in, after they were knocked out. In response to how urgent it is necessary to seek professional help, 64 replied immediately, 36 later and 20 only if any pain or other symptoms are noticed.

102 think use of mouthguard is appropriate for child during sport activity. 86 replied the follow-up of the child by dentist important. 104 received any information regarding traumatic dental injuries previously. 85 parents replied that put the tooth back into the socket, if the tooth was completely out of the socket, but still in the child's mouth, 15 replied leave the tooth inside the mouth and 20 replied remove the tooth from the mouth. The difference was significant (P< 0.05).

Graph I: Awareness regarding on- site traumatic dental injuries

DISCUSSION

Dental trauma is still one of the main problems with children's dental health, and it can be quite painful and upsetting. From a minor enamel chip to a serious maxillofacial injury that damages the supporting tissues and results in tooth shifting or avulsion, its severity might vary.⁶ Perhaps the dental condition that has the biggest psychological impact on both parents and children is the loss or fracture of a child's front teeth.⁷ Primary and permanent anterior teeth are essential for mastication, phonetics, psychological and mental health, and the integrity of supporting tissues. They are also essential for aesthetics.^{8,9} The present study was conducted to assess parents' awareness regarding management of on- site traumatic dental injuries.

We found that out of 120 parents, 68 were males and 52 were females. Namdev et al¹⁰ assessed parents' knowledge on how to treat dental injuries. A self-administered structured questionnaire was used to survey 1500 parents in total. There were three sections to the questionnaire. This study revealed a lack of understanding of emergency tooth avulsion and replantation protocols. Parents' knowledge and awareness were unaffected by their age or place of residence. Furthermore, parents with higher levels of education also knew very little or nothing about first aid for oral trauma. Previous experience did not appear to have increased awareness of the proper emergency measures, as evidenced by the lack of significance in correct answers between those with those without such experience. Information regarding

tooth avulsion and replantation was either very limited or non-existent.

We observed that 75 parents had their child dental trauma in past. In response to if your child fell and broke an upper front tooth, the broken piece of the tooth should be saved, 80 replied yes, 23 no and 17 don't know. 78 parents replied a tooth can be completely knocked out. 96 parents thought primary teeth should be put back in, after they were knocked out. In response to how urgent it is necessary to seek professional help, 64 replied immediately, 36 later and 20 only if any pain or other symptoms are noticed. 102 think use of mouthguard is appropriate for child during sport activity. 86 replied the follow-up of the child by dentist important. 104 received any information regarding traumatic dental injuries previously. 85 parents replied that put the tooth back into the socket, if the tooth was completely out of the socket, but still in the child's mouth, 15 replied leave the tooth inside the mouth and 20 replied remove the tooth from the mouth. Rani et al¹¹ evaluated parents' awareness, attitude, and understanding about dental trauma and how to treat it. The results of this study indicated that the participants lacked enough information regarding the first-aid emergency management of traumatic oral injuries. The study's findings showed that there was a lack of understanding of emergency tooth avulsion and replantation protocols. Parents' knowledge and awareness were unaffected by their age or place of residence. Parents with high levels of education were not adequately informed about emergency care and first aid for dental trauma.

Raphael et al¹² evaluated by means of a questionnaire, the parental awareness of the emergency management of avulsed teeth in children. Over 2000 parents were surveyed during a four-week period at 20 suburban vacation swimming centres. The results indicated that almost two-thirds of respondents would attempt replantation of an avulsed tooth but further questioning showed they did not know the correct procedures. Thirty-three per cent of respondents were unaware of any after-hours emergency dental services. Ninety-two per cent felt they should seek professional help urgently following an avulsion injury, but their knowledge of transport media for the tooth was poor. Only 5 per cent knew that milk was the medium of choice for both washing and transporting an avulsed tooth. Ninety per cent of parents surveyed had never received advice on what to do in the event of an accident where a permanent tooth was avulsed. This study revealed the need for educational campaigns aimed at parents to increase their knowledge of the emergency procedures required when the tooth is avulsed.

The shortcoming of the study is the small sample size.

CONCLUSION

Authors found that parents knew enough about how to treat traumatic dental injuries that occurred on the job site.

REFERENCES

1. Council O. Guideline on management of acute dental trauma. *Dent Traumatol*. 2009;1(3):230-38.
2. Namdev R, Jindal A, Bhargava S, Bakshi L, Verma R, Beniwal D. Awareness of emergency management of dental trauma. *Contemp Clin Dent*. 2014;5(4):507-13.
3. Shashikiran ND, Reddy VV, Nagaveni NB. Knowledge and attitude of 2,000 parents (urban and rural-1,000 each) with regard to avulsed permanent incisors and their emergency management, in and around Davangere. *J Indian Soc Pedod Prev Dent*. 2006;24(3):116-21.
4. Oliveira TM, Sakai VT, Moretti AB, Silva TC, Santos CF, Machado MA. Knowledge and attitude of mothers with regards to emergency management of Dental avulsion. *J Dent Child*. 2007;74(3):200-2.
5. Al-Sehaibany FS, Alajlan R, Almubarak D, Almaflehi N, Aljabaa A, AlBarakti SF. Knowledge on management of traumatic dental injuries among Saudi mothers. *Clin Cosmet Investig Dent*. 2018;6(10):123-128.
6. Quaranta A, De Giglio O, Coretti C, Vaccaro S, Barbuti G, Strohmenger L. What do parents know about dental trauma among school-age children? A pilot study. *Ann Ig*. 2014;26(5):443-6.
7. Abdellatif AM, Hegazy SA. Knowledge of emergency management of avulsed teeth among a sample of Egyptian parents. *J Adv Res*. 2011;2(2):157-62.
8. Ozer S, Yilmaz EI, Bayrak S, Tunc ES. Parental knowledge and attitude regarding the emergency treatment of avulsed permanent teeth. *Eur J Dent*. 2012;6(4):370-5.
9. Loo TJ, Gurunathan D, Somasundaram S. Knowledge and attitude of parents with regards to avulsed permanent tooth of their children and their emergency management Chennai. *J Indian Soc Pedod Prev Dent*. 2014;32(2):97-107.
10. Namdev R, Jindal A, Bhargava S, Bakshi L, Verma R, Beniwal D. Awareness of emergency management of dental trauma. *Contemporary clinical dentistry*. 2014 Oct 1;5(4):507-13.
11. Jyoti Rani, DivyaTomar, Arun Sharma, DhirjaGoel, Nakul Sharma, Smriti Gupta. Parental Knowledge, Attitude and Awareness Regarding the Emergency Management of Dental Trauma in Ghaziabad, Uttar Pradesh. *Annals of R.S.C.B* 2021;10638 – 10649.
12. Raphael SL, Gregory PJ. Parental awareness of the emergency management of avulsed teeth in children. *Aust Dent J*. 1990;35(2):130-3.
13. Nainani P, Singh HP, Paliwal A, Nagpal N. A rare case report of clear cell variant of oral squamous cell carcinoma. *J Clin Diagn Res*. 2014 Dec;8(12):QD07-9. doi: 10.7860/JCDR/2014/11536.5339.
14. Singh HP, Yadav M, Nayar A, Verma C, Aggarwal P, Bains SK. Ameloblastomatous calcifying ghost cell odontogenic cyst - a rare variant of a rare entity. *Ann Stomatol (Roma)*. 2013 Mar 20;4(1):156-60. doi: 10.11138/ads.0156.
15. Singh HP, Kumar P, Goel R, Kumar A. Sex hormones in head and neck cancer: Current knowledge and perspectives. *Clin Cancer Investig J*. 2012;1(1):2-5. <https://doi.org/10.4103/2278-0513.95011>.
16. Sharma A, Singh HP, Gupta AA, Garg P, Moon NJ, Chavan R. Granulocytic sarcoma in non-leukaemic child involving maxillary sinus with long term follow up: A rare case report. *Ann Maxillofac Surg* 2014;4:90-5.
17. Puri N, Rathore A, Dharmdeep G, Vairagare S, Prasad BR, Priyadarshini R, et al. A clinical study on comparative evaluation of the effectiveness of carbamazepine and combination of carbamazepine with baclofen or capsaicin in the management of Trigeminal Neuralgia. *Niger J Surg* 2018;24:95-9.
18. Kumar K, Shetty DC, Wadhwan V, Dhanapal R, Singh HP. Dentinoameloblastoma with ghost cells: A rare case report with emphasis on its biological behavior. *Dent Res J* 2013;10:103-7.