

# Knowledge and Attitude of Mother with Regards to Emergency Management of Dental Trauma and Avulsion- A Clinical Study in Bihar.

Shagufta Syreen<sup>1</sup>, Ahtasham Anwar<sup>2</sup>, M. Z. Rahman<sup>3</sup>

<sup>1</sup>Senior lecturer, Department of Paedodontics, Sarjug Dental College, Darbhanga.

<sup>2</sup>Reader, Department of Paedodontics, Hazribagh Dental College, Jharkhand

<sup>3</sup>Tutor, Patna Dental College, Patna.

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## ABSTRACT

**Background:** Traumatic dental injuries are the most unanticipated events that, if not managed appropriately can have serious consequences for the patient. The dental trauma leads to varying degree of consequences right from abrasion of soft tissue to, displacement and loss of tooth (avulsion) and associated structure. Aims and objective: To assess the general knowledge of mothers with regards to immediate dental trauma (Avulsion) management and their attitude towards public education through a questionnaire. **Methods:** Total of 200 participants was taken and a detailed questionnaire is provided. **Results:** 200 mothers of different background were participated. In among 200 mothers 22.5% were below 10th standard and only 6% knows about dental trauma, among 10th -12 standard only 13% aware about dental trauma, however among graduate mother it is 45%. **Conclusion:** This study showed the need of a more effective communication between dental professionals and mothers to better handle dental emergencies. Intervention programmes should be considered to increase mothers awareness regarding dental injuries.

**Keywords:** Traumatic injuries, Avulsion, Emergency, Patient education.

## INTRODUCTION

Trauma itself indicates that something unusual happened. Nature of the bone in child is such that due to its elastic nature facial fractures are less reported but prominence of upper jaw make it vulnerable to tooth trauma, avulsion, and dentoalveolar fracture. Andreasen et al,<sup>[1]</sup> reported that the loosely structured periodontal ligament surrounding the erupting teeth that often exhibit short, incompletely formed roots and the elasticity of alveolar bone which favors the avulsion of these teeth. Traumatic injuries of dentoalveolar region among the young children are serious but most often ignored problem due lack of awareness among the commoner. Injuries in children is a global health problem, in 2011 the world health organization projected that more than 6,30000 children under age of 15 were killed by an injury, childhood injuries are related to high morbidity, for every one child dies there are several thousand other who live with varying degree of disability.<sup>[2]</sup>

### Name & Address of Corresponding Author

Dr Ahtasham Anwar,  
Moh- Karamgani,  
Laheriasarai,  
Darbhanga, Pin-846001.

Children having injuries to their anterior tooth and their concerned parents pose a big challenge to the concerned dental surgeon that is often unparalleled. Loss of anterior tooth is associated with aesthetics of face, so it brings aesthetic, functional and psychological impact both on child and parents.<sup>[3]</sup> loss of anterior permanent teeth is more often related to aesthetics so sometimes it makes a child shy and timid. The cost of replacement of lost tooth is also burden on economy. Dental traumatic injuries ranges from simple enamel fracture to extensive dentoalveolar injuries which leads to complete extra articulation of tooth(avulsion).The prevalence of avulsion following dentoalveolar injuries varies from 0.5% to 16% of traumatic injuries to permanent dentition 4and from 7% to 13% in primary dentition.<sup>[5]</sup> The most common teeth involved in avulsions in primary and permanent dentition is central incisor. Avulsion is more commonly reported in boys (three times more) than girls because of their active involvement in sports and outdoor games. Most commonly the age of involvement is 7-9 years when permanent incisor is erupting<sup>6</sup>. Time elapsed between avulsion and its initiation of treatment apart from viability of periodontal ligament cells largely determines the prognosis of avulsed tooth. Epidemiological studies on dental and related

trauma shows that most of the dental accidents occurs in or around home (41%) and hence ultimate prognosis of an avulsed tooth occurring in a child may depend on the knowledge and attitude of parents specially mother about the emergency procedures to be taken at that time.<sup>[7]</sup> The combination of delayed reimplantation and other than physiological storage is responsible for low survival of rate of reimplanted teeth.<sup>[8]</sup> Prolonged extra alveolar time contributed to an uncertain prognosis for most reimplanted teeth.<sup>[9]</sup> In most of the condition where immediate reimplantation is not possible, limited storage of the avulsed tooth in isotonic solution before reimplantation gave equal or even better healing results compared with immediate reimplantation.<sup>[10]</sup> There were number of studies which shows that majority of people and professionals involved in the management of dental injuries have little knowledge about the subject.<sup>[11]</sup>

The aim of this study was to assess the knowledge and attitude of mother towards the management of dental trauma and avulsion and how the education of mother affects its outcome.

### MATERIALS AND METHODS

A total of 200 mothers were taken for the study in order to know the knowledge of mother about emergency management of dentoalveolar injuries with special consideration on avulsion. A detailed questionnaire was given in their preferred language and asked to give their answer as suits them. The objectives and nature of studies were explained fully and informed consent was taken. A total of 10 questions were given in questionnaire.

#### Department of pediatric and preventive dentistry

Mother's Dental Trauma Management Knowledge Questionnaire Form  
General Information

Name:----- Registration ID-----

Age (years):-----

Name of school:-----

Name of mothers:-----

Q1. Did you heard about dental trauma and avulsion?

- a) Yes
- b) No

Q2. If a 9yr child fell and broke his/her front upper tooth, the broken tooth is likely-

- a) Permanent tooth
- b) Baby tooth
- c) No idea

Q3. If a 9yr child fell and broke her/his front upper tooth immediately. What is your response?

- a) Search for pieces of tooth.
- b) Reassure the child and put to rest

- c) contact the dentist immediately
- d) not sure what to do

Q4. A 12yr old boy was hit on his face and his upper front tooth fell out of his mouth, immediate action taken by you is-

- a) Stop bleeding and throw away the tooth
- b) Put the tooth in some liquid and send to the dentist
- c) Put the tooth in socket and send to the dentist
- d) No idea what to do.

Q5. Have you ever heard about reimplantation of avulsed tooth, if yes from whom?

- a) TV/newspaper
- b) Neighbors
- c) Friends
- d) No idea

Q6. How urgent do you think it is to seek dentist help if permanent tooth is avulsed?

- a) Immediately
- b) 30min
- c) 2hrs
- d) No idea

Q7. In which way do you transport tooth to dentist.

- a) In hand wrapped with cotton
- b) In ice
- c) In saline
- d) In milk

Q8 if you decided to put back tooth inside socket but the tooth is mixed with dirt what would you do-

- a) Scrub the tooth in water then put in socket
- b) Rinse the tooth gently in tap water
- c) Rinse with antibacterial solution
- d) Rinse with soap

Q9. Have you heard about hanks solution?

- a) Yes
- b) No

Q10. Are you interested in knowing the emergency procedure done in case of avulsion?

- A) Yes
- b) No

### RESULTS

Education of mother	Total no of participant (200)	Awareness of dental trauma in respect to education.
Up to 10th	45(22.5%)	06%
10th to 12th	83(41.5)	13%
Graduate	72(36%)	45%

In our study 200 mothers of different background were participated. In among 200 mothers 22.5% were below 10th standard and only 6% knows about dental trauma, among 10th -12 standard only 13% aware about dental trauma, however among graduate mother it is 45%. Only 39% mother

knows that the front teeth in 9 year are permanent tooth where as 36% says that the tooth is deciduous in nature.54% of mother take professional help and 22% will put them into rest and reassure their child. 48% of mother will first stop bleeding in case of fall in 12 yr old child where as only 17% will place tooth in socket and rest have no idea. Most of the respondent mother did not hear about avulsion 78% and only 14% heard it from TV and relatives and friends. 47% of mother will seek professional help immediately and 27% within 30 minutes.7% of mother will transports tooth in a milk,10% in ice, where 73% will transport in hand wrapped in cotton. 55% of mother rinse it in a antibacterial solution 37% will rinse it in tap water.100% of the respondent did not hear about hanks solution.94% of mother is willing to know about the emergency management of dental trauma and avulsion.

## DISCUSSION & CONCLUSION

The study was under taken in dept of pedodontics, Buddha institute of dental sciences Patna. A detailed questionnaire was given to the participant mother, in order to know the knowledge of mother regarding their awareness and attitude towards management of dental trauma and avulsion.

Out of 200 participants 36.6% of population aware about dental trauma and avulsion which is not much impressive. There is a need to sensitize people through various educational means and other modes to create awareness. Out of 200 participants only 39% mother knows that the broken anterior teeth is permanent teeth, where as 36% mother responded that the broken teeth is deciduous nature.

Regarding their attitude towards response after the child broken his/her tooth 54% mother will contact to dentist where as 22% mother will reassure their child and put them to rest. This shows that most of the mother knows the role of dentist in managing such condition.

Regarding their knowledge about the management of fallen tooth from socket in a 12 year children 30% responded by saying that first they stop bleeding and throw away the teeth which shows lack of knowledge and awareness about it. Only 16% responded by saying they put in some liquid and send to dentist where as 44% responded by saying no idea.

Most of the mother having no knowledge about (82%) avulsion where as 18 % knows it from their friends/relatives.

Regarding the urgency about taking dentist help in managing the avulsed tooth 37% mother responded by saying immediately where as 32% responded that they seek help within 30 minutes.

Regarding the medium of transport most of the participant will transport tooth in hand wrapped in

cotton which is 56.2% where as in ice it is 21% in saline it is 15.8% and in milk 7%.

Regarding the response about reimplanting tooth inside socket immediately most of the respondent rinses it in antibacterial solution (36%) where as 30% will scrub in water and then put it into socket.19% rinse only in tap water.

Regarding the hanks solution the entire respondent did not heard.

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