



Association of Time of Trauma and Visit to The Dental Clinic

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Article History	Abstract
Received: 06 June 2023 Revised: 05 Sept 2023 Accepted: 02 Nov 2023	<p><i>Dental trauma is injury to the mouth, including teeth, lips, epoxies, lingo, and jawbones. Soft towel injuries to the mouth and dental trauma are generally veritably painful and should admit prompt treatment. It's a single centered retrospective study. Data was collected from the case record system used in private dental institutions and following parameters similar as gender, age of the children with post traumatic history. Case details were analyzed between June 2020 to January 2021 out of which 287 cases who fulfilled the addition and rejection criteria were included in the study. The data obtained was statistically analyzed using SPSS software. In this study, it is observed that time taken by maximum patients was more than 2 months and male children are prone to traumatic injury. Awareness on earlier dental visits with respect to dental trauma and complication of time delay should be improved among general society.</i></p>
CC License CC-BY-NC-SA 4.0	<p>Keywords: Ankylosis, Hypoplasia, Innovative technique, Pulp necrosis, Replacement resorption</p>

1. Introduction

Traumatic dental injuries are fairly common among children, stated by the WHO. Traumatic oral injuries in children involve trauma to the dentition and the girding oral soft towel structures. They generally present as an exigency hence their operation poses a challenge encyclopedically [1,2]. Damage to the developing teeth posterior to primary tooth injury is frequently necessary and has endless goods on the dentition. It's estimated that 17 – 50 of adolescents and grown-ups witness dental trauma to one or further endless teeth whereas 9 – 40 of children witness trauma in their primary dentition [3,4]. Treatment of a tooth fracture, relegation or loss is determined by the type and inflexibility of the injury independent of the etiology [5,6].

It necessitates the experience for geste operation in a child, ascertaining a case centered opinion, formulating a definitive treatment plan, explanation and concurrence of oral care to the parents or guardian with optimal driver chops [7,8] Falling during playing, sports- related injuries, and fights are considered to be the main cause for dental traumas in children. Crown fractures and luxation injuries which occurred in deciduous dentition are the most common injuries [9]. Pediatric dental injuries also occur when a patient has parents treating with anger [10,11] The clinical consequences of traumatic injuries which occur to the primary dentition are egregious and measurable [12]

Still, there are also implicit sequelae to the developing succedaneous teeth including hypoplastic blights [11] root dilacerations, and other enamel or experimental disturbances that aren't seen until months or times after the injury when the endless successors erupt [13,14]. Traumatic dental injuries to the youthful child can present both individual and remedial challenges [15].

The opinion of the pediatric children visiting dental sanitarium regarding the treatment for traumatic injuries are fracture in coronal region with exposure of pulp, subluxation, coronal fracture without pulp exposure, side luxation, extrusion, total luxation, intrusion, fracture to the enamel, fracture to root of coronal third, radicular fracture of apical third, radicular fracture of medium third [16,17]. There are numerous complications with respect to time detention in visiting dental hospitals after exposure with trauma and left undressed. External root resorption, face resorption, relief resorption, ankylosis are

some of the main reasons for causing complications, particularly of periodontal origin. About pulp complications, pulp necrosis and internal root resorption was observed [18]. The longer the detention of discussion, further complications can arise. Another reason for the detention in dental visits after exposure to traumatic events is the languor of the parents of the cases.

Time period between the date of discussion and the date of which the dental trauma differs between each patient. Proper opinion, treatment planning, and follow-up is important for perfecting a favorable outgrowth. Away from general oral health care, providers must also be suitable to give guidance regarding dental trauma forestallment and operation. The main of the study is to dissect the association of occurrence of trauma and time taken by the case to visit a dental clinic.

2. Materials And Methods

Study design:

The study design was done in such a way that it includes children less than 18 years of age. The children exposed to traumatic events and visiting dental clinics are included in the study. The children who do not belong to the inclusion criteria were excluded.

Sampling technique:

The study has been done based on the Random sampling method. All the cases were reviewed priorly and included in order to avoid or reduce sampling bias.

Data collection and tabulation:

Data collection was done using a patient database from a private dental institution, Chennai. Patient details were analyzed between June 2020 to January 2021 out of which 287 patients who fulfilled the inclusion were selected for the present study. Subjects who are selected are divided into six groups according to the time taken by the patients to visit a dental hospital after exposure to a traumatic event. Ethical clearance for the study was obtained from the Institutional review board.

All the case wastes were reviewed and were cross vindicated by another monitor. The internal validity included diagnosed cases as per criteria, medical history, principal complaints and clinical findings. Cross verification of data was done by a critic. The collected data was tabulated grounded on the following parameters:

- Patients' demographic details
- Age of the patients with post traumatic history
- Gender of the patients with post traumatic history
- Time taken by the patients with post traumatic history to visit dental clinic

Statistical analysis:

The variables were enciphered and data was imported to SPSS software interpretation 20.0 categorical variables were expressed in terms of frequency and chance and bar graphs were colluded. The statistical significance of the associations were tested using chi square test and pearson correlation. p value < 0.005 was considered statistically significant.

3. Results and Discussion

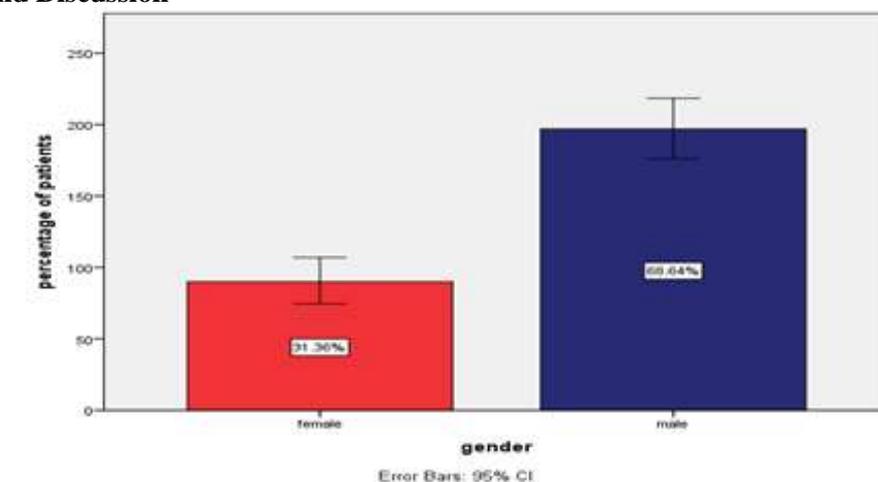


Figure 1: Bar graph depicting gender distribution of the patients visiting dental clinic after an episode of traumatic injury. The percentage of the number of patients are plotted against the Y axis and the

gender of the patients are plotted under the X axis. Dark red color denotes female gender which is 31.36% and dark blue color denotes male gender which is 68.64%. Comparing male and female, percentage of patients with traumatic history visiting dental clinic is maximum with male gender

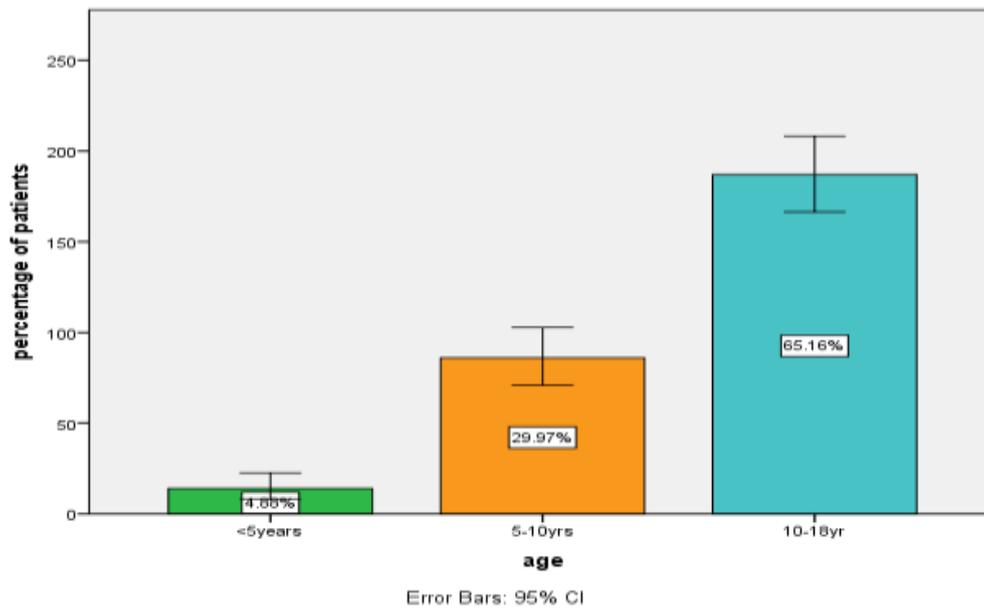


Figure 2: The bar graph depicts the age distribution of the patients visiting dental clinics with post traumatic history. The percentage of the number of patients are plotted against Y axis and the age group of the patients are plotted under X axis. Dark green color denotes age group of less than 5 years which is 4.88%. Golden yellow color denotes age group of five to ten years of age which is 29.97%. Peacock green color denotes age group of 10-18 years of age which is 65.16%. It is evident that most of the post traumatic pediatric patients visit dental clinics at the age group of 10-18 years.

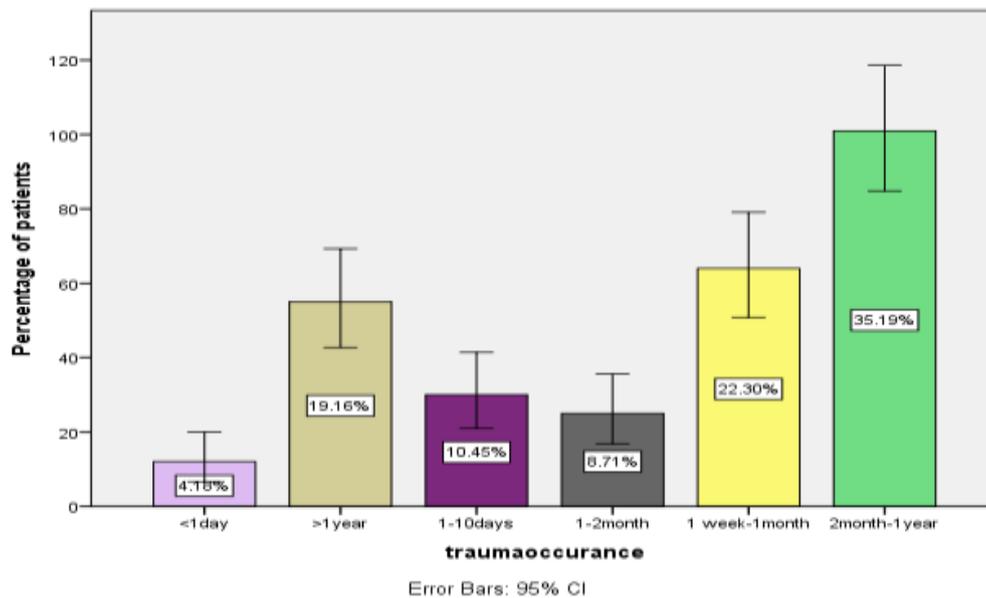


Figure 3: Bar graph depicting the frequency of time taken by trauma patients to visit dental clinics. The percentage of the patients exposed to trauma are plotted against the Y axis and the duration taken by patients to visit the dental clinic are plotted under the X axis. Lavender color denotes percentage of patients visiting <1day which is 4.18%. Light blue color denotes percentage of patients visiting in 1 day to 1 week of time which is 10.45%. Purple color denotes percentage of patients visiting in 1 week to 1 month of interval which is 22.3%. Grey color denotes percentage of patients visiting in 1-2 months of time delay which is 8.71%. Light yellow color denotes percentage of patients visiting in 2 months to 1 year of time delay which is 35.19%. Light green color denotes percentage of patients visiting more than 1 year of occurrence of trauma which is 19.16%. From the above chart, it is evident that the time interval taken by most of the patients with traumatic history visit dental clinics with more than 2 months of time delay.

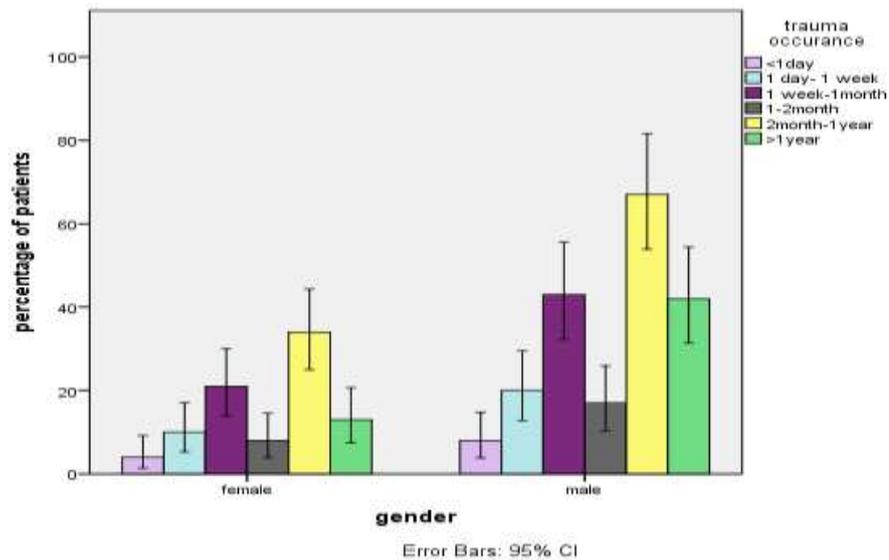


Figure 4: Bar graph depicting correlation of gender and time taken by traumatic patients to visit a dental clinic. Gender of the patients with traumatic history is plotted against x axis and percentage of the patients with time delay is noted against Y axis. The above graph has P value = 0.363(P>0.05) which is statistically not significant.

Total population of 287 actors were involved in the study. Out of which 68.64 were manly children and 31.36 were womanish children (figure 1). The prevalence of trauma of dental origin to boys was advanced, in comparison with girls. For relations, the initial school days and children belonging to that age group were highly prone to met with accidents which caused dental traumatic injuries.

On considering the age distribution of the cases visiting dental conventions with post traumatic history, the cases included in the study were separated into three groups according to their age <5 years, 5-10 years, 10-18 years of age (figure 2) [17,19].

From figure 3, considering the frequency of time taken by trauma patients to visit a dental clinic, about only 4.18% pediatric patients visit a dental clinic within 1 day of an episode of traumatic injury, which is the minimum. About 10.45% of the pediatric patients visited dental clinics within 1- 10 days of post traumatic event occurrence. In the period of 1 week to 1 month of time, 22.3% of traumatic patients visited dental clinics. Within the period of 1 to 2 months of time, 8.37% of patients visited. 35.19% of the post traumatic pediatric patients visited a dental clinic within the time delay of 2 months to 1 year, which is maximum. About 19.16% of post traumatic patients visited dental clinics with a time delay of more than 1 year.

The main cause for the trauma was considered to be due to falling in 40 of cases, which is followed by rashes during road bus accidents (33.12). Violence which can be brought about by own parents or surrounding people was responsible in 21.25 of the cases and occupational accidents as the reason for dental traumatic injuries to occur in 5.63 percent of the cases.

The longer the detention of discussion, further complications passed. Therefore, for a period of 1 to 3 days, the cases passed ankylosis for period of 3 months, relief resorption at 3 months, 4 weeks for face resorption, and 4 weeks for external root resorption or at 3 months. For cases who came for discussion 3 days after trauma, they latterly suffered from external root resorption at 4 weeks, 3 months, or 6 months.

4. Conclusion

Knowledge of the etiological and clinical characteristics of exigency dental trauma could help us to treat them and make specific preventative measures. From the above study, it is evident that most of the post traumatic children (35.19%) visit dental clinics with delay of more than 2 months and only 4.18% pediatric patients visit a dental clinic within 1 day of an episode of traumatic injury which is very minimum. Thus, more awareness regarding quick visit to a nearby dentist for consultation of children exposed to a traumatic event and complication of delay in visiting dental clinic and dental treatment has to be increased.

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Conflict of Interest

Authors declare no potential conflict of interest.

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