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**Research Article**

# Epidemiology of Referral Nose Dental Injuries Referred to the Boyer Ahmad Legal Medicine Office in the First Six Months of 2016

**Zafar Masoumi Moghaddam[1*], Kamrooz Amini[2], Fatemeh Yarinasab[3] and Ali Samanpour[4]**

[1]Assistant professor of Radiology Department,
Clinical Research Development Unit, Yasuj University of Medical Sciences,
Yasuj, Iran**(Corresponding)**
[2,3,4]Legal Medicine Research Center, Legal Medicine Organization, Yasuj, Iran
Corresponding Author: Email:zafar_maasoumi@yahoo.com

## ABSTRACT

**Introduction**: Dental injuries are one of the most important problems in oral health that include general and mental health and quality of life of an individual. This research was conducted with the aim of investigating the etiology of referral dental injuries to legal practitioner in Boyer Ahmad, Iran during the first 6 months of the year 2016.

**Materials and Methods**: This study was a descriptive-cross sectional study. The research population of all individuals referred to the forensic medicine during the first six months of 2016 of age who had been injured and examined in the teeth. The required information was extracted from their files and analyzed through SPSS21 software.

**Results**: In this study, 157 cases were investigated, of which the highest number of samples referred was men (75.2%). Most cases have been between the age group of 25-30 years. At the level of education, the highest frequency was in the level of diploma education (28.7%), and most of the respondents had a free occupation (40.8%). The most frequent location is the city (66.9%). Concerning the causes of accidental injury with 57.3% and then the conflict with 40.8% were the most common causes. The most common type of injury was fracture of tooth crown with 54.1% and the most common anterior crown fracture (82.4%).

**Conclusion**: Considering that the most common cause of road traffic accident injury is increasing awareness and observing safety tips such as belt and helmet closure, pay attention to traffic lights.

**Keywords**: injuries, teeth, accident

**Problem statement:**

Dental trauma is a common concern that may affect day-to-day effectiveness and quality of life. Financial, psychosocial effects on dental-oral-paternal injuries have an impact on individuals, families and health of society and people (1, 2 and 3). Facial trauma accounts for 5% of all injuries that individuals are undergoing treatment for daniel (4, 5). Between all facial injuries, dental injuries are the most common (6). According to the World Health Organization,

traumatic dental injuries are a serious public health problem, and reliable data on their incidence and severity still exist in many countries, especially in developing countries (7). Many studies show that most TDIs occur in childhood and adolescence (8 and 9). Studies have also been shown that sex is also a predisposing factor in dental injuries, which considers a man more prone to dental injuries (10, 11, 12).

The most common accidents involving permanent teeth include falls, traffic accidents, violence, and excited sports (5).

Traumatic dental injury (TDI) is one of the main reasons for tooth decay. The incidence of TDI is significant and may have serious consequences (12, 13). Severe tooth injuries cause unexpected and debilitating pain, as a result, it needs urgent action. In addition to economic problems, dental injuries can also affect the quality of life of an injured person (14, 15).

On average, children with untreated TDI are 20 times more likely to have an effect on daily life than children without any dental damage (16). In general, traumatic dental injury not only causes dental lesions and tooth protector tissue, it affects people's lives directly or indirectly by affecting the appearance, position, and position of the teeth (17). Epidemiological studies show that traumatic tooth defects vary greatly depending on the population studied, according to nationality, age, sex, status of provision of health services and the classification system of injury (17).

On the other hand, the law of punishment for teeth and its damages is considered and this makes doubling the importance of examining dental injuries from a forensic perspective. Familiarity with epidemiological issues can highlight the importance of prevention, diagnosis and treatment plan.

Given the issues mentioned, no study has been conducted in Yasuj today. Therefore, the aim of this study was to determine the prevalence of dental injuries in the epidemiological examination of traumatic injuries in referral patients to Kohgiluyeh and Boyerahmad provinces during the first 6 months of 1395. So that the pattern of these injuries in the province is known and by health policymakers used.

**Analysis method**

This research was a descriptive cross-sectional study. The population of this study was all referrals to the forensic medicine of Boyer Ahmad city during the six months due to dental damage which was surveyed in a total number of 157 people. The data gathering tool was a researcher-made questionnaire. The questionnaire included information such as age, level of education, marital status, place of residence, type of injury and cause of injury, extracted from the records of these individuals, and then gathered information and entered the software and analyzed using descriptive analysis and spss 21 software.

**Findings**

In this study, 157 cases were investigated. The highest frequency of referral to forensic medicine was male (75.2%) and the rest were female (24.8%). Patients aged 15 to 45 years and over, the most frequent age group was the age group of 25-30 years old (17.8%), and the lowest age group was 40 years old and older (10.8%) (Figure 1).

Regarding the level of education, the highest frequency of referral to forensic medicine was observed at the level of diploma education (28.7%) and the lowest frequency of graduation (3.8%) and 64 free occupations (40.8%) have the highest occupational frequency of the respondents.

The place of residence is 105 people (66.9%) in the city, and 33.1% in the village. According to the results, the most cause of injury was 57.3% and the conflict is 40.8%, spouse abuse is 3.1 and occasional events are 0.6% (Table 1). The most common type of injury, fracture of tooth crown with 54.1% and the teeth are 40.1% and the total fracture of the teeth is 5.8% and the type of anterior crown fracture is often 82.8%.

The most common type of teeth is mild contraction (49.2%). The highest frequency is based on complete fracture of the teeth, complete anterior fracture with 88.9% (Table 2).

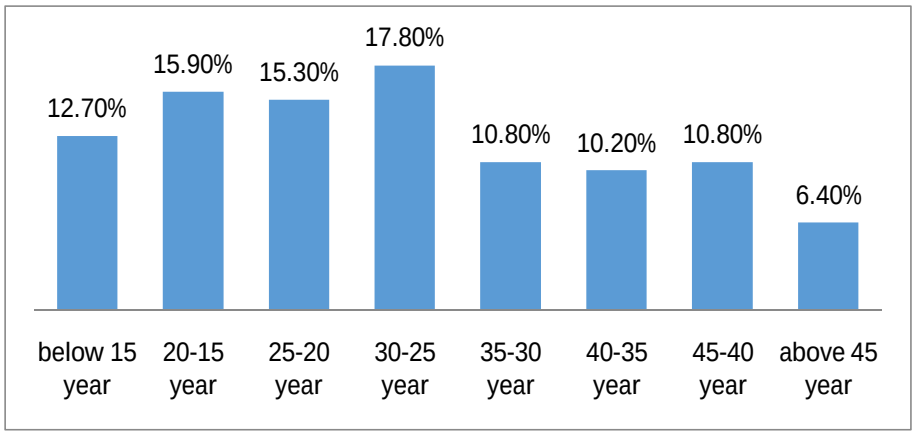


**Chart (1)** Distribution of age frequency

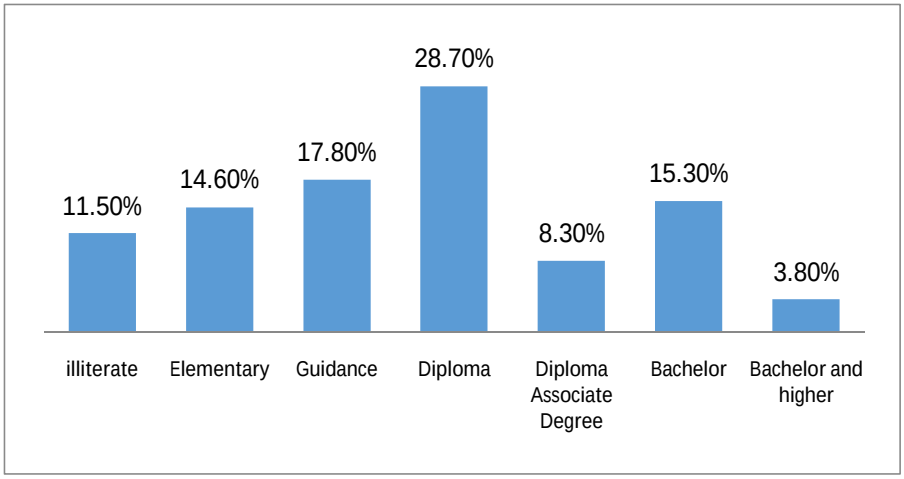


**Chart (2)** Frequency distribution of education level

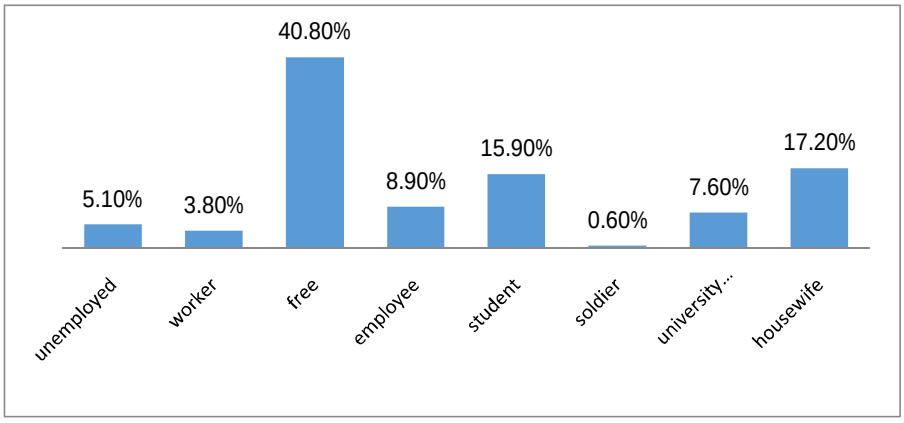


**Chart (3)** Frequency distribution of job status

**Table (1)** Table of Frequency distribution and percentage frequency causes of patient injury

| Cause of referral | Number | Percent |
|---|---|---|
| Crash | 64 | 40.8 |
| Dispute | 90 | 57.3 |
| Work accident | 1 | 6 |
| Teasing wife | 2 | 1.3 |
| total | 157 | 100% |

**Table 2:** Distribution table frequency and frequency percentage type of injury to patients

| Type of injury | Frequency | Percent | | Frequency | Percent |
|---|---|---|---|---|---|
| Tooth crown fracture | 85 | 54.1 | Anterior | 70 | 82.4 |
| | | | Posterior | 15 | 17.6 |
| Toothpick | 63 | 40.1 | Mild | 31 | 49.2 |
| | | | Average | 18 | 28.6 |
| | | | Tooth collapse | 14 | 22.2 |
| Full teeth fracture | 9 | 5.8 | Full anterior fracture | 8 | 88.9 |
| | | | Complete posterior fracture | 1 | 11.1 |
| Total | **157** | **100%** | | **157** | **100%** |

**DISCUSSION AND CONCLUSION:**

Dental injuries are one of the major problems in oral health that include general and mental health and quality of life of the individual. In this study, 157 cases were investigated, of which the highest frequency was found among those referring to forensic medicine, male patients (75.2%) and the rest (24.8%). In other words, the highest frequency of injured patients was men. The results of this study were based on the results of Ghahremani et al (19), Azami Aghdas et al. (20) Sheikh Nezami et al (12) and Razeghi et al (5) which can be attributed to the difference in physical activity and male mobility and the prevalence of aggressive behaviors toward women. The most frequent age was the age group of 25-30 years old (17.8%). While in the studies of Ghahremani et al (19), the highest mean age group was 17 and in the studies of Sheikh Nezami et al (12), the highest age group was 8 to 12 years old and this difference is due to the difference in the statistical society and population studied. On the other hand, according to the results of this research, it can be said that the majority of young people are young people. Regarding the level of education, the highest frequency of referral to forensic medicine was at the level of diploma education (28.7%) and the lowest abundance of education was observed in the master's degree (3.8%). According to the research report, those who have lower education have more and more conflict and conflict and engagement than educated people and consequently, those with lower education were more likely than those with high education. This highlights the importance of the level of education and awareness of the community.

The results of the research show that 64 occupations (40.8%) have the highest occupational frequency. The highest frequency of residence in the city is 105 (66.9%). Due to the high urban population and traffic in the city relative to the village, this issue can be justified. On the other hand, although the percentage of urban visitors has been higher but the results of the research show a high percentage in the village, which should not be indifferent to it, and requires further studies in this regard. According to the results of the research, the most cause of injury, the accident is with 57.3%, followed by the conflict with 40.8%. This shows the results of non-compliance with traffic laws and high rates of accidents in the city of Yasouj. The results of the studies were consistent with the results of previous studies (19 and 12). However, the studies of Azami Aqdas (20), Akhavan et al. (17) and Asna Ashar (18) showed that the most common causes of injury are falling. This difference may be due to the difference in society and sample size. The results of the study show that the most damages are crown fractures with 54.1%. The most common anterior crown fracture is 82.8%. The results of the study are consistent with the studies of Asna Ashari et al. (18). Considering that the most common cause of driving accidents is to raise awareness and observe safety tips such as seat belt closure, wearing a helmet, and pay attention to traffic lights. Epidemiologic studies have also shown that traumatic stress disorder varies greatly depending on the population studied, according to nationality, age, sex, health service provision and injury classification system. Therefore, their results cannot be easily compared with each

other. On the other hand, a study has not been conducted in Iran and in forensic patients. It is suggested that further studies be carried out in other forensic centers.

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**REFERENCES**:

1. Sae-Lim V, Chulaluk LP. Dental trauma management awareness of Singapore pre-school teachers. Den Traumatol 2001;17: 71–6
2. Ramos M, Peres M, Traebert J. Incidence of dental trauma among cohort study. Dent Trauma tol 2008; 24: 159–63.
3. *Basir L, Shayesteh M, AtiyehHeydari M, Imani Z, MammadiKartalaee M.General Dental Practitioners' Knowledge and Attitude Regarding Managementof Dental Trauma in Children of Ahvaz City. JundishapurSci Med J2016;15(3):371-382*
4. Andreasen JO, Andreasen FM, Andersson L. Textbook and color atlas of traumatic injuries to the teeth, 4rd ed. Copenhagen: Munksgaard 2007
5. Hashim R. Investigation of mothers' knowledge of dental trauma management in United Arab Emirates. Eur Arch Paediatr Dent 2012; 13(2):83-6.
6. Petersen PE, Priorities for research for oral health in the 21st century--the approach of the WHO Global Oral Health Programme. Community Dent Health 2005; 22(2): 71-4
7. Glendor U. Epidemiology of traumatic dental injuries – a12 year review of the literature. Dent Traumatol 2008; 24: 603–11.
8. Soriano EP, Caldas Ade F Jr, Diniz De Carvalho MV, AmorimFilhoHde A. Prevalence and risk factors related to traumatic dental injuries in Brazilian schoolchildren. Dent Traumatol 2007; 23: 232–40.
9. Altun C, Cehreli ZC, Guven G, Acikel C. Traumatic intrusion of primary teeth and its effects on the permanent successors: a clinical follow-up study. Oral Surg Oral Med Oral Pathol Oral RadiolEndod 2009; 107: 493–8..
10. Nicolau B, Marcenes W, SheihamAPrevalence causes and correlates of traumatic dental injuries among 13-year-olds in Brazil. Dent Traumatol 2001; 17:2137.
11. Sheikh-Nezami M, Akbari M, ShamsianKh, Vasigh S, Rouhani A. Retrospective Study of Traumatic Dental Injuries in North-east of Iran. J Dent Mater Tech2015; 4(1): 37-42.
12. Shulman JD, Peterson J. The association betweenincisor trauma and occlusal characteristics in individuals 8–50 years of age. Dent Traumatol 2004; 20: 67–74.
13. Nguyen P-MT, Kenny DJ, Barrett EJ. Socioeconomic burden of permanent incisor replantation on children and parents. Dent Traumatol 2004; 20: 123–33.
14. Ramos-Jorge ML, Bosco VL, Peres MA, Nunes ACGP. The impact of treatment of dental trauma on the quality of life of adolescents – a case-control study in southern Brazil. Dent Traumatol 2007; 23: 114–9.
15. Cortes MI, Marcenes W, Sheiham A. Impact of traumatic injuries to the permanent teeth on the oral health-related quality of life in 12–14-year-old children. Community Dent Oral Epidemiol 2002; 30: 193–8.
16. *Akhavan A, Nilchian F, Salehi A. Traumatic dental injuries and their follow-up in patients attending Isfahan Dental School during a 5-year period (2005-2011). J Isfahan DentSch 2014; 10(1): 53-66.*
17. Ghahramani Y, Sahebi S, Nabavizadeh M, Zamirroshan N. *Prevalence of dental traumaand its related factors in patients referring to Shiraz dental school during 2008 to 2012.* J Isfahan Dent Sch 2014; 10(1): 67-74.
18. Azami-AghdasS, Ebadifard F, Pournaghi F,Rezapour A ,Moradi-Joo M , Moosavi A . Prevalence, etiology, and types of dental trauma in children and adolescents: systematic review and meta-analysis . Med J Islam Repub Iran 2017 (10 July). Vol. 29:234