



# Knowledge and Attitude of Parents from Fujairah, UAE about Emergency Management of Dental Trauma- A Questionnaire based Study



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## Abstract

Traumatic dental injuries frequently occur in the society and may occur mostly at home environment. It occurs frequently in children and adolescents. Prompt and appropriate emergency management is important for the best long-term prognosis of teeth affected. The knowledge of parents regarding the immediately steps to be taken after dental trauma is exceedingly crucial for success of the treatment.

**Aim:** The study was carried out to evaluate the knowledge and attitude of parents from Fujairah, UAE about emergency management of dental trauma.

**Materials & Methods:** A hundred parents of school going children from Fujairah, UAE. Each participant given a questionnaire and was asked to answer the questions about the knowledge of emergency management of dental trauma. The questionnaire comprised of two parts: First part contained the general demographic data and the second part includes closed questions, which assessed the knowledge and attitude of participant about the emergency management of traumatized permanent tooth.

**Result:** The result of the study showed more than half (69%) of the participants were female. 78% were claimed to identify the difference between milk and permanent teeth. 42% claimed to know how manage dental trauma, through community dental health and other sources. 81% stated to go to hospital. 76% were unsatisfied with their level of knowledge. Chi-square test shows that there is a significant association between the level of education and the source of knowledge.

**Keywords:** Dental trauma; Permanent Tooth; Parents & knowledge

## Introduction

Dental injuries are one of the most commonly encountered dental emergencies. Traumatic dental injuries pose significant consequences to the health of the child, not only functionally, but also psychologically and socially [1]. These consequences also have significant impact on parents, who are generally concerned with esthetic and economic aspects of this problem [2]. The prognosis of some dental injuries depends largely on parents' knowledge of correct and prompt emergency measures [3]. Traumatic injuries can, thus, have a significant impact on a child's quality of life. A high percentage of children with dental trauma present late for treatment, possibly because of lack of awareness and knowledge among related adults, resulting in unfavorable long-term prognosis. Parents, especially mothers play an important role in their children's life, as they are the primary source of information allowing importing their knowledge. Forty-one percent of dental injuries occur at home. Mothers therefore should play

an important role in taking appropriate decision [4]. Increased overjet, environmental determinants and human behavior were found to increase the risk for traumatic dental injuries [3]. Statistics from many countries show that one third of preschool children suffer from traumatic dental injuries involving primary dentition and one-fourth permanent dentition. Between 71% and 92% of all injuries, sustained in a lifetime occur before the age of 19. They occur at home followed by school and public places [5]. 50% of school children have sustained traumatic injuries prior to graduation [4]. In Asia and Africa, the prevalence of TDI to anterior teeth among adolescents ranges from 4% to 35% and from 15% to 21%, respectively. In America and Europe, the prevalence varied from 15% to 23% and 23% to 35%, respectively [6].

Appropriate emergency management of dental trauma carried out by medical professional could drastically improve the prognosis of traumatized teeth [7]. The emergency care following

traumatic injuries is essential for good prognosis of the injuries. Parent are often responsible for the health of their children. Hence, they should have the required knowledge about emergency management of traumatic dental injuries.

### Aims and Objectives

The aim of this study was to assess the awareness and parents' knowledge about emergency management of traumatic dental injuries.

### Materials and Methods

A sample of hundred parents of school going children accompanied their children, aged between 6 and 12 years, for receiving dental care in the Department of Pedodontics, Dental Clinic, Ajman University- Fujairah Campus between February and May 2017, were participated in this study. The participants were asked to complete, a 13-stemmed multiple-choice questionnaire designed in Arabic and English, which was a modified form of the questionnaire used by Raphael et al. [8]. The questionnaire was comprised of two parts: First part contained the general demographic data and the second part includes closed questions, which assessed the knowledge, attitude, and previous experience of the participant about the emergency management of traumatized permanent tooth.

The questionnaire explained to all participants before its distribution. Collection of the completed questionnaire was done immediately, after has been completed by parents. A written informed consent form according to the ethical guidelines was

subsequently, obtained from the participants. Ethical approval obtained from, REC, Ref. GDF-2017/18-06-S (Table 1).

**Table 1:** Sample distribution by gender.

| Gender | Number(n) | Percentage % |
|--------|-----------|--------------|
| Female | 69        | 69%          |
| Male   | 31        | 31%          |
| Total  | 100       | 100%         |

### Data Analysis

The data obtained were processed and statistically analyzed, using Statistical Package for the Social science (SPSS) software. Frequency analysis related to participants' gender and educational levels was performed. Chi-square test was used to test the level of significance.

### Results

The result of the study showed more than half (69%) of the participants were female. 78%pf participants claimed to identify the difference between milk and permanent teeth. 42% claimed to know how manage dental trauma, through community dental health and other sources. 81% said that they would consult hospital when the accident occurs and 76% were unsatisfied with their level of knowledge.

The study sample has three independent variables: Gender, Age, and Level of education. The frequency of each category in every variable is shown in Table 2. Chi-square result is given in Table 3.

**Table 2:** Frequency Distribution (education, age group and gender).

|                         | Frequency | Percent | Valid % | Cumulative % |
|-------------------------|-----------|---------|---------|--------------|
| <b>Education</b>        |           |         |         |              |
| Do not complete school. | 11        | 11      | 11      | 11           |
| Complete school.        | 41        | 41      | 41      | 52           |
| Graduate college        | 43        | 43      | 43      | 95           |
| Post- graduate.         | 5         | 5       | 5       | 100          |
| Total.                  | 100       | 100     | 100     | 100          |
| <b>Age Group</b>        |           |         |         |              |
| Below 25 yrs.           | 14        | 14      | 14      | 14           |
| Between 25 -35yrs       | 47        | 47      | 47      | 61           |
| Above 35 yrs.           | 39        | 39      | 39      | 100          |
| Total.                  | 100       | 100     | 100     | 100          |
| <b>Gender</b>           |           |         |         |              |
| Male.                   | 69        | 69      | 69      | 69           |
| Female                  | 31        | 31      | 31      | 100          |
| Total                   | 100       | 100     | 100     | 100          |

**Table 3:** Chi-square test.

|                    | Knowledge | Source of Knowledge | Attitude | Prevention |
|--------------------|-----------|---------------------|----------|------------|
| Gender             | 0.506     | 0.352               | 0.779    | 0.216      |
| Age                | 0.847     | 0.834               | 0.652    | 0.216      |
| Level of Education | 0.113     | 0.033               | 0.09     | 0.005      |

Chi-square test (Table 3) shows that there is a significant association between the level of education and the source of knowledge about dental trauma (sign 0.033) and trauma prevention (sign 0.005). Nevertheless, there is no significant association between educational Level and attitude (sign 0.09) and between educational level and knowledge about trauma (sign 0.113).

Regarding gender, no significant association between gender and source of knowledge (sign 0.352), prevention (sign 0.216), attitude (sign 0.779), and knowledge (sign 0.506), neither between age groups and source of knowledge (sign 0.834), prevention (sign 0.216), attitude (sign 0.652), and knowledge about Trauma (sign 0.847).

### Discussion

Traumatic injuries not only, pose a health risk worldwide, but are also regarded as a serious social problem. An important category of these injuries, dental trauma, which accounts, for a major part of health problem in children and adolescents. Demographic evaluation indicates a higher prevalence of traumatic dental injuries to anterior teeth in males than females in male [9]. Falling fight, sport, accidents, and hitting items or people are among common etiologic factors. Home setting, schools, and streets are places with the highest frequency of dental traumatic injuries [10]. 69% of participants were female parent (mother). This finding is like those of Divya [1] revealed that 70.6% of the participants were female. 43% of participants have graduated from college/ universities. This figure is higher than 20.4% reported by [11]. Only 24% of the parents who participated in this study were satisfied with their level of knowledge in managing dental trauma. This result was lower than 51.3% reported by [3]. 35% of parents stated that their children suffer dental trauma. This figure agrees with that reported by Kinoshita-Kawano [12].

The information the parent gave about emergency management of dental trauma came from different sources school programs, TV, community dental health and other sources. It has been found that 22% of parents claimed not to supervise their children during playing activities. This figure is higher than that given by Mitakshara Nirwan [13] regarding the teacher where only 11% of them did not supervise the children. This difference may be related to the fact that parents are from different education levels, thoughts, beliefs, and ages. On the other hand, the teachers are well educated, and their duty requires them to take care of children and supervise them. The present study found parents have a low level of knowledge regarding the emergency management of traumatized tooth. This can be explained by the fact that most parents had not received any prior information about the management of traumatic dental injuries.

Chi-square test shows that there was a significant association between the level of education and the source of knowledge and trauma prevention. It was observed that parents with higher educational background have shown much positive attitude toward emergency management of traumatized permanent tooth.

Female parents exhibiting higher knowledge level. This may be because 69% of the participants were females and 70% of them graduated from college. Nevertheless, in general there was no significant association between the level of educational and trauma awareness and knowledge.

There association between gender and source of knowledge, trauma prevention, attitude, and knowledge about trauma was not statistically significant. Neither was there any significance association between age groups and source of knowledge, trauma prevention, attitude, and knowledge of trauma management. Despite absence of a significant relation between parent's level of education and dental trauma management, there was a sign that 76% of them were not satisfied with their knowledge and therefore still require further learn about emergency management of dental trauma injuries in children.

### Conclusion

With limitation of this study, it was concluded that regardless of educational background parental awareness concerning measures in emergency management of dental trauma was markedly inadequate. This study revealed the lack of knowledge among parents in Emirate of Fujairah about dealing with emergency management of traumatic dental injury, which c have high impact on the long-run term prognosis of treatments. There is a need to improve the level of education of parents about dental trauma. The relationship between educational level and parent/child interaction, allows parents with higher education to use more effective strategies when dealing with childrearing. A community based oral health program will be of great help in raising parents' awareness about their children's oral health. This study will help providing a base line data for local and state authorities to establish educational program focusing on a prompt management of dental trauma targeting parents, maternity centers and schoolteachers.

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