ECRONICON OPEN ACCESS

EC DENTAL SCIENCE
Research Article

Knowledge and Awareness of Saudi General Public towards the Emergency Management of Dental Trauma; A Survey Based Study in Riyadh

Heba Abduljabbar, Abeer Al Assaf, Abeer Al Mansour and Shahzeb Hasan Ansari*

Preventive Dentistry, Riyadh Elm University, Saudi Arabia

***Corresponding Author:** Shahzeb Hasan Ansari, Preventive Dentistry, Riyadh Elm University, Saudi Arabia.

Received: September 21, 2020; **Published:** October 22, 2020

Abstract

Introduction: Children are more susceptible to dental injuries than the adults, hence knowledge at parental level is absolutely necessary on how first respond when such an incidence happens. However, it has been seen that compliance and cooperation and family involvement right from the moment of injury is of utmost importance.

Materials and Methods: This is a cross sectional study conducted among the Saudi general public using an online survey. An online questionnaire was designed using Google Forms with questions related to age, gender, socioeconomic status, educational levels and previous dental history followed by knowledge and awareness related questions.

Results: The value of Chronbach alpha was .834, which suggests that the survey used in our study was reliable. Descriptive statistics revealed that among a total number of N = 848 participants, n = 128 (15%) were males and n = 720 (85%) were females. Regarding their age groups, n = 327 (38.56%) belonged to 18 - 30 years, n = 298 (35.14%) to 31 - 45 years, n = 163 (19.22%) to 46 - 60 years and n = 60 (7.07%) to 60+ years..

Conclusion: Overall knowledge of the participants regarding the basic trauma related protocol is on the lower side.

Keywords: *Dental Trauma; Knowledge; Saudi Public*

Introduction

The oral region makes up roughly 1% of the human anatomy. However, 5% of all bodily injuries are directly or indirectly related to this region. Especially in case of preschool children, dental trauma makes up around 17% of the injuries they sustain. Therefore it is important to relay information on how to best manage emergency dental care and how to avert dental injuries, reduce cost, and increase general knowledge are important factors to reduce such incidences in the future. A challenge is that only a limited amount of epidemiological data in the field of dental and oral trauma is available despite the costs to the person and the society are significant [1,2].

It is pertinent to note that the diagnosis and treatment for traumatic injuries are very complicated due to the six luxation types and nine fracture types affecting both the primary and the permanent dentition. More than 100 trauma scenarios exist when the two types such dentitions are blended. Despite such odds, as a general rule it is accepted that all dental injuries should be treated as an emergency to avoid future complications [3].

As mentioned above, children are more susceptible to dental injuries than the adults, hence knowledge at parental level is absolutely necessary on how first respond when such an incidence happens. However, it has been seen that compliance and cooperation and family involvement right from the moment of injury is of utmost importance. Most of the injuries are prevalent in permanent than in primary dentition therefore treatment in such cases tends to minimize the adverse consequences. Furthermore, permanent dentition in the young patient continues during the rest of his/her life [4,5].

Several studies have taken place to assess the level of knowledge and awareness of parents in case of dental trauma; however these studies indicate a low level of knowledge regarding tooth avulsion and replantation procedures to be followed in an emergency. The study provided an insight that the socio-economic and/or education level had negligible bearing on the level of parental awareness [6].

As a member of general public, it is equally important for primary teachers to have a lay knowledge on how to deal with a dental trauma incidence, one of the study shows that despite 44.8%of the teachers believed that such an injury should be dealt with immediately, the majority of them were not aware of the first aid in case there is an oral injury to the student. The study concluded by stating that the majority of Saudi primary school teachers in Riyadh were not aware on how to handle a child who suffers dental injury [7,8].

A common type of damage in case of dental trauma results in tooth avulsion which is attributable to road traffic accidents, falls and other physical impacts. Whenever such a situation arise the usual course of action is to visit an emergency (ER) physician at any hospital. In ERs, generally there is a lack of availability of a practicing dentist. Therefore, the knowledge and awareness level of the attending physician is of utmost importance. However, a study indicates that majority of the ER physicians lack the knowledge and awareness needed to manage such cases [9].

Study hypotheses

General public lack knowledge about the management of dental trauma.

Aims of the Study

- To determine the level of knowledge and awareness of general public regarding dental trauma management.
- To compare the knowledge levels on the basis of gender, educational level, socioeconomic status and previous dental trauma history.

Materials and Methods

Study design: This is a cross sectional study conducted among the Saudi general public using an online survey.

Study sample: A total of 848 Riyadh based Saudi general public were included in this study.

Study instrument: An online questionnaire was designed using Google Forms with questions related to age, gender, socioeconomic status, educational levels and previous dental history followed by knowledge and awareness related questions.

Instrument validity and reliability: A pilot study was conducted by making the survey filled by 20 participants and the data was inserted in SPSS version 22 to determine the reliability by using Chronbach's coefficient alpha. Validity of the questionnaire was tested by sending it to experienced researchers in REU and no changes were made according to their feedback and comments.

Statistical analysis: Collected data was analyzed using SPSS version 22, where descriptive as well as inferential statistics were conducted. Comparisons between groups were made with the value of significance kept under 0.05. Descriptive statistics was done using frequencies. Additionally, the inferential statistics was conducted using Chi-square test.

Results

The value of Chronbach alpha was .834, which suggests that the survey used in our study was reliable. Descriptive statistics revealed that among a total number of N = 848 participants, n = 128 (15%) were males and n = 720 (85%) were females. Regarding their age groups, n = 327 (38.56%) belonged to 18 - 30 years, n = 298 (35.14%) to 31 - 45 years, n = 163 (19.22%) to 46 - 60 years and n = 60 (7.07%) to 60+ years. N = 335 (39.5%) were single and n = 513 (60.49%) were married. As far as educational level was concerned, n = 21 (2.49%) had primary education, n = 139 (16.5%) had high school education, n = 574 (68.17%) had university education and n = 108 (12.82%) had highest education. Finally, the participants were also divided according to their number of children, which showed that n = 354 (41.74%) had no children, n = 221 (26.06%) had 1 - 3 children, n = 227 (26.76%) had 4 - 6 children and n = 46 (5.42%) had 7 or more children.

Variables	Frequency (%)
Gender	Males: 128 (15%) Females: 720 (85%)
Age group	18 - 30 years: 327 (38.56%) 31 - 45 years: 298 (35.14%) 46 - 60 years: 163 (19.22%) 60+ years: 60 (7.07%)
Marital status	Single: 335 (39.50%) Married: 513 (60.49%)
Educational level	Primary school: 21 (2.49%) High school: 139 (16.5%) University: 574 (68.17%) Higher than university: 108 (12.82%)
Number of children	None: 354 (41.74%) 1 - 3: 221 (26.06%) 4 - 6: 227 (26.76%) 7 or more: 46 (5.42%)

Table 1: *Demographics of the study sample.*

Survey questions	Responses (%)
Background, satisfaction and desire to improve Have you ever received first-aid training?	Yes: (38.2%) No: (61.8%)
Have you ever learned about the management of dental injuries?	Yes: (11.1%) No: (88.9%)
Have you ever read or heard about the management of dental injuries?	Yes: (26.5%) No: (73.5%)
Do you think your knowledge concerning the management of dental trauma is satisfactory?	Yes: (7.9%) No: (92.1%)

Can you differentiate between types of teeth (primary/permanent)?	Yes: (49.6%) No: (50.4%)
Have you ever encountered a dental injury?	Yes: (55.5%) No: (44.5%)
Knowledge concerning dental trauma and its management In cases of soft tissue injury, the most appropriate management is	Wipe the wound: 16.4% Apply disinfectant: 13.1% Go to the dentist: 43.6% I don't know: 26.9%
In cases of dental injury, the time to treatment should be	Immediately: 49.8% Within 24 hours: 23.5% Within 48 hours: 5.2% I don't know: 21.6%
Which of the following dental injuries needs immediate treatment	Fractured enamel: 15.4% Exposed pulp: 24.1% Displaced tooth after trauma: 25.2% I don't know: 35.3%
In cases of fractured teeth, the most appropriate management is	Try to find it, put it in suitable liquid medium and immediately go to the dentist: 32.3% Try to find it, wrap it in tissue paper and immediately go to the dentist: 12.5% The fractured part is useless; ignore it: 25.9% I don't know: 29.2%
If the tooth displaced due to trauma, the most appropriate management is	Leave it in its position: 27.5% Try to return it into its original position: 28.7% Go to the dentist: 10.8% I don't know: 33%
In cases of avulsion of permanent teeth, the most appropriate management is	Wrap the tooth in tissue or gauze and go immediately to the dentist: 36.8% Try re-implanting the tooth in its position:6.6% There is no benefit of keeping the tooth once it is out of the alveolus; just let the child bite on gauze: 23.6% I don't know: 33%
The suitable medium (media) for storing the avulsed teeth: (more than one answer is possible)	Gauze or tissue: 27.4% Empty container or plastic bag: 5.7% Water: 8.5% Milk: 16.4% Injured person's saliva: 4.6% I don't know: 37.5%

Table 2: *Descriptive statistics of the survey questions with their responses.*

Survey questions	P-value
Background, satisfaction and desire to improve: Have you ever received first-aid training?	.135
Have you ever learned about the management of dental injuries?	.427
Have you ever read or heard about the management of dental injuries?	.143
Do you think your knowledge concerning the management of dental trauma is satisfactory?	.116
Can you differentiate between types of teeth (primary/permanent)?	.027* Male: 41% Female: 51%
Have you ever encountered a dental injury?	.378
Knowledge Concerning Dental Trauma and its Management: In cases of soft tissue injury, the most appropriate management is:	.181
In cases of dental injury, the time to treatment should be:	.028* Males: Immediately: 55% Within 24 hours: 13% Within 48 hours: 7% I don't know: 24% Females: Immediately: 49% Within 24 hours: 25% Within 48 hours: 5% I don't know: 21%
Which of the following dental injuries needs immediate treatment	.416
In cases of fractured teeth, the most appropriate management is:	.162
If the tooth displaced due to trauma, the most appropriate management is	.156
In cases of avulsion of permanent teeth, the most appropriate management is	.357
The suitable medium (media) for storing the avulsed teeth: (more than one answer is possible)	.007* Males: Gauze or tissue: 37% Empty container or plastic bag: 9% Water: 8% Milk: 9% Injured person's saliva: 2% I don't know: 35% Females: Gauze or tissue: 26% Empty container or plastic bag: 5% Water: 9% Milk: 18% Injured person's saliva: 5% I don't know: 38%

Table 3*: Relationship of gender with knowledge and attitude towards trauma management.*

Survey questions	P-value
Background, satisfaction and desire to improve: Have you ever received first-aid training?	.086
Have you ever learned about the management of dental injuries?	.953
Have you ever read or heard about the management of dental injuries?	.543
Do you think your knowledge concerning the management of dental trauma is satisfactory?	.803
Can you differentiate between types of teeth (primary/permanent)?	.010* 18-30 yrs: 43% 31-45 yrs: 50% 46-60 yrs: 59% 60+ yrs: 55%
Have you ever encountered a dental injury?	.030* 18-30 yrs: 51% 31-45 yrs: 56% 46-60 yrs: 65% 60+ yrs: 55%
Knowledge concerning dental trauma and its management: In cases of soft tissue injury, the most appropriate management is:	.000* 18-30 yrs: Wipe the wound: 18% Apply disinfectant: 10% Go to the dentist: 39% I don't know: 33% 31-45 yrs: Wipe the wound: 19% Apply disinfectant: 13% Go to the dentist: 44% I don't know: 24% 46-60 yrs: Wipe the wound: 10% Apply disinfectant: 21% Go to the dentist: 46% I don't know: 22% 60+ yrs: Wipe the wound: 7% Apply disinfectant: 8% Go to the dentist: 62% I don't know: 23%

In cases of dental injury, the time to treatment should be:	.003* 18-30 yrs: Immediately: 43% Within 24 hours: 23% Within 48 hours: 7% I don't know: 28% 31-45 yrs: Immediately: 50% Within 24 hours: 26% Within 48 hours: 4% I don't know: 20% 46-60 yrs: Immediately: 59% Within 24 hours: 23% Within 48 hours: 5% I don't know: 13% 60+ yrs: Immediately: 62% Within 24 hours: 18% Within 48 hours: 3% I don't know: 17%
Which of the following dental injuries needs immediate treatment:	.018* 18-30 yrs: Fractured enamel: 12% Exposed pulp: 29% Displaced tooth after trauma: 23% I don't know: 37% 31-45 yrs: Fractured enamel: 15% Exposed pulp: 21% Displaced tooth after trauma: 26% I don't know: 38% 46-60 yrs: Fractured enamel: 20% Exposed pulp: 19% Displaced tooth after trauma: 30% I don't know: 31% 60+ yrs: Fractured enamel: 25% Exposed pulp: 25% Displaced tooth after trauma: 23% I don't know: 27%

In cases of fractured teeth, the most appropriate management is:	.000* 18-30 yrs: Try to find it, put it in suitable liquid medium and immediately go to the dentist: 28% Try to find it, wrap it in tissue paper and immediately go to the dentist: 17% The fractured part is useless; ignore it: 22% I don't know: 32% 31-45 yrs: Try to find it, put it in suitable liquid medium and immediately go to the dentist: 30% Try to find it, wrap it in tissue paper and immediately go to the dentist: 10% The fractured part is useless; ignore it: 33% I don't know: 28% 46-60 yrs: Try to find it, put it in suitable liquid medium and immediately go to the dentist: 45% Try to find it, wrap it in tissue paper and immediately go to the dentist: 7% The fractured part is useless; ignore it: 24% I don't know: 24% 60+ yrs: Try to find it, put it in suitable liquid medium and immediately go to the dentist: 35% Try to find it, wrap it in tissue paper and immediately go to the dentist: 12% The fractured part is useless; ignore it: 18% I don't know: 35%
If the tooth displaced due to trauma, the most appropriate management is:	.026* 18-30 yrs: Leave it in its position: 28% Try to return it into its original position: 25% Go to the dentist: 13% I don't know: 35% 31-45 yrs: Leave it in its position: 27% Try to return it into its original position: 29% Go to the dentist: 13% I don't know: 32% 46-60 yrs: Leave it in its position: 30% Try to return it into its original position: 35% Go to the dentist: 6% I don't know: 29% 60+ yrs: Leave it in its position: 25% Try to return it into its original position: 32% Go to the dentist: 2% I don't know: 42%

In cases of avulsion of permanent teeth, the most appropriate management is:	.078
The suitable medium (media) for storing the avulsed teeth: (more than one answer is possible)	.007* 18-30 yrs: Gauze or tissue: 31% Empty container or plastic bag: 7% Water: 6% Milk: 13% Injured person's saliva: 4% I don't know: 38% 31-45 yrs: Gauze or tissue: 24% Empty container or plastic bag: 3% Water: 7% Milk: 19% Injured person's saliva: 5% I don't know: 41% 46-60 yrs: Gauze or tissue: 26% Empty container or plastic bag: 5% Water: 13% Milk: 20% Injured person's saliva: 5% I don't know: 31% 60+ yrs: Gauze or tissue: 25% Empty container or plastic bag: 13% Water: 13% Milk: 10% Injured person's saliva: 3% I don't know: 35%

Table 4: *Relationship of age group with knowledge and attitude towards trauma management.*

Survey questions	P-value
Background, satisfaction and desire to improve: Have you ever received first-aid training?	.000* Primary school: 14% High school: 27% University: 37% Higher than university: 61%
Have you ever learned about the management of dental injuries?	.004* Primary school: 9% High school: 15% University: 9% Higher than university: 15%
Have you ever read or heard about the management of dental injuries?	.160
Do you think your knowledge concerning the management of dental trauma is satisfactory?	.214
Can you differentiate between types of teeth (primary/permanent)?	.551

Have you ever encountered a dental injury?	.004* Primary school: 76% High school: 67% University: 53% Higher than university: 51%
Knowledge concerning dental trauma and its management: In cases of soft tissue injury, the most appropriate management is:	.000* Primary school: Wipe the wound: 10% Apply disinfectant: 14% Go to the dentist: 62% I don't know: 14% High school: Wipe the wound: 6% Apply disinfectant: 20% Go to the dentist: 55% I don't know: 19% University: Wipe the wound: 19% Apply disinfectant: 12% Go to the dentist: 40% I don't know: 29% Higher than university: Wipe the wound: 17% Apply disinfectant: 11% Go to the dentist: 46% I don't know: 27%
In cases of dental injury, the time to treatment should be:	.545
Which of the following dental injuries needs immediate treatment:	.186
In cases of fractured teeth, the most appropriate management is:	.811
If the tooth displaced due to trauma, the most appropriate management is:	.002* Primary school: Leave it in its position: 29% Try to return it into its original position: 43% Go to the dentist: 19% I don't know: 10% High school: Leave it in its position: 23% Try to return it into its original position: 40% Go to the dentist: 10% I don't know: 27% University: Leave it in its position: 27% Try to return it into its original position: 27% Go to the dentist: 12% I don't know: 34% Higher than university: Leave it in its position: 35% Try to return it into its original position: 18% Go to the dentist: 6% I don't know: 40%
In cases of avulsion of permanent teeth, the most appropriate management is:	.287

The suitable medium (media) for storing the avulsed teeth: (more than one answer is possible)	.004* Primary school: Gauze or tissue: 48% Empty container or plastic bag: 0% Water: 0% Milk: 19% Injured person's saliva: 0% I don't know: 33% High school: Gauze or tissue: 26% Empty container or plastic bag: 6% Water: 17% Milk: 11% Injured person's saliva: 4% I don't know: 37% University: Gauze or tissue: 27% Empty container or plastic bag: 6% Water: 8% Milk: 17% Injured person's saliva: 4% I don't know: 39% Higher than university: Gauze or tissue: 26% Empty container or plastic bag: 5% Water: 5% Milk: 21% Injured person's saliva: 10% I don't know: 34%

Table 5: *Relationship of educational level with knowledge and attitude towards trauma management.*

Survey questions	P-value
Background, satisfaction and desire to improve: Have you ever received first-aid training?	.001* None: 44% 1 - 3: 38% 4 - 6: 32% 7+: 20%
Have you ever learned about the management of dental injuries?	.051
Have you ever read or heard about the management of dental injuries?	.183
Do you think your knowledge concerning the management of dental trauma is satisfactory?	.176
Can you differentiate between types of teeth (primary/permanent)?	.000* None: 42% 1 - 3: 50% 4 - 6: 58% 7+: 67%

Have you ever encountered a dental injury?	.001* None: 49% 1 - 3: 55% 4 - 6: 62% 7+: 74%
Knowledge concerning dental trauma and its management: In cases of soft tissue injury, the most appropriate management is:	.002* None: Wipe the wound: 16% Apply disinfectant: 11% Go to the dentist: 40% I don't know: 32% 1 - 3: Wipe the wound: 21% Apply disinfectant: 14% Go to the dentist: 39% I don't know: 26% 4 - 6: Wipe the wound: 14% Apply disinfectant: 17% Go to the dentist: 51% I don't know: 19% 7+: Wipe the wound: 9% Apply disinfectant: 9% Go to the dentist: 57% I don't know: 26%
In cases of dental injury, the time to treatment should be:	.001* None: Immediately: 44% Within 24 hours: 23% Within 48 hours: 5% I don't know: 27% 1 - 3: Immediately: 46% Within 24 hours: 26% Within 48 hours: 5% I don't know: 23% 4 - 6: Immediately: 60% Within 24 hours: 22% Within 48 hours: 4% I don't know: 14% 7+: Immediately: 61% Within 24 hours: 20% Within 48 hours: 9% I don't know: 11%

Which of the following dental injuries needs immediate treatment:	.035* None: Fractured enamel: 12% Exposed pulp: 25% Displaced tooth after trauma: 25% I don't know: 38% 1 - 3: Fractured enamel: 14% Exposed pulp: 27% Displaced tooth after trauma: 21% I don't know: 38% 4 - 6: Fractured enamel: 20% Exposed pulp: 20% Displaced tooth after trauma: 27% I don't know: 32% 7+: Fractured enamel: 20% Exposed pulp: 20% Displaced tooth after trauma: 39% I don't know: 22%
In cases of fractured teeth, the most appropriate management is:	.021* None: Try to find it, put it in suitable liquid medium and immediately go to the dentist: 27% Try to find it, wrap it in tissue paper and immediately go to the dentist: 16% The fractured part is useless; ignore it: 25% I don't know: 32% 1 - 3: Try to find it, put it in suitable liquid medium and immediately go to the dentist: 30% Try to find it, wrap it in tissue paper and immediately go to the dentist: 11% The fractured part is useless; ignore it: 28% I don't know: 31% 4 - 6: Try to find it, put it in suitable liquid medium and immediately go to the dentist: 41% Try to find it, wrap it in tissue paper and immediately go to the dentist: 8% The fractured part is useless; ignore it: 26% I don't know: 25% 7+: Try to find it, put it in suitable liquid medium and immediately go to the dentist: 39% Try to find it, wrap it in tissue paper and immediately go to the dentist: 13% The fractured part is useless; ignore it: 26% I don't know: 22%

If the tooth displaced due to trauma, the most appropriate management is:	.003* None: Leave it in its position: 27% Try to return it into its original position: 24% Go to the dentist: 11% I don't know: 37% 1 - 3: Leave it in its position: 29% Try to return it into its original position: 24% Go to the dentist: 14% I don't know: 33% 4 - 6: Leave it in its position: 26% Try to return it into its original position: 38% Go to the dentist: 9% I don't know: 27% 7+: Leave it in its position: 28% Try to return it into its original position: 39% Go to the dentist: 0% I don't know: 33%
In cases of avulsion of permanent teeth, the most appropriate management is:	.119
The suitable medium (media) for storing the avulsed teeth: (more than one answer is possible)	.006* None: Gauze or tissue: 32% Empty container or plastic bag: 5% Water: 6% Milk: 12% Injured person's saliva: 4% I don't know: 40% 1 - 3: Gauze or tissue: 22% Empty container or plastic bag: 8% Water: 8% Milk: 18% Injured person's saliva: 4% I don't know: 41% 4 - 6: Gauze or tissue: 25% Empty container or plastic bag: 4% Water: 12% Milk: 21% Injured person's saliva: 7% I don't know: 30% 7+: Gauze or tissue: 28% Empty container or plastic bag: 4% Water: 13% Milk: 15% Injured person's saliva: 0% I don't know: 39%

Table 6: *Relationship of number of children with knowledge and attitude towards trauma management.*

Mean	2.52
Std Deviation	1.21
Sample size	848
Alpha	0.05
Sample mean	2.63
Standard Error of the Mean	0.04
Critical value	2.59
Beta	0.16
Power	0.84

Table 7: *Power of sample calculation.*

Discussion

This study was aimed to assess the awareness of Saudi general public towards the emergency management of dental trauma. As presented in the results section, we compared the findings on the basis of gender, age group, marital status and educational level.

As far as the gender is concerned, statistically significant differences were found when inquired about the differentiation between the type of teeth (p-value: 0.027; males showed high knowledge) and the probable time for treatment in case of any dental injury (p-value: 0.028; females showed high knowledge). However, there was an overall lack of knowledge in the areas of emergency management of any dental injury. It can be seen that other than area of obvious conclusion there is an overall dearth of awareness irrespective of the gender. It complies with another study where no statistically significant differences were found with regards to gender [10,11].

The results show that knowledge and awareness towards emergency trauma management increases with age. As statistically significant differences were found in the inquiry of differentiation of teeth type (p-value: 0.010), the appropriate treatment in case of injury (p-value: 0.000), the time to treatment (p-value: 0.003), type of injury that requires immediate treatment (p-value: 0.018) and the appropriate management in case of trauma (p-value: 0.026). The results in another study however differ where no statistically significant differences were found with regards to age [10]. Further, another study conducted showed that age had statistically significant differences contributing towards enhanced knowledge and awareness of the individuals [12].

Educational levels have a great deal of effect on the knowledge and awareness of management of dental trauma. Low education groups demonstrated less awareness than the higher educational group and statistically significant differences were found in receiving first aid training (p-value: 0.000), management in case of soft tissue damage (p-value: 0.000), appropriate management in case of displaced tooth (p-value: 0.002). However, a similar study conducted showed that education level had negligible bearing on the level of awareness in case of dental trauma [6]. Further, another study conducted showed that educational levels has statistically significant differences contributing towards enhanced knowledge and awareness of the individuals [12].

Comparison on the basis of number of children showed that the parents having 7 or more children showed better knowledge levels when inquired about differentiation between types of teeth (p-value: 0.000), management in case of soft tissue damage (p-value: 0.002), appropriate time for treatment (p-value: 0.001), type of injuries that need immediate attention (p-value: 0.035), appropriate management in case of tooth fracture (p-value: 0.021) management in case of misplaced teeth (p-value: 0.003). However comparable studies could not be found where a significant relation could be established between having number of children and its impact on awareness of management of dental trauma [13].

Limitation of the Study

There might be some study participants who belonged to dental profession and their responses may have affected the results slightly. Therefore, future studies can differentiate and filter out these participants in order to avoid any bias.

Conclusion

- Overall knowledge of the participants regarding the basic trauma related protocol is on the lower side.
- Gender had no significant association on the level of knowledge.
- Age, educational level and number of children had significant association with the trauma management related knowledge.

There is a need to educate the general public regarding the proper management of dental trauma

Bibliography

1. Ode W., *et al*. "Understanding patients' and dentists' perspectives in dental trauma management: A mixed-methods study". *Dental Traumatology* 34.5 (2018): 320-328.
2. Ayub K and Darcey J. "Dental trauma: management of complicated crown root fractures". *Dental Update* 46.11 (2009): 1050-1055.
3. Cagetti MG., *et al*. "Italian guidelines for the prevention and management of dental trauma in children". *Italian Journal of Pediatrics* 45.1 (2019): 1-14.
4. Cosme-Silva L., *et al*. "Knowledge of parents from public and private school students on emergency management of avulsed permanent teeth". *Journal of Public Health* 25.2 (2017): 167-171.
5. Hartmann RC., *et al*. "Dentists' knowledge of dental trauma based on the International Association of Dental Traumatology guidelines: A survey in South Brazil". *Dental Traumatology* 35.1 (2019): 27-32.
6. Namdev R., *et al*. "Awareness of emergency management of dental trauma". *Contemporary Clinical Dentistry* 5.4 (2014): 507.
7. Al-Obaida M. "Knowledge and management of traumatic dental injuries in a group of Saudi primary schools teachers". *Dental Traumatology* 26.4 (2010): 338-341.
8. Kumar A., *et al*. "Knowledge, attitude, and practice of elementary school teachers toward emergency management of dental trauma in Sirmaur District, Himachal Pradesh: A questionnaire study". *Indian Journal of Dental Sciences* 9.3 (2017): 194.
9. Bahammam LA. "Knowledge and attitude of emergency physician about the emergency management of tooth avulsion". *BMC Oral Health* 18.1 (2018): 57.
10. Al-Jundi SH., *et al*. "Knowledge and attitude of Jordanian school health teachers with regards to emergency management of dental trauma". *Dental Traumatology* 21.4 (2005): 183-187.
11. Siddig MN and Abuaffan AH. "Knowledge and Attitude of Primary School Teachers Regarding Emergency Management of Dental Trauma, in Khartoum State". *Indian Journal of Dental Education* 8.3 (2015): 113.
12. Quaranta A., *et al*. "Knowledge, attitudes, and behavior concerning dental trauma among parents of children attending primary school". *Annuals of Ig* 28.6 (2016): 450-459.

13. Bayram M., *et al*. "Assessment of knowledge among public and private elementary school teachers in dental trauma management". *Dentistry* 5.1 (2017): 9-15.

Volume 19 Issue 11 November 2020