SEBHA UNIVERSITY JOURNAL OF MEDICAL SCIENCES VOL.21 NO.1 2026
DOI: 10.51984/GAT7Z412

مجلة جامعة سبها للعلوم الطبية
Sebha University Journal of Medical Sciences

Journal homepage: www.sebhau.edu.ly/journal/joms

Primary school teachers' knowledge and attitude towards dental trauma in Sebha City, Libya: "A cross-sectional study".

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Keywords:
Dental trauma
Primary school teachers
Knowledge & attitude
Perceived knowledge
actual knowledge.

ABSTRACT

Background: The prevalence of traumatic dental injury among primary school children is between 10 – 15 % worldwide. Considering the amount of time children usually spend at school, teachers can provide crucial immediate care and support as first aid responders. **Aims:** The aim of this study is to evaluate the knowledge and attitude of primary school teachers towards dental trauma and identify any gaps in their knowledge. **Methods and materials:** This is a descriptive cross-sectional study that included 256 public primary school teachers in the city of Sebha, Libya. Data were collected using a self-administered questionnaire, adapted from previous research and translated to Arabic. The questionnaire covered demographic data; perceived knowledge (overall understanding of trauma, dentition, and broken/avulsed teeth); actual knowledge (reaction to crown fracture and avulsion); and attitude towards traumatic dental injuries. **Result:** The study included 256 participants, predominantly female (90.6%), with a mean age of 41.76 years. While teachers' decent basic dental knowledge (92.8% knew anterior teeth are most affected, and 77.3% believed an immediate dentist visit is necessary). 49.4% confused permanent with primary teeth in a 9-year-old's fracture, 36.9% opted to remove the tooth, and 34.3% would dispose of an avulsed tooth. A substantial portion (41.2%) did not know the proper storage medium for an avulsed tooth. Although the participants recognized dental trauma as an emergency (90.8%), almost all of them (90.8%) believe it's the responsibility of dental professionals. In contrast, 89.8% believe it is a teacher education priority. **Conclusion:** The study highlights a notable lack of actual knowledge regarding immediate management of dental trauma among primary school teachers in Seba city, Libya. Handling preserving methods of the traumatised teeth are still incompletely understood.

معرفة معلمي المدارس الابتدائية و اتجاهاتهم نحو إصابات الأسنان الرضحية في مدينة سبها، ليبيا: "دراسة مقطعية"

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ب قسم أمراض وعلاج اللثة، كلية طب الأسنان، جامعة سبها، مدينة سبها، ليبيا
ج قسم طب الفم والتشخيص والأشعة، كلية طب الأسنان، جامعة سبها، مدينة سبها، ليبيا
د قسم طب الأسنان الوقائي والمجتمعي، كلية طب الأسنان، جامعة سبها، مدينة سبها، ليبيا

الكلمات المفتاحية:
إصابات الأسنان الرضحية
معلمو المدارس الابتدائية
المعرفة والاتجاه
المعرفة المُدركة
المعرفة الفعلية

المُلخص

الخلفية: تتراوح نسبة انتشار إصابات الأسنان الرضحية بين أطفال المدارس الابتدائية ما بين 10-15% على مستوى العالم. ونظرًا للوقت الذي يقضيه الأطفال عادة في المدرسة، يمكن للمعلمين تقديم رعاية ودعم فوريين حاسمين بصفتهم أول المستجيبين لتقديم الإسعافات الأولية. **الأهداف:** يهدف هذا البحث إلى تقييم معرفة معلمي المدارس الابتدائية واتجاهاتهم نحو إصابات الأسنان الرضحية، وتحديد أوجه القصور في معرفتهم. **طرق البحث والمواد:** هذه دراسة وصفية مقطعية شملت 256 معلمًا من معلمي المدارس الابتدائية الحكومية في مدينة سبها، ليبيا. تم جمع البيانات باستخدام استبيان ذاتي التعبئة، مُقتبس من أبحاث سابقة ومُترجم إلى اللغة

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Article History : Received 01 May 2026 - Received in revised form 25 June 2026 - Accepted 30 June 2026

العربية. غطى الاستبيان البيانات الديموغرافية؛ والمعرفة المُدركة (الفهم العام للإصابات، والتسنين، والأسنان المكسورة/المخلوعة)؛ والمعرفة الفعلية (كيفية التصرف عند كسر التاج أو خلع السن)؛ والاتجاه نحو إصابات الأسنان الرضحية. **النتائج :** شملت الدراسة 256 مشاركًا، غالبيتهم من الإناث (90.6%)، بمتوسط عمر بلغ 41.76 سنة. وبينما أظهر المعلمون معرفة أساسية جيدة نسبيًا بطب الأسنان (92.8%) اظهرأن الأسنان الأمامية هي الأكثر عرضة للإصابة، واعتقد 77.3% بضرورة زيارة طبيب الأسنان فورًا، فقد خلط 49.4% منهم بين الأسنان الدائمة واللبنية في حالة كسر سن لطفل عمره 9 سنوات، واختار 36.9% منهم إزالة السن، بينما كان 34.3% سيتخلصون من السن المخلوع. كما أن نسبة كبيرة (41.2%) لم تكن تعرف الوسط الصحيح لحفظ السن المخلوع. وعلى الرغم من أن المشاركين اعتبروا إصابات الأسنان الرضحية حالة طارئة (90.8%)، فإن الغالبية العظمى منهم (90.8%) اعتقدوا أنها من مسؤولية أطباء الأسنان حصرًا. في المقابل، رأى 89.8% أنها ينبغي أن تكون أولوية في تدريب المعلمين. **الخاتمة :** تُبرز هذه الدراسة وجود نقص واضح في المعرفة الفعلية لدى معلمي المدارس الابتدائية في مدينة سبها، ليبيا، فيما يتعلق بالتعامل الفوري مع إصابات الأسنان الرضحية. كما أن طرق حفظ الأسنان المصابة لا تزال غير مفهومة بشكل كامل لدى هذه الفئة.

1. Introduction

Dental trauma, which refers to injuries or damage to the teeth and surrounding tissues, is a common occurrence among school children. Accidents, falls, and sports-related incidents are examples of situations that can lead to dental trauma. The prevalence of dental trauma worldwide is about 10-15%. About 16% to 40% of children aged 6 to 12 years experienced some sort of dental trauma, according to the WHO (1). The prevalence of dental trauma among Libyan children aged 12 years was 10.3% according to a survey conducted in 2016/2017. This study revealed improper early management of dental trauma (2). Besides parents and health professionals, schoolteachers have significant responsibilities in addressing dental trauma by providing immediate care and support, especially during school hours. Prompt and appropriate management of dental trauma is crucial for minimizing long-term complications and ensuring optimal oral health outcomes. (3). Trauma to permanent teeth adversely affects children's lives quality. Losing permanent incisors at an early age affects aesthetics and growth of the jaw (4). In addition to tooth loss because of dental trauma, there are several complications due to dental trauma including increased overjet, incompetent lip, and maxillary protrusion (5). It is important to assess the basic knowledge of schoolteachers and their understanding about dental trauma. This will work as a foundation for creating an educational program and intervention protocols (6, 7). The attitudes and knowledge of schoolteachers about dental trauma can affect how they first respond and how they care for a student who has been injured (8). Teachers who have accurate information about dental trauma and a good attitude toward it, they are more likely to respond quickly and effectively. As a result the complications of the injury become less serious and improve the overall prognosis (8). On the contrary, lack of knowledge and confidence of school staff might lead to delay of the necessary management and potentially reduce long-term prognosis of the affected tooth (6). Although primary school teachers play a significant role in the management of dental trauma, their knowledge and attitude are still under researched (7). The majority of studies in dental trauma pay attention to healthcare or parents, while overlooking the role of teachers and their needs and challenges in terms of dental trauma (8-10). Besides, identifying the current level of knowledge, recognizing the areas of improvement, and addressing any misunderstanding or obstacles are necessary to enable schoolteachers to react quickly and efficiently in such situations. Enhancing the awareness of schoolteachers reduces the long-term complications of dental trauma and maintains adequate oral health outcomes for primary schoolchildren.

Therefore, the purpose of this study is to assess teachers' attitude and knowledge regarding dental trauma. Additionally, this study will investigate the possible obstacles and enablers that affect teachers' commitment and their understanding regarding dental trauma. Eventually, the results of this study can help improve the response to dental trauma incidents in school settings by guiding the creation of evidence-based educational programs customized to the requirements of schoolteachers.by Times New Roman

Objectives:

1. Assessment perceived knowledge of dental trauma among primary school teachers
2. Assessment the actual knowledge of dental trauma among primary school teachers.
3. Assessment the attitude of teachers towards management of dental trauma.

Material and Methods:

This cross-sectional study involved 256 elementary school teachers in Sebha City, Libya. The study's schools that participated were only public schools and chosen randomly. A self-administrated questionnaire was used in the period from September 2024 to December 2024. The questionnaire was created and modified based on earlier research by Kneitz and Kumar et al (11, 12). This questionnaire, which was translated into Arabic, has 24 multiple-choice items and was divided into 4 sections: the first section consists of four questions, the demographic data, which include age, gender, years of experience, and education level. The second section (perceived knowledge) (Q1–Q9) evaluates the participant's overall understanding of trauma, children's dental dentition, knowledge of broken teeth, and knowledge of avulsed teeth. The third section (Actual knowledge) (Q10-Q15) included questions about crown fracture and avulsion, which were reported for how the teachers react to traumatic injuries in emergencies. The final section (Q16-Q20) was designed to assess teachers' attitudes toward traumatic injuries as in reacting, educating, and so on.

The study protocol was approved by the department ethical committee, faculty of dentistry, Sebha University on **5th of May 2024** (**Approval No: 5/2024**), according to Helsinki Declaration of ethical standards. The informed consent was obtained from all the participants by filling out the informed consent form before enrolment.

Statistical analysis: SPSS (version 22) was used. Descriptive analysis was conducted for demographic data. Mean and standard deviation for quantitative data and frequency and percentage for qualitative data.

Result:

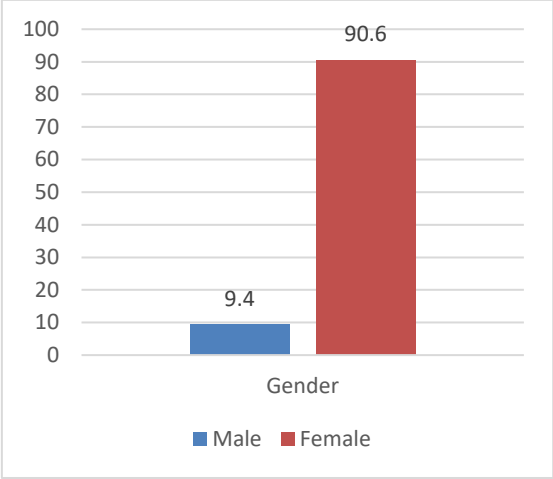
1. **Demographic data**: The data included 256 participants, 9.4% male (N=24) and 90.6% female (N=231). The mean age is 41.76 (SD± 9.083). Education level: 24.3% secondary level, 70.3% tertiary, and 1.2% postgraduate education. For teaching years, the median is 14.50 (1-43). (Table 1) (Figures 1, 2)

Appendix A. *Table 1 demographic data*

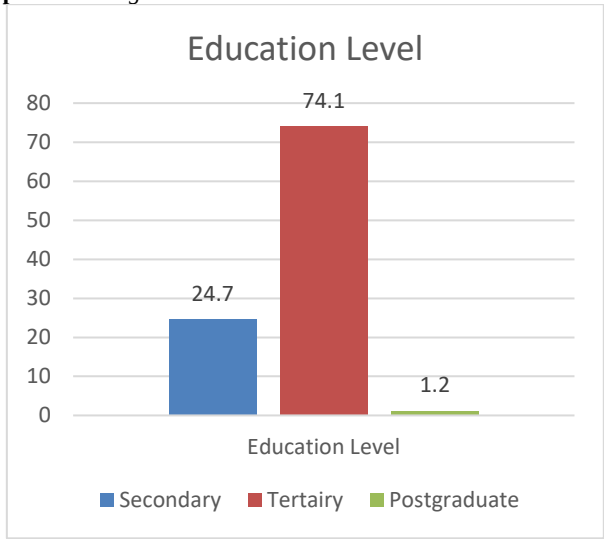
	N (%)	Mean (SD)	Median (min-max)
Age	247 (96.5%)	41.76 (±9.083)	42 (24-68)
Gender	Male 24 (9.4%)		
	Female 231		

	(90.6%)		
Education level	Secondary 60 (24.7%)		
	Tertiary 180 (74.1%)		
	Postgraduate 3 (1.2%)		
Teaching years		16.58 (±10.863)	14.50 (1-43)

Appendix B. *Figure 1*



Appendix C. *Figure 2*



Perceived knowledge: the participants were asked if they knew the number of deciduous teeth, and the response rate was 91.4%. The answer was 70.9% yes and 29.1% no. Then they asked about the most teeth exposed to dental trauma; the response rate was 98%, as follows: 92.8% said anterior teeth, 5.2% posterior teeth, and 2% did not know. Then they were asked if they knew the eruption time; the response rate was 95.3%. The answer was 82% yes and 18% no. The participants were asked whether they had intervened in any case of dental trauma among children at school: 18.3% yes and 81.7% no. They were asked about the common cause of trauma; the response was 95.7% as follows: 65.7% falling, 5.3% sport activity, and 38% collisions. They were asked whether the treatment is necessary or not for traumatised teeth; the response rate was 97.7% as follows: 95.6% yes and 4.4% no. The participants were asked what the proper time is to take a traumatised child to the dentist; the response rate was 100% as follows: 77.3% immediately after trauma, 2% the next day, 18.4% if there is pain, and 2.3% did not know. The primary school teachers were asked if they had ever heard about tooth reimplantation; 30% said yes and 70% said no. They were also asked about the most important factor to preserve an avulsed tooth; the responses were as follows: 43.7% time, 20.4% storage medium, and 35.9% didn't know. (Table 2)

Appendix D. *Table 2 perceived knowledge*

Questions	Response	N (%)
Did you know how many teeth children have?	Yes No	166(70.9) 68(29.1)
Which teeth are most affected by dental trauma?	Front teeth Back teeth I don't know	233(92.8) 13(5.2) 5(2)
Do you know at which age the first permanent teeth appear?	Yes No	200(82) 44(18)
Have you intervened in any case of dental trauma among children at school?	Yes No	46(18.3) 206(81.7)
What is the most common cause of dental trauma?	Fall Sports activity Collisions	139(56.7) 13(5.3) 93(38)
Do you believe treatment is necessary for a tooth exposed to dental trauma, whether the loss is partial or complete?	Yes No	239(95.6) 10(4)
When should a child who has experienced dental trauma be taken to a dentist?	▪ Take the child immediately to the nearest dentist ▪ The next day ▪ If any pain or other symptoms occur ▪ I don't know	198(77.3) 5(2) 47(18.4) 6(2.3)
Have you heard before about reimplanting teeth in their place after being completely knocked out due to trauma?	Yes No	74 (30) 173 (70)
In your opinion what is the most important factor for successful reimplantation of teeth after being completely knocked out due to trauma?	Time Storge medium I don't know	107 (43.7) 50 (20.4) 88 (35.9)

The actual knowledge: the participants were assessed about their actual knowledge; they were asked about crown tooth fracture at 9 years of age, and it showed 50.6% of whom believed the affected tooth is permanent, while 49.4% believed it is a primary tooth. The majority (80.7%) prefer contacting parents as the initial action in situations of trauma. In case of a tooth becoming loose, 34.9% suggested putting the tooth in place, and 36.9% opted to remove it. In case of avulsed tooth/teeth, 35.1% of respondents would preserve the tooth, 34.3% of respondents would dispose of it, and 30.7% didn't know. Furthermore, 37.2% of the participants would dispose of the avulsed tooth if it became dirty, about 27% would rinse it under running water, and 20.8% would replace the tooth immediately without cleaning it. Regarding the storage medium for an avulsed tooth, 41.2% of participants reported not knowing what to use, 30.4% indicated they would wrap the tooth in tissue or paper towel, 16% would place it in water, and only 10% stated they would preserve it in milk. (Table 3)

Appendix E. *Table 3 actual knowledge*

Questions	Response	N (%)
If a 9-year-old girl experienced dental trauma at school and fractured her upper front tooth, and that girl is fully conscious with no other general symptoms, the affected tooth is:	Primary Permanent	119 (49.4) 122 (50.6)
How would you handle the situation	Contact parents and advise them to send the child to a dentist Look for the broken fragments and send them with child to nearest dentist I don't know what to do	197 (80.7) 36 (14.8) 11 (4.5)
What would you do if a tooth affected by trauma is loose in a child's mouth	Put the tooth back in the place Remove the tooth from the child's	88 (34.9) 93

	mouth	(36.9)
	I don't know what to do	71 (28.2)
If a child experienced dental trauma, what is the best action if one of their permanent front teeth is completely knocked out	Preserve the tooth	88 (35.1)
	Dispose the tooth	86 (34.3)
	I don't know what to do	77 (30.7)
What would you do if a tooth falls completely by trauma onto a dirty surface	Rinse the tooth under running water	70 (27.7)
	Scrub dirt off the tooth using sponge and soap	15 (5.9)
	Return the tooth immediately without cleaning it	7 (2.8)
	Dispose of the completely	94 (37.2)
	I don't know	67 (26.5)
If cannot return the avulsed tooth to its place, how should it be stored	Place tooth in water	40 (16)
	Place the tooth in milk	25 (10)
	Wrap the tooth in a tissue of paper towel	76 (30.4)
	Place the tooth in child's mouth	6 (2.4)
	I don't know what to do	103 (41.2)

Teacher's awareness and attitude: the participants were asked about their attitudes towards dental trauma. More than 90% of teachers believed dental trauma is an emergency. About 90.8% thought dental trauma is a professional matter and teachers have no role. The participants were asked about the best action, of course, if a tooth is completely knocked out; over 50% suggested throwing it, whether it is a primary or permanent tooth. The vast majority of participants believed that teachers could provide better assistance for dental trauma if they received relevant training. 89.9% of participants assumed that dental trauma should take the priority in teachers' education. (Table 4)

Appendix F. *Table 4 Teacher's attitude*

Questions	Response	N (%)
In your opinion, dental trauma is considered an emergency that a child experienced	Agree	225 (90.8)
	Disagree	23 (9.2)
In your opinion, immediate intervention for dental trauma is entirely professional matter, it doesn't require teacher intervention	Agree	121 (90.8)
	Disagree	127 (9.2)
In your opinion, if a tooth is completely knocked out of a child's mouth, it is best to dispose of it regardless of whether it is primary or permanent.	Agree	138 (55.2)
	Disagree	112 (44.8)
Teachers can provide better assistance for dental trauma if they receive brief and relevant training about dental trauma	Agree	228 (89.8
	Disagree	26 (10.2)
Emergency treatment of dental trauma should become one of the educational priorities for teachers	Agree	223 (87.8)
	Disagree	31 (12.2)

Discussion:

The current study evaluated the primary school teachers' knowledge about dental trauma; the result showed that teachers have decent basic dental knowledge. However, the result revealed a significant knowledge gap exists in actual knowledge about dentitions and dental trauma management protocol. Additionally, most participants' teachers recognized the importance of learning about dental trauma management techniques.

The study revealed a lack of basic knowledge about dental trauma among primary school teachers; this result was consistent with a study conducted in Isfahan, which found a moderate level of teachers' knowledge about dental trauma (45.9%) (13). Whereas, Nashie et al. (2018) reported that teachers' knowledge ranged from 0.6 to 56.3% (14). The current study showed that most teachers were aware that incisors are common teeth affected by dental trauma. The same finding was reported in another study which was conducted in Bhopal city, Madhya Pradesh, India (14).

This study showed that only 18.3% of participants had an intervention experience in dental trauma situations. The result is consistent with another Saudi Arabian study that revealed a low level of knowledge of intervention (86.3%); 77.9% did not receive prior advice on dental trauma management (15). The result presented a lack of tooth reimplantation knowledge (30% aware). A similar finding was reported in previous studies, which also demonstrated that awareness levels significantly improved following targeted educational interventions (14-16). The participants in this study selected time as a critical factor in preserving an avulsed tooth, which is inconsistent with other studies that showed varying response levels regarding the importance of a storage medium and immediate intervention (13, 14). The current study has highlighted a significant gap in actual knowledge of handling a traumatized tooth among teachers. Several studies reported that a significant proportion of teachers are unaware of correct actions to be taken after dental trauma (12, 17-19). Additionally, this study explored teachers' confusion between primary and permanent teeth; this uncertainty was similarly reported in other studies (14, 20, 21). The majority of participants (80.7%) indicated contacting parents as an initial action to dental trauma, which highlighted their understanding of the need for immediate communication in such situations (21, 22). There were variances in response to managing loose teeth; some would put them back in their place, while others opted to remove them. A significant portion of the participants would dispose of the avulsed tooth, the same finding reported in a Turkish study, which reflects a deficit in knowledge of preserving the avulsed tooth (23). This was inconsistent with a Saudi Arabian study that found 79% of participants would reimplant the avulsed tooth (24). Furthermore, almost the same proportion of the participants would dispose of the avulsed tooth if it became contaminated. Moreover, the participants' teachers didn't know how to store the avulsed tooth, while a few others suggested milk as a storage medium. Similar proportions have been reported in other studies conducted within comparable communities (12, 24, 25). This highlights the importance of education and training (26).

The awareness and attitudes of teachers about dental trauma revealed contradictory responses. Despite the majority of participants recognizing dental trauma as an emergency, the same proportion believed it was a professional matter and teachers have no role in managing it. This gap in knowledge might make teachers feel unqualified to intervene in such a situation. The result was contradictory to other Saudi Arabian studies that showed most teachers believed dental trauma is not an urgent situation (21, 25, 27). Almost half the responses suggested throwing the avulsed tooth regardless of whether they are primary or permanent. This finding revealed the gap in basic knowledge regarding maintaining the avulsed tooth for potential reimplanting. However, our findings (44.8% of participants would reimplant the avulsed tooth) were higher than other studies such as Rouijel S et al. (2024), Toure et al. (2011), and Marcano-Caldera et al. (2018) (28-30).

The result indicated a positive attitude towards the role of teachers in cases of dental trauma if they received adequate training. This reflects the teachers' understanding of their weakness and willingness to improve their skills and knowledge of management of dental trauma. This strong consensus among teachers was revealed in several studies, where teachers intended to enhance their ability to assist traumatized students efficiently (15, 24, 31, 32). Additionally, a significant percentage of participants indicated that management of dental trauma should take priority in primary school teacher education. This response reflects the necessity for integrating the management of dental trauma into training programmes of teachers, which was stated in other similar studies (24, 25).

The study has certain limitations, including limited diversity, as it was conducted only among public school teachers. Also, using self-administration questionnaires might make teachers provide socially desirable answers instead of depending on their true knowledge, which overstates their response and introduces response bias. In addition, misunderstanding and misinterpreting questions can lead to inaccurate

responses, particularly when using medical or dental terminology.

Conclusion:

The assessed knowledge and attitude of primary school teachers towards dental trauma revealed deficient knowledge of its management. Despite the fact that teachers are aware of the need for early dental care in these situations, handling and preserving methods of the traumatized teeth are still incompletely understood. Highlighting the necessity for targeted educational interventions to enhance knowledge and improve outcomes in dental trauma management at schools.

Declarations:

Conflict of Interest: The authors declare that no conflicts exist.

Data Availability Statement: Data in this study are available from the corresponding author upon reasonable request.

Financial Disclosure: The authors declared no financial support.

AI use Declaration: Authors declare that AI tools were used in this manuscript for the purpose of improving the writing process (paraphrasing and proofreading).

Ethical clearance: It was given by the department's ethical committee, Faculty of Dentistry, Sebha university (5/2024).

Author Contributions: Conceptualization; **S.A.E**. Methodology; **S.A.E**. Formal analysis; **A.G.M**, **F.M.E**. Data curation; **N.F.E.** Writing—original draft; **S.A.E**. Writing—review and editing; **F.M.E**, **N.F.E**. Writing final version; **S.A.E**. Supervision and validation; **A.G.M**. All authors have read and agreed to the published version of the manuscript.

Acknowledgements: We would like to express our gratitude to the Educational Directorate of Sebha for allowing usreview to conduct this research in public schools. Our appreciation also extended to all the public schools' teachers and staff for supporting and facilitating our mission.

References

[1]- Daupare S, Narbutaite J. Primary school teachers' knowledge and attitude regarding traumatic dental injuries. Journal of the Indian Society of Pedodontics and Preventive Dentistry. 2020;38(3):216-21.

[2]- Arheiam AA, Elareibi I, Elatrash A, Baker SR. Prevalence and factors associated with traumatic dental injuries among schoolchildren in war-torn Libya. Dental traumatology : official publication of International Association for Dental Traumatology. 2020;36(2):185-91.

[3]- Alotaibi S, Haftel A, Wagner ND. Avulsed Tooth. StatPearls. Treasure Island (FL) ineligible companies. Disclosure: Anthony Haftel declares no relevant financial relationships with ineligible companies. Disclosure: Noel Wagner declares no relevant financial relationships with ineligible companies.: StatPearls Publishing

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[4]- 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(3):193-8.

[5]- Patel MC, Sujan SG. The prevalence of traumatic dental injuries to permanent anterior teeth and its relation with predisposing risk factors among 8-13 years school children of Vadodara city: an epidemiological study. Journal of the Indian Society of Pedodontics and Preventive Dentistry. 2012;30(2):151-7.

[6]- Nirwan M, Syed AA, Chaturvedi S, Goenka P, Sharma S. Awareness in Primary School Teachers regarding Traumatic Dental Injuries in Children and Their Emergency Management: A Survey in South Jaipur. International journal of clinical pediatric dentistry. 2016;9(1):62-6.

[7]- Katge FA, Patil DP, Khakhar PJ, Poojari MS, Koticha PB. Knowledge and awareness of school teachers regarding emergency management of dental trauma in school children of Navi Mumbai. Indian J Dent Res. 2021;32(1):51-5.

[8]- Bamashmous N, Cunningham SJ, Parekh S. Information seeking behaviour of dental trauma patients and their parents. Dental traumatology : official publication of International Association for Dental Traumatology. 2020;36(6):590-7.

[9]- Quaranta A, De Giglio O, Trerotoli P, Vaccaro S, Napoli C, Montagna MT, et al. Knowledge, attitudes, and behavior concerning dental trauma among parents of children attending primary school. Annali di igiene : medicina preventiva e di comunita. 2016;28(6):450-9.

[10]- Tewari N, Bansal K, Mathur VP. Dental trauma in children: a quick overview on management. The Indian Journal of Pediatrics. 2019;86:1043-7.

[11]- Kneitz FB, Scalioni FAR, Tavares LCD, Campos MJdS, Carrada CF, Machado FC. Elementary school teachers' knowledge and attitudes toward emergency management of traumatic dental injuries. Brazilian oral research. 2023;37:e073.

[12]- Chandukutty D, Peedikayil FC, Premkumar CT, Narasimhan D, Jose D. Awareness of Dental Trauma Management among School Teachers of Kannur, Kerala, India. Journal of clinical and diagnostic research : JCDR. 2017;11(2):Zc08-zc12.

[13]- Tahririan D, Entezam Z, Safarzadeh S. Evaluation of teachers' knowledge about dental injuries in primary schoolchildren in the city of Isfahan. Dent Res J (Isfahan). 2022;19:42.

[14]- Nashine N, Bansal A, Tyagi P, Jain M, Jain A, Tiwari U. Comparison and Evaluation of Attitude and Knowledge Towards the Management of Dental Injury in School Teachers Before and After Oral Health Education. Int J Clin Pediatr Dent. 2018;11(5):425-9.

[15]- Almulhim B. Knowledge and Awareness of School Teachers Regarding Emergency Management of Tooth Avulsion in the Kingdom of Saudi Arabia: A Cross-Sectional Study. The Open Dentistry Journal. 2022;16.

[16]- Alharbi ZF, Habibullah MA. Knowledge, Attitudes, and Practices of School Teachers Regarding Dental Trauma and its Emergency Management in Madinah, Saudi Arabia: A Questionnaire-Based Online Cross-Sectional Survey. J Pharm Bioallied Sci. 2023;15(Suppl 1):S775-s82.

[17]- AB IE, Tikare S, AlQahtani NA, Braimoh OB, Sundarraj RK, Muteq MA, et al. Orofacial trauma awareness among sports teachers in Southern Saudi Arabia. Niger J Clin Pract. 2020;23(3):343-8.

[18]- Salarić I, Tikvica Medojević D, Baždarić K, Kern J, Miličević A, Đanić P, et al. Primary School Teachers' Knowledge on Tooth Avulsion. Acta Stomatol Croat. 2021;55(1):28-36.

[19]- Bakarčić D, Hrvatin S, Maroević M, Ivančić Jokić N. First Aid Management in Emergency Care of Dental Injuries – Knowledge among Teachers in Rijeka, Croatia. Acta Clin Croat. 2017;56(1):110-6.

[20]- Gu Z, Sun X, Chen Y, Zhang Y, Jiang X, Liu Y, et al. Investigation of oral health knowledge and attitudes towards oral health education among elementary school teachers in Zunyi. Hua Xi Kou Qiang Yi Xue Za Zhi. 2023;41(1):52-7.

[21]- Altamimi YS, Siddiqui AA, At-Tamimi S, Al-Ateeq NF, Al-Zuayzi AA, Alsayegh MA, et al. Knowledge of primary school teachers regarding dental trauma management in Hail Region, Saudi Arabia. Pesquisa Brasileira em Odontopediatria e Clínica Integrada. 2019;19:e4757.

[22]- Hashim R. Investigation of mothers' knowledge of dental trauma management in United Arab Emirates. Eur Arch Paediatr Dent. 2012;13(2):83-6.

[23]- Kurnaz S, Bayraktar C. School Teachers' Knowledge and Attitudes about the Emergency Management of Traumatic

Dental Injuries in Turkey. Community Dent Health. 2021;38(3):215-9.
[24]- Al-Khalifa KS, AlYousef Y. Awareness of Dental Trauma Management among School Teachers in Dammam, Saudi Arabia. Saudi J Med Med Sci. 2022;10(1):49-55.
[25]- Alsadhan SA, Alsayari NF, Abuabat MF. Teachers' knowledge concerning dental trauma and its management in primary schools in Riyadh, Saudi Arabia. Int Dent J. 2018;68(5):306-13.
[26]- Lima J, Caldarelli PG, Rocha JS, Fagundes Tomazinho FS, Fariniuk LF, Baratto-Filho F, et al. Educational approaches for assessing knowledge about and actions of educators in response to dental avulsion. J Indian Soc Pedod Prev Dent. 2021;39(2):138-46.
[27]- Alluqmani FA, Omar OM. Assessment of schoolteachers' knowledge about management of traumatic dental injuries in Al-Madinah city, Saudi Arabia. Eur J Dent. 2018;12(2):171-5.
[28]- Rouijel S, Bouchouk M, Zidane FE, Toure B. Awareness, Knowledge and Attitudes Toward Management of Avulsed Permanent Incisors Among Primary School Teachers. Clin Cosmet Investig Dent. 2024;16:267-72.
[29]- Touré B, Benoist FL, Faye B, Kane A, Kaadioui S. Primary school teachers' knowledge regarding emergency management of avulsed permanent incisors. J Dent (Tehran). 2011;8(3):117-22.
[30]- Marcano-Caldera M, Mejía-Cardona JL, Parra Sanchez JH, Méndez de la Espriella C, Covo Morales E, Sierra Varón G, et al. Knowledge about emergency dental trauma management among school teachers in Colombia: A baseline study to develop an education strategy. Dental Traumatology. 2018;34(3):164-74.
[31]- Fittler M, Fittler A, Dergez T, Radácsi A, Katona K, Sándor B, et al. Knowledge and management of traumatic dental injuries among schoolteachers in Hungary: a cross-sectional study with educational intervention. European Archives of Paediatric Dentistry. 2024;25(1):117-25.
[32]- Naryal N, Bhardwaj V, Fotedar S, Thakur AS, Vashisth S. A Cross-Sectional Survey to Assess Knowledge Among School Teachers in Shimla City About Emergency Management of Dental Trauma in School Children: A Crucial Aspect for Preventive Care. Dental Journal of Indira Gandhi Institute of Medical Sciences.3.