ISSNe 2178-1990

10.35699/2178-1990.2025.60274

ARQUIVOS EM ODONTOLOGIA

Assessment of the impact of a lecture on dental students' knowledge of dental trauma

Mariana Fernandes Fiães[1] | Fernanda Bello Kneitz[2] | Mayra Junqueira Machado[3] | Lydia Silva Provinciali[3] | Camila Faria Carrada[4] | Flávia Almeida Ribeiro Scalioni[5] | Fernanda Campos Machado[5]

[1] Dentistry student, School of Dentistry, Universidade Federal de Juiz de Fora, Juiz de Fora, Minas Gerais, Brazil
[2] PhD student, Department of Preventive and Community Dentistry, Universidade Estadual do Rio de Janeiro, Rio de Janeiro, Brazil
[3] Master student, Postgraduate Program in Dentistry, Universidade Federal de Juiz de Fora, Juiz de Fora, Minas Gerais, Brazil
[4] Professor, School of Dentistry, Faculdade de Ciências Médicas e Saúde de Juiz de Fora, Juiz de Fora, Minas Gerais, Brasil
[5] Adjunct professor, Department of Social and Child Dentistry, School of Dentistry, Universidade Federal de Juiz de Fora, Juiz de Fora, Minas Gerais, Brasil

Aim: This study aimed to evaluate the impact of an in-person lecture on dental trauma (DT) on the knowledge and attitudes of dental students.

Methods: A structured questionnaire was administered at three time points: before the lecture (T0), one week after (T1), and 12 months later (T2). The lecture covered concepts and management of DT based on the International Association of Dental Traumatology (IADT) guidelines. Descriptive analysis, Cochran's Q test, and Friedman's ANOVA were performed ($p \leq 0.05$).

Results: Thirty 8th-period students participated in the study. At T0, students had an average of 6.43 correct answers out of 12, which increased to 7.57 at T1 ($p=0.020$). However, no significant difference was observed between T0 and T2 or between T1 and T2. A significant increase in correct answers was found between T0 and T1, as well as between T0 and T2, for two of the 12 specific questions on DT. No participant reported having "very good" knowledge of the subject at T0, whereas at T1, 10% did ($p=0.009$). A significant difference was found in knowledge of the IADT guidelines ($p=0.001$) and the "Tooth SOS" app ($p<0.001$) before and after the intervention. The majority of participants reported a continued need for more information on DT management at T0, T1, and T2.

Conclusion: The lecture had a positive short-term impact on participants' knowledge of DT. However, no long-term retention of this knowledge was observed.

Uniterms: health knowledge, attitudes, practice; students, dental; tooth injuries.

Received: 2025-07-11
Accepted: 2025-12-09

INTRODUCTION

Dental trauma (DT) is considered a public health problem[1,2], affecting more than one billion people worldwide, with a global prevalence of 22.7% in primary dentition and 15.2% in permanent dentition[3]. DT occurs across different age groups[13] and can range from minor enamel cracks and crown fractures to root fractures, luxation injuries, and severe damage to the supporting tissues of the teeth[4,5]. In addition to the clinical implications, DT also carries significant financial burdens[2,6,7] and negatively impacts the quality of life of both patients and their families[2,6-10].

DT cases often require emergency care[9] and immediate clinical management increases the chances of a favorable prognosis

Autor para Correspondência:
Fernanda Campos Machado
Phone: +55 (32) 2102-3855
Address: Campus Universitário, Rua José Lourenço Kelmer, s/n - São Pedro, Juiz de Fora - MG, 36036-900
Email: fecamposufjf@gmail.com

by preventing post-traumatic complications[4,9]. Thus, first-aid procedures play a crucial role in determining future treatment options[2]. A precise diagnosis, appropriate therapeutic planning[11] and long-term follow-up are key factors in ensuring a positive prognosis for traumatized teeth[12]. On the other hand, inadequate treatment, delays in care, or inadequate management of these injuries can compromise the overall prognosis[11], leading to complications such as tooth discoloration, mobility issues, malocclusion, sensitivity, root and/or bone resorption, pulp necrosis with infection, and even tooth loss[12]

Given the importance of proper DT management, it is essential for dental students to acquire sufficient knowledge on the subject, as they are the future professionals responsible for providing emergency care and treating traumatic dental injuries[4]. However, the literature consistently reports that knowledge about DT is unsatisfactory among both undergraduate dental students[7-9,10,13] and practicing dentists[2,5,11,12,14]

Additional DT education has been identified as a significant positive influence on undergraduate health students, with participation in continuing education courses increasing confidence in managing these injuries[11]. Moreover, the most favorable outcomes of DT education include improved attitudes toward first-aid care[2] and better long-term knowledge retention[5].

In this context, assessing the knowledge of future dental professionals is essential for evaluating learning effectiveness, knowledge retention, and overall educational quality. This assessment also helps develop strategies to enhance students' confidence and preparedness for unpredictable and challenging situations[7] Furthermore, analyzing the effectiveness of teaching methods and tools used to disseminate information on DT can lead to improvements in both content quality and instructional approaches[2]

Thus, this study aimed to evaluate the effect of a face-to-face lecture on DT on the knowledge and attitudes of undergraduate dental students at a federal institution of higher education. The hypothesis was that the educational intervention would positively influence students' knowledge and attitudes toward DT.

MATERIAL & METHODS

This study followed the STROBE statement guidelines for observational studies[16]. The study was approved by the Research Ethics Committee of the Universidade Federal de Juiz de Fora (CAAE: 69077923000005147) and all participants provided written informed consent.

A longitudinal intervention study was conducted between May 2023 and June 2024. The convenience sample consisted of students from the 8th period of the Dentistry program at Universidade Federal de Juiz de Fora, enrolled in the Dental Emergency Internship I (STG 025) discipline. Participants were included in the study regardless of age, gender, economic status, or ethnicity. Students who did not complete the questionnaire at any stage of the study were excluded.

A structured, self-administered questionnaire was developed by the study researchers based on a validated questionnaire applied in previous studies[12,17]. A pilot study was conducted with 10 dental students from 7th period who were not part of the final sample, serving as a pre-test to refine the questionnaire's text. The final questionnaire comprised 22 multiple-choice questions, divided into two sections. The first section collected demographic data, experiences and expectations regarding dental trauma. The second section included 12 specific questions assessing knowledge of dental trauma and its management. Each correct answer was assigned 1 point, while incorrect answers received 0 points, with possible scores ranging from 0 to 12.

The questionnaire was administered at three time points: T0 (baseline) - before the lecture (initial assessment); T1 (short-term post-intervention) - one week after the lecture; and T2 (long-term post-intervention) - 12 months after the lecture. At all-time points, the questionnaire was completed in the classroom under the supervision of a researcher. Participants had 20–30 minutes to complete the questionnaire without access to external resources. The knowledge-based questions remained identical across all three time points. Only the self-assessment section was slightly adapted to reflect contextual changes.

The intervention consisted of a one-hour, in-person lecture, delivered using multimedia resources. The lecture was developed by the researcher and was presented to 8th-period students enrolled in the Dental Emergency Internship discipline. The content covered the general concepts of dental trauma, different types of traumatic dental injuries, and emergency management strategies, following the International Association of Dental Traumatology (IADT) guidelines[18-21]

Data was organized and analyzed using the Statistical Package for the Social Sciences

- SPSS software version 21.0 for Windows (SPSS Inc., Chicago, IL, USA). Descriptive statistics were reported as absolute and relative frequencies for categorical variables and means with standard deviations for numerical variables. Data normality was assessed using the Shapiro–Wilk test. Therefore, non-parametric tests were applied for further analyses. The relationships between variables were assessed using Cochran's Q test and Friedman's ANOVA, which are non-parametric tests used to compare frequencies and means across the three time points (T0, T1, and T2). A significance level of $p \leq 0.05$ was adopted for all statistical tests.

RESULTS

On the total of 37 students in the 8th period of the Dentistry course enrolled in the Dental Emergency Internship discipline, 30 participated in the study, corresponding to a participation rate of 81.08%. Seven students were excluded due to failure to complete the questionnaire at any stage of the evaluation. The average age of the participants was 23.43 (±3.441) years, and 83.3% were female. Most of the participants (96.7%) reported having received previous instruction on dental trauma (Table 1).

Table 1. Demographic data and previous information on dental trauma (n = 30).

Variables	n	%
Demographic characteristics		
Sex		
Female	25	83.3%
Male	5	16.7%
Age		
Total sample		
Mean (±SD)	23.43 (±3.44)	
Previous information about dental trauma		
- Have you received any information about dental trauma previously?		
Total sample		
Yes	29	96.7%
No	1	3.3%
Don't remember	0	0.0%

Note: n=Absolute number; %= percentual; SD= standard deviation.

At the initial assessment (T0), no participants reported having very good knowledge of dental trauma. Immediately after the intervention (T1), 10% of students classified their knowledge as very good, a result that was statistically significant (p = 0.009). On the other hand, before the educational intervention (T0), 10% of the students reported to have poor knowledge, a perception that was no longer observed in the subsequent evaluations (Table 2).

A significant difference was observed regarding knowledge of the IADT guidelines[18-21] and the official IADT app "Tooth SOS" (p = 0.001 and p < 0.001, respectively), both when comparing T0 and T1 and when comparing T0 and T2. However, at all assessment moments, the vast majority of students reported feeling the need for more information on the management of patients who have suffered dental trauma (Table 2).

Table 2. Comparison of the responses of 8th-period students regarding their experiences, knowledge, and expectations at different moments of the assessment: before and after the educational intervention (T0, T1, and T2). (n = 30).

(continues)

Variables	Responses			p-value
	T0 n (%)	T1 n (%)	T2 n (%)	
- How do you assess your knowledge of dental avulsion?				
Very good	0 (0.0%)	3 (10.0%)	0 (0.0%)	0.009[A*]
Good	6 (20.0%)	14 (46.7%)	10 (33.3%)	0.280[B]
Regular	21 (70.0%)	13 (43.3%)	20 (66.7%)	0.590[C]
Poor	3 (10.0%)	0 (0.0%)	0 (0.0%)	
Very poor	0 (0.0%)	0 (0.0%)	0 (0.0%)	

(conclusion)

- Have you treated a patient at the university who suffered dental trauma? (Answer: Yes)	5 (16.7%)	6 (20.0%)	5 (16.7%)	0.846
- Are you familiar with the 2020 IADT guidelines for the evaluation and management of traumatic dental injuries (Answer: Yes)	10 (33.3%)	24 (80.0%)	24 (80.0%)	0.001[a*] 0.001[b*] 0.999[c]
- Are you familiar with the official IADT app "*Tooth SOS*" for mobile phones and tablets? (Answer: Yes)	6 (20.0%)	24 (80.0%)	26 (86.7%)	< 0.001[a*] < 0.001[b*] 0.999[c]
- Do you feel the need for more information on the management of a patient who has suffered dental trauma? (Answer: Yes)	29 (96.7%)	29 (96.9%)	30 (100%)	0.368

Note: T0 = Initial assessment; T1 = Short-term post-intervention; T2 = Long-term post-intervention; (*) Significant difference; ([A]) Friedman's ANOVA test between T0 and T1; ([B]) Friedman's ANOVA test between T0 and T2; ([C]) Friedman's ANOVA test between T1 and T2; ([a]) Cochran's Q test between T0 and T1; ([b]) Cochran's Q test between T0 and T2; (c) Cochran's Q test between T1 and T2.

The average number of correct answers to the 12 specific questions on dental trauma was significantly higher at T1, compared to T0 (p = 0.020). However, no significant differences were observed between T0 and T2 or between T1 and T2 (Table 3).

Table 3. Comparison of the average scores of correct responses from the 8th-period students on 12 specific questions regarding knowledge of dental trauma at different assessment moments: before and after the educational intervention (T0, T1, and T2). (n = 30).

T0 (Before education intervention)		**T1** (1 week after the educational intervention)		**T2** (12 months after the educational intervention)		**p-value**
Mean ± SD	Minimum - maximum	Mean ± SD	Minimum - maximum	Mean ± SD	Minimum - maximum	0.020[A*] 0.081[B] 0.561[C]
6.43 ± 1.72	4 - 10	7.57 ± 1.99	3 - 11	7.17 ± 1.55	4 - 11	

Note: (*) Significant difference; ([A]) Friedman's ANOVA test between T_0 and T_1; ([B]) Friedman's ANOVA test between T_0 and T_2; ([C]) Friedman's ANOVA test between T_1 and T_2.

Table 4 presents the percentage of correct answers, based on the IADT guidelines[18-21], at the different assessment moments (T0, T1, and T2). There was a significant increase in correct responses between T0 and T1 in two of the 12 specific questions on dental trauma: "splinting in cases of permanent tooth avulsion without associated fracture" (p = 0.009) and "management of avulsed primary teeth" (p = 0.015). In the comparison between T0 and T2, there was also a significant increase in correct responses for two questions, specifically regarding the management of permanent tooth avulsion (p = 0.007) and management of primary tooth avulsion (p = 0.016). Comparing T1 and T2, there was a significant increase in correct answers for the question regarding root fractures in the middle third of permanent teeth (p = 0.006). However, there was a decrease in correct answers between T0 and T2 (p = 0.05) and between T1 and T2 (p = 0.05) in the question about the ideal time to initiate endodontic treatment in cases of an avulsed tooth with incomplete root formation that was reimplanted and later developed pulp necrosis.

Table 4. Comparison of the responses of 8th-period students regarding specific knowledge of dental trauma at different assessment moments: before and after the educational intervention (T0, T1, and T2); n = 30.

(continues)

Variables	**Responses**			**p-value**
	T0 n (%)	**T1** n (%)	**T2** n (%)	
In cases of avulsion of a permanent tooth without an associated bone fracture, what is the ideal type and duration of splinting? (Correct answer: Flexible splinting, 1 to 2 weeks)	2 (6.7%)	10 (33.3%)	7 (23.3%)	0.009[a*] 0.195[b] 0.804[c]

(conclusion)

In cases of root fracture in the middle third of permanent teeth, how should one proceed? (Correct answer: Monitor the case with sensitivity tests and radiographic follow-up, and perform endodontic treatment only if there is clinical and radiographic evidence of pulp necrosis)	20 (66.7%)	15 (50.0%)	26 (86.7%)	0.480[a] 0.275[b] 0.006[c*]
What is the best option for the first dental care in case of permanent tooth avulsion? (Correct answer: Immediate reimplantation of the tooth)	9 (30.0%)	15 (50.0%)	19 (63.3%)	0.199[a] 0.007[b*] 0.662[c]
What is the best option for the first dental care in case of primary tooth avulsion? (Correct answer: Do not reimplant the tooth)	23 (76.7%)	29 (96.7%)	29 (96.7%)	0.015[a*] 0.016[b*] 0.999[c]
What is the best solution for transporting an avulsed permanent tooth? (Correct answer: Milk)	22 (73.3%)	19 (63.3%)	18 (60.0%)	0.395
The best time to start endodontic treatment of an avulsed and reimplanted tooth with incomplete root formation is when clinical and radiographic evidence of pulp necrosis is observed. (Correct answer: True)	23 (76.7%)	23 (76.7%)	15 (50.0%)	0.999[a] 0.050[b*] 0.050[c*]
The best time to start endodontic treatment of a completely developed tooth that was avulsed and reimplanted within 1 hour is 2 weeks after reimplantation. (Correct answer: True)	16 (53.3%)	20 (66.7%)	16 (53.3%)	0.390
When intrusion occurs in a permanent tooth with complete root formation, there is a potential risk of tooth loss due to external resorption. Endodontic treatment is indicated in all cases, as revascularization does not occur. (Correct answer: True)	7 (23.3%)	8 (26.7%)	8 (26.7%)	0.987
In cases of subluxation in permanent teeth where the pulp sensitivity test is negative, endodontic treatment should be started immediately. (Correct answer: False)	18 (60.0%)	14 (46.7%)	10 (33.3%)	0.069
The most important factor to consider in a case of a crown-root fracture in a permanent tooth, besides the presence or absence of pulp exposure, is the extent of the fracture in the apical direction. (Correct answer: True)	28 (93.3%)	28 (93.3%)	30 (100%)	0.368
In cases of lateral luxation of a permanent tooth with alveolar bone fracture, what is the ideal type and duration of splinting? (Correct answer: Rigid splinting, 4 weeks)	9 (30.0%)	10 (33.3%)	14 (46.7%)	0.247
In cases of a crown fracture involving enamel and dentin with pulp tissue exposure in a permanent tooth with complete root development, what is the best approach? (Correct answer: If possible, perform direct pulp capping, pulpal curettage, or partial pulpotomy)	16 (53.3%)	15 (50.0%)	23 (76.7%)	0.093

Note: T0 = Initial assessment; T1 = Short-term post-intervention; T2 = Long-term post-intervention; (*) Significant difference; ([a]) Cochran's Q test between T_0 and T_1; ([b]) Cochran's Q test between T_0 and T_2; ([c]) Cochran's Q test between T_1 and T_2.

DISCUSSION

This study revealed data on the effect of an in-person lecture on the level of knowledge about dental trauma among undergraduate dental students, indicating an improvement in knowledge in the short term. However, no significant improvement was observed in the long-term post-intervention evaluation, suggesting that knowledge retention was not satisfactory. These findings align with previous studies that demonstrated immediate knowledge gains after an intervention[9,10,13], followed by a decline at six months[13] and one year[10], indicating reduced long-term retention.

Before the educational intervention, students in the 8th period had an average of 6.43 correct answers to the twelve specific questions in the questionnaire. This prior knowledge may be attributed to their exposure to dental trauma content in other university disciplines, such as Endodontics, Surgery, and Pediatric Dentistry. This is consistent with the finding that 96.7% of participants reported having had previous contact with dental trauma. Despite this background, the initial questionnaire results were not entirely satisfactory, highlighting gaps in the dental curriculum[4,22], where theoretical and practical activities do not seem to fully meet students' needs. Additionally, nearly all students, at all three evaluation moments, expressed the need for more information on the topic, which may be related to the limited practical experience they have with dental trauma during their undergraduate studies.

After the lecture, there was a significant improvement in students' perception of their own knowledge about dental trauma. A study by Puranik et al.[23] also reported an improvement in students perceived learning following a Problem-Based Learning (PBL) intervention, and AlZoubi et al.[13] found that students' self-confidence increased after a lecture.

The IADT guidelines[18-21] are considered useful tools for university students, offering a structured approach to diagnosis and treatment planning[24]. In this study, after the intervention, students reported improved knowledge of the IADT guidelines[18-21] and the "Tooth SOS" app. Before the lecture, only 33.3% of students knew about the guidelines, but this number increased to 80% post-intervention. Similarly, knowledge of the app improved from 20% to 80%. This is a positive outcome, as even though students' long-term retention of content was not ideal, they at least learned where to find reliable information in emergency situations.

Lectures have proven effective in enhancing participants' short-term knowledge[9,10,13,25]. In this study, students' overall mean score increased significantly after the lecture, and for some specific questions, the improvement remained significant, even in the long term. Regarding splinting in cases of permanent tooth avulsion without associated fracture, only 6.7% of students initially knew the correct approach, but this number rose to 33.3% immediately after the lecture. This finding is consistent with the study by Ferreira et al.[26], in which fewer than 10% of students correctly managed tooth avulsion. Similarly, Nagata et al.[9] found that students' knowledge of avulsion improved significantly after a lecture, increasing from 22.9% to 100%. A notable improvement was also observed in the question regarding primary tooth avulsion, where 96.7% of students correctly stated that these teeth should not be reimplanted. There is a consensus in the literature that reimplantation of primary teeth is not recommended, and that these cases should be monitored until the eruption of the permanent successor[19]

Studies suggest that while participants show immediate knowledge improvement, long-term retention tends to decline[9,10,13]. This phenomenon may be attributed to factors such as the lack of practical reinforcement of theoretical concepts and the absence of continuous education. In the present study, this was particularly evident in the question about the recommended time to initiate endodontic treatment in cases of an avulsed and reimplanted tooth with incomplete root formation that subsequently developed pulp necrosis, where correct responses decreased in the final evaluation, compared to the initial and short-term post-intervention assessments. To mitigate this issue, strategies such as periodic reviews and practical application of the content should be considered.

Another relevant finding was the increase in correct responses regarding root fractures in the middle third of permanent teeth in the long-term evaluation. This may be related to students increased clinical maturity after one year or knowledge acquired in other courses over time[13]

Furthermore, less than 20% of students had prior clinical experience with dental trauma during their undergraduate studies, which may be due to a curriculum with limited practical exposure to such cases. This finding is in line with the study by Andrade and Reis[22], in which more than 80% of students reported never having treated a

case of avulsion. Conversely, Hartmann et al.[12] found that only 21.8% of trained dental surgeons had never treated a case of trauma, highlighting the high prevalence of dental trauma in clinical practice and reinforcing the need for adequate training during undergraduate education.

A limitation of this study is that it included only students from 8th period, corresponding to a single class of participants (n = 37). This decision was made to assess students nearing the end of their coursework, while ensuring their availability for all three evaluation moments. Although this sample reflects the specific context of the intervention, the limited number of participants may be insufficient to generalize the findings or to reliably detect effects of small magnitude. Furthermore, it was not possible to control external factors, including individual experiences, individual interests, and exposure to materials related to dental trauma, which may have influenced knowledge retention between T1 and T2 and could be considered a source of exposure bias. Therefore, future research involving a larger and more diverse sample including students from different universities is recommended, to confirm and expand upon these results.

The results suggest that there is a need for improved training in dental trauma during undergraduate education, as well as increased practical exposure to better prepare students for professional practice. While lectures were effective in the short term, they did not yield fully satisfactory long-term results. Continuous education, along with the use of active learning methodologies and practical activities, could enhance knowledge retention.

Lamenha Lins et al.[25] compared different teaching methods and found that traditional lectures and mobile learning apps yielded similar results. Puranik et al.[23] highlighted PBL as an effective tool for student learning, making it a potential option for continuing education. Fittler et al.[27] demonstrated positive outcomes with online content on dental trauma, emphasizing its accessibility and practicality for undergraduate students. Similarly, Wimalarathna et al.[24] concluded that mobile applications were effective in improving students' knowledge, offering an interactive and user-friendly learning experience.

Curricular modifications could be a strategy to enhance students' understanding of dental trauma. Incorporating a specific discipline of dental trauma in the curriculum of undergraduate Dentistry courses could help bridge knowledge gaps[28], and alternative teaching strategies, including hands-on practical activities, could further improve knowledge retention and clinical preparedness.

CONCLUSION

The lecture had a positive effect on participants' acquisition of knowledge about dental trauma immediately after the intervention. However, no significant retention of this knowledge was observed in the long term, 12 months after the intervention. These findings highlight the need for further studies to evaluate alternative educational strategies that can enhance long-term knowledge retention and better prepare students for clinical practice.

CONFLICT OF INTEREST

The authors have no conflicts of interest to declare.

AUTHOR CONTRIBUTION

Mariana Fernandes Fiães, Mayra Junqueira Machado e Lydia Silva Provinciali conceberam e projetaram a pesquisa (conceituação e metodologia); realizaram a pesquisa (curadoria de dados); interpretaram e analisaram os dados (análise formal); redação - preparação do rascunho original. Fernanda Bello Kneitz, Camila Faria Carrada, Flavia Almeida Ribeiro Scalioni e Fernanda Campos Machado: Revisão e edição do manuscrito, visualização, supervisão e administração do projeto, análise estatística dos dados (Software), validação e investigação.

ORCID

Mariana Fernandes Fiães: https://orcid.org/0000-0002-3268-6233
Fernanda Bello Kneitz: https://orcid.org/0000-0002-4862-4053
Mayra Junqueira Machado: https://orcid.org/0009-0003-6339-4326
Lydia Silva Provinciali: https://orcid.org/0000-0001-5423-4150
Camila Faria Carrada: https://orcid.org/0000-0002-3173-2904
Flávia Almeida Ribeiro Scalioni: https://orcid.org/0000-0002-0552-0414
Fernanda Campos Machado: https://orcid.org/0000-0002-7138-2670

REFERENCES

1. Lam R. Epidemiology and outcomes of traumatic dental injuries: a review of the literature. Aust Dent J. 2016;61 Spec No 1:4-20.
2. Nowosielska M, Bagińska J, Kobus A, Kierklo A. How to educate the public about dental trauma: a scoping review. Int J Environ Res Public Health. 2022;19(4):2479.
3. Petti S, Glendor U, Andersson L. World traumatic dental injury prevalence and incidence, a meta-analysis—One billion living people have had traumatic dental injuries. Dent Traumatol. 2018;34(2):71-86.
4. Bukhary S. Assessment of knowledge and attitudes of traumatic dental injuries among Saudi dental students: a multicenter cross-sectional study. Int J Dent. 2020;2020(1):8814123.
5. Hashim R, Odeh R, Salah AH, Mathew S. The influence of dental trauma education on undergraduate students at Ajman university, United Arab Emirates: an interventional study. Adv Med Educ Pract. 2021;12:1237-43.
6. Ivanda S, Gavic L, Galic T, Tadin A. School teachers' knowledge and experience about emergency management of traumatic dental injuries: a questionnaire-based online cross-sectional survey. Dent Traumatol. 2021;37(4):589-600.
7. Ivkošić I, Gavić L, Jerković D, Macan D, Vladislavić NZ, Galić N, et al. Knowledge and attitudes about dental trauma among the students of the University of Split. Acta Stomatol Croat. 2020;54(3):302-13.
8. Bamashmous N, Cunningham SJ, Parekh S. Information seeking behaviour of dental trauma patients and their parents. Dent Traumatol. 2020;36(6):590-7.
9. Nagata JY, Góis VL, Münchow EA, Albuquerque MT. Dental trauma education intervention as a positive influence among undergraduate students. Eur J Dent. 2018;12(4):502-7.
10. Valdepeñas J, Adanero A, Martínez EM, Planells P. Knowledge of dental trauma among dental students. Lecture intervention protocol and follow-up over four academic courses. Eur J Dent Educ. 2021;25(2):238-45.
11. Matoug-Elwerfelli M, Sim YF, Alghutaimel H, Almohareb R, Al-Abdulla J, Al-Kandari J, et al. Effect of dental trauma management resources on dental practitioners' confidence and knowledge: a pilot cross-sectional study. Dent Traumatol. 2022;38(5):381-90.
12. Hartmann RC, Rossetti BR, Pinheiro LS, Figueiredo JAP, Rossi-Fedele G, Gomes MS, et al. Dentists' knowledge of dental trauma based on the International Association of Dental Traumatology guidelines: a survey in South Brazil. Dent Traumatol. 2019;35(1):27-32.
13. AlZoubi F, Mannocci F, Newton T, Manoharan A, Djemal S. What do dental students know about trauma? Dent Traumatol. 2015;31(6):482-6.
14. Ali SNA, Algarawi SA, Alrubaian AM, Alasqah AI. Knowledge of general dental practitioners and specialists about emergency management of traumatic dental injuries in Qassim, Saudi Arabia. Int J Pediatr. 2020;2020(1):6059346.
15. Mazur M, Jedliński M, Janiszewska-Olszowska J, Ndokaj A, Ardan R, Nardi GM, et al. Knowledge of emergency management of avulsed teeth among Italian dentists-questionnaire study and next future perspectives. Int J Environ Res Public Health. 2021;18(2):706.
16. Pereira AM, Pasqui DM, Amorim FC, Lee FW, Rodovalho LV, Cyrino LM, et al. STROBE-checklist para relatar estudos observacionais. Estudantes para Melhores Evidências [Internet]. 2024 [cited 3 Jul 2024]. Available from: https://eme.cochrane.org/strobe-checklist-para-relatar-estudos-observacionais
17. Jadav NM, Abbott PV. Dentists' knowledge of dental trauma based on the International Association of Dental Traumatology guidelines: an Australian survey. Dent Traumatol. 2022;38(5):374-80.
18. Bourguignon C, Cohenca N, Lauridsen E, Flores MT, O'Connell AC, Day PF, et al. International Association of Dental Traumatology guidelines for the management of traumatic dental injuries: 1. Fractures and luxations. Dent Traumatol. 2020;36(4):314-30.
19. Day PF, Flores MT, O'Connell AC, Abbott PV, Tsilingaridis G, Fouad AF, et al. International Association of Dental Traumatology guidelines for the management of traumatic dental injuries: 3. Injuries in the primary dentition. Dent Traumatol. 2020;36(4):343-59.
20. Fouad AF, Abbott PV, Tsilingaridis G, Cohenca N, Lauridsen E, Bourguignon C, et al. International Association of Dental Traumatology guidelines for the management of traumatic dental injuries: 2. Avulsion of permanent teeth. Dent Traumatol. 2020;36(4):331-42.
21. Levin L, Day PF, Hicks L, O'Connell A, Fouad AF, Bourguignon C, et al. International

Association of Dental Traumatology guidelines for the management of traumatic dental injuries: general introduction. Dent Traumatol. 2020;36(4):309-13.
22. Andrade CP, Reis MV. Avaliação do conhecimento de professores e estudantes de graduação no manejo da avulsão. Rev Odontol Bras Central. 2020;29(88):79-84.
23. Puranik CP, Pickett K, Peralta T. Evaluation of problem-based learning in dental trauma education: an observational cohort study. Dent Traumatol. 2023;39(6):625-36.
24. Wimalarathna AA, Herath EM, Senarath NH, Fonseka MC, Manathunga MM, Nawarathna LS, et al. Introduction of an interactive tool (the Dental Trauma Guide) in the undergraduate dental teaching to manage traumatic dental injuries. Dent Traumatol. 2021;37(5):717-24.
25. Lamenha-Lins RM, Pugliesi DM, Lima FJ, Moreira AR, Marcelos PG, Santos VE Jr. Mobile application as a learning tool for improving dental students' knowledge regarding dental trauma. Eur J Dent Educ. 2022;26(4):700-6.
26. Ferreira MLG, Weber I, Pavan NNO, Rocha NB, Endo MS. Avaliação do nível de conhecimento dos acadêmicos do primeiro ano do curso de Odontologia da UEM sobre avulsão dentária. Arch Health Invest. 2020;9(4):340-5.
27. 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. Eur Arch Paediatr Dent. 2024;25(1):117-25.
28. Nagendrababu V, Gopinath VK, Arias A, Setzer FC, Kazandag MK, Kishen A, et al. Knowledge of undergraduate and postgraduate dental students about managing traumatic dental injuries based on the 2020 International Association of Dental Traumatology guidelines: a online survey of 10 dental schools from 10 countries. Dent Traumatol. 2024;40(5):586-98.

Avaliação do impacto de uma palestra sobre o conhecimento dos estudantes de odontologia sobre traumatismos dentários

Objetivo: Este estudo teve como objetivo avaliar o impacto de uma aula expositiva presencial sobre traumatismo dentário (TD) no conhecimento e nas atitudes de estudantes de Odontologia.

Materiais e métodos: Um questionário estruturado foi aplicado em três momentos: antes da aula (T0), uma semana após (T1) e 12 meses depois (T2). A aula abordou conceitos e o manejo de urgência dos TDs com base nas diretrizes da International Association of Dental Traumatology (IADT). Foram realizadas análises descritivas, o teste Q de Cochran e a ANOVA de Friedman ($p \leq 0,05$).

Resultados: Trinta estudantes do 8º período participaram do estudo. Em T0, os estudantes apresentaram média de 6,43 respostas corretas de um total de 12, aumentando para 7,57 em T1 ($p=0,020$). Entretanto, não foi observada diferença significativa entre T0 e T2, nem entre T1 e T2. Observou-se aumento significativo no número de respostas corretas entre T0 e T1, assim como entre T0 e T2, em duas das 12 questões específicas sobre TD. Nenhum participante relatou possuir conhecimento “muito bom” sobre o tema em T0, enquanto em T1, 10% o relataram ($p=0,009$). Foi identificada diferença significativa no conhecimento sobre as diretrizes da IADT ($p=0,001$) e sobre o aplicativo “Tooth SOS” ($p<0,001$) antes e após a intervenção. A maioria dos participantes relatou necessidade contínua de mais informações sobre o manejo do TD em T0, T1 e T2.

Conclusão: A aula expositiva teve impacto positivo no conhecimento dos participantes sobre o traumatismo dentário em curto prazo. No entanto, não foi observada retenção desse conhecimento em longo prazo.

Descritores: conhecimentos, atitudes e prática em saúde; estudantes de odontologia; traumatismos dentários.