# Avulsion of permanent teeth and their management: knowledge of Dentistry, Medicine and Nursing students

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## **ABSTRACT**

The aim of the present study was to evaluate the knowledge of undergraduate students of health care courses (dentistry, medicine and nursing) from a public higher education institution about the avulsion of permanent teeth, as well as on emergency procedures to be taken in the occurrence of this type of injury. Information was collected through self-administered structured questionnaire containing personal data, previous experiences, knowledge about dental avulsion and about the main procedures to be taken in the occurrence of this type of trauma. Descriptive and statistical analysis was performed using Pearson's chi-square test. The significance level adopted was 5% (p <0.05). The sample, selected for convenience, was composed of 390 students from the Federal University of Juiz de Fora, 154 of them dentistry students, 93 nursing students and 143 medicine students. Less than half of interviewees reported having previously received any information about dentoalveolar trauma, and the majority who received some information were dentistry students (p <0.01). The majority also had no previous experience with this type of trauma, with no difference between courses (p \ge 0.05). The study revealed that there is lack of knowledge about the management of avulsion of permanent teeth by evaluated students, especially those enrolled in medicine and nursing courses. Thus, there is great need for the development of education, information and training programs emphasizing the emergency treatment for dental avulsion aimed at students of these courses.

**Descriptors:** Tooth Avulsion. Dental trauma. Health Sciences Students. Dentistry Students.

#### 1 INTRODUCTION

The occurrence of dental trauma is considered a public health problem due to its high prevalence and for causing enormous damage to the daily lives of patients involved. Among dentoalveolar trauma, tooth avulsion stands out, which is defined as the total tooth displacement out of its socket. The prevalence of tooth avulsion can vary from 0.5 to 16% of trauma to the permanent dentition<sup>1-7</sup>.

Immediate procedure for dental avulsion is of fundamental importance and can determine or change the prognosis of the affected dental element. When appropriate and immediate treatment and long-term follow-up are not carried out, there is greater chance of complications for the involved tooth, such as pulp necrosis and even indication for tooth extraction<sup>1,2,4,6,8</sup>. This demonstrates the need for training for the choice of the appropriate treatment in case of dental avulsion, as well as in relation to the handling and storage of the avulsed tooth<sup>3,9,10</sup>.

The occurrence of this type of dental trauma is mainly associated with sports and leisure activities<sup>11,12</sup>. Thus, parents, teachers and physical educators are often the spectators of the incident and usually take the victim to the nearest hospital. In addition, due to the deficiency of dentists in emergency services, physicians and nurses are often the first to act in these cases<sup>13,14</sup>. Many avulsed teeth are lost due to lack of knowledge regarding the first procedures to be taken. The development of knowledge during undergraduate courses of people working on this front line, together with the efficient training of professionals, would lead to better management and more effective results for victims of this type of trauma<sup>3,15</sup>.

Professional training failures are frequently detected within the academic

universe, when undergraduate students in the health field do not have adequate training and / or do not have practical experiences to conduct a case of dental avulsion in a real emergency situation<sup>5,17,18</sup>. In addition, studies have demonstrated that the knowledge on the subject of health professionals such as physicians, nurses and dentists, responsible for the emergency care of patients who suffer this type of trauma is inadequate, indicating that this important topic is neglected in the academic training of these professionals<sup>3,7,9-11,13-15,18</sup>.

Investigating the knowledge about dental avulsion of future dentistry, medicine and nursing professionals, even during the training period, can help identifying the learning gap about this type of dental trauma. Thus, the present study aims to evaluate the knowledge of students of health care courses at a public higher education institution regarding the occurrence of avulsion of permanent teeth, as well as on emergency procedures to be taken in relation to this type of injury.

### 2 METHODOLOGY

This study was approved by the UFJF Research Ethics Committee (CAAE: 89529018.6.0000.5147) and all participants signed the Free and Informed Consent Form.

This is a cross-sectional observational study whose sample was selected for convenience and composed of students of health care coursesenrolled at the Federal University of Juiz de Fora (UFJF), including Dentistry, Medicine and Nursing courses. Data collection was carried out between August and December 2018.

A structured self-administered questionnaire developed by researchers from similar previous studies<sup>3,17</sup>, containing 18 objective questions, was used as data collectioninstrument. Information on personal

data was collected (age, sex, course and course period), previous knowledge and experience (5 questions), knowledge about tooth avulsion and about the main emergency procedures to be taken in the occurrence of this type of trauma (9 questions).

To ensure that students did not consult their colleagues, data were collected, in each course and period, at the same time in the respective usual classrooms. In addition, students were not previously informed about the research, and the maximum time of 30 minutes was determined to answer the questionnaire questions.

Students who did not complete the instrument and / or who reported any visual, neurological, intellectual, cognitive or motor disabilities that prevented them from interpreting and responding the questionnaire questions were excluded.

Data were organized in database in the

SPSS statistical softwareversion 21.0 for Windows (SPSS Inc., Chicago, IL, USA). Descriptive analysis was performed by means of absolute and relative frequency for categorical variables and mean, standard deviation, minimum and maximum values for numerical variables. Pearson's Chi-square test was used for statistical analysis. The significance level adopted was 5% (p <0.05).

#### **3 RESULTS**

In total, 390 students participated in the study, 154 of them were dentistry students, 93 were nursing students and 143 medicine students. Table 1 describes the distribution of students in relation to course, course period, sex and age. In the researched institution, the dentistry course consists of 10 periods; the medicine course of 12 periods (being evaluated until the 11<sup>th</sup> period) and the nursing course of 9 periods.

Table 1. Absolute and percentage sampledistribution by course, period, sex and age.

	SAMPLE	PERIOD		SEX		AGE	
COURSE	n (%)	1st to 4th	5th to 7th	8 <sup>th</sup> to	Female	Male n	Mean ±
	11 (70)	n (%)	n (%)	10 <sup>th</sup> n (%)	n (%)	(%)	SD
Dentistry	154 (39.5)	55 (35.7)	45 (29.3)	54 (35.0)	122 (70.2)	32 (20.8)	$21.4 \pm 2.4$
Nursing	93 (23.8)	51 (54.8)	31 (33.4)	11 (11.8)	78 (83.9)	15 (16.1)	$21.1 \pm 2.4$
Medicine	143 (36.7)	48 (33.5)	39 (27.3)	56 (39.2)	71 (49.7)	72 (40.3)	$21.7 \pm 2.1$
Total	390 (100)	154 (39.5)	115 (29.4)	121 (31.1)	271 (69.5)	119 (30.5)	$21.4 \pm 2.3$

Of the total sample, less than half (n = 162; 41.6%) received some previous information about dentoalveolar trauma, and most participants who received this information were from the dentistry course (n = 111; 72.1%). There was a statistically significant difference in relation to receiving information when dentistry students were compared with medicine (p <0.01) and nursing students (p <0.01). It was also observed that dentistry

students attending more advanced periods (sixth to tenth) reported having received information about dental traumatisms more frequently than those attending initial periods (first to fifth), with p <0.01. Regarding medicine and nursing courses, there was no significant difference in relation to receiving previous information in more advanced or initial periods (p> 0.05).

Most students (n = 290; 74.4%) also had no previous experience with dental trauma, with

no statistical difference between courses (p> 0.05). However, dentistry students attending more advanced periods had greater previous experience with dental trauma (p < 0.001). The

means by which students received previous information and the way in which previous experience with dental trauma occurred are described in table 2.

Table 2. Absolute and percentage distribution in relation to the means by which students received previous information and the way in which previous experience with trauma occurred according to the course

Variables	DENTISTRY n (%)	NURSING n (%)	MEDICINE n (%)	TOTAL n (%)
Previous Information	• •		, ,	. , , ,
Classes / Courses	101 (65.7)	-	10 (7.0)	11 (28.5)
Guidance by dentist	6 (3.9)	11 (11.8)	5 (3.5)	22 (5.6)
Others	4 (2.5)	11 (11.9)	14 (9.8)	29 (7.5)
Received no information	43 (27.9)	71 (76.3)	114 (79.7)	228 (58.4)
Previous experience				
With family member	11 (7.1)	13 (14.0)	10 (7.0)	34 (8.7)
Internship / clinic	24 (15.6)	-	1 (0.7)	25 (6.4)
In sports practice	3 (1.9)	3 (3.2)	16 (11.2)	22 (5.6)
Others	5 (3.2)	7 (7.5)	7 (4.9)	19 (4.9)
No experience	111 (72.2)	70 (75.3)	109 (76.2)	290 (74.4)
Total	154 (100)	93 (100)	143 (100)	390 (100)

Most participants reported that they had no (n = 163; 41.9%) or little (n = 193; 49.5%) knowledge about dental avulsion. Of students who reported having sufficient knowledge on the subject, 91.2% were from the dentistry course, mainly attending more advanced periods (p <0.01) (table 3).

Most participants reported that they consider it important to keep the avulsed tooth (n = 351; 90.0%), and of those who answered that it is not necessary to keep the tooth (n = 39; 10.0%), three are from the dentistry course, 18 from the nursing course and 15 from the medicine course.

Regarding emergency procedures in the occurrence of dental avulsion, most participants reported that they would store the tooth in appropriate liquid and refer the patient to a

dentist (n = 128; 32.8%). A total of 22.3% (n = 87) did not know what to do in this situation. Only eight students from the dentistry course, one from the nursing course and two from the medicine course reported that they would replace the tooth in the socket (table 4).

Most students would keep the avulsed tooth in container with milk or saline (n = 175; 44.9%). Approximately 20.3% of participants (n = 79) did not know where to keep the tooth, did not believe that it is important to keep it or did not answer the question. The option for the storage medium according to course is described in table 5.

One hundred and thirty-six participants (34.9%) reported thatthe replantation of the avulsed tooth was not possible, of which 20 were from the dentistry course (corresponding

to 13% of the course students); 60 from the medicine course (corresponding to 42% of the course students) and 56 from nursing course (corresponding to 60.2% of the course students). The vast majority (95.3%) of students from the dentistry course attending more advanced periods (sixth to tenth) believe that replantation is possible (p = 0.001). In the other courses, there was no difference in relation to this statement according to the period (p > 0.05).

As for the concept of replantation, most students (n = 284; 72.8%) defined it as placing the same tooth that was avulsed in its dental

socket. This definition was selected by 91.6% of students from the dentistry course (n = 141), by 63.6% of students from the medicine course (n = 91) and by 55.9% of students from the nursing course (n = 52). In addition, the vast majority of students (n = 355; 91.3%) reported that the dentist is the adequate professional to perform replantation.

A large part of the sample answered that, in order to reduce damage, the tooth must be out of the socket the shortest time as possible (n = 183; 46.9%). Table 6 presents these data in more detail for each course.

Table 3. Absolute and percentage distribution in relation to the level of knowledge about dental trauma of students according to the course

Variables	DENTISTRY n (%)	NURSING n (%)	MEDICINE n (%)	TOTAL n (%)
No knowledge	23 (14.9)	52 (55.9)	88 (61.5)	163 (41.9)
Little knowledge	100 (64.9)	39 (41.9)	54 (37.8)	193 (49.5)
Sufficient knowledge	31 (20.2)	2 (2.2)	1 (0.7)	34 (8.7)
Total	154 (100)	93 (100)	143 (100)	390 (100)

Table 4. Absolute and percentage distribution in relation to emergency procedures in the occurrence of dental avulsion according to course

Variables	DENTISTRY n (%)	NURSING n (%)	MEDICINE n (%)	TOTAL n (%)
Calm down the patient and seek professional help	16 (10.4)	31 (32.3)	33 (23.1)	80 (20.5)
Keep the tooth in an appropriate liquid and seek professional help	94 (61.1)	9 (9.7)	25 (17.5)	128 (32.9)
Keep the tooth on paper and seek professional help	3 (1.9)	12 (12.9)	11 (7.7)	26 (6.7)
Put the tooth back in the socket	8 (5.2)	1 (1.1)	2 (1.4)	11 (2.8)
Put the tooth back in the				
child's mouth and seek professional help	20 (13.)	1 (1.1)	1 (0.7)	22 (5.6)
Does not know	11 (7.1)	28 (30.1)	48 (33.5)	87 (22.3)
Another answer	2 (1.3)	11 (11.8)	23 (16.1)	36 (9.2)
Total	154 (100)	93 (100)	143 (100)	390 (100)

Table 5. Absolute and percentage distribution on the storage media used to keep the avulsed tooth according to course

Variables	DENTISTRY n (%)	NURSING n (%)	MEDICINE n (%)	TOTAL n (%)
Immersed in water or ice	3 (1.9)	8 (8.7)	28 (19.6)	39 (10.0)
Immersed in milk or saline	113 (73.4)	17 (18.3)	45 (31.4)	175 (44.8)
Wrapped in paper or in an empty container	8 (5.2)	27 (29.0)	23 (16.1)	58 (14.9)
In the mouth / in saliva	15 (9.7)	0	3 (2.1)	18 (4.6)
Tooth should not be kept	0	1 (1.1)	6 (4.2)	7 (1.8)
Did not know or did not answer	8 (5.2)	33 (35.4)	31 (21.7)	72 (18.5)
In antiseptic solution	7 (4.6)	7 (7.5)	7 (4.9)	21 (5.4)
Total	154 (100)	93 (100)	143 (100)	390 (100)

Table 6. Absolute and percentage distribution in relation to the opinion about the time in which the tooth can be out of the socket without damage to treatment

Variables	DENTISTRY n (%)	NURSING n (%)	MEDICINE n (%)	TOTAL n (%)
Shortest time as possible	106 (68.9)	33 (35.5)	44 (30.7)	183 (46.8)
Up to one hour	18 (11.7)	6 (6.5)	11 (7.7)	35 (9.0)
Up to 24 hours	13 (8.4)	12 (12.9)	31 (21.7)	56 (14.4)
Up to one week	2 (1.3)	3 (3.2)	7 (4.9)	12 (3.1)
Time does not matter	1 (0.6)	0	4 (2.8)	5 (1.3)
Did not know	14 (9.1)	39 (41.9)	46 (32.2)	99 (25.4)
Total	154 (100)	93 (100)	143 (100)	390 (100)

Most students (n = 328; 84.1%) also agree that follow-up by the dentist after replantation is necessary, of which 148 were from the dentistry course (corresponding to 96.1% of the course students), 66 from the medicine course (corresponding to 71% of the course students) and 114 from the nursing course (corresponding to 79.7% of the course students).

#### **4 DISCUSSION**

The present study revealed data on the knowledge of students from dentistry, nursing and medicine courses at a public higher education institution in the city of Juiz de Fora, Minas Gerais, Brazil, regarding the avulsion of permanent teeth. Information

about previous experience, emergency procedures, adequate storage medium for the avulsed tooth and favorable extra-alveolar time for the toothprognosis was collected. Some studies in literature have evaluated the knowledge of physicians, dentists and nurses about this situation<sup>3,5,7,9,14,19</sup>; however, the evaluation of future professionals in these areas, even during undergraduate courses, is scarce. In addition, the assessment of knowledge about this type of trauma during undergraduate courses can be important, since it demonstrates the need to improve the curriculum of these courses and even during elementary and high school<sup>17</sup>.

This study demonstrated insufficient knowledge among students with regard to

emergency procedures in the occurrence of dental avulsion, since more than half of participants from all courses reported that they have not received any information regarding this type of dental trauma. Most of them consider that they have no or little knowledge on the subject, a result also found in other studies<sup>13,16</sup>. Of participants who claim to have sufficient knowledge, almost all are from the dentistry course; however, this value is only 20.2% of the entire dentistry course sample.

Regarding the lack of knowledge on the subject, the medicine course is more prevalent - 79.7% of respondents reported that they have not received any information. This value is higher than that observed by Jokic et al. (2017) <sup>18</sup>, in which 67.4% of medicine students were not familiar with the term "avulsion". The level of knowledge among dentistry students is considerably higher, since 72.1% received prior information on the subject. Although this result is higher, it is lower compared to a study carried out in Nepal, in which all participants knew that the avulsion was the displacement of an intact tooth out of its cavity due to any trauma<sup>20</sup>. Fujita et al. (2014)<sup>17</sup> also found deficiency in the knowledge of Japanese dentistry students about their behavior in the occurrence of dental avulsion, especially among those attending the initial periods of the course.

It is also important to highlight that in present study, only 28.5% of the allinterviewedstudents received this information in classes or courses. demonstrating the need for inclusion or improvement of this content throughout the undergraduate course. Even showing better result, just over half of dentistry students (65.7%) reported to have received guidance on the subject during undergraduate courses or classes.

Few students reported any previous experience with tooth avulsion, a result similar to that found in other studies <sup>17,18,22,23</sup>, although there are reports showing high percentage of physicians, nurses and dentists or students of these courses who have already had contact with this type of injury while they were at their workplace <sup>13,14,24,25</sup>. In addition, those who lived this experience reported that it occurred with a family member, validating the hypothesis that the professional should always be prepared to give adequate advice to the lay public on first aids for avulsed teeth <sup>1,2</sup>.

In relation to previous experience, no difference among dentistry, medicine or nursing students was observed, demonstrating that during undergraduate courses, mainly in the dentistry course, it is necessary to develop extension programs, or even mandatory disciplines and internships, which allow greater possibility of practice with dental trauma care, including avulsion of permanent teeth.

The low level of knowledge physicians and nurses on the subject in most studies corroborate other indicators regarding the importance of the presence of a dentist in emergency centers. Likewise, courses and lectures on dentoalveolar trauma are necessary for all professionals working in these centers. Although the presence of the dentist in hospitals is required, a study carried out in Israel showed that twelve hospitals had no internal dental service and no written instructions for emergency procedureson avulsed permanent teeth. In addition, the treatment protocolof these hospitals for dental injuries was based on referring patients to another hospital. Of the other eleven hospitals with internal dental service, six had dentist present 24 hours a day and the remaining five were only on duty. Only five hospitals had written instructions for avulsed teeth, and in four of them, the treatment protocol contained incorrect instructions<sup>26</sup>. The lack of knowledge and confidence in providing first aids in dental avulsion can be partly attributed to the lack of exposure and training, exclusion of dental topics from medical curriculum and, to a certain extent, because dental trauma is still not considered a major concern in emergency sectors<sup>14</sup>.

When asked about what emergency procedure they would take in the occurrence of dental avulsion, only 32.9% of all respondents reported that storing the tooth in appropriate liquid and seeking the adequate professional was the best option, and among dentistry students, this number increased to 61.1% of participants. Although 90% agreed that it was important to keep the avulsed element, only 2.8% of academics would perform replantation immediately. According to the American Association of Pediatric Dentistry<sup>1</sup>, reinforcing recommendations of the International Association of Dental Traumatology<sup>2</sup>, immediate replantation at the accident site is the best treatment.

Regarding the storage medium of the avulsed tooth, the result of this study is more satisfactory. Approximately half of students evaluated, and 83.1% of dentistry students would keep the avulsed tooth in appropriate medium (saline, milk or saliva). Other studies have shown similar results 17,20. However, 97 (24.9%) students responded that they would place it in a glass with ice / water or wrapped in paper or in an empty container. A study carried out in Saudi Arabia found that 27% of interviewed physicians would also keep the avulsed tooth wrapped in paper, gauze or ice<sup>13</sup>. In contrast, a study carried out in Turkey showed that 94.54% of physicians chose an appropriate storage medium<sup>16</sup>.

It is important to highlight that the treatment guidelines for avulsed teeth are: make sure it is a permanent tooth (it is not advisable to replant primary teeth), keep the patient calm, locate the tooth, handle it only by the crown, wash it in running water briefly and reposition it. If immediate replantation is not possible, it is suggested to store the tooth in appropriate medium and referthe patient, as soon as possible, to a qualified professional for adequate care<sup>1,2</sup>. Special storage solutions such as Hank's balanced saline, milk, saline or saliva are considered the best means for storing an avulsed tooth. Milk has favorable osmolarity and composition for the viability of cells of the periodontal ligament and has therefore been recommended for temporary storage of avulsed teeth before replantation. However, storage of teeth in water is not recommended, as the osmotic pressure is too low. Storing the tooth in the patient's saliva is an alternative for shorter periods and in conscious patients, and should be avoided in young children due to the risk ofswallowing  $^{1,2,4,6,27,28}$ .

Replantation has been proposed as an attempt to reintegrate the avulsed element to its normal anatomical position, which is the act of replacing the avulsed tooth in its socket. It represents one of the most conservative approaches in dentistry, as it allows the preservation of function and aesthetics, delays and even avoids the need for fixed or removable prosthetic work and reduces the psychological impact resulting from immediate tooth loss<sup>1,2,29</sup>. Most students (72.8%) correctly defined the concept of replantation as the insertion of the avulsed tooth into its socket. However, 34.9% did not know that it was possible to replant a permanent tooth, the majority from the medicine (42% of the course students) and nursing courses (60.2% of the course students). This result was higher than those obtained by Jokic et al. (2017)18, who found that 22.4% of interviewed Medicine students did not believe that replantation was possible. Oleszkiewicz and Emerich (2015)<sup>30</sup> reported that immediate replantation, as the best treatment option after dental avulsion, was recommended by less than 10% of medicine, physical education and humanities students. In Brazil, a study carried out with dentistry, nursing and speech therapy students, also revealed very low level of knowledge regarding dental avulsion procedures, since only 20.4% of the sample recognized the importance of replanting the avulsed tooth<sup>21</sup>.

Fouad et al. (2020)<sup>2</sup> postulated that there are also individual situations when the implant is not indicated, for example: severe caries or periodontal disease, patients who do not cooperate, serious medical conditions such as immunosuppression or severe cardiac conditions, which must be individually treated. In addition, despite not being the scope of the present study, it is worth highlighting that although primary teeth also suffer from avulsion, they should not be replanted because this procedure can result in damage to the underlying permanent tooth germs, in addition to presenting low success rates<sup>31,32</sup>.

In this study, 91.3% of participants believe that only the dentist is the appropriate professional to perform dental replantation. This result corroborates Baginska et al. (2016)<sup>11</sup> who, in a study through interviews with nurses, found that the dentist is the only professional able to perform dental replantation. These data show that the class of professionals involved in this study may not be adequately prepared for a real situation of avulsion-type dentoalveolar trauma and that they may also be inadequately guiding their

patients and family members<sup>5</sup>. There should be awareness and greater availability of knowledge about dental trauma to other health professionals, considering that any of them, at any time, may face such a situation and that replantation should be carried out, if possible, immediately after trauma. The correct conduction of the initial treatment of this type of trauma would certainly improve its prognosis<sup>11</sup>.

One hundred and eighty-three students (46.8%) reported that the avulsed tooth should be out of the socket the shortest time as possible. On the other hand, 172 (44.2%) answered that time was not important, that the avulsed tooth could remainoutside the socket 24 hours or even a week or did not know the answer. Other studies have obtained similar results, since most interviewees were aware of dental replantation, but they were not aware of the ideal time to do it<sup>3,13,14</sup>. This is a worrying result, considering that time is one of the most important factors in avulsion. According to literature, short exposure time of the avulsed element is decisive for the success of dental replants due to the greater possibility of reinsertion of periodontal fibers. In addition, the extraoral / dry time should not be longer than 60 minutes<sup>1,2,5,11</sup>. Late replantation has a poor long-term prognosis. The periodontal ligament becomes necrotic and is not expected repaired. The purpose of late to be replantation is, in addition to restoring the aesthetic, functional tooth for and psychological purposes, to maintain the contour of the alveolar bone. However, the expected result is ankylosis and root resorption, with eventual posterior tooth  $loss^{1,2}$ .

The vast majority of respondents believe that the replanted tooth should be monitored and that it should be performed by a dentist. In cases of avulsed teeth with closed apex, after replantation, sutures of eventual gingival lacerations should be performed, checking the normal position of the replanted tooth clinically and radiographically, placing a flexible retainer for up to 2 weeks and starting endodontic treatment only 7 to 10 days after replantation, in addition to the administration of antibiotics and protection against tetanus<sup>1,2</sup>. The post-replantation follow-up performed by the dentist is of enormous importance, since dental avulsion, in itself, corresponds to a doubtful prognosis, and many variables can interfere in its outcome<sup>1,2,33</sup>. It is important to emphasize that replanted teeth must be monitored by clinical and radiographic control after 2 weeks (when the retainer is removed), 4 weeks, 3 months, 6 months, 1 year and then annually for at least 5 years 1,2.

As study limitations, the use of closed questions stands out, which do not allow respondents to include all possible answers, as well as the different nature of undergraduate courses the sampleheterogeneity, including students from all course periods, including initial ones. However, the results reinforce the need to include an effective approach to dental trauma, especially in medicine and nursing courses. Likewise, the results suggest lack of information in relation to this topic in elementary and high schools, since students in the initial periods of the three courses were those showing the greatest knowledge deficiency.

The development of education and training practices on the theme forstudents during their undergraduate studies, aiming at improving these future health professionals in occurrences of dental avulsion cases is recommended. With knowledge of how to approach dental avulsion, the health professional guarantees better prognosis of the

avulsed tooth and consequently positive impact on the patient's quality of life.

#### **5 CONCLUSION**

The study revealed that there is lack of knowledge about procedures to be taken in the occurrence of avulsion of permanent teeth by evaluated students. Although students attending advanced periods (sixth to tenth) of the dentistry course have demonstrated greater knowledge, the lack of experience with this type of dental trauma was strongly observed in all courses.

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# Avulsão de dentes permanentes e seu manejo: conhecimento de estudantes de Odontologia, Medicina e Enfermagem

O objetivo do presente estudo foi avaliar o conhecimento de estudantes dos cursos da área saúde (Odontologia, Medicina da Enfermagem) de uma instituição pública de ensino superior sobre avulsão de dentes permanentes, bem como sobre as condutas de urgência a serem tomadas frente à lesão. Foram coletadas informações, por meio de um questionário estruturado autoaplicável, sobre experiências dados pessoais, conhecimento sobre avulsão dentária e sobre as principais condutas a serem tomadas frente a este tipo de traumatismo. Foi realizada análise descritiva e análise estatística, utilizando o teste de Qui-quadrado de Pearson. O nível de significância adotado foi de 5% (p<0,05). A amostra, selecionada por conveniência, foi composta por 390 acadêmicos da Universidade Federal de Juiz de Fora, sendo 154 do curso de Odontologia, 93 de Enfermagem e 143 de Medicina. Menos da metade dos entrevistados relataram ter recebido anteriormente alguma

informação sobre traumatismos dentoalveolares, sendo que a maioria que recebeu informação era do curso de Odontologia (p<0,01). A maioria também não teve nenhuma experiência anterior com esse tipo de traumatismo, sem diferença entre os cursos (p≥0,05). O estudo revelou que há falta de conhecimento sobre o manejo da avulsão de dentes permanentes pelos estudantes avaliados, principalmente os dos cursos de Medicina e Enfermagem. Desta forma, existe grande necessidade do desenvolvimento de programas de educação, informação treinamento, enfatizem que o tratamento emergencial para avulsão dentária, dirigidos aos alunos desses cursos.

**Descritores:** Avulsão Dentária. Traumatismos Dentários. Estudantes de Ciências da Saúde. Estudantes de Odontologia.

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