Knowledge and attitudes of early school teachers regardless of alveolar-dental trauma first aid management.

Conhecimento e atitudes de professores de educação infantil frente a Traumatismo alvéolo-dentário.

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Abstract

Alveolar-dental trauma occurs with high incidence during childhood and the elementary school is identified as a place where most of this type of trauma occurs. Considering that school teachers are the ones who provide immediate emergency aid, the present study aimed to verify the knowledge about alveolar-dental trauma and attitudes of teachers of early childhood education in the municipality of Araçatuba, Brazil. All municipal elementary schools (32) were invited to participate in this study, the instrument of data collection was a semi-structured, self-administered questionnaire. The data obtained from questionnaires completed by 126 teachers was tabulated, calculated and statistically analyzed using Epi Info™ 6.04 Software. The results showed that 26% of teachers would not know how to perform an emergency treatment in case of alveolar-dental trauma and when asked about what would they do in case of the avulsion of a tooth and how would they preserve it, the approach of 28% teachers would lead to unfeasibility to immediate replantation of the tooth, only 2.2% of the teachers said they had received instructions on emergency procedures in case of dental trauma and 96.8% did not feel prepared to act in such situation. The study revealed that most teachers had little knowledge about the studied subject and felt unprepared to face dental trauma emergencies.

Keywords: Tooth Injuries; health education; school Health; tooth avulsion.

Resumo

O traumatismo alvéolo-dentário ocorre com grande incidência na infância e a escola é identificada como um local com alta frequência nesse tipo de traumatismo, sendo que muitas vezes o atendimento imediato da criança nesse local é feito pelo professor. Assim se fez necessário
INTRODUCTION

The school is a place where children are confined in a relatively small space, facilitating the occurrence of accidents\textsuperscript{1,2}. A large number of severe dental injuries from accidents occur more frequently in schools than elsewhere and the high percentage of alveolar-dental trauma at ages of 02 to 04 years may be due to poorly developed motor skills when the child is learning to walk and explore.

Because most alveolar-dental injuries occur at school and teachers are the first to have contact with the child, it is important that these professionals have knowledge about emergency situations management\textsuperscript{4,5,6}.

The lack of knowledge of teachers on the subject and the need to learn more about emergency procedures in alveolar-dental trauma have been cited in previous studies\textsuperscript{7,4}. Thus, it is of fundamental importance to evaluate teacher’s knowledge and their attitudes on emergency alveolar-dental trauma treatment once improperly handled teeth fragments or avulsed teeth might jeopardize tooth reimplantation leading to future treatment failure\textsuperscript{8}.

MATERIAL AND METHODS

This is a cross-sectional quantitative research study with kindergarten teachers registered in the Education Department of the Municipality of Araçatuba-SP, Brazil. The study was approved by the Ethics and Research Committee of the Faculty of Dentistry of Araçatuba (process FOA 2007-01843).

A semi-structured, self-administered questionnaire was used to verify teacher’s knowledge regardless emergency procedures in case of alveolar-dental trauma.

Data was collected and tabulated using Epi Info\textsuperscript{TM} 6.04 software. A quantitative analysis of closed questions and a qualitative analysis of open questions were performed using the categorization recommended by Bardin\textsuperscript{9}.

The term of consent used was clear and...
easy to understand, it provided information about the purpose of the research, the procedures, risks, discomforts and benefits, it also guaranteed the confidentiality of data.

RESULTS

All teachers (210) registered in the Early Childhood Education Department of Araçatuba-SP were invited and 60% (126) agreed to participate.

The entire sample (100%) were female, with age ranging from 20 to 60 years. The length of professional experience and training of participants is presented in Table 01.

Table 1. Frequency distribution according to length of experience and level of training of school teachers from Araçatuba-SP.

<table>
<thead>
<tr>
<th>Professional experience</th>
<th>Frequency ( %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;10 years</td>
<td>67.53%</td>
</tr>
<tr>
<td>11 a 20 years</td>
<td>40.32%</td>
</tr>
<tr>
<td>21 a 30 years</td>
<td>16.13%</td>
</tr>
<tr>
<td>&gt;31 years</td>
<td>3.2%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Professional training</th>
<th>Frequency ( %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduation</td>
<td>87.69%</td>
</tr>
<tr>
<td>Postgraduation</td>
<td>34.27%</td>
</tr>
<tr>
<td>High School</td>
<td>5.4%</td>
</tr>
</tbody>
</table>

The majority (97.8%) of teachers reported that they had no training in emergency dental-alveolar trauma and (96.8%) did not feel prepared to assist in an emergency situation (Figure 1).

Figure 1. Sample distribution according to the training and preparation of teachers in attending a student on a dental-trauma emergency.
Regardless the attitude of teachers in case of a tooth avulsion, 52% said that would take the student to the dentist, 22% would take the student to their parents and 26% did not know what to do. Regardless tooth storage media, the teacher’s choice is presented in Figure 2.

![Figure 2. Sample distribution according to the storage media used for avulsed tooth.](image)

**DISCUSSION**

According to Kahabuka, Plasschaert and Van’t Hof and Caldas Jr Burgos, the poorly developed motor skills of children can contribute greatly to the occurrence of dental-alveolar trauma.

When analyzing the data, it was noteworthy that teacher’s years of experience and the level of training had no influence on the answers given since 26.8% had post-graduate education, 69.1% had higher education (Table 1), and most of them had between 06 and 20 years of professional experience.

Hamilton Hill and Mackie found that among all teachers who are supposed to be responsible for first aids in schools in England, only 61.8% had first aids training and only 8.1% had specific training for alveolar-dental trauma care. Subsequently, the study of Blakytny et al showed that in the United Kingdom 48.5% of teachers attended first aid courses and 29.3% of these also participated in alveolar-dental trauma first aid training.

In Hong Kong, according to the study of Chan, Wong and Cheng, 99.4% of participating teachers received training in first aids, however, only 4.8% received instructions on emergency procedures for alveolar-dental trauma. The present study found that only 2.2% of Brazilian teachers from Araçatuba had received instructions on emergency procedures in dental trauma and 96.8% did not feel prepared to meet such an emergency situation.

Blinkhon stated that a dental consult is essential after any kind of dental-alveolar trauma, not only those associated with pain or esthetic reasons, and it should be done immediately after the trauma incident in order to maximize the possibility of tissue regeneration.

The method of tooth storage after avulsion is directly related to the integrity of the periodontal ligament. Milk, saline, distilled...
water, saliva are examples of the ideal storage media for preserving the tooth before dental reimplantation\textsuperscript{16,17}. However, this study showed that 26% of teachers would not know how to proceed in case of alveolar-dental trauma and in regardless tooth avulsion, 28% would choose to store the tooth in a media that would hamper an immediate reimplantation.

**CONCLUSION**

The study concluded that most teachers who participated in the survey had little knowledge and were unprepared to face dental-alveolar trauma emergencies.

**REFERÊNCIAS**


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