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EDUCATIONAL PRODUCT
LIVES IN FOCUS



VOLTA REDONDA
2021

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LIVES IN FOCUS

USING VIDEOS ABOUT FIRST AID DURING SCHOOL ACCIDENTS FOR
PRESCHOOL/ELEMENTARY SCHOOL TEACHERS

PRODUCT OF THE PROFESSIONAL MASTER'S PROGRAM ON TEACHING
OF HEALTH AND ENVIRONMENTAL SCIENCES

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1. INTRODUCTION

A small step for an adult can be a great fall for a child, obviously accidents happen, and for first aid to be provided it is necessary for teachers, who most probably will be witnesses to these accidents, to be confident and well prepared. Instructing teachers and staff on how to act when dealing with emergencies that involve accidents with students at schools is an everyday challenge.

First aid is the combination of initial measures applied to the victim, out of a hospital environment, performed by any person, trained or not, to ensure life and prevent worsening of existing injuries. If the basic knowledge of first aid was more widespread among professionals who provide education and knowledge, many children could be saved and accidents could be prevented, as knowledge about these serious issues is quite decisive (CARVALHO et al., 2014).

In this context, the school environment appears as a place of alert for the occurrence of accidents, and students are possible victims and teachers are likely witnesses of these incidents, making them essential to intervene during these events, which can reduce complications, worsening of possible injuries or even prevent child death. It is known that the actions performed at the site of the event contribute to the victim's survival.

2. PURPOSE

In the current scenario, many changes are generated by the advancement of technology; however, these changes happen the moment some technologies are used and considered as allies in the search for a new teaching model. The video according to Preradovic, Lauc and Panev (2020) “allows combining different symbolic systems in multimedia and coherent messages”.

In this study, the educational product, called “Lives in Focus”, was designed to serve as the final audience: preschool/elementary school teachers. The videos of never before published content produced by the authors were developed with the purpose of assisting these teachers in situations involving school accidents with children aged 2 to 4 years. The videos are of an informative and educational nature, having in their context elements that refer to the main accidents that occurred at the school environment, as well as the correct actions to be taken by teachers until the arrival of the Specialized Medical Service. The technique used to produce the videos is called “whiteboard”, this process involves narration, text and images related to the content, thus increasing the attention of viewers and enhancing internalization of the presented material.

In order to achieve the proposed objective in situations involving First Aid actions, 05 videos were prepared approaching the following subjects: Fainting; Seizures; Cardiac Arrest; Airway Obstruction by Foreign Body (AOFB) and child falls.

Video duration: the final content of the videos lasted 11 minutes and 24 seconds, with the largest video being 2 minutes and 55 seconds long.

3. VIDEO DESCRIPTIONS

In order to prepare the content of the educational videos, we used the answers to the questionnaire given to 28 teachers who teach preschool/elementary school, at the school where the research was performed. According to Preradovic, Lauc and Panev (2020), “a video is a dynamic resource that can be used for learning, allowing visualization and analysis, facilitating understanding of the presented educational materials”. Therefore, development occurred in two stages: (1st) pre-production and (2nd) production.

- Stage 1: an original script was prepared, based on the integrative review of the questionnaire answered by teachers, in addition to considering the authors' experience.

During this first stage, a script was developed with the purpose of forwarding simple and objective information to teachers, but such information that could effectively help teachers with first aid actions. The technique used to produce the videos is called “whiteboard”, this process involves narration, text and images related to the content, thus increasing the attention of viewers and enhancing internalization of the presented material.

- 2nd stage: due to lack of video production skills by the researcher, after the script was finalized, it was forwarded to a technical team called Web Rápida. The final content of the videos lasted 11 minutes and 24 seconds, with the largest video being 2 minutes and 55 seconds long.

In order to help teachers with situations involving First Aid actions, 05 videos were prepared approaching the following subjects: Fainting; Seizures; Cardiac Arrest; Airway Obstruction by Foreign Body (AOFB) and child falls. The content of the educational tool is available through a free access platform on social networks (YOUTUBE), the access links are available at the end of the description of the approached topics.

3.1 Fainting

Fainting in children is characterized by a reduction in blood flow in the brain, which can lead to decreased level of consciousness, as well as muscle changes (HABIB et al. 2003). The main causes involving this ordeal with children are: hypotension, dehydration, hypoglycemia, excessive exposure to the sun and strenuous physical exercises.

In order to help teachers with situations involving child syncope, in the video called Desmaio (2020), teachers will find a description of the approached subject, as well as what it is and how it occurs, thus facilitating its identification and implementation of the actions suggested in the audiovisual content. They will have information on what to watch out for in cases of fainting, in addition to some signs that precede them, in order to prevent the child from getting hurt when falling, if it comes to that. The content is available in full at: <https://youtu.be/QhofhnQ0lcU>.

3.1.2 Seizures

Seizures, due to neurological issues or fever, are one of the most common crises to happen during childhood and, at the school environment preschool/elementary school teachers are usually the first person to deal with the child in this situation, therefore, it is necessary for teachers to be prepared to intervene and have sufficient knowledge to provide first aid and adequately handling these cases.

At the Crise Convulsiva (2020) video, teachers will find information about the main causes of this event, as in addition to fever, acute neurological problems can also cause seizures in children, the video also contains elements intended to facilitate identification of this occurrence. The main characteristics of this condition are loss of consciousness, generalized muscle contractions, excessive salivation and involuntary turning of the eyes upwards (AMARAL, 2018).

With the goal of instructing teachers on the decision-making process, the educational content also contains information about the most important basic life support actions

to be administered the child as available at: https://youtu.be/ZsaM55d5_wQ.

3.1.3 Cardiac Arrest

Cardiac arrest is characterized by the absence of a heartbeat, breathing and loss of consciousness, which represents a situation of extreme emergency in a pediatric context, because if this situation is not reversed it can lead to permanent brain injury or even death.

In order to obtain a favorable outcome in the face of its occurrence, it is necessary for the teacher to remain calm, striving to recognize the Cardiac Arrest, ask for help and start high-quality chest compressions. The main objective of cardiopulmonary resuscitation is to promote the circulation of blood containing oxygen to the main organs of the body. (CARDOSO et. al, 2021).

At the Parada Cardiorrespiratória (2020) video, Cardiac Arrest in children is approached, with the objective of promoting knowledge about this issue to teachers. It uses information intended to demonstrate how the teacher should perform Cardiopulmonary Resuscitation assertively and with good quality during cardiac arrest in children, as available at: <https://youtu.be/HCme5DIAIOM> .

3.1.4 Airway obstruction by a foreign object

Airway Obstruction by a Foreign Body (AOFB), is also known as asphyxiation or choking, when it happens, it promotes immediate suffocation, which, if not resolved, leads to a severe decrease of oxygen in the bloodstream, unconsciousness, and can result in cardiac arrest and even death. In Brazil, AOFB is the third leading cause of preventable child deaths, occurring mainly in children under four years old. (MELO; SANTOS; PEREIRA 2019).

Aspiration of a foreign body can be caused mainly by food, small objects and toy parts, as the children relate to the

world orally. By having contact with these elements, the child is exposed to certain risks, which can lead to AOFB. (ABDER-RAHMAN, 2009).

The fourth video is called *Obstrução de Vias Aéreas por Corpo Estranho (OVACE/ENGASGO)* (2020), its object is to: identify, define and highlight what may cause Airway Obstruction by a Foreign Body (AOFB) in children. Additionally, it demonstrates step by step actions be performed by teachers in case of AOFB in children, containing the main actions to be implemented until the required help is obtained. There is information about performing the Heimlich maneuver, which is one of the main strategies used to clear airways in case of choking. Access to the video is available at the following link: <https://youtu.be/KUGy-ZMmWcE>.

3.1.5 Falls

The fifth and last video produced to help teachers with the proposed issue addresses children falling at a school environment. The vulnerability of children to accidents varies, and may be more or less likely, trauma situations occurring at the school environment in general, represent a relevant source of concern, as it represents frequent causes of death and disability in Brazil (XAVIER-GOMES, et al. 2013).

As discussed in the scientific literature, children constitute the profile of the population subject to falls, having as main factors the psychological and physical development, as well as the constant interest in exploring their surroundings when looking to establish their autonomy (BRITO et. al 2017).

The *Quedas* (2020) video, was produced to help teachers with the proposed issue addresses children falling at a school environment. In it, teachers will be able to identify the issue, its relevance and the occurrence of falls around the world, in addition to obtaining information about the actions to be taken during the first moments and how to intervene in the traumas that a fall can cause. There is an example of the primary interventions carried out by teachers who are present when children fall, as provided in: <https://youtu.be/kHk-ul7b3Ck>.

4. CONCLUSION

The main purpose of the videos included in this study is to help preschool/elementary school teachers in the handling of first aid administration during school accidents. By promoting a safe environment in schools, educational videos contribute to educate teachers, considering the technical and cognitive skills to provide first aid during school accidents until qualified assistance arrives at the site, without worsening the clinical condition of the victim or people who are suffering.

The elements that are part of the videos contain information that promote basic understanding learning and internalizing of content, as it involves situations that promote reading, listening and the seeing the images present in the tool, adding the previous knowledge of teachers through their empirical observations and the training required by law.

This attitude is proposed to save lives and reduce permanent consequences of incidents, through the implementation of the correct actions and with coherent approaches to the control of injuries by the teacher, through this perspective, the reduction of these unfortunate occurrences can also be achieved through preventive actions by administrative personnel and educators at these environments, making sure the necessary information and procedures to protect children from these problems are available.

The resulting product is an important tool to achieve the intended purposes, in any case, it is necessary to constantly approach and improve the teaching-learning process in situations that involve actions that strive to save and maintain lives. It is understood that the safety and protection of children depends on their direct guardians, since accidents can be anticipated and prevented.

5. BIBLIOGRAPHIC REFERENCES

Abder-Rahman, H. A. Infants choking following blind finger sweep. *Jornal de Pediatria.*, Rio de Janeiro, v. 85, n. 3, p. 273-275, 2009. Available at: <https://www.scielo.br/j/jped/a/wLnzm8TXKDHcvSndbQhHQWC/?format=pdf&lang=pt>. Accessed on: Jan. 05th, 2022.

AMARAL, C. B. Crise convulsiva febril na infância: revisão integrativa da literatura. 2018. Final Paper (Nursing Degree) – University of Brasília – UnB, Darcy Ribeiro campus, Brasília, 2018. Available at: https://bdm.unb.br/bitstream/10483/23313/1/2018_CamillaBituAmaral_tcc.pdf. Accessed on: Jan. 05th, 2022.

BRITO, MA et al. Fatores de risco no ambiente doméstico para quedas em crianças menores de cinco anos. *Revista Gaúcha de Enfermagem*, Piauí, v. 38, n. 3, p. 01-09, Sept./Oct. 2017. Available at: <https://www.scielo.br/j/rgenf/a/6WXnfFy7LDNdDQns6BbCRHC/?format=pdf&lang=pt>. Accessed on: Jan. 05th, 2022.

CARDOSO, M. L. B. N. et al. ATUAÇÃO DA ENFERMAGEM NAS PARADAS CARDIORRESPIRATÓRIAS EM PEDIATRIA. In: SOARES, S. S. S. (org.). *Gestão de serviços de Enfermagem*. Paraná: Atena Editora. 2021. p. 120-125.

CARVALHO, L. S. et al. A abordagem de primeiros socorros realizada pelos professores em uma unidade de ensino estadual em Anápolis – GO. *Ensaio Cienc., Cienc. Biol. Agrar. Saúde*, [s. l.], v. 18, n. 1, p. 25-30, 2014. Available at: <https://revista.pgsskroton.com/index.php/ensaioeciencia/article/view/407>. Accessed on: June 5th, 2020.

CRISE CONVULSIVA. Author: Davison Pereira. [s.l.; s.n.], 2020. 1 video (2 min). Available at: https://www.youtube.com/watch?v=ZsaM55d5_wQ. Accessed on: Sept. 17th, 2020.

DESMAIO. Author: Davison Pereira. [s. l.; s. n.], 2020. 1 video (2 min). Available at: <https://www.youtube.com/watch?v=QhofnQ0lcU>. Accessed on: Sept. 17th, 2020.

HABIB, R. et al. Síncope em crianças e adolescentes. *Rev. Soc. Cardiol. Estado de São Paulo*, São Paulo, v. 13, n. 5, p. 681-692, Sep./Oct. 2003. Available at: http://www.arritmiaonline.com.br/files/artigo_sincopa_1.pdf. Accessed on: Jan. 05th, 2022.

MELO, A. A.; SANTOS, P. U. S; PEREIRA, D. Conhecimento dos pais quanto a procedimentos realizados diante do engasgo na criança. Final Paper (Baccalaureate in Nursing) – Centro Universitário do Planalto Central Aparecido dos Santos – Uniceplac, Federal District, 2019. Available at: https://dspace.uniceplac.edu.br/bitstream/123456789/267/1/Adriano_000629_Paulo_Ubiratan_0002260.pdf. Accessed on: Jan. 05th, 2022.

OBSTRUÇÃO de vias aéreas por corpo estranho (OVACE/ENGASGO). Author: Davison Pereira. [s. l.; s. n.], 2020. 1 video (3 min). Available at: <https://www.youtube.com/watch?v=KUGy-ZMmWcE>. Accessed on: Sept. 17th, 2020.

PARADA cardiorrespiratória. Author: Davison Pereira. [s. l.; s. n.], 2020. 1 video (2 min). Available at: <https://www.youtube.com/watch?v=HCme5DIAIOM>. Accessed on: Sep. 17th, 2020.

PRERADOVIC, N. M.; LAUC, T.; PANEV, I. The effect of medium of instruction on undergraduate student learning style in video-based learning. NAUN, [s. l.], v. 14, 2020, p. 1-7. Available at: https://www.researchgate.net/publication/339721807_The_Effect_of_Medium_of_Instruction_on_Undergraduate_Student_Learning_Style_in_Video_-_based_Learning. Accessed on: June 4th, 2020.

QUEDAS. Author: Davison Pereira. [s. l.; s. n.], 2020. 1 video (2 min). Available at: <https://www.youtube.com/watch?v=kHk-ul7b3Ck>. Accessed on: Sept. 17th, 2020.

XAVIER-GOMES, L. M. et al. Descrição dos acidentes domésticos ocorridos na infância. O Mundo da Saúde Magazine. São Paulo, v. 37, n. 4, p. 394-400, 2013. Available at: <https://revistamundodasaude.emnuvens.com.br/mundodasaude/article/download/410/351>. Accessed on: Jan. 05th, 2022.