Knowledge and skills in first aid by educational professionals

RESUMO | Objetivos: Verificar o conhecimento e habilidades dos profissionais da educação básica sobre suporte básico de vida. Método: O estudo caracterizou-se em uma pesquisa com abordagem quantitativa, transversal e descritiva realizada com 125 profissionais, trabalhadores de escolas de uma cidade de Minas Gerais, no período de janeiro a março de 2021. A coleta de dados foi realizada através de um questionário validado e adaptado para ser usado a partir da plataforma Google Formulários. O projeto de pesquisa foi avaliado e aprovado pelo Comitê de Ética em Pesquisa da FUNORTE. Resultados: observou-se que os profissionais entrevistados não possuem preparo e/ou treinamento para uma situação de urgência/emergência, demonstraram que sabem detalhar com precisão informações ao serviço especializado. Conclusão: Os profissionais entrevistados não estão aptos para conduzir emergências até a chegada do socorro especializado, necessitando, portanto, de uma qualificação.
Palavras-chaves: Emergências; Criança; Primeiros Socorros; Educação em Saúde.

ABSTRACT | Objectives: To verify the knowledge and skills of basic education professionals about basic life support. Method: The study was characterized in a research with a quantitative, transversal and descriptive approach carried out with 125 professionals, school workers in a city in Minas Gerais, in the period from January to March 2021. Data collection was carried out through a questionnaire validated and adapted to be used from the Google Forms platform. The research project was evaluated and approved by the FUNORTE Research Ethics Committee. Results: it was observed that the interviewed professionals do not have preparation and/or training for an urgent/emergency situation, they demonstrated that they know how to accurately detail information to the specialized service. Conclusion: The professionals interviewed are not able to handle emergencies until the arrival of specialized help, therefore, they need qualification.
Keywords: Emergencies; Child; First Aid; Health Education.

RESUMEN | Objetivos: Verificar los conocimientos y habilidades de los profesionales de la educación básica sobre soporte vital básico. Método: El estudio se caracterizó en una investigación con enfoque cuantitativo, transversal y descriptivo realizada con 125 profesionales, trabajadores escolares de una ciudad de Minas Gerais, en el período de enero a marzo de 2021. La recolección de datos se realizó a través de un cuestionario validado. y adaptado para ser utilizado desde la plataforma Google Forms. El proyecto de investigación fue evaluado y aprobado por el Comité de Ética en Investigación de FUNORTE. Resultados: se observó que los profesionales entrevistados no cuentan con preparación y / o capacitación para una situación de urgencia / emergencia, demostraron que saben detallar con precisión la información al servicio especializado. Conclusión: Los profesionales entrevistados no están en condiciones de atender emergencias hasta la llegada de ayuda especializada, por lo que necesitan capacitación
Palabras claves: Urgencia Médica; Niño; Primeros Auxilios; Educación en Salud

Bruna Renata Duarte Oliveira
Academic of the 10th period of Nursing – FASI. PROIC Scholarship
ORCID: 000-0003-0720-309X

Andressa Prates Sá
Academic of the 10th period of Nursing – FASI
ORCID: 000-0002-9892-7191

Leila das Graças Siqueira
Graduated in nursing from UFJF. Doctor in Health Sciences from Unimontes
ORCID: 0000-0002-1538-6722.

Deborah Katheriny Almeida Ribeiro
Student of the 7th period in International Relations - UNIFESP
ORCID: 0000-0002-5904-5380

Meire Damião Vieira
6th term student in Public Health Management – UNIMONTES
ORCID: : 0000-0003-4335-9861

Karine Suene Mendes Almeida Ribeiro
Master Nurse. Professor FUNORTE/FASI. PROIC Advisor
ORCID: 0000-0002-6213-689X

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INTRODUCTION

First aid is immediate conduct for victims of accidents or sudden illness with the aim of preserving life and reducing sequelae until the arrival of the specialized service.[1]

Accidents are inevitable, requiring immediate action, and can occur in many places, including schools. In addition, the author mentions that every person with balance, tranquility and knowledge can lead help until the arrival of professionals. [2]

Children are the most vulnerable to illnesses and accidents and part of the health complications in childhood are related to what happens at school, since children spend most of the day in

this place. Thus, prevention and health promotion actions are vital in education, and it is essential that everyone involved is trained in first aid for possible interventions. [3]

It is possible to point out the preschool period as the stage of development that entails the greatest need for care and safety with accidents, since it is during this period that the fragility, curiosity and inexperience of children emerge. [2]

At the same time, there is a change in the role of the school, from a merely academic institution to forming the character, behavior, citizenship and socialization of the student. However, this gain in responsibility is accompanied by the need for the actors involved to be able to deal with the diversities that will make students vulnerable. [4]

Among the legal bases that underlie care and education in the school environment in Kindergarten, the following stand out: the Federal Constitution of 1988 makes the guarantee of kindergarten education official in kindergartens and preschools; the 1990 Child and Adolescent Statute (ECA - Estatuto da Criança e do Adolescente) highlights the rights of the child, emphasizing the precepts that should govern school education. [5]

Due to the extreme importance of reducing the incidence of accidents in schools, it became essential to popularize the practices of first care, enabling those involved, with basic first aid techniques, to act properly in the intervention of accidents. According to Law No. 13.722 of 2018, training in basic notions of first aid is mandatory for all teachers and employees of public and private basic education schools and child recreation establishments. [6]

The contribution to basic knowledge in First Aid in early childhood education can be carried out through the School Health Program (PSE - Programa Saúde na Escola), in intersectoral actions between health and education, through the Family Health Strategy (ESF - Estratégia de Saúde da Família) in the school environment. From this perspective, the professionals involved and trained for qualification in education are the health professionals of the team in the scope/influence area, mainly physicians and nurses. [7] In this sense, the following research problem arose: to what extent are people who work in schools prepared to provide basic life support, until the arrival of specialized help?

This study aims to verify the knowledge and skills of education professionals about basic life support.

METHOD

This study is characterized as quantitative, transversal and descriptive. The study population consisted of 125 professionals working in educational institutions in a large city in Minas Gerais.

Data collection took place between January and March 2021 and was carried out through google forms, using the following social networks: email, WhatsApp, Facebook or Instagram, and the Snowball technique for sample composition . Thus, after answering the electronic questionnaire, the participants forwarded the questionnaire to other people who fit the study criteria, as Costa directs. [8]

Incomplete questionnaires and questionnaires answered by health professionals and firefighters working in schools were excluded from the study.

The instrument used for data collection was a questionnaire consisting of 13 multiple-choice questions, addressing knowledge of basic life support techniques, developed by Pérgola and Araújo. [9] The evaluation criteria will originate from the aforementioned research:

For questions 1, 2, 3 and 4, there is only a grouping of similar, positive and negative answers, as they represent the interviewee's particular opinion or experience.

In question 5, every answer in which at least one sign of life was correctly cited was considered correct and, partially correct, when one of the signs of life cited is correct and the other(s) was not. It is noteworthy that the pulse citation was considered correct, although its verification is not a mandatory maneuver for laymen, as it was understood as a sign of circulation. In #6, alternative A was considered correct, while alternatives B and C were considered partially correct. The others were considered incorrect.

Alternative B in question 7 was considered correct and the others were considered incorrect. The alternative others that he got as an answer to check for signs of life was also considered correct.

In question 8, the association of the telephone number and the service (SAMU and/or Resgate) was considered correct as it is, and the citation of correct number but incorrect name was considered partially incorrect. Quoting only the police number was considered partially correct, as this is not exactly an emergency service, but the necessary help can be obtained through it.

Question 9 has alternative B as correct; and, partially correct, A and C. In question 10, alternative A was considered correct, partially correct C and the others as incorrect. In question 11, alternative B was considered correct and alternative A was incorrect. Partially correct was considered the answer categorized as others (immobilization) because it is not possible to guarantee that the layperson knows how to correctly immobilize the victim.

In question 12, alternative A was considered correct, the other alternatives were considered incorrect. In question 13, alternative B was considered correct and the others incorrect. When the answer given was "I don't move", it was also considered I don't know, as it may indicate lack of knowledge of the

respondent. [9]

This study complied with all the ethical precepts of Resolution 466/2012 of the National Health Council, which provides for research involving human beings, ensuring all the rights of secrecy, privacy, anonymity and autonomy to the interviewees.

It was submitted and approved by the research ethics committee of Faculdades Integradas do Norte de Minas under opinion 3.790.557.

RESULTS

125 people participated in this study, of which 83% were female, 56% were 40 years old or older and 78% had completed graduation as described in table 1, which shows the large percentage of women in relation to the male population, reflecting the female character of the profession.

Regarding the function performed by the interviewees, 46% were teachers: 47% worked in the early years of early childhood education and only 5% worked in the final years of elementary school (Table 2). It is worth remembering that the children are not always close to the teachers, so all the people who work at the school need to be prepared to deal with adverse situations.

The initial minutes after the occurrence of an accident are decisive for the outcome of the same, so people who are close to the victim need to know how to identify the situation and initiate the appropriate help. In this study, 86% of respondents said they were not prepared to provide assistance in any type of situation and 68% had never seen any unconscious person in need of a doctor. Despite this, 74% of the participants responded that they know how to identify vital signs (Table 3).

In case of an unconscious victim, rescuers must take a quick decision, in order to provide the appropriate help in each case. In Table 4 it is observed that 62% of respondents, when they find a

Table 1 - Characterization of samples, according to age, sex and education, Montes Claros-March/2021 (N=125)

VARIABLE	N	%
Age		
More than 40	55	44%
Equal/under 40	70	56%
Total	125	100%
Sex		
Female	104	83%
Male	21	17%
Total	125	100%
Education		
Graduated	97	78%
No Graduation	28	22%
Total	125	100%

SOURCE: Study data, 2021

Table 2 - Characterization of samples, according to the role that respondents play at school, Montes Claros-March/2021 (N=125)

VARIABLE	N	%
Function		
Professor	57	46%
Others	68	54%
Total	125	100%

SOURCE: Study data, 2021

Table 3 - Distribution of responses on knowledge in first aid, Montes Claros, March/ 2021 (N=125)

VARIABLE	N	%
Do you believe you are prepared to provide first aid in any type of situation?		
Yes	17	14%
No	108	86%
Total	125	100%
Have you ever seen a person unconscious in need of medical help?		
Yes	40	32%
No	85	68%
Total	125	100%
Do you know how to check for signs of life?		
Yes	93	74%
No	32	26%
Total	125	100%

SOURCE: Study data, 2021

Tabela 4 – Primeiras medidas a serem tomadas ao deparar com uma vítima desacordada, Montes Claros, Março/2021 (N=125)

VARIABLE	N	%
What is the first action to be taken in an unconscious victim situation?		
Check for signs of life and call for specialized help	77	62%
Call for specialized help	35	28%
Take to the hospital	12	10%
I do not know what to do	1	1%
Total	125	100%

SOURCE: Study data, 2021

person unconscious, check vital signs and call specialized help, which is the proper conduct.

It can be seen from table 4, that although 62% of the people interviewed answered the initial conduct correctly, in the case of unconscious victims, a large number of them were unable to answer, and/or answered incorrectly, which can delay the right help.

DISCUSSION

In this study, only a small part of respondents (14%) feel prepared to handle an urgent and emergency situation and 32% have already witnessed a person unconscious, in need of medical help.

The school environment is a favorable environment for the most diverse types of accidents, especially in young children, due to its behavioral characteristics [10], therefore, it is necessary that all professionals who work in schools have adequate training in basic life support, as recommended by the Brazilian Society of Cardiology based on the new CPA and ACE guidelines. [11]

Given that first aid occurs from basic techniques that aim to maintain the victim's vital functions, it is necessary that lay rescuers know how to recognize the patient's signs of life, especially in children, as the cause of a cardiorespiratory arrest in children is different from the causes in adults. [11] Thus, identifying whether a child is breathing or is breathing agonizingly is essential to recognize a cardiorespiratory arrest, call the emergency room and initiate the appropriate help. [10]

In this study, 74% of respondents reported that they know how to recognize vital signs. Although it seems an expressive number of people, it is not possible to measure how much this data corresponds to reality, since when it comes to basic life support, learning occurs from practice and through feedbacks. [11] In a study carried out in Divinópolis, with teachers from kindergarten, four out of five participants did not mention breathing as a vital sign, implying that, in a real emergency situation, lay people are not prepared to identify a CPA, delaying or even preventing the prompt and adequate service. [10]

It is then noticed that, in cases of emergencies such as cardiorespiratory arrests (CPAs), most participants are not prepared to provide the necessary first aid until the arrival of the specialized service. It is recommended that lay people start a Cardiopulmonary Breathing (CPB) within 3 to 5 minutes of the occurrence, since from this moment on the risk of neurological damage gradually increases. [12] Thus, the risk of waiting to start CPB is greater than the harm of starting the necessary compressions. Therefore, it is important that education professionals have training to know how to deal with emergencies and are trained to provide pre-service to the victim. [11]

A study carried out in Salvador, in 2020, also showed the population's lack of knowledge in identifying the signs of cardiopulmonary arrest, delaying the care provided to victims. [12] In this study, only 62% of the interviewees answered correctly about the initial action when faced with an unconscious victim.

The Brazilian Society of Cardiology advises that health care services offer training to the lay population and install an automatic external defibrillator in places with a large flow of people, in order to reduce response time and improve emergency outcomes. It also advises that visual algorithms of the first aid chain for adults and children be posted in strategic places. [11]

It is noteworthy that when it comes to children, other emergencies can happen, such as falls, bruises, clinical emergencies, in which professionals who deal with children must be prepared. A partnership between the school and the reference health unit, through the Health at School Program, is essential for these people to take ownership of knowledge and offer the first care safely for the child under the responsibility of the school.

CONCLUSION

It was found through this study that participants have weaknesses in knowledge about first aid. Only a small portion of the participants reported that they are prepared to deal with this situation. To provide quick, accurate and efficient aid, it is necessary to have knowledge of first aid techniques, in addition, in addition to theoretical knowledge, practice is also necessary.

Training programs should be routine in schools, in partnership with the Health at School Program, through the Family Health Strategies and the Mobile Emergency Care Service. In addition, visual algorithms fixation strategies from the chain of first aid maneuvers

for lay people should be implemented, as they favor fixation when routine practice is not possible.

Within the multidisciplinary team, the nurse is the professional who has the greatest skill and adequate training to carry out permanent health education, and this should seek, within institutional programs, the regulation of this training. It is also recommended to include, in the political pedagogical project of courses related to child teaching, the implementation of a module on basic life support.

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