

Chapter 30

Nurse's performance importance to identification and instruction on first aid in school environment

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ABSTRACT

Objective: To identify gaps in the knowledge of early childhood education teachers about first aid care and then to train them. **Method:** A quantitative study,

carried out in a city in the south of Minas Gerais, based on a questionnaire composed of 19 objective questions, with elementary school teachers from two local schools. Results: 46 teachers participated in the study, of which 40 (85.10%) were women and 6 (14.89%) were men. Of the total number of individuals, 32 (68.08%) had children and this proved to be relevant when compared to the post-test. In relation to the higher level of education, 32 (68.08%) completed the Graduate Program, 8 (12.8%). The test success rate was 42.68% and in the post-test was 37.53%, demonstrating the various factors that contribute to the fact that existing taboos related to first aid in the school environment remain as teachers' lack of interest, fear and insecurity. Final considerations: the study revealed that teachers have several knowledge gaps of first aid, and they are based on popular beliefs and family experiences, as well as showing no real interest and feeling frightened by the thematic.

Keywords: Nursing, School Health Services, First Aid.

1 INTRODUCTION

Accidents represent the highest cause of infant deaths in Brazil, covering the age group 1 to 14 years¹. Within schools, occurrences are taking greater proportions and generating greater concerns, because, increasingly earlier children enter the school system: at 0 to 6 years of age, these children already attend day care centers or institutions of preschool level and as we know, they are more susceptible to these accidents due to their restless and unpredictable nature, aggravated by the agglomeration of children and adolescents².

In the school environment, it is common to have accidents involving children, where it is necessary to apply first aid. The first calls are emergency techniques that are given to a victim in circumstances of accidents or sudden evil. This procedure is and care, capable of softening and avoiding further aggravation swells to the injured³. Therefore, the first care can be performed by any trained individual, not restricted only to health professionals.

Based on the premise that the school environment is inherent to incidents, it is necessary to approach the theme of first aid with teachers, because they spend most of the day with children and, for the most part, demonstrate inability to provide support in emergency situations and that they need first care⁴.

The entire school team, especially teachers, have important roles in encouraging health practices and preventing the occurrence of accidents among schoolchildren, as they are the first to have direct contact

with the victim and, consequently, the most opportune to perform the first care, so that it is necessary to learn about first aid for teachers. Today, large parts of the universities that teach Pedagogy do not have in their curriculum a basic first aid care discipline⁵. Therefore, the research aims to understand what knowledge about first aid teachers holds, and what gaps present to then propose solution measures.

2 METHODS

This is a cross-sectional, descriptive, quantitative comparative study conducted in a city in the interior of Minas Gerais with approximately 160,000 inhabitants, of which about 97% occupy the urban area⁶. The municipality is characterized, therefore, as the largest in the South of Minas Gerais.

The research was conducted with teachers from the municipal and state schools, chosen at random, two schools with a total of 54 teachers, of which 46 were eligible for the research.

Only elementary school teachers (early childhood) with more than six months of experience in the two participating schools were included in the data collection. Teachers with less than six months of work, who were on leave, vacation or any type of professional leave, those who did not adhere to the research, teachers who left the questionnaire blank and instruments without identification number were excluded. Among the eight teachers not included in the study, four refused to participate, three had less than six months of work and one did not complete the questionnaire.

The collection was performed through an objective questionnaire created by the authors and refined by specialists in the field of nursing, child health and pedagogy. To ensure anonymity, the identification of the subjects was performed through numbers, which were drawn with the teachers. Data collection took place in the schools themselves, and there was, therefore, no displacement of the subjects. The research participants were instructed about it and signed two ways of the Free and Informed Consent Form (TCLE).

The instrument was initially applied as a pre-test, with 30 teachers from the public network of the same locality in order to evaluate the understanding of the questions.

Quantitative data were analyzed from the construction of a double-feeding database, including data on objective questions and social data for further statistical analysis using the *StatisticalPackage for the Social Sciences (SPSS)* program, version 14.0. Descriptive statistics were used by Spearman's correlation and mean comparison technique.

The present study was conducted after approval by the Research Ethics Committee of the Pontifical Catholic University of Minas Gerais, under 1846096/2018.

3 FINDINGS

Forty-six teachers had participated in the study, whose mean age was between 36 and 45 years, most of them women according to Table I.

Table I - Distribution of teachers according to sociodemographic characterization. Minas Gerais, 2019 (n=46)

	Variables	Total	
		f	%
Age group	18 to 25 years	0	0
	26 to 35 years	9	19,57
	36 to 45 years	16	34,78
	46 to 55 years	12	26,09
	56 to 65 years	5	10,87
	Didn't answer	4	8,70
	Total	46	100,0
Sex	Female	39	84,78
	Male	7	15,22
	Didn't answer	0	0,0
	Total	46	100,0
Offspring	Yes	32	69,57
	No	13	28,26
	Didn't answer	0	0,0
	Total	46	100,0
Middle school	Regular	12	26,09
	Magisterium	22	47,83
	Other	9	18,57
	Didn't answer	3	6,52
	Total	46	100,0
Higher education	Attending pedagogy	1	2,17
	Completed pedagogy	22	47,83
	Attending another course	1	2,17
	Completed another course	17	36,96
	Didn't answer	3	10,87
	Total	46	100,0
Postgraduate studies	Institutional and Clinical Psychopedagogy	6	13,04
	Pedagogical Planning Policy	32	69,57
	Didactic Curriculum and Evaluation	0	0,0
	Other	0	0,0
	Did not attend	0	0,0
	Didn't answer	8	17,39
	Total	46	100,0
Acting Time	6 months to 10 years	14	30,43
	11 years to 20 years	14	30,43
	21 years to 30 years	12	26,09
	31 years or older	5	10,87
	Didn't answer	1	2,18
	Total	46	100,0

Acting Time at The Current School	6 months to 10 years	31	67,39
	11 years to 20 years	6	13,04
	21 years to 30 years	3	6,52
	31 years or older	0	0,0
	Didn't answer	6	13,04
Total			

Source: Search Data

Among the teachers surveyed, 39 (84.78%) were women, predominantly aged between 36 and 45 years, who are not included in the predominant resourcefulness age group regarding the receipt and packaging of past information on the first aid theme⁷. Of the total number of individuals, 32 (68.57%) had children and a trend of positive correlation of low effect can be observed between the variables: percentage of hit in the post-test and number of children ($N = 46$; $r = 0.238$; $p = 0.057$). There was no statistically significant mean difference between the variable having children and percentage of pre-test hit ($t_{(43)} = 0.853$; $p = 0.398$; $d = 0.28$) and percentage of hit in the post-test ($t_{(43)} = 0.665$; $p = 0.676$; $d = 0.14$).

Regarding the level of teacher education, 12 (26.09%) attended regular high school and 22 (47.83%) completed high school with teaching; with regard to higher education, 22 (47.83%) teachers graduated in Pedagogy and 17 (36.96%) graduated in another course, aligning themselves with the findings in another article that bring that teachers working in elementary school have a large majority of higher education, which adds value to teaching within the school environment and that is assumed about the availability of these teachers to continuing education¹. Of the total number of individuals studied, 32 (69.57%) completed graduate studies and six (13.04%) are attending, because they believe it is another task added to their daily activities and not as an opportunity for learning that, at a time in need it is of great value to determine the evolutionary picture of the person in a state of emergency. The average time of work in the area of Pedagogy is 18 years and function in the school studied is six years, for this, a negative correlation of average effect was noted between the variables: percentage of hit in the pre-test and time of performance in the area of pedagogy ($N = 46$; $r = -0.321$; $p = 0.032$), and those with a higher percentage of hit have a shorter performance time, demonstrating that these teachers have a greater openness to the presentation of new knowledge that is not the focus of pedagogy.

The test rate was 42.68% (0 to 84.21dp22.583) concomitant with experiences of another article where teachers presented a poor average in the theoretical test.¹ However, in the Post-test, an average of 37.53% (0 to 89.47dp37.53) differed from the other studies that brought a high average in relation to the test^{7,8}. Both were represented in Table II schematized by question. Only 15 (32.61%) of the individuals studied obtained a positive and satisfactory result, putting the effectiveness of the training to be tested. The other studies demonstrated an improvement in the results of the teachers studied, and the fact of greater relevance was due to the interest of learning on the part of teachers, which was not evident in our research, since they were reluctant to insert the teaching of first aid.

Table II - Distribution of the theme of the questions according to the mean number of correct answers. Minas Gerais, 2019 (n=46)

Question	Theme	Test Hit (n/media)	Test Hit (n/media)
1	Scene security	41,30	30,43
2	Recognition of factors involved in accidents	45,65	41,30
3	Seizure	52,17	52,17
4	External Bleeding	39,13	45,65
5	Choking Identification	47,83	47,83
6	Conduct before Light Choking	47,83	19,57
7	Open Fracture	43,83	52,17
8	Foreign Body in the Eye	43,48	32,61
9	Fainting	30,43	43,48
10	Trauma Nasal	36,96	50,0
11	Hypoglycemia	36,96	28,26
12	Asthma Crisis	41,30	36,96
13	Purpose of the Initial Assessment	34,78	39,13
14	Trauma Oral	43,48	45,65
15	Conducts for Initial Evaluation	41,30	6,52
16	PCR	52,17	6,52
17	Internal Bleeding	47,83	45,65
18	Fever	41,30	39,13
19	Intoxication	43,48	50,0

Source: Search Data

The themes with more than 60% of error in the post-test were considered as the greatest difficulties of teachers in the first aid, being the ones with more than 60% of error in the post-test, which were the conduct in case of choking, initial evaluation, cardiorespiratory arrest (CRP), foreign body in the eye, hypoglycemia and asthmatic crisis. This finding corroborates the studies that demonstrate the perception of these same items as great difficulties in acting of the teachers participating in the research, plus nasal bleeding, fainting, sprains and dislocations, fractures, cuts and abrasions, other studies show that falls represent the main cause of brain injuries within the school environment⁴. Another study also points out how frequent results of school accidents convulsions and deep cuts⁸. It is important to take into account the school structure and its limitations for defining the parameters of susceptibility to the occurrence of accidents, and then analyze and suggest significant changes to mitigate the risk of injuries. It was noticed that the difficulties were general, because the error index in the questions was too high, due to the lack of knowledge and also the lack of interest in extra functional learning. The lack of correct information and

techniques to proceed in a first care can bring to the accident numerous complications, either by mishandling the patient even the unnecessary request of the emergency and emergency service⁹.

In order to ensure that doubts are addressed in the long term, a booklet was constructed where the main and most recurrent first aid themes with common language and illustrations are addressed so that in addition to educators, students can be inserted in the context of primary care, in order to stimulate continuing education in the school environment.

4 DISCUSSION

By evaluating separately the level of use in the post-test, we have an idea of negative result to the perspective proposed by the work, however, we were able to understand the root of this problem: during our data collection we are compared with various situations and verbal reports of the teachers themselves that substantiate the taboos that permeate the theme of our work, such as, the overload of functions, lack of interest in seeking information, fear of doing incorrect and aggravating the situation of the injured student or being held judicially responsible for what happened in the case of injuries to the patient's state, and even involved by an extensive range of doubts about first aid care, educators refrain from such information and seek knowledge focused only on training and specialization in pedagogy.

Considering that the curricular grades of undergraduate courses, with the exception of health sciences degrees, do not involve a first aid discipline, since it is believed that only health professionals know how to act in a first care⁴. Based on the findings of this study, it is expected that within the moments focused on continuing education one of the topics addressed is first aid, because it is of paramount importance that teachers have the minimum of knowledge added to act in situations of imminent risk to the day-to-day of the school environment.

Given the magnitude of first aid actions, Law No. 13,722/2018 was created, which "makes it mandatory to train first aid basics of teachers and employees of public and private educational establishments of basic education and child recreation establishments" concomitant with the School Health Program, which aims to integrate schools with health professionals of the respective Family Health Strategies, contributing fully to the prevention, promotion and maintenance of students' health¹⁰.

It was observed that people with a higher number of children tend to have a higher percentage of hit in the post-test and greater interest in learning first aid when correlating the events experienced during training with personal experiences, in addition to the knowledge acquired over time through common sense and their own interactions with the environment, inately and without any information based on recognized technique 11¹².

In our study, great difficulties were identified in both fragments of knowledge: theoretical and practical, this is due to a chain reaction where, the teacher has little knowledge about the correct techniques of first aid, and then when faced with a situation of urgency and emergency, the teacher is lost since initial evaluation, the activation of the emergency service until the execution of first aid, contrasting with another

study that brings that the teacher has less theoretical knowledge than operational⁶. In the way that this reality changes, it is necessary for health professionals to pay attention and empower teachers to feel safer during an intercorrence.

Nursing professionals have the responsibility of education and in the teaching-learning process of lay individuals in emergency care, because even if educators can offer the first aid, there is still some complexity that only health professionals should help. Therefore, it is important that teachers take the necessary actions to help the victim even before health professionals arrive on the scene, reducing life risks and possible complications.

The study was limited to the availability of the schools' agenda, because the school year was already scheduled, making it difficult for educators to participate in the test and training. It is recommended that schools already plan activities on PS in advance, since it is a relevant topic to be addressed, because according to the test, teachers are based on popular wisdom and have fear and subsequent judgments regarding immediate first aid care. Concomitate to another study, in the present study, we faced the scarcity of studies that covered the theme of first aid in the school environment¹³.

5 CONCLUSION

During the training, it can be seen that the theme of emergency is very present in the school environment, making the measures in first aid activity that can be instituted early to minimize possible complications arising from school accidents, having a safer environment. This training in PS should be permanent, appropriate to the calendar of schools, with visual and practical content, addressing topics that occur more frequently in each school. In view of this, it is essential that nurses be included in the continuing education practices of teachers and students, teaching first aid practices based on healthy and mutually beneficial behaviors, encouraging safe and healthy habits for the school environment, contributing to the awareness of the school team in a way that mobilizes the entire community in the face of the actions of a first care.

REFERENCES

- Silva D P, Nunes J B B, Moreira R T F, Costa L C. Primeiros Socorros: objeto da educação em saúde para professores. *Revista de Enfermagem UFPE On Line* [revista em internet] 2018 maio. [acesso em 13 de maio de 2019]; 12(5):1444-53. Disponível em: <https://periodicos.ufpe.br/revistas/revistaenfermagem/article/download/234592/28912>
- Conti K L M, Zanatta S C. Acidentes no Ambiente Escolar – uma discussão necessária. *Cadernos PDE* [revista em internet] 2014. [acesso em 13 de maio de 2019]; 1:17. Disponível em: http://www.diaadiaeducacao.pr.gov.br/portals/cadernospde/pdebusca/producoes_pde/2014/2014_unespar-paranavai_cien_artigo_kesia_liriam_meneguel.pdf
- Leite A C Q B, Freitas G B, Mesquita M M L, França R R F, Fernandes S C A. Primeiros socorros nas escolas. *Revista Extendere* [revista em internet] 2013 julho-dezembro. [acesso em 13 de maio de 2019]; 2(1). Disponível em: <http://periodicos.uern.br/index.php/extendere/article/view/778>
- Silva L G S, Costa J B, Furtado L G S, Tavares J B, Costa J L D. Primeiros socorros e prevenção de acidentes no ambiente escolar: intervenção em unidade de ensino. *Revista Enfermagem em Foco* [revista em internet] 2017 novembro. [acesso em 13 de maio de 2019]; 8(3). Disponível em: <http://revista.cofen.gov.br/index.php/enfermagem/article/view/893>
- Carmo H O, Souza R C A, Araújo C L O, Francisco A G. Atitudes dos docentes de educação infantil em situação de acidente escolar. *Revista de Enfermagem do Centro-Oeste Mineiro* [revista em internet] 2017. [acesso em 13 de maio de 2019]; 7(1457). Disponível em: <http://www.seer.ufsj.edu.br/index.php/recom/article/viewFile/1457/1574>
- Brasil IBGE. Pesquisa nacional por amostra de domicílio. 2018. [acesso em 10 de junho de 2019]. Disponível em: <http://cidades.ibge.gov.br/brasil/mg/pocos-de-caldas/panorama>
- Costa C W A, Moura D L, Costa F L O, Melo R S, Moreira S R. Unidade didática de ensino de primeiros socorros para escolares: efeitos do aprendizado. *Revista Pensar a Prática* [revista em internet] 2015 abril-junho. [acesso em 13 de maio de 2019]; 18(2). Disponível em: <https://www.revistas.ufg.br/fef/article/view/30205>
- Esteves D, Pinheiro P, Brás R, O'Hara K, Rodrigues R. Avaliação do conhecimento dos professores de educação física para reagirem em situações de emergência. *Revista Motricidade* [revista em internet] 2015. [acesso em 13 de maio de 2019]; 11(1):39-52. Disponível em: <https://www.ea2.unicamp.br/mdocs-posts/avaliacao-do-conhecimento-dos-professores-de-educacao-fisica-para-reagirem-a-situacoes-de-emergencia/>
- Calandrim L F, Santos A B, Oliveira L R, Massaro L G, Vedovato C A, Boaventura A P. Primeiros socorros na escola: treinamento de professores e funcionários. *Revista Rene* [revista em internet] 2017 maio-junho. [acesso em 13 de maio de 2019]; 18(3):292-9. Disponível em: <http://www.periodicos.ufc.br/rene/article/view/20044>
- Horta R L, Andersen C S, Pinto R O, Horta B L, Oliveira-Campos M, Andreazzi M A R, Malta D C. Promoção da saúde no ambiente escolar no Brasil. *Revista de Saúde Pública* [revista em internet] 2017. [acesso em 13 de maio de 2019]; 51:27. Disponível em: http://www.scielo.br/pdf/rsp/v51/pt_0034-8910-rsp-S1518-87872016050006709.pdf
- Coelho J P S L. Ensino de primeiros socorros na escola e sua eficácia. *Revista Científica do ITPAC* [revista em internet] 2015 janeiro. [acesso em 13 de maio de 2019]; 8(1). Disponível em:

https://assets.itpac.br/arquivos/Revista/76/Artigo_7.pdf

Tinoco V A, Reis M M T, Freitas L N. O enfermeiro promovendo saúde como educador escolar: atuando em primeiros socorros. Revista Transformar [revista em internet] 2014. [acesso em 13 de maio de 2019]; 6. Disponível em: <http://www.fsj.edu.br/transformar/index.php/transformar/article/view/16>

Neto N M G, Caetano J A, Barros L M, Silva T M, Vasconcelos E M R. Primeiros socorros na escola: construção e validação de cartilha educativa para professores. Acta Paulista de Enfermagem [revista em internet] 2017. [acesso em 13 de maio de 2019]; 30(1):87-93. Disponível em: <http://www.scielo.br/scielo.php?pid=S0103-21002017000100087> HYPERLINK "http://www.scielo.br/scielo.php?pid=S0103-21002017000100087&script=sci_abstract&tlng=pt"& HYPERLINK "http://www.scielo.br/scielo.php?pid=S0103-21002017000100087&script=sci_abstract&tlng=pt"script=sci_abstract HYPERLINK "http://www.scielo.br/scielo.php?pid=S0103-21002017000100087&script=sci_abstract&tlng=pt"& HYPERLINK "http://www.scielo.br/scielo.php?pid=S0103-21002017000100087&script=sci_abstract&tlng=pt"tlng=pt