QUALIFICATION OF TEACHERS AND EMPLOYEES OF PUBLIC SCHOOLS IN FIRST AID: EXPERIENCE REPORT

QUALIFICAÇÃO DE PROFESSORES E FUNCIONÁRIOS DE ESCOLAS PÚBLICAS EM PRIMEIROS SOCORROS: RELATO DE EXPERIÊNCIA

CALIFICACIÓN DE DOCENTES Y EMPLEADOS DE ESCUELAS PÚBLICAS EN PRIMEROS AUXILIOS: RELATO DE EXPERIENCIA

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ABSTRACT: Objectives: To describe the experience of nursing students in the qualification of public-school workers in First Aid. Methods: This is an experience report, descriptive, detailing the experience of academics in the university extension. Educational interventions developed between December 2020 and December 2021 with teachers and school staff in the municipality of Feira de Santana, Bahia, Brazil. The methodology applied was the Paideia Method, allowing an analysis and co-management of collectives through an integral and dynamic education. Results: Twenty people were qualified through virtual meetings using the Google Meet platform, performing didactic instrumentalization through cards and folders, in addition to evaluating the impact of actions using tests. Final considerations: The importance of qualifications of this theme was perceived for workers in schools in order to promote health and prevent injuries, in addition to the need for studies evaluating the effect of these interventions.


RESUMO: Objetivos: Descrever a experiência de estudantes de Enfermagem na qualificação de trabalhadores de escolas públicas em Primeiros Socorros. Métodos: Trata-se de um relato de experiência, descritivo, detalhando a vivência de acadêmicas na extensão universitária. As intervenções educativas desenvolveram-se entre dezembro de 2020 e dezembro de 2021 tendo como público professores e funcionários de escolas do município de Feira de Santana, Bahia, Brasil. A metodologia aplicada foi o Método Paideia, permitindo uma análise e cogestão de...
coletivos mediante una educación integral e dinámica. **Resultados:** Foram qualificadas 20 pessoas através de encontros virtuais utilizando a plataforma Google Meet, realizando a instrumentalização didática através de cards e folders, além da avaliação do impacto das ações utilizando testes. **Considerações finais:** Percebeu-se a importância de qualificações desta temática para trabalhadores em escolas a fim de promover saúde e prevenir agravos, além da necessidade de estudos que avaliem o efeito dessas intervenções.

**PALAVRAS-CHAVE:** Primeiros socorros. Suporte Básico de Vida. Qualificação. Escola.

**RESUMEN:** **Objetivos:** Describir la experiencia de estudiantes de enfermería en la calificación de trabajadores de escuelas públicas en Primeros Auxilios. **Métodos:** Se trata de un relato de experiencia, descriptivo, que detalla la experiencia de académicos en la extensión universitaria. Intervenciones educativas desarrolladas entre diciembre de 2020 y diciembre de 2021 con docentes y personal escolar en el municipio de Feira de Santana, Bahía, Brasil. La metodología aplicada fue el Método Paideia, permitiendo un análisis y cogestión de colectivos a través de una educación integral y dinámica. **Resultados:** Veinte personas fueron calificadas a través de reuniones virtuales utilizando la plataforma Google Meet, realizando instrumentalización didáctica a través de tarjetas y carpetas, además de evaluar el impacto de las acciones mediante pruebas. **Consideraciones finales:** La importancia de las calificaciones de este tema fue percibida para los trabajadores en las escuelas con el fin de promover la salud y prevenir lesiones, además de la necesidad de estudios que evalúen el efecto de estas intervenciones.

**PALABRAS CLAVE:** Primeros auxilios. Soporte vital básico. Calificación. Escuela.

**Introduction**

The academy has the responsibility to share with society the findings of its studies and experiences so that both formulate proposals for structuring programs and projects based on their vulnerabilities, resulting in the beneficial enhancement of the educational process (PEREIRA et al., 2015). Extension projects have the ability to expand the performance of higher education beyond the campus through continuous action of an educational, social, cultural, scientific and/or technological nature (TUMELERO, 2018). The project described in this report allowed the university to fulfill this function by sharing – through undergraduate students – knowledge in health, more precisely on urgency and emergency, developed in the course of academic experience.

Within this area there are First Aid (PS, in Portuguese), which deal with the first assistance provided by the general population to the person who needs a given health care due to being injured or falling ill suddenly. Faced with what needs to be done, this includes the immediate recognition of conditions that put life at risk, as well as the taking of precise
decisions and actions in order to maintain vital functions in the best possible condition until qualified care is achieved with health professionals (CABRAL; OLIVEIRA, 2019; PEREIRA et al., 2015). Acting with agility and safety positively influences critical situations, a fact evidenced in the literature, showing that the theoretical-practical mastery is fundamental for better coping with these episodes (CARBOGIM et al., 2020).

There are many circumstances that lead to the essential application of PS, however, there are main events of different organic origins from which it is important to distinguish them during the initial assessment (PEREIRA et al., 2015). Of these, especially, we add Cardiorespiratory Arrest (CRP), seizures, fainting, Airway Obstruction by a Foreign Body (OVACE) or choking, burns and hemorrhage, which were targeted subjects during the educational extension actions that will be referred to here.

There is a high possibility that every individual will experience this type of event, either as a victim or as a rescuer, therefore requiring prior knowledge of PS. Essentially, there are greater chances of witnessing them in places with a greater flow of people routinely, which includes the school environment. In this regard, in 2018, the Lucas Law, the name given to Law 13,722, was approved, which determined that teachers and employees of public or private preschools and basic education schools, as well as any type of children's recreation establishment, have training in first aid.

This teaching is also encouraged by Ordinance No. 1,600, of July 7, 2011, as it prioritizes health actions in Emergency Care in the country, which includes helping lay individuals - that is, people who do not have in-depth knowledge in health – to have greater confidence to act in case of an urgent and emergency situation (BRASIL, 2011; COELHO, 2015).

However, even acknowledging the relevance of PS, this is a theme that is not very widespread in Brazil and, as a result, ends up leading to two problematic executions: (1) attitudes taken by the impulse of solidarity without adequate training; and (2) the omission of assistance – it is worth mentioning that it is considered a crime under Art. 135 of the Penal Code. Both cases lead to serious harm considering that the lack of effective PS application are the main causes of damage, sequelae and death (BRASIL, 1940; COELHO, 2015; PEREIRA et al., 2015).

In view of this, considering that school teachers are active participants in the teaching-learning process, with high potential and can become multipliers of Basic Life Support (BLS) maneuvers in the face of a CRA and appropriate PS conducts, the core of this plan of extensionist work in relation to the actions was to ensure that the lay population, based on the
qualification of teachers and school employees, is a producer of their own health, becoming capable of exercising autonomy with regard to the SBV and the most frequent situations that require it. Knowledge of PS that need to be carried out locally – as they are more likely to experience it – managing to act correctly, quickly and effectively, in addition to contributing to the improvement of public health and quality of life in society.

For this, it was planned to provide accessibility of information to this target audience; guide them as to the correct measures in the face of the most common PS issues; equip them with regard to appropriate behavior in PS in the pandemic and post-pandemic scenario; and provide didactic materials and other tools for instruction and maintenance of knowledge, providing effective and collaborative health education.

In view of the above, the research question becomes viable: how do public school teachers and employees act in first aid situations? This article aims to describe the experience of nursing students in the qualification of teachers and employees of public schools in PS.

Methodology

This study refers to a descriptive experience report, therefore it aims to contextualize the experience lived by the Work Plans "Qualification of teachers and public-school employees in First Aid" and "Qualification of teachers and public-school employees in Basic Life Support". Both are linked to the Pro-Rectory of Extension (PROEX) and the Extension Program “Qualification in Urgency and Emergency: an articulation of the community, university and the urgency and emergency network” of Resolution CONSEPE 012/2018, of the State University of Feira de Santana (UEFS), Bahia.

The work was carried out by three (3) undergraduate students of the Bachelor’s Degree in Nursing and volunteer members of the Academic League of Emergencist Nursing (LAcEEm) - which is linked to the aforementioned extension program -, acting as monitors and co-authors under the guidance of the teacher from the same teaching institution, during extension activities. Therefore, it had the infrastructure and human resources necessary for the execution. The target public of the educational interventions corresponded to teachers and employees of schools in the city of Feira de Santana, Bahia, Brazil.

The development took place over a period of 1 (one) year, based on bibliographical research, records, summaries, survey of educational needs, planning and implementation of activities - through folders and cards -, carrying out educational actions - through meetings virtual using the Google Meet platform –, evaluation of the impact of educational actions and,
culminating in the elaboration of the experience report. Face-to-face actions were replaced by remote meetings due to the Municipal Decree of Feira de Santana, Bahia, nº 11.484, of March 13, 2020 and in the Decrees of the State of Bahia nº 19.528 and 19.529, on the establishment of measures to face of the public emergency resulting from the COVID-19 pandemic and the institution of remote work (UEFS, 2020).

It was decided that the qualification meetings would last for a period of 5 (five) months, with 1 (one) meeting per month lasting 2 (two) hours – totaling up to 10 hours of qualification. Each month, a specific subject would be addressed as planned in the schedule, described in Table 1.

**Table 1 - Schedule of monthly meetings**

<table>
<thead>
<tr>
<th>Month</th>
<th>Theme addressed</th>
<th>Qualification Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>May</td>
<td>Basic Life Support (SBV)</td>
<td>Understand what it is and how to identify a Cardiorespiratory Arrest (CRP); Learn how to act in the face of a PCR situation; Understand what it is and how to promote BVS; Learn the technique for performing cardiopulmonary resuscitation (RCP).</td>
</tr>
<tr>
<td>June</td>
<td>Fainting and Convulsive Crisis</td>
<td>Understand what is a seizure and a fainting; Understand the causes of seizure and fainting; Know how to identify them; Know how to act correctly in these situations.</td>
</tr>
<tr>
<td>July</td>
<td>Airway Obstruction by Foreign Body (OVACE)</td>
<td>Understand what an OVACE is; Understand why it happens; Know how to identify it; Know how to act correctly in this situation.</td>
</tr>
<tr>
<td>August</td>
<td>Burns</td>
<td>Understand the conceptual aspects of a Burn; Discuss the severity of a Burn; Demonstrate the classification of burns; Know how to act correctly in this situation.</td>
</tr>
<tr>
<td>September</td>
<td>Bleeding</td>
<td>Understand what a hemorrhage is; Discuss the severity of a Hemorrhage; Demonstrate the classification of hemorrhages; Know how to act correctly in this situation.</td>
</tr>
</tbody>
</table>

Source: Research data - Prepared by the authors

The organizers had the support of the Núcleo Territorial de Educação of the municipality of Feira de Santana to publicize the event, which had 82 (eighty-two) subscribers. Therefore, the contact with the participants took place through informative emails and through the WhatsApp telephone record made available in the registration form.

In the initial and final moments of each meeting, a pre-test and a post-test were applied, respectively, through Google Form in order to get a sense of the participants' prior knowledge about the topic scored and to evaluate the absorption of the content during the meeting qualification.
The methodological conception applied was the Paideia Method – also known as the Roda Method – which allows an analysis and co-management of collectives through an integral, dynamic and interactive education. This resource allows subjects greater degrees of responsibility and autonomy for health care, in addition to expanding the individual’s ability to deal with information, interpret it and understand themselves, others and the context, which was what was sought discussion among the participants and passing on theoretical notions within the PS agenda (CAMPOS et al., 2014).

The application of this method provided fluid teaching, with better assimilation of information and extended to the school community in the region. Due to social distancing as a preventive measure to the pandemic arising from the coronavirus, face-to-face actions were impossible, which did not prevent the transmission of content, discussion of clinical cases and questions prepared in advance. In addition, the availability of other tools could allow participants to expand the content in their work environment, disseminating what was learned.

**Results**

From the survey of educational needs, the activities were programmed through the formulation of a schedule, with this, the organization of virtual meetings began - a resource that allowed the actions to be carried out - together with the support materials through folders, cards, slides and evaluation tests. At the beginning of the month, the materials were produced by the students, under the guidance of the teacher and made available to the participants, always respecting the theme defined in the schedule.

Each meeting was attended by teachers and employees of municipal and state schools, and mediators (volunteer students and advisor), lasting 2 (two) hours, between 4:00 pm and 6:00 pm. The profile of those enrolled in the course was characterized mostly by females, aged between 20 and 60 years, in the functions of teachers, coordinators, administrative staff and general services, in addition to training in higher education as well as complete secondary and elementary education. At each of the moments, attendance lists were passed in order to control the frequency of subscribers.

In all, 20 (twenty) teachers and school staff were qualified, despite initially having a high number of people enrolled. This was due to the denser workload in schools as a result of the pandemic, which led to shocked schedules, preventing most teachers and staff from participating in meetings more effectively. Still, despite not being able to make themselves present remotely, the organizing team kept sending the materials; in this way, it was possible
to access the addressed content and use them in their work environment as a way of instrumentalizing them.

The first meeting took place in July 2021 with the theme Basic Life Support. Didactic material was made to be delivered to the participants during the meetings (Figure 01). At the end of the first meeting, the participants made some suggestions and congratulated the qualification initiative.

**Figure 1** – Cards and folder on Basic Life Support

![Figure 1: Cards and folder on Basic Life Support](image)

Source: Research data - Prepared by the authors

In the month of August 2021, the focus was on “Convulsive Crisis” and “Fainting”, as well as qualification with these themes, which had greater public participation compared to the previous month – 17 people. Both the cards and the folders were produced and sent by the e-mail address informed in the registration form (Figure 2).
Figure 2 – Cards and folders about Convulsive Crisis and Fainting

Source: Research data – Prepared by the authors.

The third meeting took place on the theme “Airway Obstruction by a Foreign Body (OVACE)”, with only 8 people enrolled (Figures 3). From the suggestion of the participants themselves, more images and videos were used during the course, which facilitated the visualization and understanding of the practical part about the themes that were being treated, becoming evident through the positive feedback of these individuals.
In October, it dealt with “Burns” and, finally, in November, it concluded with the subject “Hemorrhages”. In these last meetings, the participants felt more comfortable telling their experiences and asking more questions, making the meetings even more fruitful and interactive. In those months, attendance at the meetings was 9 and 14 people, in that order (Figures 4 and 5).
In each of the meetings, pre- and post-tests were carried out using the Google Form tool in order to assess the impact of educational actions through prior knowledge about each content and how much was taken advantage of by the target audience of the work plans (Table 2). In the BLS subject, there was a greater number of correct answers after the class (79.9%) compared to previous knowledge (54.1%). In the other four themes, the pre-tests continue to be simpler questions and the level of difficulty increased in the post-tests, which explains the number of correct answers not having increased so significantly.

After professors and employees answered the evaluation form, they discussed together what was answered and what the literature brought in its scientific content in health, specifically in urgency and emergency.

Figure 5 – Cards and folder about Hemorrhages

Source: Research data – Prepared by the authors
Table 2 – Percentage of correct answers in the evaluation tests

<table>
<thead>
<tr>
<th>THEMES</th>
<th>MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PRE-TEST</td>
</tr>
<tr>
<td>Basic Life Support (SBV)</td>
<td>54,1%</td>
</tr>
<tr>
<td>Fainting and Convulsive Crisis</td>
<td>62,5%</td>
</tr>
<tr>
<td>Airway Obstruction by Foreign Body (OVACE)</td>
<td>72,9%</td>
</tr>
<tr>
<td>Burns</td>
<td>75,7%</td>
</tr>
<tr>
<td>Bleeding</td>
<td>74,3%</td>
</tr>
</tbody>
</table>

Source: Research data - Prepared by the authors

Discussion

The various emergency situations that affect the population in the pre-hospital environment require interventions in the shortest possible time interval and correctly, because the first hours are the most important for ensuring the recovery or survival of victims(s) (NETO et al., 2017). Since the correct management becomes indispensable, which is possible from the PS. The PS include procedures and urgent and emergency care. Such care is still adopted in the place where the disease is happening in order to avoid worsening the condition and preserve individuals with imminent risk of life (COELHO, 2015).

One of its main advantages is that it is a basic tool that can be used not only by health professionals, but also by people who do not have specialized theoretical and/or practical knowledge. That is, lay people can apply PS as long as they understand and know what needs to be accomplished and therefore it is a necessary content in different age groups, social and professional segments (COSTA et al., 2015; PEREIRA et al., 2015). This conjuncture is pertinent, because in the vast majority of the time it is lay people who arrive first in an emergency scene.

Studies make it clear that lay people with adequate knowledge of their conduct in the circumstances of urgency and emergency are successful in managing risks, manage to prevent the worsening of the situation and can save lives by helping in a correct way; while the absence of appropriate management enhances severity (CARDOSO et al., 2017; COSTA et al., 2015; NETO et al., 2016; PEREIRA et al., 2015). Precisely for these reasons we see how fundamental is the existence of access to health information and community qualification, contributing to the reduction of morbidity and mortality from the appropriate action when necessary.
One of the main environments in which PS content needs to be present is in the school environment, since it is framed as a place where it is common to occur complications and accidents due to the wide interaction and development of different physical activities, besides having a large flow of people daily, thus becoming more prone to accidents with risks (CABRAL; OLIVEIRA, 2019; COELHO, 2015; NETO et al., 2016).

The biggest challenge, especially in Brazil, is to expand access to this teaching, establish processes for the continuous improvement of its quality, besides minimizing the time between Cardiopulmonary Resuscitation (CPR) and the application of the first shock by the defibrillator, as is the case of CRP – one of the conditions of urgency and emergency. Therefore, the actions performed during the initial minutes of emergency care are critical in relation to the survival of the victim. As appropriate and efficient as specialized care is, if basic actions are not performed adequately, when possible, the possibility of survival of a victim will be extremely low (GONZALEZ et al., 2013).

Although university extension programs play a fundamental role in teaching various themes for society, there are still several impediments to this to come to fruition. Since the authors of the extension activities, for the most part, the undergraduates of their respective universities, it is common for the target audience to underestimate their teachings, in addition to the lack of support from the public itself, which is directed, which end up not honoring the actions. Another point to be remembered is the limitation of the activity to be performed, since, in general, the resources are insufficient for a greater scope, both financially and in physical space for teaching to occur.

Extension actions aim to collaborate in the propagation of knowledge produced in universities, besides allowing students to intervene positively in the community still in an undergraduate environment. Neto et al. (2016) brings the need for the implementation of programs and courses that qualify individuals through educational institutions, companies and public agencies.

From this, the aforementioned extension plans made it possible for undergraduates of the nursing course to play this role, considering that urgent and emergency situations can be made present in people's daily lives leading to the need to adopt the measures, considering that the benefits are proportional to how much earlier the PS are applied in the correct way (COELHO, 2015). This issue allowed the sharing on the ER of the most common emergency scenarios in the region for teachers and school staff, who were qualified to recognize and act in these situations, making them able to help in necessary cases, in addition to carrying learning forward.
The biggest challenge was to deal with the low support of enrollees due to the density of demands in the school work environment as a result of the COVID-19 pandemic, despite the interest of these individuals in taking advantage while the issues were addressed each month. The virtual meetings resulting from the containment measures of COVID-19 through social distancing also prevented the practical application in laboratories with mannequins and simulations, which would allow a more dynamic teaching, which could not occur remotely, causing the scholarship holders and their advisor to commit to continue with the work plan in the following year in person, biosafety and pandemic control measures evolved.

The actions were of advantage to the students, considering that they studied more deeply to minister the presentations, as well as developing the oratory skills; as well as for the listeners, considering that they could learn more clearly and fluidly the content of each theme addressed through the development of critical thinking, clinical reasoning and the knowledge acquired in its instrumentalization in PS (CAMPOS et al., 2014; CARBOGIM et al., 2020). This was evidenced from the evaluation of the meetings, in which the participants evaluated with scores between 9 and 10; in addition to congratulating the initiative of the work plans and describing the actions as "very important" and "timely for our day".

This is said, it is observed the need to educate lay people with broad access to other people, so that, in a correct and reliable way, they can perform health improvement collectively, both by performing and also instructing, thus being an efficient, viable and pertinent way (PEREIRA et al., 2015). Implementing this type of education contributes to the existence of dynamism and plurality by passing on ideas about a given subject, in the case of PS, serving as a strategy in health education of greater acquisition, becoming an effective form of knowledge and skill – theory and practice, in this order – and, focused on the objective of the project, qualify teachers and school staff (CARDOSO et al., 2017).

Therefore, it is also crucial to improve updated scientific studies on the effects of an exclusive qualification for teachers and other employees in the school environment, in view of the social responsibility of sharing knowledge and experiences for society by researchers (PEREIRA et al., 2015).
Final considerations

Even with all the limitations and difficulties imposed by the COVID-19 pandemic, the extension work plan was carried out enabling lay people (teachers and public-school staff) to be qualified in the PS so that they could understand and intervene in real emergency situations using the knowledge acquired in their instrumentalization in PS. It should be highlighted that actions such as these contribute to the promotion, prevention and maintenance of health by going to the national principles of the Unified Health System.

We identified as limitation and difficulty the low access of the participants since we had 76 participants and only 20 participated in the meetings. As a facility, the public was very participative, clarifying doubts and sharing personal experiences. Despite acquiring a smaller than expected number of listeners at each meeting, the moments always counted on the participation of the participants during the presentations to answer when requested and ask questions in order to clarify their doubts. During the application of the questionnaires and explanations of the contents, it was mentioned by the participants to have already experienced situations that involved the theme, thus evidencing the need to update these in PS.

REFERENCES


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