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Community-based training in Basic Life Support for laypersons in Primary Care: an experience report.

Community-based training in Basic Life Support for laypersons in Primary Care: an account of an experience

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Summary

Community-based training in Basic Life Support (BLS) represents an essential strategy for expanding the immediate response to emergencies within the Primary Health Care setting. This study describes an educational activity aimed at laypeople, with the objective of strengthening their knowledge about recognizing cardiac arrest, early activation of emergency services, and performing basic cardiopulmonary resuscitation maneuvers. The activity was developed in a community setting, using active methodologies, practical demonstrations, and direct participation of residents. The topics covered included scene safety assessment, responsiveness verification, requesting help, high-quality chest compressions, and the use of an automated external defibrillator when available. After the intervention, participants demonstrated a greater understanding of the importance of immediate care and their ability to act in critical situations until professional support arrived. The initiative reinforces the role of Primary Health Care as a promoter of health education and demonstrated potential to increase community autonomy, reduce emergency response time, and contribute to better outcomes in cases of cardiac arrest. Training laypeople in Basic Life Support (BLS) should be encouraged as an ongoing component of community health initiatives.

Keywords: Basic Life Support; Health Education; Primary Health Care.

Abstract

Community-based training in Basic Life Support (BLS) represents an essential strategy for expanding the immediate response to emergencies within the Primary Health Care setting. This study describes an educational activity aimed at laypeople, with the objective of strengthening their knowledge about recognizing cardiac arrest, early activation of emergency services, and performing basic cardiopulmonary resuscitation maneuvers. The activity was developed in a community setting, using active methodologies, practical demonstrations, and direct participation of residents. The topics covered included scene safety assessment, responsiveness verification, requesting help, high-quality chest compressions, and the use of an automated external defibrillator when available. After the intervention, participants demonstrated a greater understanding of the importance of immediate care and their ability to act in critical situations until professional support arrived. The initiative reinforces the role of Primary Health Care as a promoter of health education and demonstrated potential to increase community autonomy, reduce emergency response time, and contribute to better outcomes in cases of cardiac arrest. Training laypersons in Basic Life Support (BLS) should be encouraged as an ongoing component of community health initiatives.

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1. Introduction

It is understood that Basic Life Support, established by the American Heart Association (AHA) is a tool of fundamental importance for patient management in the pre-operative setting. Hospital care. In conditions such as cardiopulmonary arrest, identification and initial management are crucial. are directly related to patient outcome (PERGOLA; ARAUJO, 2009)

To ensure a favorable outcome, the AHA recommends that Basic Life Support be...
taught in schools, in the workplace, and in other places with a high volume of people,



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considering that a volunteer rescuer may be able to increase a patient's survival rate.

while he awaits care from the pre-hospital emergency service (LANDA; FERREIRA, 2020).

In this sense, the importance of a general understanding of the sequence of actions in response to this support from a large part of the population, which is necessary to reduce harm and make most frequent desirable outcomes.

Globally, this practice is quite widespread, being primarily taught... in both public and private schools. However, in Brazil, it is more common to encounter... with this type of teaching in preparatory courses to guarantee the National Driver's License Qualification, as well as being present in schools, but always of an extracurricular nature. In Grande Belém, the teaching of Basic Health Support is almost always linked to... Volunteer services, whether in churches or neighborhood schools (public or private). However, the need to expand this knowledge is understood, given the positive impact that... This generates effects in society as a whole (CARVALHO, et al., 2020).

Basic life support (BLS) comprises steps that can be initiated outside of hospital environment and performed by laypersons, properly trained and informed, increasing the survival and reducing sequelae in victims of cardiac arrest (AMERICAN HEART ASSOCIATION, 2020).

Basic Life Support (BLS) is defined as the initial approach to the victim and includes clearing the airway. Airways, ventilation and artificial circulation. Early access to emergency services, care Advanced and early defibrillation are added to these maneuvers. (EUROPEAN RESUSCITATION COUNCIL, 2021).

The simple action of a layperson who quickly recognizes a possible cardiac arrest and calls for help. Providing assistance along with requesting the necessary equipment, in itself, prevents deterioration. myocardial and cerebral. There is overwhelming evidence of reduced mortality in victims of Patients who received immediate CPR from volunteers and were able to recover preservation of cardiac and cerebral functions (BRAZIL, 2013)

It should be kept in mind that the main purpose of CPR is to promote artificial circulation. of oxygenated blood to the body, mainly to the CNS and the heart, so that This continues until vital functions return to their physiological level (PERGOLA; ARAUJO, 2009).

According to Bhanji et al. (2015), it is essential that the population receives clarification regarding to assist in the response to a possible cardiac arrest, facilitating the memorization of the steps of Basic Life Support (BLS) in order to to make the process mechanical in order to avoid wasting time thinking about the next task to be done.

The paralysis caused by the emotions that an emergency triggers in a human being is a result of what is realized or the paralysis it evokes.



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This justification is based on the fact that there is a direct relationship between the onset of action time and... measures aimed at preserving myocardial and cerebral functions, along with a reduction in morbidity and mortality rates, in addition to their influence on survival and quality of life. affected by a cardiac arrest.

Therefore, the importance of early and appropriate cardiac arrest care is evident. Cardiorespiratory arrest, which corresponds to a tragic event that anticipates the end of life (sudden death).

2. Theoretical Framework

Basic Life Support (BLS) consists of a set of essential procedures. designed to sustain life in the event of cardiac arrest until support arrives. specialized. International guidelines indicate that rapid and appropriate interventions in The first few minutes after CPR significantly increase the chances of survival and reduce neurological sequelae (American Heart Association, 2020). However, the effectiveness of BLS is not It depends not only on trained teams, but also on the knowledge of the general public, since Most cardiac arrests occur outside of a hospital setting.

Several studies have shown that the lack of knowledge and confidence of laypeople... This constitutes one of the main factors that hinder the performance of BLS maneuvers. Among the The most frequently cited obstacles include fear of causing harm, anxiety in the face of an emergency, and absence. prior training (Böttiger et al., 2016). This knowledge gap contributes to delays Critical moments at the start of chest compressions are crucial for determining the victim's prognosis.

The literature suggests that the chain of survival—comprised of early recognition—is crucial. In case of cardiac arrest, immediate activation of emergency services and rapid initiation of resuscitation. Cardiopulmonary resuscitation (CPR) and early defibrillation — should be understood not only by healthcare professionals, but also ordinary citizens (Resuscitation Council UK, 2021). In this way, community empowerment represents a fundamental public health strategy because It increases the number of potential first responders and improves the initial response in emergencies.

Primary Health Care (PHC) plays a central role in this process, as it constitutes The level of the healthcare system closest to the population. The implementation of educational activities, Workshops and training on Basic Life Support (BLS) in Primary Health Care strengthen self-care and promote empowerment. community-based and contributes to the reduction of mortality from preventable sudden causes (Brazil, 2017). Basic Life Support (BLS) education programs for laypeople conducted in primary care units, schools, and other spaces. Community-based initiatives have shown promising results, increasing knowledge and self-confidence. and the intention to act in emergencies (Plant & Taylor, 2020).

In the context of this research, training in Basic Life Support (BLS) for laypersons in Primary Care emerges. as an essential intervention to address the identified problem: the lack of knowledge of



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The population needs to recognize cardiac arrest and act appropriately in the pre-hospital setting. Therefore, This work seeks to report on an experience of community guidance, education, and training. based on updated guidelines and aligned with the real needs of the population.

3. Material and Method

3.1 Intervention Project

This is an intervention project that aims to guide the target audience on Basic Life Support measures in the event of cardiac arrest, through a lecture. theoretical and practical training, and distribution of explanatory booklets to the population in the areas of coverage area of the health center.

3.2 Ethical considerations

It was clarified that the intervention project will not pose any risks or costs to the participants. Access to and reading of the booklet is optional.

3.3 Project intervention location

The project was carried out at the Basic Health Unit itself, through a theoretical and practical lecture. and distribution of brochures with flowcharts of the BLS protocol.

3.4 Target audience

This intervention was carried out at the designated Basic Health Unit (Primary Care). primarily for the general public who are unfamiliar with the subject and who frequent the unit.

Results

The Basic Life Support (BLS) training activity was carried out on-site. Basic Health Unit (UBS), involving users who frequented the location on the day of the action. The intervention took place through a theoretical and practical lecture conducted by the team, focusing on early recognition of cardiopulmonary arrest (CPA) and in the execution of the main steps of Basic Life Support (BLS) protocol for laypersons.

Initially, a theoretical presentation was given containing essential information about Identifying cardiac arrest, activating emergency services, and the sequence of chest compressions. and the use of an automated external defibrillator (AED), when available. Then, the following was performed... A practical demonstration of the maneuvers, using mannequins and accessible educational materials, which It allowed participants to visualize and practice the steps of customer service.

At the end of the lecture, participants received an educational booklet. Specifically for the project, containing a didactic flowchart with the step-by-step protocol. of BLS (figure 1). The material was developed to facilitate memorization of the steps and reinforce the

The importance of acting quickly and safely in an emergency.

Community participation was considered satisfactory, with good attendance from those present and Demonstration of interest during the practical part. It was observed that many participants reported never having received formal guidance on the subject, reinforcing the need for educational initiatives. continued in Primary Care. After the activity, an improvement in the understanding of the participants regarding the identification of CPR, the correct sequence of actions, and the importance of initiating treatment. Immediately begin chest compressions.

The use of printed flowcharts and step-by-step explanations contributed to greater... The activity also ensured the safety of the participants during the execution of the maneuvers. Strengthening the bond between the primary health care unit and its users, valuing the role of Primary Care in promoting health and empowering the community to prepare for emergency situations. In Table 1, The participants' perception after the training is demonstrated.

Figure 1 - A booklet on Basic Life Support (BLS) designed for laypeople.



Source: Authors' own.

Table 1 – Participants' perception after the training

Item evaluated	Before (%)	After (%)
Identify signs of cardiac arrest.	37%	92%
Knows how to initiate compressions	27%	88%
Do you feel confident enough to act?	15%	80%
Do you know the SAMU number?	86%	100%

Discussion

Community-based training in Basic Life Support (BLS) conducted at the Basic Health Unit.

The health assessment demonstrated a positive impact on participants' understanding and confidence to act.

In the event of a cardiorespiratory arrest (CRA). Before intervention, most users

reported a lack of knowledge about the steps of Basic Life Support (BLS), difficulty in recognizing signs of cardiac arrest, and...

insecurity in initiating chest compressions — findings similar to those described in studies that

National surveys highlight the general population's lack of preparedness for emergency situations.

International studies indicate that most witnesses to a cardiac arrest outside of a hospital setting are

composed of lay people, and the absence of early intervention significantly reduces the

chances of survival for the victim (Pergola & Araújo, 2009; Carvalho et al., 2020).

The educational initiative proved effective in promoting an immediate improvement in the understanding of participants, especially regarding the recognition of the absence of a response, and the verification process.

Rapid breathing and the need for early activation of emergency services. These findings

They reinforce the literature, which highlights that simple and repeated interventions, with accessible language and

Practical demonstrations increase retention of BLS steps and foster self-confidence in

laypeople when providing assistance (Landa & Ferreira, 2020).

The practical part of the training, carried out with mannequins and simulations, played a role.

fundamental in solidifying the content. Studies indicate that demonstrative and experiential activities

They increase the likelihood of acting correctly in real-life situations by reducing induced paralysis.

out of fear or insecurity. In addition, the delivery of the educational booklet with a flowchart.

Simplified formatting proved to be a helpful resource, especially for keeping content accessible afterward.

the activity. The use of visual materials is aligned with health education recommendations.

which emphasize the importance of clear and objective teaching strategies to reinforce learning.

Another relevant aspect was the spontaneous participation of the UBS users, demonstrating

The community's receptiveness and interest in acquiring knowledge that can save lives. This

This fact highlights the strategic role of Primary Health Care in promoting education in

emergencies, strengthening the bond between professionals and the population and expanding the reach of actions.

preventive measures. As pointed out by Carvalho et al. (2020), include basic life support (BLS) training in

The daily routine of primary health care contributes to the formation of communities that are better prepared and capable of acting.



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promptly until professional help arrives.

Despite the positive results, the activity has limitations inherent to its format. experience report, such as the reduced number of participants, absence of longitudinal evaluation and lack of formal measurement of practical performance post-intervention. Still, the findings They emphasize that simple, low-cost educational actions adapted to the local context can generate... significant impact on the population's ability to respond to emergencies.

In summary, the training provided reaffirms the importance of BLS education in primary care. Primary, demonstrating that interventions of this type can contribute to improving the Recognizing cardiac arrest (CPR) speeds up the initiation of chest compressions and increases the chance of... survival of the victims. It is recommended that similar strategies be incorporated in a way Periodic visits to primary health care units, expanding the number of trained laypeople and strengthening the culture of prevention and care in the community.

Final Considerations

In summary, the training provided reaffirms the importance of BLS education in primary care. Primary, demonstrating that interventions of this type can contribute to improving the Recognizing cardiac arrest (CPR) speeds up the initiation of chest compressions and increases the chance of... survival of the victims. It is recommended that similar strategies be incorporated in a way Periodic visits to primary health care units, expanding the number of trained laypeople and strengthening the culture of prevention and care in the community.

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