THE IMPORTANCE OF TEACHING AND LEARNING FIRST AID SKILLS TO LAY PEOPLE: AN INTEGRATIVE REVIEW

A importância do ensino e aprendizagem de técnicas de primeiros socorros para leigos: revisão integrativa

La importancia de la enseñanza y el aprendizaje de las técnicas de primeros auxilios para los profanos: revisión integradora

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ABSTRACT

Objective: to analyze the importance of teaching and learning first aid techniques for lay people. Method: integrative review conducted on LILACS, MEDLINE via PUBMED, BDENF, CINAHL, SCOPUS and Cochrane databases without time constraints. The descriptors used were: "Population Education," "Health Education," "First Aid," and "Emergencies." The descriptors were delimited and cross-referenced using the Boolean operators AND and OR. The sample consisted of 11 articles. Results: first aid training has a significant impact, especially when using pre- and post-intervention questionnaires, because the previous mistakes have already been turned into successes. Conclusion: the educational interventions carried out in schools and communities lead to the dissemination of knowledge and learning, thus being able to tangent the formation of multipliers, resulting in an informed society.

DESCRIPTORS: Population education; Health education; First aid; Emergencies;

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INTRODUCTION

Emergency care (EC) is the first intervention performed after a person suffers a sudden illness or accident until specialized help arrives. The purpose of initial care is to ensure the patient’s well-being and to prevent problems from getting worse.\(^1\)\(^2\)

There are many situations that require immediate attention, and how the individual responds usually determine recovery and often survival. Emergency care, therefore, includes emergency procedures that should not necessarily be performed by a healthcare professional. They can and should be performed by anyone who is properly trained and qualified.\(^3\)\(^4\)

In Brazil, in 2008, external factors were the leading cause of death in terms of number of occurrences in the age group from zero to 24 years old, except for children under one year of age. The main causes are related to traffic accidents, interpersonal aggression, falls, electric shocks, burns and contact sports, which are the main reasons for emergency victims.\(^5\)\(^6\)

When witnessing an accident, it is necessary for the person close to the victim to call the emergency services and provide initial care at the scene. Data show that the leading cause of death in the prehospital setting is lack of care and the second is inadequate care.\(^7\)\(^8\)

Education of first aid is of great societal importance, considering that Basic Life Support (BLS) delivered correctly and quickly reduces mortality and increases survival of victims. Thus, for the effectiveness of this precise approach, this scenario could be modified with educational interventions for first aid that have these topics as their focus.\(^9\)\(^10\)

By providing the dissemination of knowledge about the behaviors that should be adopted in situations involving first aid, society becomes more empowered, favoring the chance of victims who need immediate care, mitigating the mortality rate in this situation. It is of paramount importance that the community knows how to provide this care, as it can determine whether the victim survives.\(^10\)\(^11\)

Therefore, the importance of knowledge dissemination is observed. Topics related to health (health education) such as First Aid should be part of society in general, the provision of training to the population is essential for them to act appropriately in the face of emergencies, since the fear of taking initiatives in these situations constitutes a major obstacle for lay people to start the service.\(^9\)

The knowledge of first aid techniques is considered a very important factor in helping a victim from an accident, having knowledge of emergency procedures is the most important tool that can be used by the rescuer, knowledge that is still little disseminated in the general population, being more spread in small groups, almost exclusively among health professionals.\(^12\)

In view of the above, this study aims to analyze, through literary evidence, the importance of teaching and learning about first aid skills for lay people.

METHOD

The knowledge synthesis method used was an integrative review of the literature, which allows the formulation of general conclusions about a given knowledge area through a synthesis of studies published in the perspective under investigation.\(^13\)

RESUMO


DESCRITORES: Educação da população; Educação em saúde; Primeiros socorros; Emergências;

RESUMEN

Objetivos: analizar, la importancia de la enseñanza y el aprendizaje de las técnicas de Primeros Auxilios para los profanos. Métodos: revisión integradora en las bases de datos LILACS, MEDLINE a través de PUBMED, BDENF, CINAHL, SCOPUS y biblioteca Cochrane, sin corte de tiempo. Los descriptores utilizados fueron: "Population Education", "Health Education", "First Aid" y "Emergencies", en inglés se delimitaron y cruzaron los siguientes descriptores: "Population Education", "Health Education", "First Aid" y "Emergencies", los operadores booleanos AND y OR. La muestra estaba compuesta por 11 artículos. Resultados: las formaciones en primeros auxilios tienen un impacto significativo sobre todo cuando se aplican los cuestionarios previos y posteriores a la intervención, ya que los errores cometidos anteriormente se transformaron en aciertos. Conclusión: las intervenciones educativas llevadas a cabo en las escuelas y comunidades conducen a la propagación del conocimiento y el aprendizaje, pudiendo así tangibilizar la formación de multiplicadores, dando lugar a una sociedad informada.

DESCRITORES: Educación de la población; Educación en salud; Primeros auxilios y emergencias;
The study consisted of the following steps: I) identification of the subject and selection of the hypothesis or research question for the preparation of the integrative review; II) establishment of inclusion and exclusion criteria for studies/sampling or literature search; III) definition of the information to be extracted from the selected studies/categorization of the studies; IV) assessment of the studies included in the integrative review; V) interpretation of the results; VI) presentation of the review/knowledge synthesis.\textsuperscript{14,15}

For this integrative review, the following guiding question was developed: What is the importance of first aid learning for lay people? To find adequate answers to the research question and to better define the population and the context, the variables of interest and the outcomes, the PVO (Population, Variables and Outcomes) strategy was chosen for the articles search described in Chart 1.

Data collection was performed between October and December 2021, in pairs by different researchers. The following databases were consulted: Latin American and Caribbean Health Sciences Literature (LILACS), Medical Literature Analysis and Retrieval System Online (MEDLINE) via National Library of Medicine National Institutes of Health (PubMed), Nursing Database (BDENF), Cumulative Index to Nursing and Allied Health Literature (CINAHL), SciVerse (SCOPUS) and Cochrane Library (COCHRANE), using the advanced search method and the title, abstract and subject category. In each database, the descriptors were defined, and the Health Sciences Descriptors (DeCs) used were: "population education", "health education", "first aid" and "emergencies" with the Boolean operators AND and OR.

The articles were subjected to a filtering process consisting of the following inclusion criteria: electronically available articles with full text online; classified as original; primary studies published in Portuguese, English or Spanish. Duplicate and repeated studies were excluded, as well as those that did not address the topic under study. The adopted data collection form proposed by Ursi and Galvão was used, which organized the main information about the studies (author/year/location, level of evidence, title, type of study and conclusion.\textsuperscript{15}

The studies included in the sample were categorized according to the five levels of scientific evidence (LE): I - Evidence from systematic reviews or meta-analyses of clinical trials; II - Evidence from at least one well-designed randomized controlled clinical trial; III - Clinical trials without randomization; IV - Cohort and case-control studies with an explicit design; V - Systematic review of descriptive/qualitative studies; VI - That contemplate a qualitative study; and VII - Opinion of authorities/expert reports.\textsuperscript{16}

The Preferred Reporting Items for Systematic Review and Meta-Analyses (PRISMA)\textsuperscript{17} illustrates the entire process of identification, sorting, eligibility, and inclusion of studies (FIGURE 1).

A critical analysis and qualitative synthesis of the selected articles were carried out, so that the studies were analyzed critically, rigorously and according to the methodology applied, in addition to verifying the ability of the studies to contribute to this work.

Review studies do not require approval by the research ethics committee. However, it is essential that this type of investigation be faithful to the data of the primary studies, as well as mentioned the full texts, applying scientific rigor when exploring them.

RESULTS

A total of 11 articles were included in this integrative review. Brazil was the most common country of publication with nine studies, followed by Australia and Boston with one study each. The studies were conducted between 2015 and 2021. The characterization of the selected studies is shown in Chart 2.

In terms of study design, four quasi-experimental articles, two randomized trials, four descriptive articles and one experience report were highlighted. Regarding the indexed databases, there were: two studies in SCOPUS, three in LILACS, three in BDENF, two in PUBMED and one in MEDLINE. Regarding the level of evidence, five were NEIV, four were NEIII and two were NEII.

\textbf{Chart 1} - Subject descriptors in DECS and MESH, through the PVO strategy, for the construction of the guiding question. Crato- CE, Brazil, 2021.

\begin{tabular}{|c|c|c|c|}
\hline
\textbf{Strategy Items} & \textbf{Components} & \textbf{Subject Descriptors (DeCS)} & \textbf{Subject Descriptors (MeSH)} \\
\hline
Population & Lay people & Population Education & Population Education \\
& & AND & AND \\
\hline
Variables & First Aid & First Aid & First aid \\
& & AND & AND \\
\hline
Outcomes & Teaching and learning & Health Education & Health Education \\
\hline
\end{tabular}

\textbf{Source:} The Authors, 2021.
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The results showed that first aid training has a significant impact, especially when using questionnaires before and after interventions, because mistakes made before were already transformed into hits. The main topics covered were cardiorespiratory arrest (CPA), airway obstruction, bleeding, electric shock, fainting and burns.

DISCUSSION

In view of the problem exposed, the studies found showed the importance and the need to teach about the first aid conduct, considering that there is a deficit of knowledge about these conducts in the population, as identified by Jonge (2020), in a study carried out in Rio de Janeiro with 64 early childhood education professionals, and of which only 9% were able to act effectively in the face of choking as a child. As well as by McCarty (2019), who identified in a group of 102 lay people who, despite having knowledge of the tourniquet maneuver, performed it incorrectly.20,26

The main barrier to lay first aid in emergencies is the lack of knowledge, guidance and training in basic life support, as lay people are aware of the importance of their actions in these situations and are interested in learning first aid techniques. Thus, training measures would probably have great adhesion and repercussion, making the layperson qualified to act in the initial care of emergencies in pre-hospital environments and increase the survival rate of victims of accidents such as: CPA, airway obstruction, bleeding, fainting, electric shock, among other complications.18

It is possible to analyze the significant improvement in the knowledge and practice of the participants after educational interventions, which proves the effectiveness of teaching-learning. For this reason, it is necessary to disseminate and train the population on the correct behaviors to be followed in cases of urgency and emergency, ensuring the safety of the victim and greater effectiveness of the rescuer’s action. These behaviors can save lives, in addition to assisting in prehospital care, culminating in the reduction of mortality due to accidents, as well as the reduction of hospitalization time in the hospital environment, ensuring a good prognosis for the victim.23

In this context, health education in first aid is an important tool capable of contributing to the prevention and promotion of health, as it allows social development, giving autonomy in the care of life and prevention of injuries in case of accidents, in this way teaching-learning provides an interaction between scientific knowledge and common sense, ensuring the dissemination of this information, as well as reflection on social responsibilities related to health. While it is a citizen’s legal duty to render assistance to the victim in an emergency, whether by administering first aid or even by calling 911, there should be no failure to render assistance.28

The inability to perform the maneuver or the total lack of knowledge of its applicability can lead to a worsening of the situation, due to late intervention or by generating complications in the victim. Thus, understanding first aid enables the individual to act more safely and effectively in the face of an emergency. With greater knowledge and skills, he will be able to reduce the possible damage to the victim’s health.27

The results of several studies show that the provision of basic life support by laypersons reduces the mortality and morbidity of victims.

In relation to school teachers, the data showed that in the analysis of previous knowledge applied before educational practice most teachers were not previously trained in relation to first aid care in childhood. However, in the school environment, they are the professionals who remain in greater contact with students, but there is no investment in first aid preparation for teachers like this. A lack of preparation of these professionals that generates nervousness and insecurity, resulting in inadequate provision of first aid, so there is a need to include the subject in the academic curriculum of teachers.20,21

The knowledge of early childhood education teachers about the prevention and care of children who are victims of airway obstruction due to a foreign body increased after the educational workshop, and the average number of correct answers to the questions in the questionnaire was significantly higher after the intervention, demonstrating the importance of these trainings for the population.21

Teaching first aid to children and adolescents is also an important tactic for reducing morbidity and mortality due to accidents, anyone, if trained, can provide first aid care, remaining calm and confident and having as a basic principle the quick and safe approach, so if first aid techniques are approached from childhood,
### Chart 2 - Characterization of the studies included in the results (N = 11).

<table>
<thead>
<tr>
<th>ID *</th>
<th>Author, Year, Country, database and NE</th>
<th>Title</th>
<th>Study Type</th>
<th>Objective</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1(^{18})</td>
<td>PEREIRA, et al., 2015 / Brasil/ LILACS/ NEIV</td>
<td>The construction of knowledge about accident prevention and first aid by the lay public</td>
<td>Cross-sectional descriptive</td>
<td></td>
<td>Teaching the lay public about accident prevention and first aid has proven to be effective and feasible, at least in theory</td>
</tr>
<tr>
<td>A2(^{19})</td>
<td>MARGARIDA, et al., 2021/ Brasil/ LILACS/ NEIV</td>
<td>Experience of multiprofessional residents in first aid instruction and accident prevention in schools</td>
<td>Cross-sectional descriptive</td>
<td></td>
<td>The first aid training has successfully achieved its goals of educating and sensitizing the population about accident prevention in order to minimize injuries</td>
</tr>
<tr>
<td>A3(^{20})</td>
<td>JONGE, et al., 2020/ Brasil / BDENF/ NEIV</td>
<td>Early childhood educators' knowledge of foreign body airway obstruction</td>
<td>Descriptive, with a qualitative approach</td>
<td></td>
<td>It was observed that the teachers of early childhood education have insecurity and lack of knowledge in first aid, which implies the need for training actions</td>
</tr>
<tr>
<td>A4(^{21})</td>
<td>COSTA, et al., 2020/ Brasil/ BDENF/ NEIII</td>
<td>Effects of an educational workshop on the prevention and care of the children with choking: an intervention study</td>
<td>Quasi-experimental with pre- and post-test and quantitative approach</td>
<td></td>
<td>The educational workshops expanded the knowledge of health and early childhood education professionals in the prevention and care of children with choking</td>
</tr>
<tr>
<td>A5(^{22})</td>
<td>SANTANA, et al., 2020/Brasil/ LILACS/ NEIII</td>
<td>Educational intervention in first aid for primary school students</td>
<td>Quasi-experimental</td>
<td></td>
<td>The educational intervention in first aid for school children was effective and demonstrated the emerging need to include this discipline in the basic education curriculum</td>
</tr>
<tr>
<td>A6(^{23})</td>
<td>LIMA, et al., 2021/Brasil/ BDENF /NEIII</td>
<td>First aid as an object of health education for municipal school professionals</td>
<td>Quasi-experimental, Quantitative</td>
<td></td>
<td>A significant increase in knowledge after the educational practice was perceived, which may contribute to the initial quality care of the victim</td>
</tr>
<tr>
<td>A7(^{24})</td>
<td>GRIMALDI, et al., 2020/ Brasil / LILACS/ NEIV</td>
<td>School as a place for learning first aid</td>
<td>Descriptive, exploratory quantitative</td>
<td></td>
<td>First aid interventions have been shown to be effective, emphasizing the relevance of including the discipline of first aid in schools</td>
</tr>
<tr>
<td>A8(^{25})</td>
<td>DANTAS, et al., 2018/ Brasil/ SCOPUS/ NEIV</td>
<td>First aid approach in schools: Children, adolescents and teachers learn to save lives</td>
<td>Quasi-experimental</td>
<td></td>
<td>The students obtained significant learning through educational intervention. It is necessary to coordinate the implementation of first aid in the school</td>
</tr>
</tbody>
</table>
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It is reiterated that the teaching of first aid contributes significantly to the learning of the lay population, since after the actions carried out with the public, they showed a significant improvement with respect to the previous knowledge before the interventions; actions such as these can be democratized for the entire population and are not limited only to health professionals.24

In this context, it is believed that nursing can stand out in the teaching of first aid techniques, considering that most studies show that nursing is the precursor of these actions for lay people, in addition, the nursing professional is responsible for prevention, care and maintenance of health and is the one who has the closest contact with the patient. They play the role of educating and teaching the population outside the hospital environment.

The research presented a limitation in terms of time, although there is no delimitation, it is suggested that more comprehensive studies be developed on the matter in question, another fact was the lack of specificity of the findings in relation to the teaching of first aid skills for lay people, although the sample is a small quantity, we were able to respond to the objective of the review.

CONCLUSION

In this study, it is possible to visualize a great need for the insertion of a better approach in education and health regarding first aid in the population context. It is possible to consider that educational interventions for the general population on first aid are essential to increase health safety, considering that appropriate behavior, at an early stage, in cases of risk of death, can increase the survival of the victim.

It should be emphasized that educational interventions carried out in schools and communities lead to the dissemination of knowledge and learning, in this way touching on the formation of multipliers, resulting in an informed society.

Therefore, a trained person present at the scene of an emergency will make all the difference in increasing the chances of survival of those who need help. To this end, the study highlights the importance of accessible and objective language to facilitate the understanding and adherence to these practices throughout the population, so that they can provide basic life support effectively and quickly, reducing the risk of mortality and permanent sequelae in victims.

It is believed that first aid behaviors taught to the lay public envision a society more responsible and aware. Thus, the importance of teaching first aid techniques in different scenarios is emphasized, so that health education is present through BLS training, lectures, realistic simulations, making the lay people able to act and save lives, as well as multiplying knowledge.
REFERÊNCIAS


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