

HEALTH EDUCATION INTERVENTIONS ON FIRST AID MEASURES FOR LAY PEOPLE IN BRAZIL: INTEGRATIVE REVIEW

Nelson Miguel Galindo Neto*
Guilherme Guarino de Moura Sá**
Eliane Maria Ribeiro de Vasconcelos***
Telma Marques da Silva****
Ana Maria Ribeiro dos Santos*****
Khelyane Mesquita de Carvalho*****

ABSTRACT

This study aimed to analyze the available evidence on health education interventions that contemplate first aid for lay people in the Brazilian context., the method of integrative review of the literature was selected in the databases LILACS, BDTD and in the Scielo library to proceed with the research through the descriptors: Education in Health, First Aid, Population, and Emergencies. Nine studies were selected. In eight studies, the participants presented better performance regarding the behaviors to be taken after the educational interventions. The studies were carried out with several types of lay participants in first aid: students and teachers of educational institutions were present in six studies. This finding reflects the existing demand for educational interventions on first aid during the basic training of the individual and in the various environments of society. Therefore, it is necessary to carry out studies on health education on first aid for lay people to subsidize, with scientific evidence, the educational practices of health professionals.

Keywords: Health Education; First aid; Population; Emergencies.

INTRODUCTION

First aid is the evaluation of the need for intervention of behaviors that can be carried out by a witness devoid of specialized relief materials⁽¹⁾. The urgency and emergency situations that affect the population outside the hospital environment need interventions in the shortest time possible and correctly. Thus, it is important to promote health education to the lay population about first aid to minimize potential complications⁽²⁾.

Information on the correct behavior to be carried out in cases of urgency and emergency needs to be disseminated to citizens to give them security to cope with risk situations and to help them to become potential rescuers. In this context, health education is a tool capable of helping to prevent and promote health by enabling the interaction of information between scientific knowledge and common sense, enabling critical reflection on those involved with the teaching-learning process and corroborating with the inclusion of society in health responsibilities⁽³⁾.

Statistics show that only 1/3 of those who suffer

from cardiorespiratory arrest are rescued in out-of-hospital settings. In situations of urgency and emergency, the efficient performance of people who do not have academic training in health can prevent death^(4,5). Therefore, the preparation of the lay population in first aid is crucial for positive outcomes after the problem.

Health education is a resource scientifically producing knowledge in the health area, mediated by professionals, reaching the daily lives of people. Thus, the understanding of urgency and emergency situations provides subsidies for the adoption of new habits and behaviors of health⁽⁶⁾.

When considering the relevance of evidence-based practice, it should be emphasized that educational actions involving first aid should be based on research results rather than on an empirical basis. Despite the international consensus on the relevance of lay training and the association between such training and the reduction in morbidity and mortality rates, it is necessary for health professionals to know the interventions performed to evaluate the process of teaching first aid⁽⁷⁾.

*Nurse. Ph.D. in Nursing. Federal Institution of Education, Science and Technology of Pernambuco, campus Pesqueira. Pesqueira, PE, Brazil. E-mail: nelsongalindont@hotmail.com

**Nurse. Master's degree in Nursing, Federal University of Piauí, Technical College of Bom Jesus. Bom Jesus, PI, Brazil. E-mail: guilherme_mourasa@hotmail.com

***Nurse. Ph.D. in Nursing. Federal University of Pernambuco. Recife, PE, Brazil. E-mail: emr.vasconcelos@gmail.com

****Nurse. Ph.D. in Nursing. Federal University of Pernambuco. Recife, PE, Brazil. E-mail: telmarques@yahoo.com.br

*****Nurse. Ph.D. in Nursing. Federal University of Piauí. Teresina, PI, País. E-mail: ana.mrsantos@gmail.com

*****Nurse. Master's degree in Nursing. Federal University of Piauí, Technical College of Bom Jesus. Bom Jesus, PI, Brazil. E-mail: khelyanemc@gmail.com

Therefore, it is necessary to collect studies on the subject to enable access to scientific evidence and contribute to the decision-making of health professionals regarding health education about first aid for lay people. In this way, this study had the objective of analyzing the available evidence on health education interventions that contemplate first aid for lay people in the Brazilian context.

METHODOLOGY

To reach the proposed objective, the integrative review method was selected through which it is possible to gather and synthesize the results of research and to obtain deepening in a certain theme to direct and to base the practice⁽⁸⁾. For its operation, the following steps were followed: selection of the guiding question, in the theme of the review; determination of the criteria for inclusion and exclusion of articles and selection of studies for sample composition; definition of the information to be extracted from the selected studies; analysis of the studies that integrate the sample; interpretation of the results and report of the review⁽⁸⁾.

The guiding question of this study was: *What is the evidence available in the literature about health*

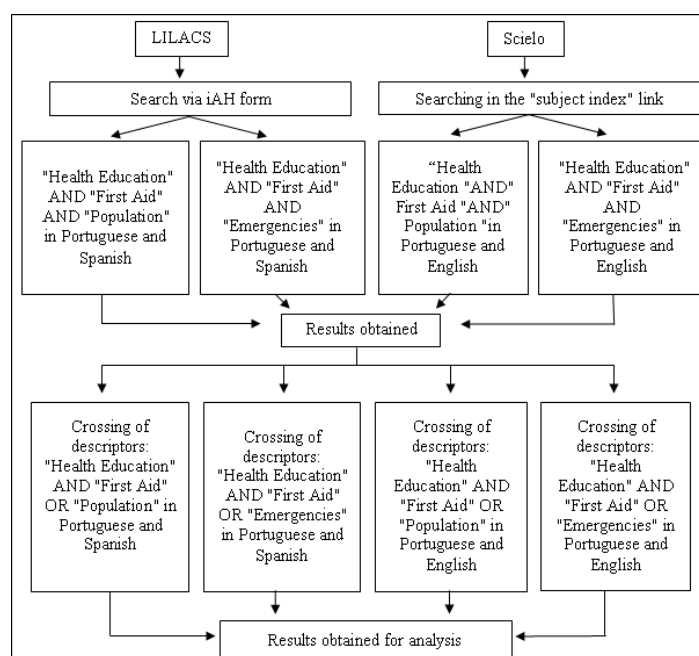
education interventions that contemplate first aid for lay people in the Brazilian context?

The bibliographical survey was carried out in October 2015 through the virtual access to the Latin American and Caribbean Health Sciences Literature database (LILACS), the SciELO Brazil library and the Digital Theses and Dissertations Library, the Coordination for Improvement of Capes (BDTD) using the descriptors extracted from the Descriptors in Health Sciences (DeCS): Health Education, First Aid, Population and Emergencies.

The search was carried out by two independent researchers, who standardized the sequence of use of descriptors and crossings in the database and libraries. The results obtained by both were confronted to ascertain the existence of difference for diagnosis and correction of some possible misunderstanding in the search phase of the studies.

In the LILACS and in Scielo, the descriptors crosses occurred as summarized in the flowchart contained in Figure 1. In the BDTD, the search occurred by the individualized descriptors, without crossings, to minimize the possibility of loss of some dissertation or thesis that contained only one of the descriptors.

Figure 1. Flowchart of data collection steps in databases. Recife/PE (2015)



Source: prepared by the authors.

The inclusion criteria for the selection of the sample were studies available in full electronically and

that approached some intervention of health education on first aid for lay people in the Brazilian context.

Exclusion criteria were chapters of books, news, editorials, studies that did not respond to the questioning of the research or whose operationalization occurred outside Brazil and those already selected in the search in another database or library. It should be noted that there are no restrictions regarding the period of publication, level of evidence or language of the studies.

For the data extraction, an instrument already validated in the literature⁽⁹⁾ was used, which includes aspects referring to the authors of the studies; place, year and country of development; to the objective, result, and conclusion of them in the guiding question. In order to determine confidence in the use of its results and to strengthen the conclusions of the study, the level

of evidence of the studies included in the review was also evaluated⁽¹⁰⁾.

Finally, the last stage was built, consisting of the elaboration of the document with the complete description of the stages covered.

RESULTS

After the crossings of the descriptors, the search had 7449 studies. After reading the titles and abstracts for verification regarding the inclusion and exclusion criteria, nine studies were selected to compose the sample.

The results obtained from the search in each base or library and those eliminated according to the exclusion criteria are presented in Table 1.

Table 1. Selection of studies from the LILACS database and in the Scielo and BDTD libraries. Recife/PE (2015)

Database/ Library	Search results	Repeated studies	Studies with fugue of the theme	Unavailable research	Selected research
BDTD	1008	04	999	00	05
LILACS	3962	20	3938	01	03
Scielo	2479	19	2459	00	01
Total	7449	43	7395	01	09

Source: prepared by the authors.

There was a predominance of nurses in the authors of the studies, present in seven of the nine publications. The years with the highest number of publications were 2008 and 2012, with two publications each study and the studies came mostly from the South and Southeast regions.

The analysis of the profile of the nine studies that integrate the sample of this study, regarding the professional category of the authors, year and place of publication of the study, year and place of execution of the study, is summarized in Chart 1.

Chart 1. Distribution of studies included in the integrative review according to the database, professional category of the authors, journal, year of publication, place and year of the research. Recife/PE (2015)

Databases/ Quote of the publication included	Professional category of authors	Journal	Year of publication	Place of The research	Year of the research
LILACS ^(A)	Nurses and nursing students	Rev. Gaúcha de Enf.	2010	Porto Alegre/RS	2006
Scielo ^(B)	Doctors	Rev. Brasil. de Edu. Méd.	2008	São Paulo/SP	No Cited
LILACS ^(C)	Nurses and doctors	Rev. Elet. de Enf.	2008	Botucatu/SP	2006
LILACS ^(D)	Nurses	ACTA Paul. de Enf.	2005	Goiânia/GO	2002
BDTD ^(E)	Nurses	Bibli. digital da USP	2012	Marília/SP	2012
BDTD ^(F)	Nurses	Bibl. digital da UNICAMP	2009	São Paulo/SP	2008
BDTD ^(G)	Odontologist	Bibli. digital da UnB	2006	Brasília/DF	2004 and 2005
BDTD ^(H)	Nurses	Bibl. digital da USP.	2010	São José dos Campos/SP	No Cited
BDTD ^(I)	Nurses	Bibli. digital da USP.	2012	São Paulo/SP	2011

Source: prepared by the authors.

Regarding the methodology of the studies included in this review, studies with lower level of evidence such as descriptive studies were found in three studies, while only one study presented a higher level of evidence (experimental study). Also, there was a variety of participants found in the studies: students,

elementary school teachers, transportation service employees and neighborhood residents.

The methodology, objective, subjects studied and conclusion of the studies that integrate the sample of this review are summarized in Chart 2.

Chart 2. Synthesis of the studies integrating the integrative review according to method and approach, objective, participants and conclusion of the study. Recife/PE (2015)

Method/Approach	Objective	Participants of the study	Conclusion
Experience report ^(A)	To report first aid workshops to subsidize teaching experiences in this area.	Three groups with an average of eight residents of a neighborhood of Porto Alegre	There was learning of the facilitating participants who could see beyond the technique and use the creativity to build the knowledge of the existing culture.
Descriptive - exploratory ^(B)	To evaluate the results of a practical theoretical course for the training of health professionals and the lay community for risk situations due to trauma or clinical conditions.	There were 47 health participants (medical academics, physicians, nurses, nursing assistants), and 59 lay people (first and second-grade teachers, hospital staff, engineers, and scientists).	Participants understood the need to prevent injuries and to qualify for initial care. A better result occurred with the group of health professionals.
Descriptive - exploratory ^(C)	To identify the level of knowledge of teachers and municipal school staff, pre- and post-training on first aid.	There were 63 teachers and public school staff	Most of them demonstrated their knowledge of first aid situations.
Experience report ^(D)	To report the experience of courses on first aid given to schoolchildren.	There were 126 philanthropic school students	The average score was higher after the course and the children reported having taught the family what they had learned and felt ready to save lives.
Qualitative/ Research ^(E)	To evaluate the performance of lay people in cardiorespiratory resuscitation and the use of the automatic external defibrillator.	There were 22 workers at the Urban Transport Terminal	It was reported the possibility of coping with the situation and the need for greater workload for better assimilation of content.
Quasi-experimental/ quantitative ^(F)	Check how the driver training course contributes to the training of lay people on first aid.	There were three instructors and 100 students from a driver training course	Course students do not retain the content taught, so the course does not seem to fit their purpose.
Experimental ^(G)	To evaluate the influence of educational work on prevention and emergency handling of dental avulsion for different groups of professionals.	There were 102 elementary school teachers, 124 physical educators, 103 bankers, 100 dentists and 50 physicians	There was an improvement in responses to the information.
Descriptive - exploratory ^(H)	To identify the skill and knowledge of undergraduate students from a private university.	There were 173 first-year students of Biomedicine, Dentistry, Nutrition, Physiotherapy, and Pharmacy	There was an improvement in the knowledge and ability of the students after the educational interventions.
Observational, longitudinal/ quantitative ^(I)	To evaluate the knowledge and skills about prehospital care for victims of cardiac arrest.	There were 37 first-year nursing students	After practical theoretical training, there was an improvement in knowledge and ability.

Source: prepared by the authors.

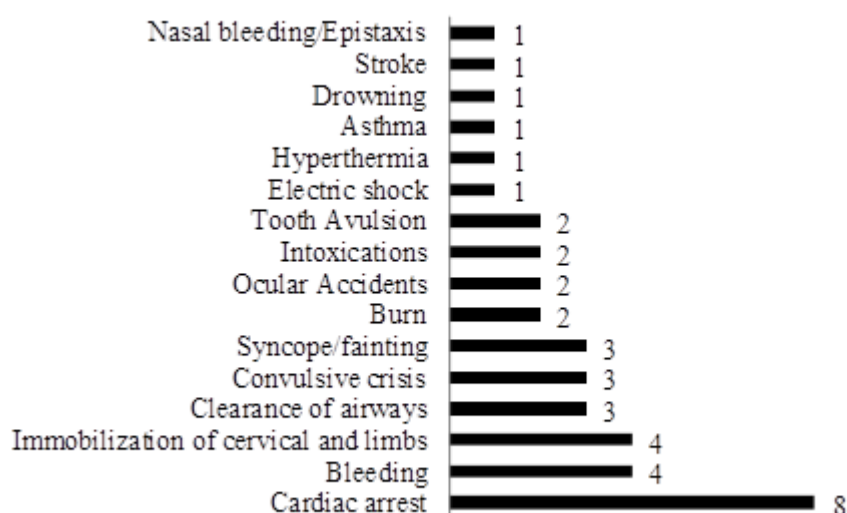
Seven of the nine studies that integrate the sample showed that the evaluation of educational interventions occurred through the application of pre-test and post-test. As for the other two, one is an experience report and the other a qualitative study, in both the evaluation, is not mentioned. In order to carry out such an evaluation, the seven studies refer to the use of an instrument. In three of these the validation of the instrument of data collection is mentioned and in the other four, it is not mentioned.

The hourly loads of education interventions are cited in seven of the nine studies, so six of them are less than ten hours, varying from one to nine hours, and the seventh has a workload of 21 hours. The theoretical approach of content is reported in two studies, the presence of theoretical approach and demonstration of practice occurred in three studies and

the remaining four records the occurrence of theoretical approach and accomplishment of the practice by the participants. Regarding the methodological design of the studies, two studies had a level of evidence V, five level of evidence IV, one had a level of evidence III and one level of evidence II.

The first aid approach can address issues of trauma and clinical situations, so there are a number of issues that can be addressed. Five of the nine studies that integrate the sample of this integrative review addressed in the educational intervention varied themes, while four studies addressed only one specific topic: one study deals exclusively with emergency procedures in the face of a dental avulsion and three deal with approaches to cardiac arrest. The frequency of themes found in the studies is shown in Figure 2.

Figure 2. First-aid topics found in the studies that integrate the integrative review sample. Recife/PE (2015)



Source: prepared by the authors.

DISCUSSION

The inclusion of first aid as a theme to be addressed in health education for the lay population is relevant for its effectiveness in the knowledge and skills of the learners. In the studies included in this review, there was an association between the performance of the educational intervention and the improvement in the knowledge, skill, and confidence of the target audience. These findings corroborate studies carried out in China and Germany whose results point to obtaining better scores in the short and long-term on

the knowledge and performance of lay people in first aid^(11, 12).

The only study whose results did not indicate the retention of knowledge after the educational intervention contemplated the analysis of the first aid approach in a driver training course(F). Such a finding may have been influenced by factors inherent to this type of course, such as low hours, lack of a practical approach and the fact that teachers are not necessarily health professionals.

The training of lay people to perform first aid contributes to the reduction of mortality and the severity of sequels related to sudden injuries, occurring

outside the hospital environment. Thus, health training needs to be provided by health professionals, since they have the skills inherent to the exercise of the function, and the theoretical-practical approach of first aid is carried out.

The high proportion of nursing professionals among the authors of the studies is justified by their performance in several health care services, including the provision of emergency care, which makes them capable of interacting with the population in health education interventions. Educational practices are embedded in the performance of care practice and contribute to the aggregation of popular know-how and the know-how of the professional, which makes the nurse a potential agent of change that broadens the discussions between common sense and scientific evidence⁽¹³⁾.

The dissemination of the studies was mainly the publication in scientific journals of nursing and coming from *Stricto Sensu* Nursing graduate programs. These findings corroborate the transformations that occurred in the curricular profile of this professional area in undergraduate and postgraduate education that has structured research groups that produce science and technology and contribute to scientific research in the field of Nursing Education⁽¹⁴⁾.

This profile of authorship and dissemination of studies about educational actions on first aid to the lay population reveals the need for other health professionals to take on this role as well. The multi-disciplinarity in developing health education actions becomes of great importance since it is up to the professionals to understand this demand and collaborate for the correct prevention and treatment of diseases to the population⁽¹⁵⁾.

Students and teachers of educational institutions were present in approximately one-third of the studies. This finding reflects the existing demand for educational interventions on first aid in these educational establishments, as well as the limitation of the scientific production found on the theme. It is pertinent to develop research that addresses the theme in the several social sectors and with the involvement of the multi-professional team.

Studies with students from courses in the health area were found, such as nursing. It should be noted that, despite being a population that will have specific training in the health area, such studies investigated the first year students of the course. At that time, they did not have any contact with specific subjects that qualified them for first aid, and therefore they were

considered as laymen, so there was a lack of skill knowledge in the pre-test that only improved after the educational intervention(I).

Regarding the study places, it was noted that the search result did not return to the studies that looked at the North and Northeast regions, in which the major causes of death are cardiovascular diseases and external causes⁽¹⁵⁾. In this sense, educational interventions on first aid have relevance since this knowledge from the people who witness the incident favors the reduction of sequels and increases the probability of survival. Researchers in these regions should encourage research that provides subsidies for health education for lay people through the ongoing training of professionals.

It is necessary to implement research groups on urgency and emergency and external causes of morbidity and mortality that support strategies to promote the health of the population on the topic, mainly by postgraduate programs in the health area of all regions of the country, responsible for the development of studies and for a large part of the Brazilian scientific publication.

For the need to develop studies about the different scenarios where health education interventions may occur and the different populations that may be targeted, the number of studies becomes insufficient for the existence of scientific evidence to support the implementation of such actions at the national level.

Although recently published, the data collection of the studies found occurred in a period well before its publication: in one study, the collection occurred in 2012 and another in 2011; in the others, the collection was dated in 2008, 2006, 2005 and 2002. Collections in a distant period mean that the results of such studies probably reflect a reality belonging to other epidemiological contexts since several changes occur with time, necessary to carry out current studies. This time interval between data collection and publication of the studies can be justified by the procedures inherent in the publication of the studies in the various journals.

According to the methodological approach found in the studies, it was possible to perform a hierarchical classification of their levels of evidence⁽¹⁰⁾. The absence of evidence-based studies and the small number of studies with a level of evidence equal or lower than II, it is detrimental to the Evidence-Based Practice (EBP) of professionals who wish to carry out educational interventions on first aid to laypeople and do not have studies carried out in the Brazilian reality

to support their conduct scientifically. Thus, it is necessary to carry out more studies related to the subject, especially randomized and controlled experimental studies, in order that they can prove scientifically the effectiveness of such interventions.

Regarding the operationalization of the interventions described in the studies, although four studies considered theoretical contents added to the practice of the participants, in five studies participants only received theoretical information or theoretical information added to the observation of demonstrations of the first aid maneuvers.

A study carried out with health professionals compared a group that received theoretical guidance plus the exposure of a video with the practical demonstrations with another group that received a theoretical and practical course on cardiopulmonary resuscitation. In this study, there was an equivalence of performance in the theoretical evaluation between the two groups, but in the practical evaluation, the group that only received the theoretical content and watched the demonstration videos presented a statistically lower yield⁽¹⁶⁾. It is important to emphasize the need for interventions that prepare the population to act in emergency situations.

The several contents included in the first aid that was addressed in the studies reflect the need to prepare the lay population for the various emergency situations of clinical and traumatic origin. However, there should be justifications for the choice of contents to be given, such as the high prevalence of a particular grievance in a region or the request of the topic by a given group.

Only one of the studies found in this review reports have consulted study participants on topics of their interest(A). New learning is about the student's adherence, interest, and choice so the exercise of freedom can be extended, just as decision-making in the various situations is permeated with autonomy, for this the teacher's pedagogical behavior must differ from the conventional ones.

The approach to cardiac arrest occurred in almost all of the studies studied and it was an exclusive subject of a third of them. This issue is highlighted by the fact that it is the emergency situation of higher priority, in which the speed and ability of victim assistance interfere with the presence and severity of sequels and make the difference between life and death^(17,18). In this affliction, an important determinant for the survival of the victim is the presence of a properly trained layperson to perform the correct conducts.

The international study confirms that individuals who received cardiorespiratory resuscitation from a trained citizen/layperson are four times more likely to survive for 30 days than those to whom the technique was not applied⁽¹⁹⁾. In this way, it is worth emphasizing that the correct training should involve the enlightening theoretical approach and sufficient practical training so they know how to recognize and approach the person in cardiac arrest, considering that the quality of immediate care is crucial for the survival of the victim.

Educational interventions empower individuals to act correctly in urgency and emergency care, even if they are not health professionals and converge with the National Policy for the Reduction of Morbidity and Mortality by Accidents and Violence, which includes the continued information of the population on first aid⁽²⁰⁾.

FINAL CONSIDERATIONS

The studies indicate that educational interventions on first aid were effective for teaching the lay population. Studies in the South and Southeast regions, published in 2008 to 2012, predominated with authors, mainly nurses, and the target audience of students, teachers, public transportation workers and neighborhood residents. Most of the studies had a lower level of evidence (descriptive) and the most explored topic was a cardiorespiratory arrest.

There is a lack of scientific evidence in the North and Northeast, as well as research by professionals from other health areas.

It is pointed out its specificity for the Brazilian reality as a limitation of the study, so its findings may diverge from the international scenario. However, the relevance of knowing the Brazilian production to point out the gaps of the same one is highlighted so new studies can contemplate them.

It is suggested that higher education institutions, based on the teaching-research-extension tripod, promote partnerships with health professionals to contribute to the health education process of the population on first aid. This partnership can take place through research, through the preparation and execution of educational interventions or even expand to the didactic-pedagogical training of professionals so they are instrumented to play their role as a health educator.

INTERVENÇÕES DE EDUCAÇÃO EM SAÚDE SOBRE PRIMEIROS SOCORROS PARA LEIGOS NO BRASIL: REVISÃO INTEGRATIVA

RESUMO

Este estudo teve o objetivo de analisar as evidências disponíveis sobre intervenções de educação em saúde que contemplem os primeiros socorros para leigos no contexto brasileiro. Para proceder à pesquisa foi selecionado o método da revisão integrativa da literatura realizada nas bases de dados LILACS, BDTD e na biblioteca Scielo por meio dos descritores: Educação em Saúde, Primeiros Socorros, População e Emergências. Foram selecionados nove estudos, dos quais em oito os participantes apresentaram melhor desempenho referente às condutas a serem tomadas após as intervenções educativas. Os estudos foram realizados com diversos tipos de participantes leigos em primeiros socorros: alunos e professores de instituições de ensino estiveram presentes em seis estudos. Este achado reflete a demanda existente de intervenções educativas sobre primeiros socorros durante a formação básica do indivíduo e nos diversos ambientes da sociedade. Ratifica-se, portanto, a necessidade de realização de estudos acerca da educação em saúde sobre primeiros socorros para leigos a fim de subsidiar, com evidências científicas, as práticas educativas dos profissionais da saúde.

Keywords: Educação em Saúde; Primeiros Socorros; População; Emergências.

INTERVENCIONES DE EDUCACIÓN EN SALUD SOBRE PRIMEROS AUXILIOS PARA LEGOS EN BRASIL: REVISIÓN INTEGRADORA

RESUMEN

Este estudio tuvo el objetivo de analizar las evidencias disponibles sobre intervenciones de educación en salud que contemplen los primeros auxilios para legos en el contexto brasileño. Para llevar a cabo la investigación fue seleccionado el método de la revisión integradora de la literatura realizada en las bases de datos LILACS, BDTD y en la biblioteca Scielo por medio de los descriptores: Educación en Salud, Primeros Auxilios, Población y Urgencias médicas. Fueron seleccionados nueve estudios, de los cuales en ocho los participantes presentaron mejor desempeño referente a las conductas llevadas a cabo tras las intervenciones educativas. Los estudios fueron realizados con diversos tipos de participantes legos en primeros auxilios: alumnos y profesores de instituciones de enseñanza estuvieron presentes en seis estudios. Este hallazgo refleja la demanda existente de intervenciones educativas sobre primeros auxilios durante la formación básica del individuo, y en los diversos ambientes de la sociedad. Se corrobora, por lo tanto, la necesidad de realización de estudios acerca de la educación en salud sobre primeros auxilios para legos, a fin de ayudar, con evidencias científicas, las prácticas educativas de los profesionales de la salud.

Palabras clave: Educación en salud. Primeros Auxilios. Población. Urgencias Médicas.

REFERENCES

1. Singletary EM, Charlton NP, Epstein JL, Ferguson JD, Jensen JL, MacPherson AI, et al. First Aid: 2015 American Heart Association and American Red Cross Guidelines Update for First Aid. *Circulation* [Online]. 2015 [citado em 20 jan 2018]; 132(Suppl 2):18:574-89. Disponível em: http://circ.ahajournals.org/content/132/18_suppl_2/S574.
2. Cardoso RR, Soares LGB, Calixto FRP, Carvalho LFS, Durante RV, Veloso RC. Suporte básico de vida para leigos: uma revisão integrativa. *Unimontes Científica* [Online]. 2017 [citado em 20 jan 2018]; 19(2):158-67. Disponível em: <http://www.ruc.unimontes.br/index.php/unicientifica/article/view/617>.
3. Ferreira LA, Pinto MKG, Leite MJS, Fernandes SCA. Capacitação em suporte básico de vida para vigilantes: uma atividade extensionista. *Revista Extendere* [Online]. 2014 [citado em 20 jan 2018]; 2(1):123-34. Disponível em: <http://periodicos.uem.br/index.php/extendere/article/viewFile/1263/718>.
4. Fernandes JMG, Leite ALS, Auto BSD, Lima JEG, Rivera IR, Mendonça MA. Ensino de suporte básico de vida para alunos de escolas pública e privada do ensino médio. *Arq Bras Cardiol* [Online]. 2014 [citado em 20 jan 2018]; 102(6):593-601. Disponível em: http://www.scielo.br/pdf/abc/v102n6/pt_0066-782X-abc-20140071.pdf. <https://doi.org/10.5935/abc.20140071>.
5. Corrêa AR, Carvalho DV, Morais DA, Manzo BF. Atendimento a vítimas de parada cardíaca extra-hospitalar com desfibrilador externo automático em unidades de suporte básico. *Cienc Cuid Saude* [Online]. 2014 [citado em 20 jan 2018]; 13(4):600-607. Disponível em: http://periodicos.uem.br/ojs/index.php/CiencCuidSaude/article/view/18936/pdf_234. <https://doi.org/10.4025/cienccuidsaude.v13i4.18936>.
6. Pereira KC, Paulino JR, Saltarelli RMF, Carvalho AMP, Santos RVL, Silveira TVL, et al. A construção de conhecimentos sobre prevenção de acidentes e primeiros socorros junto ao público leigo. *R. Enferm. Cent. O. Min* [Online]. 2015 [citado em 20 jan 2018]; 5(1):1478-85. Disponível em: <http://www.seer.ufsj.edu.br/index.php/recom/article/view/456>. <http://dx.doi.org/10.19175/recom.v0i0.456>.
7. Singletary EM, Zideman DA, De Buck EDJ, Chang WT, Jensen JL, Swain JM, et al. Part 9: First Aid: 2015 International Consensus on First Aid Science With Treatment Recommendations. *Circulation* [Online]. 2015 [citado em 20 jan 2018]; 132(Suppl 1):16:269-311. Disponível em: <https://www.ncbi.nlm.nih.gov/pubmed/26472857>. <https://doi.org/10.1161/CIR.0000000000000278>.
8. Whittemore R, Knafl K. The integrative review: updated methodology. *J Adv Nurs* [Online]. 2005 [citado em 20 jan 2018]; 52(5):546-53. Disponível em: <https://www.ncbi.nlm.nih.gov/pubmed/16268861>. <https://doi.org/10.1111/j.1365-2648.2005.03621.x>.
9. Ursi ES, Gavão CM. Prevenção de lesão de pele no período perioperatório: revisão integrativa da literatura. *Rev Lat Am Enfermagem* [Online]. 2006 [citado em 20 jan 2018]; 14(1):124-31. Disponível em: <http://www.scielo.br/pdf/rlae/v14n1/v14n1a17.pdf>.
10. Polit DF, Beck CT. Using research in evidence-based nursing practice. In: Polit DF, Beck CT, editors. *Essentials of nursing research*.

Methods, appraisal and utilization. Philadelphia (USA): Lippincott Williams & Wilkins; 2006. p.457-94.

11. Meissner TM, Kloppe G, Hanefeld C. Basic life support skills of high school students before and after cardiopulmonary resuscitation training: a longitudinal investigation. *Scand J Trauma Resusc Emerg Med* [Online]. 2012 [citado em 20 jan 2018]; 20:31. Disponível em: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3353161>. <https://doi.org/10.1186/1757-7241-20-31>.

12. Li F, Sheng X, Zhang J, Jiang F, Shen X. Effects of pediatric first aid training on preschool teachers: a longitudinal cohort study in China. *Pediatrics* [Online]. 2014 [citado em 20 jan 2018]; 14(209):1-8. Disponível em: <https://www.ncbi.nlm.nih.gov/pubmed/25152013>. <https://doi.org/10.1186/1471-2431-14-209>.

13. Proganti JM, Costa RF. Educational practices developed by nurses: reflections on women's pregnancy and labor experiences. *Rev Bras Enferm* [Online]. 2012 [citado em 20 jan 2018]; 65(2):257-63. Disponível em: <http://www.scielo.br/pdf/reben/v65n2/v65n2a09.pdf>.

14. Santos MAB, Sá GGM, Caetano JA, Costa AB, Muniz MLC, Galindo Neto NM. Dissertações e teses da enfermagem brasileira acerca da unidade de terapia intensiva. *Rev Rene* [Online]. 2017 [citado em 20 jan 2018]; 18(4):521-7. Disponível em: http://www.revistarene.ufc.br/revista/index.php/revista/article/viewFile/3036/pdf_1. <http://dx.doi.org/10.15253/2175-6783.2017000400014>.

15. Velloso MP, Guimarães MBL, Cruz CRR, Neves TCC. Interdisciplinaridade e formação na área de saúde coletiva. *Trab. Educ. Saúde* [Online]. 2016 [citado em 20 jan 2018]; 14(1):257-71. Disponível em: <http://www.scielo.br/pdf/tes/v14n1/1981-7746-tes-14-01-0257.pdf>. <http://dx.doi.org/10.1590/1981-7746-sip00097>.

16. Miotto HC, Camargos FRS, Ribeiro CV, Goulart EMA, Moreira MCV. Effects of the Use of Theoretical versus Theoretical-Practical Training on Cardiopulmonary Resuscitation. *Arq Bras Cardiol* [Online]. 2010 [citado em 20 jan 2018]; 95(3):328-31. Disponível em: <http://www.scielo.br/pdf/abc/v95n3/aop10010.pdf>.

17. Callaway CM. Cardiac Arrest in Any Location: The Need for Fewer Bystanders and More Layperson Rescuers. *JAMA Cardiol* [Online]. 2017 [citado em 20 jan 2018]; 2(5):514-515. Disponível em: <https://www.ncbi.nlm.nih.gov/pubmed/28297005>.

18. Draganov PB, Silva MRG, Neves VR, Sanna MC. Clube de revistas: experiência de um grupo de pesquisa. *Rev. Bras. Enferm* [Online]. 2018 [citado em 20 jan 2018]; 71(2):477-81. Disponível em: http://www.scielo.br/pdf/reben/v71n2/pt_0034-7167-reben-71-02-0446.pdf.

19. Wissenberg M, Lippert FK, Folke F, Weeke P, Hansen CM, Christensen EF, et al. Association of national initiatives to improve cardiac arrest management with rates of bystander intervention and patient survival after out-of-hospital cardiac arrest. *JAMA* [Online].

2013 [citado em 20 jan 2018]; 310(13):1377-84. Disponível em: <https://www.ncbi.nlm.nih.gov/pubmed/24084923>.

20. Brasil. Portaria GM/MS nº 737 de 18 de maio de 2001. Política Nacional de Redução da Morbimortalidade por Acidentes e Violências. Diário Oficial da União, Brasília, n. 96, seção 1e, 2001.

List of studies included in the review

A. Veronese AM, Oliveira DLLC, Rosa IM, Nast K. Oficinas de primeiros socorros: relato de experiência. *Rev Gaucha Enferm* [Online]. 2010 [citado em 20 jan 2018]; 31(1):179-82. Disponível em: <http://www.scielo.br/pdf/rge/v31n1/a25v31n1.pdf>.

B. Leitão FBP, Sousa MC, Birolini D, Vieira JE. Prevention and life support in case of trauma and cardiovascular diseases: an educational Program. *Rev Bras Educ Med* [Online]. 2008 [citado em 20 jan 2018]; 32(4):419-23. Disponível em: <http://www.scielo.br/pdf/rbem/v32n4/v32n4a02.pdf>.

C. Fioruc BE, Molina AC, Vitti Junior W, Lima SAM. Health education: an approach on first aid in public schools in inner of São Paulo. *Rev Eletr Enf* [Online]. 2008 [citado em 20 jan 2018]; 10(3):695-702. Disponível em: <http://www.fen.ufg.br/revista/v10/n3/v10n3a15.htm>.

D. Andraus LMS, Minamisava R, Borges IK, Barbosa MA. First Aid for children: report of experience. *Acta Paul Enferm* [online]. 2005 [citado em 20 jan 2018]; 18(2):220-5. Disponível em: <http://www.scielo.br/pdf/ape/v18n2/a16v18n2.pdf>.

E. Pineda AFP. Atendimento à parada cardiorrespiratória por leigos: estudo de caso de um processo educativo [dissertação]. São Paulo: Escola de Enfermagem, Universidade de São Paulo; 2012.

F. Pergola AM. Capacitação obrigatória em primeiros socorros [dissertação]. Campinas: Departamento de Enfermagem da Escola de Medicina da Universidade Estadual de Campinas; 2009.

G. Frujeri MLV. Avulsão dentária: efeito da informação na mudança de comportamento em diferentes grupos profissionais [dissertação]. Brasília: Faculdade de Ciências da Saúde da universidade de Brasília; 2006.

H. Boaventura AP. Avaliação do processo ensino aprendizagem das manobras de ressuscitação cardiorrespiratória (RCP) utilizando o Desfibrilador Externo Automático (DEA): alunos de graduação da área de saúde [tese]. São Paulo: Escola de Enfermagem da Universidade de São Paulo; 2010.

I. Felix CCP. Avaliação do processo ensino-aprendizagem do atendimento pré-hospitalar às vítimas de parada cardiorrespiratória (PCR) [tese]. São Paulo: Escola de Enfermagem da Universidade de São Paulo; 2012.

Corresponding author: Nelson Miguel Galindo Neto. BR 232, Km 208, s/n – Prado. Pesqueira. Pernambuco. Brasil. Cep: 55200000. E-mail: nelsongalindont@hotmail.com

Submitted: 20/07/2017

Accepted: 10/12/2017