

# Evidences about the Skills of Nursing Professionals Regarding the Protocol in Basic Life Support

REVIEW

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## Abstract

**Objective:** To analyze the available scientific evidence about the skills of nursing professionals regarding the protocols of care in Basic Life Support.

**Method:** An integrative review performed in the databases LILACS, PUBMED, COCHRANE LIBRARY and other sources of literature, in March and April 2016, using the controlled descriptors "Emergency Nursing", "Knowledge", "Cardiac Arrest", "Cardiopulmonary Resuscitation". There were selected 27 articles based on the inclusion criteria.

**Results:** The main researches identified about the main challenges and knowledge experienced by nursing in the urgency and the emergency services facing cardiorespiratory arrest. It was noticed that the years 2010, 2012 and 2013 corresponded to the period with the greatest number of scientific articles published about the subject researched, being 2012 as the major year in publications.

**Conclusion:** Nursing qualification programs for care are a way to approach their practical reality, standardizing care.

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## Keywords

Knowledge; Nursing Education; Emergency Nursing; Cardiac Arrest; Cardiopulmonary Resuscitation.

## Introduction

Health professionals working within the scope of urgency and emergency, especially nursing professionals, need a theoretical and practical knowledge and skills in order to assure the highest possible level of safety, reducing the risks that threaten the life of the patient.

Cardiorespiratory Arrest (CRA) can be defined by the sudden cessation of efficient ventricular activity and respiration. It consists of four types: asystole, atrial ventricular, pulseless ventricular tachycardia and pulseless electrical activity [1]. Shortly after the occurrence of CRCA, cardiopulmonary and cerebral resuscitation (CPCR) is performed to artificially keep the arterial flow to the brain and other organs considered vital [2].

For the American Heart Association - AHA (2015) [3], care for patients with cardiopulmonary and cerebral arrest (CPCA) should be divided into two aspects: Basic Life Support (BLS) and Advanced Life Support (ALS). The first involves a set of sequential techniques that correspond to chest compressions, airway opening, artificial respiration and defibrillation, the latter being very often used by first responders in such cases. The second consists of keeping the first support plus medication administration and treatment of the cause of CPCA.

In most situations, health professionals, especially nurses, are always the ones who turn out giving first aid, requiring the team the organization, emotional balance, technical-scientific domain and correct distribution of the functions in their ways [4].

Following this line, Gonzalez et al (2013) [5] estimates that there are approximately 200,000 CRA per year in Brazil, half of which are in a hospital environment, and the other half in out-of-hospital settings (at home or on the street).

The technical-scientific knowledge of the health-care team should always be updated, due to the quick changes in regard to attending a CRCA. One way of improving it is through permanent education, which can be understood as the constant search for

learning, as one of the actions that enables the development of the change process and which aims at the professional qualification of nursing [6].

Given the above, it is understood the following aspects as being of the most relevance: the emergency care for the cases of patients who are being treated with CRCA; The role of the nurse with his/her technical-scientific skill in attending to this type of patient in the place where the occurrence happened. Recognizing this, we guided our research with the following question: "What is the knowledge of nursing professionals about basic life support?"

The objective was to analyze the available scientific evidences about the skills of nursing professionals regarding the protocols of care in Basic Life Support.

## Methods

There was conducted an integrative review. This research method allows the synthesis of multiple published studies and the general conclusions with respect to a particular area of study [7]. This type of research is an Evidence-Based Practice (PBE) instrument, whose origin was linked to the work of the epidemiologist Archie Cochrane. This practice uses classification systems of evidence characterized in a hierarchical mode, depending on the methodological approach adopted by the research [8].

In all, six evidences are classified: Level 1: Evidence resulting from the meta-analysis of multiple controlled and randomized clinical studies; Level 2: Evidence obtained in individual studies with an experimental design; Level 3: Evidence from quasi-experimental studies; Level 4: Evidence from descriptive (non-former-experimental) studies or qualitative approach; Level 5: Evidence from case or experience reports; Level 6: Evidence based on the opinions of specialists [8].

To construct this review, the method was developed in six stages:

### 1<sup>st</sup> Stage: Making of the guiding question

To guide the research, the following question was asked: *What scientific evidence about nursing professionals' knowledge regarding Basic Life Support?*

### 2<sup>nd</sup> Stage: Search or literature sample

The research was conducted in March and April 2016, in search of publications indexed in the Virtual Health Library (VHL): Latin American and Caribbean Literature in Health Sciences (LILACS), US National Library of Medicine (PUBMED), The Cochrane Library, and The Journal of the American Medical Association, the US Department of Health, American Heart Association (AHA), and SAMU. The descriptors used were: "Emergency Nursing", "Knowledge", "Cardiac arrest" and "Cardiopulmonary resuscitation".

The inclusion criteria were: full articles in Portuguese and English that addressed the nurse's knowledge about Basic Life Support (BLS), without restriction of the year of publication. Theses, dissertations and articles that did not meet the inclusion criteria were excluded.

From the material obtained, 35 publications responded to the proposed objective. Following the selection criteria, 30 studies were selected for analysis. The corpus of the integrative review was composed of 27 articles.

### 3<sup>rd</sup> Stage: Categorization of studies

For the sample selection, three steps were performed. The first was by reading the titles of the articles. Subsequently, the abstracts were read with the intention of a greater approximation and recognition of the work. After this selection, we searched for texts that were available in full.

### 4<sup>th</sup> Stage: Analysis of included studies in Integrative Review

For interpretation of the data there was made a discussion of the obtained results, comparing with the theoretical knowledge, in order to identify the conclusions and implications that resulted in the in-

tegrative review. The results were presented in the form of tables containing the selected publications.

### 5<sup>th</sup> Stage: Discussion of the results

After the repeated readings of the selected articles, those that dialed with nurses' knowledge about BLS and the importance of their updating were included.

### 6<sup>th</sup> Stage: Presentation of the Integrative Review

After reading the selected articles, the information was captured in tables, making the results and the discussion, which was divided into two topics.

## Results

There was verified an increase of publications related with trainings and courses related to the theme of care on practical assistance of the nurse in the analyzed years. Among the studies there was observed a predominance of the quantitative design, an approach that has as objective to bring to light data, indicators and observable tendencies, generating confident measures. Among those countries with the origins of the researches, Brazil is in first regarding publication terms; what suggests a national interest in studying the theme.

Among these publications, nineteen of them have the objective of analyzing nurses' knowledge about CPR and BLS (**Table 1**). Two aim to guide the attendance to a CPR (**Table 2**), two ordinances related to the SADU (**Table 2**), an article which relates care after a CRP with the NIC interventions (**Table 3**), an article that aims to implement a training program in relation to a CRP and the BLS (**Table 1**), an article that aims to review changes in the CPR (**Table 3**), an article that aims to assess the costs of continuing education for the nursing team (**Table 3**).

In **Table 4** we present the difficulties found in the researches and demonstrated by the authors in their results.

**Table 1.** Description of the level of evidence, title, author, journal/year, study type and purpose. Fortaleza, CE, Brazil, 2016.

Nº	Evidence Level	Title	Type Of The Study	Objectives
1	4	Cardiorespiratory arrest and nursing: the knowledge about basic life support.	Descriptive and transversal study.	To evaluate the theoretical knowledge of the nurses of a hospital in the countryside of Minas Gerais-Brazil about the basic life support used in the care for the cardiorespiratory arrest.
2	5	Knowledge of the nursing team about the cardiopulmonary resuscitation protocol in the emergency room of a public hospital.	Field research with qualitative approach and descriptive character.	To evaluate the theoretical and practical knowledge of the nursing staff acting in the emergency on cardiopulmonary resuscitation (CPR).
3	4	Evaluation of the diagnosis and treatment in cardiorespiratory arrest among doctors with more than five years of graduation.	Descriptive research with quantitative approach in Emergency Hospital in the State of Alagoas.	To evaluate the theoretical knowledge about CA and CPR among physicians with more than five years of graduation.
4	2	Theoretical training of nurses to attend cardiorespiratory arrest.	Prospective research, comparative and interventionist.	To apply a theoretical training program for nurses in cardiopulmonary resuscitation and to compare the theoretical knowledge of the A-control group with the experimental group B.
5	4	The knowledge of nursing professionals about cardiopulmonary resuscitation care in the cities of Pará de Minas, Papagaios and Pitangui / MG.	Descriptive research with quantitative variables.	To elucidate the knowledge of 153 Nursing professionals, Nurses, Technicians and Nursing Assistants, in the cities of Pará de Minas, Papagaios and Pitangui / MG, and how to provide training about emergency care in cardiorespiratory arrest (CRA).
6	1	Pre-hospital cardiopulmonary resuscitation: determinants of survival.	A longitudinal study.	To analyze the determinants of hospital discharge with the life of people who received cardiopulmonary resuscitation maneuvers in the pre-hospital setting.
7	6	Elaboration of the theoretical guide of care in cardiorespiratory arrest for nurses.	Instrument was elaborated data collection based on relevant literature and in the Guidelines of the American Heart Association, during the period from August to October 2012.	To identify the knowledge of hospital nurses from the Vale do Paraíba, São Paulo, Brazil, about cardiorespiratory arrest and to prepare a theoretical guide for care in this emergency.
8	4	Basic life support in adults: knowledge of nurses about the 2010-2015 guidelines.	This is quantitative descriptive study.	To identify nurses' knowledge about the 2010-2015 cardiopulmonary resuscitation guidelines for basic life support in adults.
9	4	Theoretical knowledge of nurses about cardiopulmonary arrest and resuscitation, in non-hospital urgency and emergency care units.	A descriptive study	To analyze the theoretical knowledge of the nurses of these units, about cardiorespiratory arrest and cardiopulmonary resuscitation.

N°	Evidence Level	Title	Type Of The Study	Objectives
10	1	Theoretical knowledge of the Public Hospital nurses about cardiopulmonary resuscitation.	Cross-sectional study.	To assess the impact of a permanent programme of training in CPR and SAV on the knowledge of nursing professionals.
11	2	Permanent education in BLS and ACLS: impact on knowledge of nursing professionals.	Cross-sectional study.	To analyze the theoretical knowledge about cardiopulmonary arrest of social care public hospital nurses of Minas Gerais.
12	5	Basic life support: knowledge and attitude of medical/paramedical professionals.	Observational study.	To explore the knowledge and attitude to basic life support (BLS) medical/paramedical professionals.
13	4	Cardiopulmonary resuscitation knowledge and skills of registered nurses in Botswana.	Descriptive study.	Nurses' knowledge and skills assessed about CPR.
14	2	Evaluation of nursing training to care of cardiopulmonary arrest.	Clinical epidemiological study conducted in teaching hospital.	To evaluate nursing care to patients in cardiopulmonary arrest.
15	4	The actions of the nursing staff in patient care in cardiopulmonary emergency stop.	Qualitative research, convergent healthcare type.	To build with the nursing staff in an emergency unit an instrument for cardiopulmonary resuscitation.
16	1	Mechanical versus manual chest compressions for cardiac arrest	Randomized trials by quasi-randomized cluster randomized trials.	Assess the effectiveness of mechanical chest compressions versus manual chest compressions pattern in relation to neurological survival intact in patients suffering cardiac arrest.
17	1	Mechanical Chest Compressions and Simultaneous Defibrillation vs Conventional Cardiopulmonary Resuscitation in Out-of-Hospital Cardiac Arrest the LINC Randomized Trial	Multicentric, randomized clinical trial.	To determine whether administration of mechanical compressions with defibrillation during continuous compressions (mechanical CPR) compared with manual cardiopulmonary resuscitation (CPR manual), according to the guidelines, would improve survival by 4 hours.
18	2	Association of National Initiatives to Improve Cardiac Arrest Management with Rates of Bystander Intervention and Patient Survival after Out-of-Hospital Cardiac Arrest.	Cohort study.	To examine temporal changes in attempts at spectator resuscitation and survival over a 10-year period where several national initiatives have been taken to increase resuscitation rates for spectators and to improve advanced care.
19	2	Minimally Interrupted Cardiac Resuscitation by Emergency Medical Services for Out-of-Hospital Cardiac Arrest.	A prospective study.	To investigate whether the survival of patients with cardiac arrest outside the hospital would improve with minimally interrupted cardiac resuscitation (MICR), a protocol for alternate emergency medical services (EMS).

**Table 2.** Characterization of the title, source, journal/year, study type and purpose. Fortaleza, CE, Brazil, 2016.

Evidence Level	Title	Source	Journal/Year of Publication	Objectives
1	Highlights of the 2010 American Heart Association Guidelines for CPR and ACE.	American Heart Association (Aha).	2010.	To summarize the main points of discussion and changes to the 2010 guidelines of the American Heart Association (AHA) to Cardiopulmonary Resuscitation (CPR) and emergency Cardiovascular Care (ACE).
1	Highlights of the 2015 American Heart Association Guidelines for CPR and ACE.	American Heart Association (Aha).	2015.	To update the guidelines of the American Heart Association (AHA) to Cardiopulmonary Resuscitation (CPR) and Emergency Cardiovascular Care (ACE).
	Ordinance MoH / GM N 1.864, of September 29th, 2003.	Moh.	Official Gazette, 2003.	Institutes the component of the National Emergency Care Policy, through the implementation of Mobile Emergency Care Services in municipalities and regions of the entire Brazilian territory: SAMU-192.
	Cover SAMU 192	Moh.	National Net SAMU 192, 2012.	It redefines the guidelines for the implementation of the Mobile Emergency Care Service (SAMU 192) and its Emergency Regulation Center, a component of the Emergency Care Network.

**Table 3.** Characterization of the level of evidence, title, author, periodic / year, type of study and objective. Fortaleza, CE, Brazil, 2016.

Evidence Level	Title	Author	Journal/Year Of Publication	Type of the Study	Objectives
4	Correlation between the post-stop cardiopulmonary care algorithm and the Nursing Interventions Classification (NIC).	Costa, T. P.; Santos, C. P.; Silva, R. F. A.	Journal Care is Fundamental Online, 2014.	Study of narrative literature review.	To correlate the American Heart Association (AHA) post-CPR care algorithm to the classification system suggested by the Nursing Interventions Classification (NIC) and its consequent Nursing activities, both published in 2010.
6	(I) Guideline of cardiopulmonary resuscitation and emergency cardiovascular care of the Brazilian Society of Cardiology: Executive Summary.	Gonzalez, M. M.; Timerman, S.; Oliveira, R. G.; Polastri, T. F.; Dallan, L. A. P.; Araújo, S. Et Al.	Brazilian Cardiology Archive, 2013.	Systematic review.	To emphasize the early recognition and performance of cardiopulmonary resuscitation maneuvers with a focus on good chest compressions.
4	Update on cardiopulmonary resuscitation: a review for the clinician.	Tallo, F. S.; Moraes Júnior, R.; Guimarães, H. P.; Lopes, R. D.; Lopes, A. C.	Braz. Journal. of Clin. Med., 2012.	Selected articles in the Medline database (1950-2010) (Literature Review?)	To review the changes and the main steps in resuscitation that should be practiced by the clinician.
4	Cost of continuing education for nursing staff of a public university hospital.	Costa Db, Vannuchi Mto, Haddad Mcfl, Cardoso Mgp, Silva Lg, Garcia Sd.	Elect. Nurs. Journal.; 2012	Cross-sectional study, a quantitative approach.	To analyze the direct and indirect costs of programs of continuing education for nursing staff of a public university hospital.

**Table 4.** Difficulties found in the researches and demonstrated by the authors in their results. Fortaleza, CE, Brazil, 2016.

Author	Year	Title	Results	Difficulties Encountered	Results
Alves, C. A.; Barbosa, C. N. S.; Faria, H. T. G.	2013	Cardiopulmonary arrest and nursing: knowledge about basic life support.	Showed gaps in knowledge about the entire process of cardiopulmonary resuscitation.	The knowledge and the update regarding the guidelines of service of the CRA.	The most common practices identified were homeopathy, Bach floral and oriental massage.
Araújo, L. P.; Silva, A. L.; Marinelli, N. P.; Posso, M. B. S.; Almeida, L. M. N.	2012	Knowledge of the nursing team about the cardiopulmonary resuscitation protocol in the emergency room of a public hospital.	It was found that it is necessary to improve the knowledge of the professionals in the area to reverse the clinical situation in the immediate care of CRA.	There is a shortage in the qualification of some professionals, it is necessary is always updating, especially those older professionals, who did not have this learning in PCR in their academic formation.	Music, used as a facilitator of communication and movement, has been shown to attract the attention of the participants, placing it as a therapeutic option. It was shown able to facilitate the approach of people in the process of memory loss.
Bellan, M. C.; Araújo, I. I. M.; Araújo, S.	2010	Theoretical training of nurses to attend cardiorespiratory arrest.	It counted on three stages: stage-I, theoretical pre-qualification evaluation; Stages-II and III, a recent theoretical evaluation (one week after step-I) and late (three months after step-I). Sample composed of nursing assistants, 21 in group-A and 38 in group-B. It was verified that the average of the notes in the group A varied progressively and, in the group B, oscillating.	The findings suggest that the longer the training time, the lower the theoretical knowledge on the compression / ventilation ratio and the electrical charge used for defibrillation.	There is considerable evidence of efficacy for psychotherapeutic therapies in the treatment of coronary artery disease, headaches, insomnia, urinary incontinence, low back pain.
Menezes, M. G. B.; Abreu, R. D.; Faria, T. M. V.; Rios, M. S.; Cardoso, F. F.; Silva, M. P.	2009	The knowledge of nursing professionals about cardiopulmonary resuscitation care in Pará de Minas, Papagaios and Pitangui / MG.	It was evidenced that 30.9% of the professionals did not know to recognize the signs of CRA, and yet 93% considered themselves apt to perform the CPR (cardiopulmonary resuscitation) service.	The participants showed deficiencies in the theoretical knowledge about CPR.	This research suggests that meditation improves memory and reduces Alzheimer's risk by improving sleep, decreasing depression, increasing well-being and decreasing inflammatory regulatory genes. It also improves a number of aspects of mental health, all of which are important for maintaining cognitive function, thus reducing the multiple risks of Alzheimer's.
Morais, D. A.	2012	Pre-hospital cardiopulmonary resuscitation: determinants of survival.	The results highlight the importance of implementing adequate care in the pre-hospital environment and in the hospital.	The indexes of gaps in care were higher initial heart rate of asystole.	Music therapy is a safe and effective method of treating agitation and anxiety in moderate and advanced Alzheimer's.

Author	Year	Title	Results	Difficulties Encountered	Results
Silva, A. B.; Machado R. C.	2013	Elaboration of the theoretical guide of care in cardiorespiratory arrest for nurses.	These nurses affirmed that they were qualified to perform cardiorespiratory resuscitation; however, limitations were identified in their knowledge about this subject.	Downgrading of professionals within some parts of the guideline of the AHA.	Proof of the efficacy of these therapies is still lacking in controlled and randomized studies. Further research needs to be done and thus a fundamental evaluation of the therapeutic benefits of non-drug therapies for the treatment of dementia still can not be done.
Silva, J. N.; Montezeli, J. H.; Gastaldi, A. B.	2013	Basic life support in adults: knowledge of nurses about the 2010-2015 guidelines.	30% of the nurses knew the sequence of survival chain in cardiopulmonary resuscitation and 57% knew the correct order of their execution; 51% did not know the frequency and depth of cardiac massage; 73% knew the compression / ventilation ratio.	Update of the CPR protocol and the disclosure of new guidelines by the AHA.	Stirring increased during standard treatment and decreased during music therapy. The prescription of psychotropic medication increased significantly more during standard treatment than during music therapy.
Almeida, A.O; Araújo, I.E.M; Dalri, M.C.B; Araujo, S.	2011	Theoretical knowledge of nurses about cardiopulmonary arrest and resuscitation, in non-hospital urgency and emergency care units.	Respondents showed gaps of knowledge about how to detect the cardiopulmonary arrest, the sequence of the BLS as a whole.	The study showed that the difficulties are recurrent in the matter of periodic updating in the theme, due to overload of work and lack of incentive of the institution.	The study shows that music therapy can be effective in reducing symptoms in subjects with advanced degrees of dementia and stimulating a communicative relationship between patient and therapist.
Cunha, C. M.; Toneto, M. A. S.; Pereira, E. B. S.	2013	Theoretical knowledge of the Public Hospital nurses about cardiopulmonary resuscitation.	Major deficiencies were related to the initial airway approach, post-resuscitation care and external cardiac massage technique.	Difficulties were evidenced to the sequence of attitudes in the chain of survival for adults.	According to the results obtained, the levels of Alzheimer's hormones are different from those of Musicoterapia, which reveals that music therapy is responsible not only for the improvement in the patients' behavior, but also to provide several psychological benefits.
Lima, S.G.; Macedo, L.A.; Vidal, M.L.; Sá, M.P.B.O.	2009	Permanent Education in BLS and SAVC: Impact on the Knowledge of Nursing Professionals.	The study demonstrated that the nurses are prepared to offer the initial care, but presented difficulties in the advanced life support, which reflects the need for training and periodic updates.	High weekly work hours, double work hours, poor pay, and demotivation act as a limiting factor to the availability of time to attend courses, including those offered by the work institution.	The use of improvised music therapy was identified. The study concludes with the suggestion that managers should extend the actions of the music therapist to maintain the well-being of the internees in nursing homes.



Author	Year	Title	Results	Difficulties Encountered	Results
Shrestha Roshana, Batajoo Kh, Piryani Rm, And Sharma Mw.	2012	Basic life support: knowledge and attitude of medical/ paramedical professionals.	The average knowledge score was significantly different in teams of different categories. The mean score of knowledge was significantly higher in those who had received CPR training within 5 years than those who had a training more than 5 years ago and those had no training at all. Participants who were involved in resuscitation often had a significantly higher mean score than those who were rarely involved or not involved at all.	Many of the interviewees report that it would be valid to have a first aid discipline during graduation. That the lack of time contributes to the outdated professionals.	The musical interventions in the studies were diverse, but there was prominence for singing as the main interactive agent of changes.
Rajeswaran, L.; Ehlers, V.J.	2014	Cardiopulmonary resuscitation knowledge and skills of registered nurses in Botswana.	All nurses failed the pre-test. Their knowledge and skills improved after training, but deteriorated over the three months until the post-test was completed.	Outsourcing Botswana professionals to some parts of the AHA guideline. Many claim that they only had some instruction on the BLS was during graduation.	This meta-analysis suggests that music therapy is effective in the management of dementia symptoms.
Palhares V.C, Palhares Neto A.A, Dell'acqua Mcq Et Al.	2014	Evaluation of the nursing training to attend the cardiorespiratory arrest.	There was evidence of improvement in care, but problems were also detected.	Lack of task team definition of the stoppage, lack of specific SBV training, failure to supply material and appropriate equipment.	Clinical and neurophysiological studies have elucidated some of the positive benefits of music in providing support for people with Alzheimer's disease. Music therapy mainly works through psycho-physiological emotional pathways. Some studies have shown that music therapy has reduced anxiety, relieving periods of depression and aggressive behavior and thus, improving communication and autonomy of patients.
Markus, A.M.	2013	The actions of the nursing team in the patient care in emergency cardiopulmonary arrest.	We identified gaps in nursing care in cardiopulmonary arrest regarding technical-scientific knowledge, mainly related to the practical aspect, and related to the difficulty of working in a dynamic and organized team, assuming each one the role to which it was assigned. It also showed that having and recognizing the nurse as a leader that directs the care in a correct and quality way, as well as having instruments that standardize the care to the serious patient, help in the safe and excellent care.	Fragility in patient care in PCP, such as the lack of preparation and organization of the team and also of continuing education.	A series of recommendations have been established to facilitate the use of these techniques in the context of non-pharmacological therapies.

## Discussion

### The knowledge of the professionals about SBV evidenced in literature

In the urgency and emergency sector, being qualified for health professionals is fundamental for the adequate care of critically ill patients, directly influencing on the survival and sequelae [9].

The effectiveness of the systematic training of CRA in the theoretical and practical knowledge of the nursing team is fundamental, being important for basic and advanced care. Therefore, continuous and systematic education strategies are important to keep the good performance of the team in the CRA care [10].

This worry with the proper subject is of great value, since the first contact of the health professional with the patient who underwent a CRA is the realization of a CPR, both in the out-of-hospital and in-hospital settings, which will require the professional knowledge of the BLS, so as to avoid risky errors to the patient. Thus, these professionals need to have the updated technical knowledge and the practical skills developed to contribute more effectively to the CPR maneuvers [10].

The needs of theoretical knowledge and technical skills, according to the practice in the pre-hospital care, refer to the most frequent occurrences or procedures, the situations that require decision making, readiness and skill, in a moment of high stress or care of a specific population, which reinforces the need for programs aimed at the development of skills in this area [11].

In the face of this search of Roshana et al (2012) [12] emphasizes that there is a serious problem in relation to the retention of skills and outdated information for professionals, but at the same time that demonstrates the readiness of the professionals to perform the BLS even with the shortage of their knowledge.

Such knowledge about BLS is acquired at undergraduate level and through training/updating, promoted by the institutions or that the professionals themselves will look for.

### About BLS difficulties highlighted in the literature and the solutions presented by the authors

For the author Costa et al (2012) [13] continuing education is a tool that comes to help in updating in the professional. For him the worker feels more secure in a family environment, reducing anxiety levels and facilitating the learning process. It also shows that in his study he showed that the long hours of class interfere in the capacity for learning, and the alternative is to take classes at different times.

In order to prove the benefits of continuous updating/education on BLS, we bring the research of Roshana et al (2012) [12], where after the first questionnaire where the professionals were outdated, training was applied to them on CPR, which significantly influenced in the knowledge of the professionals and in the result of the second questionnaire.

Lima et al. (2009) [10], in their study with nursing professionals from a tertiary-level hospital evaluated the impact of a permanent Basic Life Support (BLS) and Advanced Life Support (SAV) training program on team knowledge of Nursing. Failures were initially verified both in theoretical knowledge and in the practical skills of nursing professionals in CPR maneuvers.

As a result, the research by the author Lima et al (2009) [10] verified a significant impact on the level of knowledge of nursing professionals after training in BLS and SAV. This fact proves by the percentage gain of knowledge of 91% in the total sample, reaching 131% in the group of nursing assistants.

In this sense, there is a need for training about the subject, since the professionals involved find it difficult to deal with this emergency, it is up to the nurse to update and be prepared to train the professionals of the teams, since success is directly related to the performance immediate and effective [1].

## Conclusions

There is still a lot to learn about CPR, because success in care comes from quality care in a timely

manner and a well-trained staff. Standardization in the management of CPR is a fundamental point in the survival of post-CRP patients. Thus, the health professional should be up to date on the new published guidelines, especially managers and multipliers, through a decentralized vision of health promotion for the benefit of the client.

The standardization of CPR conducts helps in adopting the unique language of health professionals to perform the maneuvers effectively. The updating/qualification can be done through continuous and permanent education, being offered by the institutions of work or even, by the own search of the professional, always seeking to encourage the same to be successful, aiming to improve the service provided. Always taking into consideration the ideas of the professional about how it would be a training that had more assiduity of the students (professional nurse), creating a standardization of attendance based always on the updates on the subject.

The nurse training programs for the PCR/CPR service are a way to bring their practical reality closer to the knowledge that is being produced on the subject, and also contribute to the standardization and standardization of PCR/CPR care in the institution researched.

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