



Relevance of nursing team training in cardiorespiratory arrest care ratory: an integrative literature review

<https://doi.org/10.56238/homeIIsevenhealth-118>

Bruno Gonçalves da Silva
Ana Eliza Ignacio Mol
Sirlei dos Santos Teixeira

1 INTRODUCTION

Cardiovascular diseases represent the highest mortality rate in the world compared to other pathologies. The Pan American Health Organization (PAHO) cites that 17.9 million people died in 2016, representing 31% of all deaths in the world. Thus, 85% of deaths were due to heart attacks and strokes. Cardiorespiratory arrest (CA) occurs in a greater proportion being emergencies resulting from cardiovascular complications (ALMEIDA *et al.*, 2021).

A cardiorespiratory arrest (CRA) is an emergency of high severity, consisting of complications that are characterized by a sudden stop of ventricular mechanical activity, cardiorespiratory and cerebral functions that can be identified through vital data, namely: absence of pulses, unconsciousness and apnea (GUEDES *et al.*, 2021).

Furthermore, BECCARIA *et al.*, 2017 note that cardiopulmonary arrest can occur in four modalities: asystole, ventricular fibrillation (VF), pulseless ventricular tachycardia (VT) and pulseless electrical activity (PEA). Thus, health professionals should know how to identify and initiate care with a focus on Cardiopulmonary Resuscitation (CPR) maneuvers, proposed by the *American Heart Association* (AHA) algorithms.

The *American Heart Association* (AHA) is a non-profit entity that every 5 years updates guidelines that standardize the actions and procedures that must be performed in cardiopulmonary resuscitation, as well as collects information, systematizes and updates practices adopted worldwide, standardizing the techniques to be used and facilitating their implementation (FACUNDO, 2022).

Training the nursing team is fundamental and has great relevance, considering that they effectively act in patient care. The ability of an individual to recover from a CPR is entirely interconnected with the execution of immediate, safe and high quality resuscitation procedures. Immediately starting cardiopulmonary resuscitation maneuvers, prolongs the survival of patients affected by CPR and contributes to a better prognosis for the individual (GUEDES *et al.*, 2021).



The nursing staff must be strictly trained, being able to provide quality care and knowing how to identify the symptoms of CPR by immediately assisting a CPR. Thus, they must be qualified and trained to assist victims affected by CPR, guaranteeing the person, family and the community a nursing care without damage due to negligence or recklessness (SILVA., 2014).

As stated by BECCARIA *et al.*, 2017, health professionals must have and keep their knowledge of cardiopulmonary arrest updated, regardless of the professional's specialty. The success of cardiopulmonary resuscitation depends on whether it is initiated immediately after diagnosis, which makes it necessary for the professional to have prior knowledge about CPR, identification and monitoring of cardiac rhythm, action and administration of drugs.

2 OBJECTIVE

The objective of this study was to identify the scientific production about the training of the nursing team in the care of cardiopulmonary arrest (CPR).

3 METHODOLOGY

This is an integrative literature review, which aims to gather and synthesize research results on a particular topic or issue, thus contributing to the deepening of knowledge on the topic being investigated. For the construction of this review, *American Heart Association 2020 guidelines* and 61 other publications from 2018 to 2022 were analyzed. Among them, 26 were in accordance with the proposed subject and objective, which portrayed the importance of training the nursing team in the care of a CPR in the adult patient.

4 DEVELOPMENT

The etiologies of CA are varied, the most frequent cited by Tallo *et al.* (2021): cardiac tamponade, hypoxia, pulmonary thromboembolism, hypovolemia, hypertensive pneumothorax, hyper or hypokalemia, exogenous intoxication, hypothermia, acidosis and coronary thrombosis with acute myocardial infarction (AMI), known as 5Hs and 5Ts.

(2018), to prevent new episodes, the etiopathogenesis of cardiopulmonary arrest must be investigated and the cause treated. In this sense, Tallo *et al.* (2021) states that most deaths occur in the first hours after the victim returns to spontaneous circulation, and it is necessary to pay attention to the monitoring and treatment of these patients, a treatment defined as complex for treating several important problems simultaneously.

Menezes and Souza (2013) point out that providing care to the patient in CPR is seen as a great challenge for many professionals. During care, the team must present a synchronous, agile and coherent posture in order to achieve success. The beginning of CPR maneuvers should occur as soon



as possible, because the faster the CPR maneuvers are started, the faster the patient's heartbeat will be restored, leading to a lower risk of brain damage. Thus, it is observed that evidence-based knowledge acquired through permanent health education is a differential in the quality of care provided, resulting in a low risk of death due to cardiac arrest (CRUZ; RÊGO; LIMA, 2018).

Tallo *et al.* (2021) deems it important that post-CPR care should be implemented consistently, to improve the survival of hospitalized CPR victims after the return of spontaneous circulation. Treatment includes cardiopulmonary and neurological support; performing an electroencephalogram (EEG) due to seizures being common after cardiac arrest, with rapid interpretation of the result; initiating appropriate antiarrhythmic maintenance if the cause of CPR is ventricular fibrillation (VF) or pulseless ventricular tachycardia (VT) and requesting laboratory tests.

Bellan, Araújo and Araújo (2010) note that the *American Heart Association* offers BLS and VAS courses providing knowledge with appropriate technology and certification throughout Brazil. However, they are often outside the current financial condition of the professional. It should be remembered that investment in continuing education and staff qualification is necessary to minimize possible adverse events in relation to patient care (Campos et al., 2018).

According to Pereira *et al.* (2015), the nurse, as a member of the health team and leader of the nursing team, has a substantial role in the care of a CPR, since the team's harmony is paramount for the care to be performed quickly.

The nurse has the responsibility to check and organize all the material of the emergency car, leaving it in order and complete, disposed of all the necessary medications and supplies, in a correct and systematized way. Therefore, it is necessary to prioritize the promotion of permanent health education for the entire nursing team, aiming at an improvement in early care for CPR, ensuring that all professionals on the team are qualified to act in a systematized way, with excellence and success, aiming at a good prognosis for the patient (CRUZ; RÊGO; LIMA, 2018).

Thus, after analyzing the selected publications, it is clear that the authors address the knowledge and necessary conduct that nurses need to have in the intra- and extra-hospital environments in the face of cardiopulmonary arrest. They refer to an initial care, approaches performed by the nursing team and the importance of the care of the nursing professional during CPR, and in post-CPR care (SILVA *et al.*, 2022).

In the same line of reasoning about the need to seek rapid recognition by the multidisciplinary team in a situation of possible cardiac arrest, the authors Rabello *et al.* (2022) presented that performing CPR is an important factor that impacts the survival of the individual in CPR, with the nurse being the first professional present in this scenario.



Therefore, it is necessary to emphasize that nurses are fundamental elements for the identification of such a situation, since they have the potential to coordinate actions and manage their team favoring the success of care (NUNES *et al.*, 2021).

5 FINAL CONSIDERATIONS

Cardiorespiratory arrest is identified as one of the most important emergencies, being directly associated with the agility of the assistance provided. Thus, in relation to the identification of CPR, the findings show that the nursing team has a superficial knowledge in this identification. Regarding CPR nursing interventions, it was found that there are significant errors in issues related to resuscitation maneuvers. The studies that were found in the literature are aimed at evaluating the level of knowledge of the professionals of the nursing team who work in the care of the patient in cardiorespiratory arrest, evidencing the need to carry out theoretical and practical training in a continuous and periodic way about the actions performed in a CPR, which results in a well-trained team will have a better performance.



REFERENCES

ALMEIDA, A. O. de *et al.* Theoretical knowledge of nurses working in non-hospital urgent and emergency care units concerning cardiopulmonary arrest and resuscitation. **Revista Latino-Americana de Enfermagem**, v. 19, n. 2, p. 1 – 8, Mar-Abr 2011. Disponível em: <https://www.scielo.br/j/rlae/a/DnKrJmp49D3y54LWkYyR4Tt/?format=html#>. Acesso em: 06/03/2023.

ALMEIDA T. A. P. de *et al.* Conhecimento teórico da equipe de enfermagem no atendimento à parada cardiorrespiratória no adulto. **Empresa Brasileira de Serviços Hospitalares-EBSERH**, p. 1 - 71, 2021. Disponível em: <https://www.gov.br/ebserh/pt-br/hospitais-universitarios/regiao-sul/he-ufpel/ensino-e-pesquisa/atividades-de-pesquisa/devolutivas-de-pesquisas-concluidas/2020/00957-20-tcc-tatisa-alves-pereira-de-almeida-conhecimento-teorico-da-equipe-de-enfermagem-no-atendimento-a-parada-cardiorrespiratoria-no-adulto.pdf/view>. Acesso em: 19 abr. 2023.

ASSOCIATION, A. H. **Atualização das diretrizes de RCP e ACE de 2020 da American Heart Association**. 2020. Disponível em: <https://eccguidelines.heart.org/wpcontent/uploads/2015/10/2015-AHA-Guidelines-Highlights-Portuguese.pdf>. Acesso em: 07/03/2023.

BECCARIA, L. M. *et al.* Conhecimento teórico da enfermagem sobre parada cardiorrespiratória e reanimação cardiocerebral em unidade de terapia intensiva. **Revista CuidArte, Enferm**, v. 11, n. 1, p. 1 – 8, 01 2017. Disponível em: <https://pesquisa.bvsalud.org/portal/resource/pt/bde-31625>. Acesso em: 20/04/2023.

BELLAN, M. C.; ARAÚJO, I. I. M.; ARAÚJO, S. Capacitação teórica do enfermeiro para o atendimento da parada cardiorrespiratória. **Rev. Bras. Enferm.**, v. 63, n. 6, p. 1 – 9, 07 2010. Disponível em: <https://www.scielo.br/j/reben/a/nHPLXTgsZBQRG3fDYybJYfG/?lang=pt#>. Acesso em: 06/03/2023.

CAMPOS, L. P. S. *et al.* Conduta da equipe de enfermagem na parada cardiorrespiratória em crianças. **Revista Enfermagem UFPE on line**, v. 13, p. 1 – 7, 2018. Disponível em: <https://periodicos.ufpe.br/revistas/revistaenfermagem/article/view/243150/34140>. Acesso em: 06/03/2023.

CRUZ, L. L. D.; RÊGO, M. G. D.; LIMA, E. C. de. O enfermeiro frente à parada cardiorrespiratória em ambiente hospitalar: desafios do cotidiano. **Repositório Institucional do Centro Universitário do Planalto Central Aparecido dos Santos**, p. 1 – 11, 02 2018. Disponível em: <https://dspace.uniceplac.edu.br/handle/123456789/82>. Acesso em: 04/09/2022.

DE NASSAU, R. M. *et al.* Atuação da equipe de enfermagem no atendimento à vítima de parada cardiorrespiratória no ambiente intra-hospitalar. **Revista de Atenção à Saúde**, v. 16, n. 56, p. 101-107, 2018. Disponível em: https://www.seer.uscs.edu.br/index.php/revista_ciencias_saude/article/view/4928. Acesso em: 20/04/2023.

FACUNDO, D. A. de F. IMPORTÂNCIA DO ENFERMEIRO FRENTE A UMA RESSUSCITAÇÃO CARDIOPULMONAR EM AMBIENTE INTRA-HOSPITALAR. **Revista Ibero-Americana de Humanidades, Ciências e Educação**, v. 8, n. 12, p. 1 – 11, 12 2022. Disponível em: <https://periodicorease.pro.br/rease/article/view/8036>. Acesso em: 07/03/2023.

GUEDES, A. R. *et al.* A importância da capacitação dos profissionais de enfermagem frente a uma parada cardiorrespiratória em adultos. **Facit Business and Technology Journal**, v. 1, n. 26, 2021.



Disponível em: <http://revistas.faculdefacit.edu.br/index.php/JNT/article/view/976>. Acesso em: 20/04/2023.

MELO, M. do Carmo Barros de *et al.* Atendimento à parada cardiorrespiratória: suporte progressivo à vida. **Revista Médica de Minas Gerais**, v. 18, n. 4, p. 1 – 8, 2018. Disponível em: <https://rmmg.org/artigo/detalhes/502#>. Acesso em: 06/03/2023.

MENEZES, B. G.; SOUZA, B. G. de. CAPACITAÇÃO DOS ENFERMEIROS NA REANIMAÇÃO DE PACIENTES DA UTI. **Atualiza Cursos**, p. 1 – 15, 2013. Disponível em: http://bibliotecaatualiza.com.br/arquivotcc/EU/EU22/MENEZES-barbara-SOUZA_barbara.PDF. Acesso em: 08/03/2023.

NUNES, F. P. *et al.* CONHECIMENTO DE ESTUDANTES DE ENFERMAGEM SOBRE PARADA CARDIORRESPIRATÓRIA: ESTUDO TRANSVERSAL. **Rev baiana enferm**, v. 35, p. 1 – 11, 2021. Disponível em: <https://periodicos.ufba.br/index.php/enfermagem/article/view/43160>. Acesso em: 07 mar. 2023.

PEREIRA, R. S. M. *et al.* Parada cardiorrespiratória e reanimação cardiopulmonar: conhecimento de enfermeiros de um hospital público no Alto Sertão Paraibano. **Informativo Técnico do Seminário**, v. 9, n. 2, p. 1 – 10, 12 2015. Disponível em: <http://www.gvaa.com.br/revista/index.php/INTESA>. Acesso em: 08/03/2023.

RABELLO, C. M. *et al.* Conhecimento dos profissionais de enfermagem acerca da parada cardiorrespiratória. **Brazilian Journal of Development**, v. 8, n. 2, p. 1 – 13, 02 2022. Disponível em: DOI:10.34117/bjdv8n2-375. Acesso em: 08/03/2023.

SILVA, L. G. F. e *et al.* Atendimento inicial na parada cardiorrespiratória: uma revisão integrativa da literatura. **Research, Society and Development**, v. 11, n. 2, p. 1 – 7, 01 2022. Disponível em: <https://rsdjournal.org/index.php/rsd/article/view/25516>. Acesso em: 07/03/2023.

SILVA, V. M. dos S. *et al.* A importância da capacitação no atendimento a parada cardiorrespiratória da equipe de uma unidade básica de saúde. 2017. Disponível em: <https://repositorio.ufsc.br/xmlui/handle/123456789/173436>. Acesso em: 20/04/2023.

TALLO, F. S. *et al.* Atualização em reanimação cardiopulmonar: uma revisão para o clínico. **Rev Bras Clin Med**, v. 10, n. 3, p. 1 – 7, 06 2021. Disponível em: <https://pesquisa.bvsalud.org/portal/resource/pt/lil-621487>. Acesso em: 06/03/2023.