

CASE REPORT ARTICLE

EXPERIENCE OF NURSES IN SIMULATED CARDIORESPIRATORY ARREST VIVÊNCIA DE ENFERMEIROS EM PARADA CARDIORRESPIRATÓRIA SIMULADA EXPERIENCIA DE ENFERMEROS EN DESFILE RESPIRATORIO SIMULADO

Luiza Cerqueira Reis da Costa¹, Liszety Guimarães Emmerick², Roberto Carlos Lyra da Silva³, Flávio Vaz Machado⁴, Fernanda Rodrigues da Silva⁵, Christina Silva Costa Klippel⁶, Cássio Fernandes Coelho⁷, Mònica Teixeira Signorini⁸

Objective: to report the experience of nurses in nursing care to patients in cardiorespiratory arrest. Method: this is a descriptive experience-based study of realistic simulation nursing care with the objective of working on the Advanced Cardiovascular Life Support protocol, following the American Heart Association guidelines, linked to the residency program. of nursing of a Brazilian federal university. Results: we list the factors that led to the emergence of the simulation: the social requirement of safety and quality in health care; the need to renew the training of health professionals; ethical considerations; technological advances; professional inexperience and changing practice contexts. Conclusion: it was possible, with realistic simulation, to train and practice in a safe environment and allowed nurses to make mistakes without causing harm or harm to real patients, as well as controlling their own feelings, which could be exposed through debriefing that the facilitator provided at the end of each group's action. Descriptors: Nurses; Nursing; Heart Arrest; Realistic Simulation; Patient; Debriefing.

Objetivo: relatar a experiência de enfermeiros na assistência de enfermagem ao paciente em parada cardiorrespiratória. Método: trata-se de um estudo descritivo, tipo relato de experiência, de assistência de enfermagem em simulação realística com o objetivo de se trabalhar o protocolo de Suporte Avançado de Vida Cardiovascular, seguindo as diretrizes da American Heart Association, vinculado ao programa de residência de enfermagem de uma universidade federal brasileira. Resultados: elencam-se os fatores que levaram à emergência da simulação: a exigência social de segurança e qualidade nos cuidados de saúde; a necessidade de se renovar a formação dos profissionais de saúde; as considerações éticas; os avanços tecnológicos; a inexperiência profissional e os contextos da prática em constante mutação. Conclusão: possibilitou-se, com a simulação realística, treinar e praticar em um ambiente seguro e permitiu-se que os enfermeiros pudessem errar sem causar danos ou prejuízo em pacientes reais, além de controlar os seus próprios sentimentos, que puderam ser expostos por meio do debriefing que a facilitadora dispôs ao fim da ação de cada grupo. Descritores: Enfermeiros; Enfermagem; Parada Cardiorrespiratória; Simulação Realistica; Paciente; Debriefing.

RESUMEN

Objetivo: informar la experiencia de los enfermeros en cuidados de enfermería a pacientes en paro cardiopulmonar. Método: se trata de estudio descriptivo basado en la experiencia de la atención de enfermería de simulación realista con el objetivo de trabajar en el protocolo Advanced Cardiovascular Life Support, siguiendo las pautas de la American Heart Association, vinculado al programa de residencia de enfermería de una universidad federal brasileña. Resultados: se enumeran los factores que llevaron a la emergencia de la simulación: el requisito social de seguridad y calidad en la atención médica; la necesidad de renovar la formación de profesionales de la salud; consideraciones éticas; avances tecnológicos; inexperiencia profesional y contextos de práctica cambiantes. Conclusión: fue posible, con simulación realista, entrenar y practicar en un ambiente seguro y permitió que los enfermeros cometieran errores sin causar daño o perjuicio a pacientes reales, así como controlar sus propios sentimientos, que podrían exponerse a través del debriefing que el facilitador proporcionó al final de la acción de cada grupo. Descriptores: Enfermeros; Enfermería; Paro Cardíaco; Simulación Realista; Paciente; Debriefing.

1,2,3,4,6Federal University of the State of Rio de Janeiro / UNIRIO. Rio de Janeiro (RJ), Brazil. ORCID: https://orcid.org/0000-0001-6184-6892 ©ORCID: https://orcid.org/0000-0001-9416-9525 ©ORCID: https://orcid.org/0000-0001-9416-9525 ©ORCID: https://orcid.org/0000-0001-9416-9525 ©ORCID: https://orcid.org/0000-0001-9416-9525 ©ORCID: https://orcid.org/0000-0001-9416-9525 ©ORCID: https://orcid.org/0000-0003-0751-0364 SEGORID: https://orcid.org/0000-0003-0751-0364 SEGORID: https://orcid.org/0000-0003-0751-0364 SEGORID: https://orcid.org Brazil. ©ORCID: https://orcid.org/0000-0002-9550-5890

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INTRODUCTION

Cardiorespiratory arrest (CPA) is defined as an abrupt cessation of cardiac, respiratory, and brain functions in which the patient should be treated within four to six minutes so that there is no irreversible brain injury caused by unconsciousness, central pulse, apnea and presence of mydriasis.¹⁻³

It is known that patient safety goes between two aspects: one that seeks to ensure care through well-developed practices and another that seeks not to expose the patient to risks unnecessarily. According to the report of adverse events in Brazil, from January 2014 to July 2018, 223,684 incidents were reported, and among these 57,514 resulted from failures during health care.⁴⁻⁵

Incorrectly performed procedures lead to iatrogenic and adverse events arising from nursing care errors and this should be at the center of the profession's concerns.⁶⁻⁷

It is evident that the newly graduated nurses lack competence for professional practice, as they do not master the technical skills for the development of procedures, accepting criticism and acknowledging their insecurities regarding the act of assuming team leadership due to lack of adequate and sufficient preparation.⁸⁻⁹

It is argued that professional practice is relevant and therefore remains valid for decades, while undergraduate knowledge lasts only a few years and knowledge and skills tend to change rapidly between these stages, making it essential to think of a methodology for a liberating education practice in the formation of an active and able to learn professional.¹⁰⁻¹

It can be considered constructive, in higher education in health, the use of active methodologies, such as simulation, to overcome traditional teaching models, thus acquiring a better performance and resulting in the competence and professional skills themselves. 12-3

It is pointed out that the improvement of the nursing resident's insertion ways in the professional practice scenarios may contribute not only to the optimization of the ongoing health education process under development in the country, but, above all, to the improvement of the care provided in the institutions.¹⁴

In addition to the development of technical skills, realistic simulation (RS) encompasses leadership, crisis management, teamwork, and

clinical thinking in critical situations that may cause harm to the real patient. It is also noteworthy that SR can be more didactic than a real situation, as it is strategically focused on defined goals and carried out in a controlled and error-prone environment, thus minimizing the

psychological impact of care on the patient and

developing professional self-confidence. 15-17

It is noteworthy, since the next step after graduation is Nursing residence, which the university used SR as a method for teaching and

learning of residents, which pointed out the greatest difficulties in hospital professional practice and care for critically ill patients. in open clinics, especially in emergency situations, such as a CPA.

OBJECTIVE

 To report the experience of nurses in nursing care to patients in cardiorespiratory arrest.

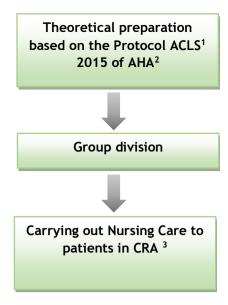
METHOD

This is a descriptive study, experience report type, of nursing care in RS with the purpose of working the ACLS 2015 protocol, following the guidelines of the American Heart Association, linked to the nursing residency program of a federal university located in city of Rio de Janeiro / RJ, Brazil, according to the curriculum and under the supervision of invited teachers. 18

The schedule was scheduled to simulate firstyear students in order to develop practical skills, clinical reasoning, decision making and communication with the team in the face of a CRA.

First-year residents are invited each year to participate in the activity in the university laboratory, which is similar to a highly complex bed in a hospital unit. The activity was performed on two consecutive days during the theoretical class schedule of the specialization course.

To systematize the proposal, a methodological teaching path was elaborated that shows all the steps experienced by resident nurses to fulfill the simulation activity (Figure 1).



¹ACLS - Advanced Cardiac Life Support - ²AHA - American Heart Association, ³CRA - Cardiorespiratory arrest. Figure 1. Methodological Teaching Trajectory.

RESULTS

The first methodological stage was held on the first day, in which participants had the opportunity to attend a lecture lecture of the Advanced Cardiovascular Life Support Protocol (ACLS) 2015, taught by a master with expertise in the area of ACLS, with audiovisual resources, interpretations of electrocardiographic tracings and cardiac electrophysiology.

Concepts such as the definition of cardiac arrest, the survival chain, the importance of the systematized approach, the safety of the emergency room, and the Basic Life Support (BLS) and ACLS approaches that differentiate the approach were covered during the class, by lay people, the CAB (compression, airway opening and ventilation and use of automatic external defibrillator) and skilled professionals, which constitute the ABCD approach (advanced airway opening, good ventilation, venous access and drugs and differential diagnosis).

On the second day, the second and third stages were developed, in which there was a random division of the groups, formed by five Nursing residents, in which each member had their defined function, namely: leadership (nurse 1); cardiac massage (nurse 2); ventilation (nurse 3); drugs (nurse 4) and shock (nurse 5).

Nurse 1, responsible for group leadership, controls the other participants regarding the execution / effectiveness of the chosen position, the recognition of the electrocardiographic tracing of cardiac arrest and the ordering of the Nursing care sequence, as well as the computation of time between massage and ventilation cycles and drug infusion.

It is described that the nurse 2, responsible for cardiac massage, should maintain a good posture during the procedure, a rate of 100 to 120 compressions per minute, as recommended, and a depth of five to six centimeters, allowing a good return of the chest to the coronary arteries. It is

noteworthy that this member should rotate with the nurse 3, responsible for ventilation, who, at the beginning of the activity, ventilates by bagvalve-mask (AMBU) and, at the moment of CRA, requests the entry of the physician for the performance of orotracheal intubation. At this time, the facilitator is advised to enter the field, install the orotracheal tube on the dummy and be absent. Other precautions, such as the adaptation of the orotracheal tube to the AMBU, the verification of position, cuff insufflation and the change of ventilation rate to one every six seconds, should be performed by the responsible nurse, remembering that The effectiveness of compressions and ventilation can be assessed by a capnograph and plotted on the available monitor.

It is known that nurse 4, responsible for drugs, should establish venous access quickly and infuse the necessary drugs according to the rhythm, whether shocking or not, remembering to infuse the drug with the raised punctured limb flush 20 ml of saline solution and may be assisted by the nurse 5 if the rhythm is not shockable.

It is noteworthy that the selected group was directed to the simulation laboratory while the other groups watched live, by filming, the process of cardiac arrest patient care.

Upon arriving at the SR laboratory, the briefing was held, which consists of the presentation of the basic guidelines that nurses receive before starting their work in the scenario, 2 the setting of the scenario, which contained the basic materials necessary for resuscitation procedures, such as the high-fidelity simulator dummy, capable authentically replicating clinical situations and performing various functions, interacting through sentences. blinking, presenting reactivity, palpable pulses, places for insertion of medical devices, among other functions, and there was a stopping cart with an external automated defibrillator (EAD) available, psychotropic medications, orotracheal tube, AMBU and personal

protective equipment, plus heart rate monitor and pulse oximeter.

In the scenario, the facilitator presented a randomized clinical case where the patient, represented by the simulator dummy, was in intensive care, monitored and needed the resident team for their assistance.

It is recorded that the group continued the case and then the simulator went into CRA and the practice in ACLS was performed. During the process, participants without the facilitator's intervention were evaluated until the outcome of the case, which depended on the interventions performed on the dummy. At the end of each practice group, debriefing was performed.

The factors that led to the emergence of the simulation were six: the social demand for safety and quality in health care; the need to renew the training of health professionals; ethical considerations; technological advances; professional inexperience and the changing environments and contexts of practice.

It is noted that there is a need for vast development of skills of health care professionals, in addition to knowledge related to the theme, such as the presentation of an appropriate posture, proactivity and resourcefulness of teamwork. It is argued that SR is increasingly demonstrating itself as an important tool for the development of these skills.¹⁹

It is emphasized that the pedagogical strategy allows the substitution of up to 50% of the adopted methods, without prejudice to the teaching of nurses, and this use has been consolidated over the years.²⁰

DISCUSSION

In Nursing, other laboratory devices have been used for many years, such as dolls, oranges, among others, aiming to improve the teaching and preparation process for contact with the real patient, but the simulation seeks to overcome the knowledge shown by the teacher and the repetition of the same practices, and the student, from his reflections, becomes the center of the teaching process.²¹

The operational moment of the simulation consists of three distinct steps: the briefing; the scene and the debriefing, which, respectively, consist of communication between the professionals involved in a given task, with a script designed with a goal, in the simulation itself, in which the outcome depends on the interventions, and in the last stage, where the student and teacher reflect on what happened and signal what could have been done differently.²²

Debriefing is understood to have emotional, self-reflective and influential aspects in the learning process and leads the participant to

reflect on his own actions, his own behaviors and his emotions during the simulation.

It is considered important that the driver of the debriefing is a skilled professional who can apply constructive feedback to his / her observation, helping the participant to find his / her improvement.²³

CONCLUSION

It can be concluded that nurses can reflect on the importance of their functions in the care of patients with cardiac arrest, which are, as a priority, early identification, performing maneuvers, assembling the team and systematically ordering tasks.

It allows RS to practice in a safe environment and that nurses can make mistakes without causing harm or harm to real patients, as well as controlling their own feelings, which can be exposed through debriefing.

The most common reports during debriefing were anxiety and nervousness, difficulty in controlling the timing of massage and drug cycles, and lack of team harmony.

It is noteworthy that the activity has the essential part of debriefing, because, with it, nurses can critically reflect on their clinical work practice, participating in their learning actively.

It is evaluated that the live transmission caused a decrease in the tension of the activity and allowed the other groups, besides learning from the mistakes of others, to discuss the fragility that each nurse could have in each function, thus working the team communication and role management according to each participant's best ability.

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Corresponding author
Liszety Guimarães Emmerick

E-mail: liszety@gmail.com

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