

ORIGINAL ARTICLE

CONTRIBUTION OF DEBRIEFING IN SIMULATION-BASED ON SIMULATION

CONTRIBUIÇÃO DO *DEBRIEFING* NO ENSINO BASEADO EM SIMULAÇÃO

CONTRIBUCIÓN DE *DEBRIEFING* EN LA EDUCACIÓN BASADA EN SIMULACIÓN

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ABSTRACT

Objective: to analyze the perception of nursing residents regarding the contribution of debriefing to their learning from a High Fidelity Simulation experience. **Method:** this is a quantitative, descriptive, cross-sectional study with 103 nurses from the 1st year of the Nursing Residency Program of a Brazilian federal university. The workshop "Simulation in nursing care for highly complex patients" was created in five stages: lecture on the ACLS Protocol 2015 of the American Heart Association; practical skills workshop; instruction on the simulation environment and the functions of the team members to act in the scenarios; debriefing and filling in the instrument "Debriefing Experience Scale" (DES). For the analysis and classification of the data, the cut-off point of 70% of agreement between the items evaluated by the DES was considered. **Results:** the Likert index "totally agree" and 25% the "partially agree" index was indicated by 75% of respondents. **Conclusion:** in the study, it is shown that nursing residents considered the debriefing process as a factor of great contribution to their learning and professional training. **Descriptors:** Simulation; Nursing; Education, Nursing; Learning Methodology; Learning; Education, Professional.

Resumo

Objetivo: analisar a percepção de residentes de enfermagem quanto à contribuição do *debriefing* para a sua aprendizagem a partir de uma experiência de Simulação de Alta Fidelidade. **Método:** trata-se de um estudo quantitativo, descritivo, transversal, com 103 enfermeiros do 1º ano do Programa de Residência de Enfermagem de uma universidade federal brasileira. Criou-se o *workshop* "Simulação na assistência de enfermagem ao paciente em alta complexidade" em cinco etapas: aula expositiva sobre o Protocolo ACLS 2015 da *American Heart Association*; oficina de habilidades práticas; instrução sobre o ambiente de simulação e as funções dos membros da equipe para a atuação nos cenários; *debriefing* e preenchimento do instrumento "Escala de Experiência com o *debriefing*" (EED). Considerou-se, para a análise e classificação dos dados, o ponto de corte de 70% de concordância entre os itens avaliados pela EED. **Resultados:** indicou-se, por 75% dos respondentes, o índice *Likert* "concordo totalmente" e 25%, o índice "concordo parcialmente". **Conclusão:** demonstra-se, no estudo, que residentes de Enfermagem consideraram o processo de *debriefing* como fator de grande contribuição para sua aprendizagem e formação profissional. **Descritores:** Simulação; Enfermagem; Educação em Enfermagem; Aprendizagem Metodologia; Aprendizagem; Reeducação Profissional.

Resumen

Objetivo: analizar la percepción de los residentes de enfermería con respecto a la contribución del *debriefing* para su aprendizaje a partir de una experiencia de Simulación de Alta Fidelidad. **Método:** este es un estudio cuantitativo, descriptivo, transversal con 103 enfermeros del primer año del Programa de Residencia de Enfermería de una universidad federal brasileña. El taller "Simulación de la atención de pacientes de enfermería altamente compleja" se creó en cinco pasos: conferencia sobre el Protocolo ACLS 2015 de la *American Heart Association*; taller de habilidades prácticas; instrucción sobre el entorno de simulación y los roles de los miembros del equipo para desempeñarse en los escenarios; *debriefing* y completar el instrumento "Debriefing Experience Scale" (DES). Para el análisis y la clasificación de los datos, se consideró el punto de corte del 70% de acuerdo entre los elementos evaluados por el DSE. **Resultados:** el 75% de los encuestados indicó el índice *Likert* "totalmente de acuerdo" y el 25% índice "parcialmente de acuerdo". **Conclusión:** el estudio muestra que los residentes de Enfermería consideraron el proceso de *debriefing* como un factor de gran contribución a su aprendizaje y formación profesional. **Descriptor:** Simulación; Enfermería; Educación en Enfermería; Aprendizaje Metodología; Aprendizaje; Reentrenamiento en Educación Profesional.

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How to cite this article

Klippel C, Nieto ECB, Santos HAS dos, Emmerick LG, Costa LCR da, Silva RCL. Contribution of debriefing in simulation-based on simulation. J Nurs UFPE on line. 2020;14:e241872 DOI: <https://doi.org/10.5205/1981-8963.2020.241872>

INTRODUCTION

It is known that, following the great advances and transformations in the economic, technological, cultural and social area of the last decades, there has also been an evolution in the area of Health Education in order to build new educational practices that can support the challenges and needs health professionals in the current context. High Fidelity Simulation has been integrated, in which participants work in clinical settings that reproduce real situations, to nursing education. Some authors emphasize the need for teachers to review the pedagogical methodology in order to incorporate new didactic postures, using more dynamic strategies, making the teaching-learning process of adult professionals with relevant significance.¹⁻³

It refers to the improvement of health professionals in adult education, more specifically of individuals with ages ranging from 21 to 60 years. The education of this population requires the use of teaching techniques appropriate to this stage of human development. It is understood that adults naturally have a load of experiences and concepts of their own, in addition to personality traits and relationship patterns that determine their behavior and attitudes. They become, as they mature, more self-directed and prefer teaching that is problem-centered and that learning is meaningful and applicable to situations in their daily life. Through personal identification with the object under study, the appropriation of new knowledge is more easily facilitated, increasing the capacity for personal development. The teaching-learning process needs to make sense for the professional, making the act of learning a faster process and with longer memorial fixation.⁴⁻⁶

Educational experience is understood as a broad and complex event, which involves three types of learning: cognitive, emotional and behavioral. More than just learners trained to develop skills or behaviors are required. It is necessary, for the educational experience to occur successfully, that its participants understand why and how this new knowledge is related to the extra-class context and can be applied to their professional life.⁵

Currently, Realistic Simulation is considered as the most advanced teaching-learning method, aimed mainly at risky activities, with the objective of increasing the safety of processes. It is possible, through the reproduction of clinical scenarios and with the use of high technology, the reproduction of real life experiences in safe environments, favoring the alignment of scientific knowledge to the acquisition of technical skills. In this way, the participant is led to realize the value of leadership and teamwork, encouraging him to express ideas

and make decisions relevant to simulated situations within the ethical principles of the profession.¹⁻³

The debriefing process is recognized as the central point of simulation-based learning and is defined in the literature as knowledge acquired through reflection on a simulation experience. It consists of a gradual and structured process of reflective discussion, pertinent to the cycle of experiential learning, composed of guided recall, reflection and analysis, in which the participants are guided by a facilitator throughout the reflective process. It may seem like a natural process to reflect on an experience, however, without the help of a facilitator, it may occur in a non-systematic way. The facilitator should conduct the debriefing formally and without judgment, focusing on the reflection process, both of the participants, individually, and of the group as a whole. It is explained that the participant must play an active role in the entire teaching-learning process in which they will be asked to critically analyze their own performance, describing the successes and mistakes made, analyzing their attitudes and decisions taken. The ability to reflect, evaluate and reassess one of the pillars of lasting learning is considered. However, it is necessary for educators to evaluate the debriefing process in order to verify whether the objectives of the activity have been achieved, whether it has been carried out productively, whether the selected method has been adapted and whether quality management has been carried out, applied to the process.^{1,7,10}

OBJECTIVE

- To analyze the perception of nursing residents regarding the contribution of debriefing to their learning from a High Fidelity Simulation experience.

METHOD

This is a quantitative, descriptive study. The study included 103 nurses resident at the Federal University of the State of Rio de Janeiro / UNIRIO, Brazil. The following inclusion criteria were raised: participation in a Federal Institution, as a resident nurse and participation in all stages of the study.

A workshop entitled “Simulation in Nursing Care for Patients in High Complexity” was developed for 1st year nursing residents. Six stages were included in the event:

1st stage - study of the ACLS Protocol 2015, from the American Heart Association, previously sent to participants via on line;

2nd stage - expository / interactive class on the theme given by a specialist teacher on the subject;

3rd stage - workshop for the development of practical skills, conducted by instructors, using medium fidelity mannequins. The skills developed included cardiac monitoring, pulse oximetry, ventilation with bag-valve-mask in basic and advanced airways, administration of drugs through peripheral venous access and electrical defibrillation / cardioversion;

4th stage - Realistic High Fidelity Simulation, in the LAETS health and economic assessment laboratory. The nurses were divided into teams of five participants each and they received instruction on the simulation environment and on the distribution of functions among the team members for the performance;

5th stage - involved the debriefing itself, and the 6th and final stage considered the application of the Experience Scale with debriefing, validated for the Portuguese language, to the participants, after the simulation activity. This scale consists of an individual questionnaire composed of 20 items classified into four factors, namely:

Factor 1 - related to the analysis of thoughts and feelings; Factor 2 - entitled “learning and making connections”; Factor 3 - related to the facilitator’s ability to conduct debriefing, and

Factor 4 - aimed at assessing the orientation of the teacher/facilitator. In each of the items evaluated, five Likert items are offered as answer options: I totally agree; partially agree; I do not agree nor disagree; partially disagree and totally disagree.^{8,9}

Data was collected based on the participants’ responses to the DES. Data was analyzed using SPSS, version 24, for Mac. Items that obtained a classification index equal to or higher than 70% were established as the cutoff point, which are considered to be the ones with the greatest contribution to learning from the perspective of nursing residents.

The research registered at Plataforma Brasil is found under number CAEE 93052518.9.0000.5285 and approved by the Research Ethics Committee of the Federal University of the State of Rio de Janeiro / UNIRIO, in accordance with NHC Resolution 466/2012.

RESULTS

It is detailed that 97 participants responded to the DES. It is observed that all items evaluated in the DES received a positive evaluation according to figure 1 of factor analysis.

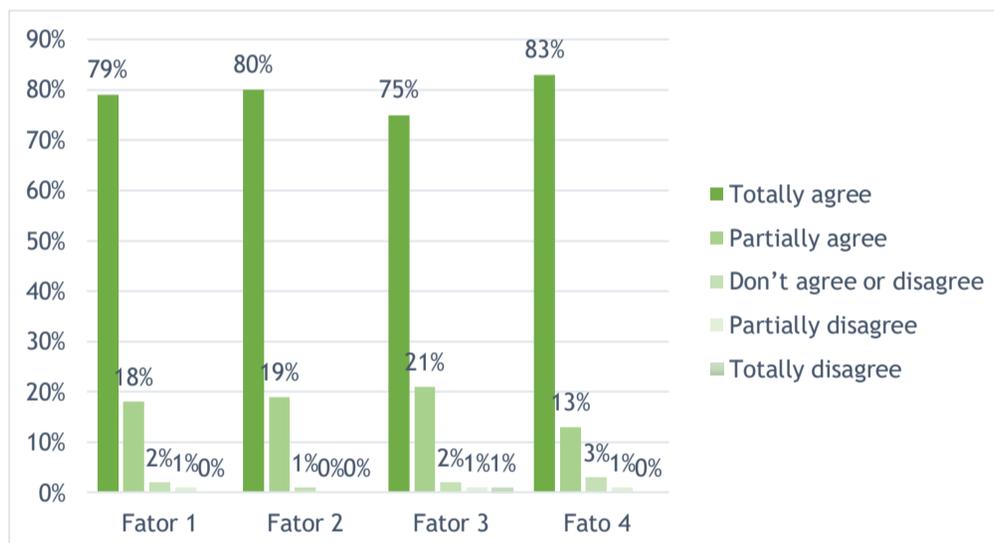


Figure 1. Result of the analysis of the factors of the Experience Scale with debriefing. Rio de Janeiro (RJ), Brazil.

In the responses related to Factor 1 - analysis of thoughts and feelings, a 79% agreement index, indicating the Likert index “totally agree”, and 18% the “partially agree” index.

It is pointed out by experts on the subject that, in addition to stimulating reflection, the debriefing process is the moment for consolidating learning. It is observed, however, that, during debriefing, participants may be tense, afraid of exposure in front of their peers, or even agitated, due to participation in the simulation. The facilitator has, at that moment, the function of calming and encouraging them, leading them to a reflection on their feelings and weaknesses, without judgment, reinforcing the successes

demonstrated by the team. At that moment, the facilitator should clarify feelings that could represent trauma or unpleasant sensations.^{1,4,10-3}

In relation to Factor 2, entitled “learning and making connections”, 80% of responses to the “totally agree” and 19% to the “partially agree” index.

In this aspect of debriefing, participants are encouraged to realize the effect of their decisions and actions during the course of the simulation activity. The facilitator can then address the technical aspects of patient care, reviewing protocols, conduct and decisions made by the group and individually.^{1,4,11-3}

Apresentaram-se, pelo fator 3, relacionado à habilidade do facilitador em conduzir o *debriefing*, 75% de respostas indicando o índice “concordo totalmente” e 21%, o índice “concordo parcialmente”.

The facilitator should conduct the debriefing in a concise, objective and, above all, non-judgmental manner, leading the participants to perceive, without guilt, the mistakes made during the approach to the patient and to decide for behavior change, based on the analysis of this experience. The strengths of the individual and team performance by the facilitator must also be reinforced, because in this way, they will be able to obtain a positive attitude from the participants when facing future challenges.^{1,4,10-1}

In reference to Factor 4, aimed at evaluating the orientation of the teacher / facilitator, a rate of 83% of responses focused on the item “totally agree” and 13% on the item “partially agree”.

Through this assessment, facilitators are given the opportunity to self-assess in relation to their own needs for improvement in relation to the conduct of simulation activities, involving them in a process of continuous improvement.

Considering a global analysis of the results, a high degree of satisfaction with the experience with debriefing by the participants in the Realistic Simulation was evidenced.

DISCUSSION

Currently, health simulation represents one of the most powerful teaching tools available for the development of professionals and teams, and it has been increasingly used and disseminated, mainly due to the production of specific modern technologies. In the literature, there are countless works that validate the applicability of this teaching strategy, especially in the areas of Medicine and Nursing, where publications are in permanent development in universities around the world.

It is emphasized that the teaching-learning activities, based on simulation, allow the reproduction of real situations of care and assistance in a controlled environment. Through this transformative learning, this demonstrates the production of improving the skills of health professionals.

It is also observed that standardized instruments have been increasingly used in the evaluation of different aspects of learning and constitute important tools for the evaluation of the effectiveness of teaching methodologies based on the identification of evolutionary learning stages.¹²

The Debriefing Experience Scale was built in order to measure two aspects: the participant's experience in the debriefing, elaborating a self-

analysis of feelings and perceptions, and the observation described by the participants, in relation to the facilitator who performs the debriefing. It is noteworthy that the participant becomes the center of their learning, since their perceptions will influence their future actions, which may cause changes in their professional behavior.^{7,13}

CONCLUSION

It is observed, in relation to the analysis of the first strand of DES, involving Factors 1 and 2, that the participants indicated that they had acquired greater awareness of their attributions, with a positive evolution in relation to decision-making and problem solving, in addition to the acquisition greater confidence in their professional performance through the control of their fears and anxieties. A good evaluation in relation to Factors 3 and 4 was demonstrated by the analysis of the second strand of the DES, indicating that the facilitators were successful in applying the debriefing, since they were positively evaluated.

It was proven that the final objective of the simulation activity was achieved, which consists of adding security to professional practices, in a real environment, consolidating the theoretical bases of knowledge and encouraging discussion about experiences in the simulated scenario and, consequently, the possibility of transforming behaviors in order to prepare professionals to offer more qualified health care.

In this same perspective, the stimulus to critical thinking in the participants was evidenced, when considering the positive and negative points of the actions performed by the team and their confrontations, collaborating for a better performance and resolvability in individual and group work.

It was found that the contribution of this study is in the investigation of experiences lived by the participants of the simulation in order to enrich the teaching-learning process. The study was limited, however, due to the sampling collected in a postgraduate course of only one Higher Education Institution.

It is recommended to replicate the study with more significant samples in order to reaffirm the usability of the DES, in a wide educational experience.

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Submission: 2019/07/05
Accepted: 2019/12/20

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