

Realistic Simulation as Strategy of Problematization in Women's Health

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Realistic simulation consists of a tool of active methodology in higher education able to provide an imaginary environment, and thus, allow students to experience real life situations. The objective of the study is to share experiences with the application of realistic simulation in the thematic module about women's health in April 2017, in the Undergraduate Nursing Course, at Escola Superior de Ciências da Saúde (ESCS), in Distrito Federal, Brazil. An experience report in which the problem situation was worked in a protected environment simulating a nursing consultation performed with a pregnant woman in usual risk of labor using an obstetric mannequin. Eight students and two tutors participated. From the results, students have achieved the goal by effectively solving the problem situation and acquiring skills needed for a real setting. It is concluded that realistic simulation provided a creative environment favoring a meaningful learning.

Keywords: higher education, learning, nursing education

Introduction

The structure of the Undergraduate Nursing Course of the Escola Superior de Ciências da Saúde (ESCS) has its practice based on active teaching and learning methodologies allowing the development of competencies, attitudes, and abilities necessary for the training of nurses.

It is opportune to consider the active methodologies as a possibility for the construction of new ways of operating health education in higher education, and possibly as an instrument to overcome traditional teaching models. As an integral method of these methodologies, realistic simulation as a method can contribute to the acquisition of competences and abilities, as reflected in a better performance and professional capacity (Costa et al., 2015).

In this perspective, realistic simulation is a methodological tool used in health courses, since it provides participants with the opportunity to train/develop the professional role to exercise solid professional identity, representing roles existing in real life, learning and improving competence in a given area.

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There are several types, ranging from low fidelity simulation to high fidelity simulation. It can be used training dummies or instructed people to create a learning environment that mimics clinical practice. Simulated patients are actors who use standardized scripts to interact with students, and promote a planned and almost uniform learning experience. Virtual learning objects (educational game software, videos, audios, and Web technology) and mixed methods (use of more than one type of simulator) can still be used that represent a real situation with creativity, adapting it according to the scenario that it intends to simulate (Buxton, Phillippi, & Collins, 2014; Oliveira, Do Prado, & Kempfer, 2014).

Simulation allows minimizing incidents and/or adverse events involving students and teachers in practice scenarios, which sometimes leads to irreparable damage to patients. According to a study conducted with medical trainees, exposures to errors and adverse events can have a negative effect on students' attitudes and skills. In addition, the results point to the need to implement a learning curriculum focused on patient safety (Vohra et al., 2007).

The use of simulators in education has proven effective in promoting knowledge for both students and professionals. Critical scenarios can be created and run individually or in a group. For example, in a survey conducted in the obstetric area that demonstrated better neonatal outcomes of complications due to shoulder dystocia after previous simulation-based training (Draycott et al., 2008; Aggarwal et al., 2010; Valadares & Magro, 2014).

Skills worked on in the simulation involve all areas of health. The use of simulation for interdisciplinary work is also reported and represents a breakthrough for health education. In research carried out with nursing students, realistic simulation was effective in strengthening questions of humanization, acquiring and improving knowledge, as well as developing critical reasoning in relation to the clinical situations common to the day-to-day practice of nursing care and helping to overcome difficulties.

Thus, it is justified to carry out this study because there is scientific evidence that realistic simulation in the training environment can increase students' self-confidence, safety, and quality of care in relation to the practices developed in the health services, and thus, to prevent failures in the learning process in the practical scenario that can cause harm to patients.

The objective of this study was to share a lived experience with the use of realistic simulation in the thematic module on women's health of the Nursing Undergraduate Course, in April 2017, at the ESCS, in Distrito Federal, Brazil.

Method

This is an experience report of a realistic simulation with the participation of eight students and two tutors, with a duration of four hours, in April 2017, at the ESCS. The simulated problem-situation consisted of a nursing consultation in the emergency of a hospital with the attendance of pregnant women in labor of habitual risk, in an advanced stage, that culminated with the delivery and birth of the newborn. This situation was presented to the group of students a week earlier so that they could appropriate theoretical knowledge.

In order for simulation practices to occur correctly, they must be planned and structured respecting the complexity between performance scenarios and requirements, so that students receive feedback after each practice, with a discussion of the actions performed (Rohrs et al., 2017).

On the day of the realistic simulation, the group was divided and three of the students staged the problem-situation while the other five observed and quietly noted the key points for the subsequent discussion.

The scenario was prepared inside the laboratory of the institution with an electronic obstetrical mannequin positioned on the stretcher, to be used by the students in the problem-situation.

Results

The staging of the problem-situation occurred as planned and afterwards, the tutors guided the group to discuss the interventions made during the simulation and the discussion emerged the theme: humanization of the labor process and birth.

Through the simulation it was verified that the prepared environment and the use of the obstetric mannequin enriched the experience allowing the students greater appropriation of technical skills about the obstetric examination and the attendance of the usual risk childbirth, as well as the theoretical-practical relationship developed allowed the improvement of the conducts through the observation of the participants who pointed out important questions that had not been mentioned, thus filling the knowledge gaps through immediate post-simulation feedback.

The protected scenario allowed the students a space to express their doubts, train abilities, develop communication, and make referrals due to the parturient and the companion.

At the end of the simulation, the students received feedback from the evaluation of the tutors based on the achievement of the objectives planned for the problem-situation. The students reported the experience as positive, since they could err and practice communication skills and in attending the parturient in active labor and her companion, as well as the necessary technical skills regarding labor and delivery assistance, providing quality and safety care in a protected environment.

Although the simulation was carried out, following the recommended steps to reach the objectives, the study was limited due to the non-recording of the simulation by means of video tapes, so that the students could analyze their performance for greater apprehension and reflection regarding the practices developed. They could, so, discuss the fragility points and the multiplicity of conflicts involved in the stages of the activities performed. However, under the watchful eye of the tutors, the debriefing, feedback, and evaluation were timely given, not devaluing the steps of the realistic simulation.

Discussion

The results showed that the realistic simulation had a significant impact on the learning of the participating students, since the experience itself allowed to acquire greater security and confidence to carry out the activities when in a future real experience in the health service. This is expected to reduce barriers especially in the aspect of caring for the individual, the family, and the community.

In this way, practicing in an environment where it is allowed to make mistakes and being able to do it repeatedly and deliberately improves the results of the training. Simulation, therefore, has an extraordinary capacity to become an integral part of the unit in order to build a safer health system for patients in all spaces (Aggarwal et al., 2010).

In several health areas, realistic simulation has been used with positive results. Relating to women's health, there is scientific evidence that demonstrates numerous abilities developed by students. In research developed by Mileer et al. (2015), students reported the importance of having team collaboration, group discussion, and feedback on aspects and interventions in care in each practice setting. They also pointed the value to discussing real support and assistance strategies and benefits related to improving quality of life.

In a survey conducted with 133 undergraduate students in nursing, it was highlighted that 97% affirmed that there were positive differences in learning when compared to the traditional method. The research data revealed that the impact of this method was effective in causing them to develop critical thinking regarding the clinical situations of the nurse's practice and the care in a safe, real, and controlled environment. In addition, there was a preference for using the simulation when compared to the traditional method (Rohrs et al., 2017).

About the skills required for the training of the nursing professional, there is the possibility of exhaustive repetition of technique, the insertion, and immersion in simulated environments suitable for a reflexive practice, and the development of personal patterns of behavior and professionalism, that are a priority in relation to patient safety. Thus, in the experiments in real and simulated situations, the results point to the idea of re-signification of learning, mechanisms of articulation, and construction of new knowledge, and contribute to a formation closer to the needs demanded by the present society (Costa et al., 2015).

The applicability of the simulated practice requires the assembly of a simulated scenario until the identification of learning gaps made by the participants, which can culminate in the peer evaluation and self-guided reflection through video performance, among others. Filming the simulation brings benefits by enabling the accurate portrayal of events, observation of their ability to interact with patients, and creation of space for clarification and criticism. A questioning session for students for clarification is formally structured with learning objectives that require conceptualization, planning, and organization of the simulation. It is an arduous task that has the determination to convert the challenges found in realizations (Liaqat, Sabina, & Ayesha, 2015).

With regard to material resources, audio and video equipment to facilitate debriefing are necessary. It is important to emphasize that this stage should be of clarification, planned, and directed to promote the reflexive and critical thinking of the student. Confidentiality should be maintained and ensured that it is not used for the purpose of assessing or ridiculing the situation or participants. This pedagogical tool enables a more effective training, since it aims to consolidate theory and practice, as well as contribute to effective communication, resulting in a higher quality of care and patient safety, directing it to the formation of a safe professional and aware of their actions (Martins et al., 2014; Rohrs et al., 2017).

In order for the simulation to be efficient and achieve the expected results, it must be developed through a scenario that encompasses the objectives listed. In this sense, recent research has built a script with units of significance with the purpose of indicating the items that must be organized, related to the construction of the simulated scenario, thus directing the facilitator in the practices of simulated activity. Regarding the objectives intended for student learning, the need to define primary and secondary learning objectives that can be measured (Fabri et al., 2017) was also mentioned by the experts.

In relation to the veracity of the situation of the scenario, simulators and actors can be characterized in a way to imitate a real situation. You can use resources, such as clothing, makeup, and accessories, according to the need of the intended scenario. In the construction of the scenario, it is interesting to use a checklist of actions, which are priorities for the execution of the case, which will be used by the teacher/facilitator. For the students, the checklist will be used to guide observation for the simulation, to facilitate the debriefing, and to direct reflection (Kawakame & Miyadahira, 2015).

The success of the simulated scenario requires further care, such as testing and validating it before using it with students, so that important details in its execution are not neglected (Martins et al., 2014).

Concerning the phase of the final components of the scenario, the unit of significance and development of the scenario requires the need to mention to the participants the evolution of the patient's clinical case. The previous history and how the patient is at the moment of the scenario resolution (Fabri et al., 2017).

The final evaluation has the purpose of evaluating and collecting information, organizing, explaining, and intervening in order to promote meaningful learning. It must be formative, deliberate, and continuous, triggering the development and improvement of learning. In simulation, it is linked to the learning objectives and the complexity of the scenario. It must be carried out in an integrated manner, observing competences, attitudes, and knowledge (Martins et al., 2014).

Finally, the simulation is much more than the use of simulators. It involves a comprehensive context in which teachers, students, practitioners, as well as professionals from other areas of knowledge are involved. Regardless of the content or area of comprehension, it awakens to a new possibility of teaching-learning, minimizing constraints, increasing student achievement in the practice scenario, providing security when developing activities in a near-real scenario, expanding the critical-reflexive capacity and creative and decision-making (Oliveira, Do Prado, & Kempfer, 2014).

Conclusion

The realistic simulation developed in the laboratory of the institution has proved to be a significant technique in higher education and an active methodology tool to provide an imaginary and creative environment. The didactic opportunity led to reaching the students in their different styles of learning, making relevant their experience in the simulation with learning by comprehension.

By favoring daily training experiences in solving elaborated problems with the presence of tutors who are willing to act as facilitators of the teaching and learning process, open to dialogue to promote the production of knowledge and it is created a climate that allows the freedom of thinking and creativity, so that the student can exercise critical and reflective reasoning.

Consequently, this approach results in valuable experiences for the student by fostering teaching and stimulating the development of creative, critical, and reflective thinking, and the development of professionals capable of coping with the vicissitudes, ambiguities, and challenges in the world of work.

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