

CLINICAL SIMULATION: A STRATEGY THAT ARTICULATES TEACHING AND RESEARCH PRACTICES IN NURSING

Clinical simulation is a dynamic process that involves the creation of a scenario that incorporates a true representation of reality, facilitating the active participation of students and integrating the complexities of practical and theoretical learning with opportunities for repetition, feedback, evaluation and reflection without the risk of causing harm to the patient.¹ Among the possibilities, it appears that clinical simulation technologies are capable of articulate strategies for teaching and research practices, necessary for qualification of health professionals at various levels of health care for the population.

When reviewing the history of nursing education we can find the evidence that tell us as that from the beginning the students learned in "Art Galleries" site intended for some practices among them students, also they used some equipment in order to develop technical skills before giving care for people. Among the performed procedures, we can find changes of position to a bedridden person, hygiene and comfort and monitoring vital signs. With this prior experience they were able to develop technical skills and gain knowledge of the operation of the own discipline equipment.

Although those practices could not be compared with what is now known as clinical simulation undoubtedly make a valuable precedent for analyzing the patient safety, this principle has been around since the beginning of the nursing career.

Another important aspect to highlight is the use of the first mannequin known as "Mrs. Chase" in clinical nursing practice. This mannequin was built from the early twentieth century at the express request of a nurse who worked at the Training School for Nurses at Hartford Hospital in Connecticut. The mannequin has the size of an adult and had some features that gave it a realistic appearance and built with highly durable materials. This feature facilitates the use in demonstrations and practice of nursing basic skills.

The Chase Company also built "Baby Chase" those were children from infants up to four years old mannequins and were based on the standards established by the American Medical Association. These were used to teach mothers basic situations of caring for children. They were also used in nursing schools for the teaching and practice of pediatrics as a way to develop clinical skills. The "Baby Chase" had actual body mass and weight, plus nose and ear openings, which improved the quality of teaching in the area of pediatrics.

These records are a landmark in the history as manifest that shows that the use of mannequins have been around since long-time and not only was used in the United States. Thanks to the success were subsequently brought to Latin America with the support of the World Health Organization with the aim of improving the quality of nursing education and safety of people.

This development allowed some nursing schools to transform their "Art Galleries" to give rise to "Skills Laboratories" where were included new complete anatomical models and body parts, today known as low fidelity mannequins, those models were full-scale constructed, in order to give the opportunity to students and faculty members to develop practical classes prior to the real scenario.

In recent decades we have seen a significant technological developments that have made an positive impact on the development of new and increasingly sophisticated technologies that achieve anatomical models that play vital functions of the human being and help in developing complex clinical scenarios. This technological breakthrough has enabled nursing schools to create new clinical scenarios, very similar to real practice, in a controlled environment where they can repeat the procedures and

scenarios as often as necessary until the student does it properly, as well as learn from the mistake without causing damage, which may not occur in real practice.

In this regard it is important to clarify that the key to success in school or clinical simulation lab is not just about having equipment and high-tech models, but rather to train the teachers about the teaching strategy of simulation in order to promote the developing skills and clinical judgment in nursing practice. It is necessary to create a culture of clinical simulation and it is required to plan and organize the strategy that will guide the activities required in the curriculum in accordance with the level of complexity in which the student is, as a way to maximize the experiences and the achievement of the meaningful learning.

Another important aspect relates to highlight the importance that all simulating practice count with clinical guidelines and check list as a way to ensure the consistency of the approach between teachers and students. This methodology will develop a clinical strategy simulation based on evidence and not as sometimes happens when the student ask to the teacher how does he want to perform the procedure. Achieving work with clinical guidelines and checklist allows the student and teacher to work with a common language that favors the quality of training.

Finally, in nursing research, clinical simulation emerges as a beneficial strategy. In this sense, this is a perspective able to increase the teaching and learning technologies, and to assist in investigations in the area of education. In addition, clinical simulation can make possible the realization of important clinical studies in the field of safety practices in conducting nursing complex diagnostic and therapeutic invasive procedures and the production of ethical attitudes and professional responsibility among the interdisciplinary care for patient, family and community.

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