“A STUDY TO ASSESS THE EFFECTIVENESS OF SIMULATION- BASED TEACHING IN NURSING EDUCATION.”



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DECLARATION BY CANDIDATE

We hereby declare that this project entitled "A STUDY TO ASSESS THE EFFECTIVENESS OF SIMULATION- BASED TEACHING IN NURSING EDUCATION." is research done by Mr.Sony K Benny, Ms. Sinchana, , Mr. Sahal Parali, Ms. Vishnupriya **as a partial fulfilment of the requirement for the degree of Bachelor of science in nursing under the guidance of Mrs. Nirmala Reddy, M.Sc. (N) , Department of Medical Surgical Nursing , Associate Professor, smt. Nagarathnamma college of nursing**

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"Oh, give thanks to the Lord, for He is good! For His mercy endures forever. The Lord is for me among those who help me."

There are several hands and hearts who have made contributions towards this research project without whose co-operation, this study would have remained incomplete. We wish to place on record our sincerest thanks to those people who helped us in making this study possible.

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ABSTRACT

"A STUDY TO ASSESS THE EFFECTIVENESS OF SIMULATION- BASED TEACHING IN NURSING EDUCATION AMONG 1ST SEMESTER B.SC. NURSING STUDENTS."

1.1. BACKGROUND

Simulation-based learning is a step forward in teaching nursing students. It helps bridge the gap between what students learn in class and what they actually do in the hospital. First-semester nursing students are new to working in hospitals so they need to learn the basics in advanced way. Simulation is a controlled environment where students can practice and get better without putting patients in danger. So we need to see how simulation-based teaching helps nursing students learn and understand things better. Simulation-based teaching is a way to learn that can help us achieve this goal.

1.2. OBJECTIVES OF THE STUDY

1. To see what first-semester B.Sc. Nursing students know about simulation-based learning before we start the study.
2. To see what first-semester B.Sc. Nursing students know about simulation-based learning after we finish the simulation-based teaching.
3. To see if simulation-based teaching really helps first-semester B.Sc. Nursing students learn more.
4. To find out if there is a connection between what students know and after the simulation-based teaching.

1.3. METHODOLOGY

We used a research approach for the study. We chose a quasi -experimental one-group pretest - posttest design to see if the simulation-based teaching program works. We picked 40 first-semester B.Sc. Nursing students from a nursing college in Bengaluru for the study. We used a questionnaire to test the students knowledge of nursing concepts. We gave the students a test before and after the simulation-based teaching sessions to see how well they learned

RESULT

The study showed that most students did not know much, about the nursing concepts we tested before the simulation-based teaching. After the simulation-based teaching the students test scores got much better which means the teaching method really works.

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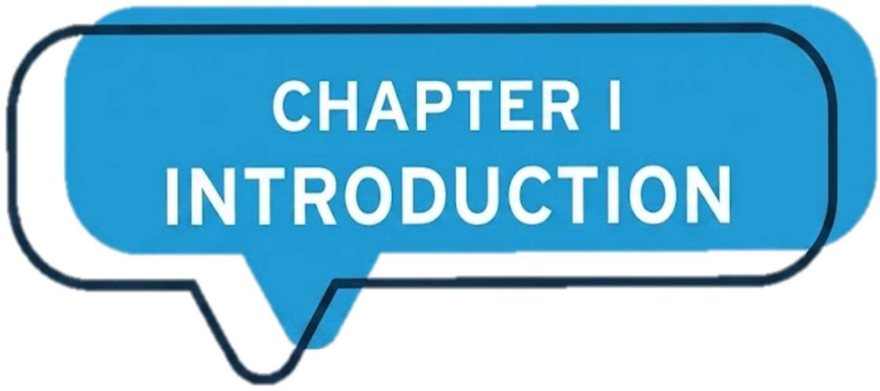
CHAPTER I
INTRODUCTION

INTRODUCTION

Simulation-based learning is a new educational strategy that makes use of simulated clinical settings in order to improve students' understanding and acquisition of knowledge and skills. In nurse training, SBL becomes essential as it prepares students for dealing with real-life clinical experiences effectively. Through the use of mannequins, standardized patients, role-playing, and virtual simulation, SBL creates realistic medical scenarios within a controlled and safe environment, giving students ample opportunities to learn without putting the wellbeing of real patients at risk.

The main purpose of simulation-based learning is to help overcome the existing barriers to acquiring knowledge from traditional learning strategies. Traditional learning techniques emphasize a passive form of learning whereby students are only supposed to absorb knowledge from lectures and textbooks. With simulation-based learning, however, students become actively involved in the learning process by critically analyzing problems and looking for effective solutions. The use of theory in clinical scenarios ensures improved acquisition and comprehension of knowledge while immediate feedback helps to correct mistakes made by students.

The other important benefit of SBL is the improvement in the teamwork and communication skills of nursing students. In the field of nursing, it is critical for nurses to work as part of a team comprising many health professionals. Communication plays an important role to ensure that the patient's needs are met. Students learn these aspects through simulations and gain confidence in communication and teamwork skills which are necessary for giving proper care to the patients.

The other important benefit of using SBL is the reduced anxiety levels among nursing students when they engage in practical work. First-year BSc nursing students are especially scared and lack confidence when they are introduced to the field of nursing for the first time. With SBL, the students are not fearful of making any mistakes because there is no risk of hurting the patients.

Additionally, there are wider implications of SBL strategies in improving the quality of nursing education. They include developing critical thinking, fostering clinical reasoning abilities, and encouraging lifelong learning in students. In doing so, students are able to make assessments on patients' condition and provide proper treatment through decision-making.

It is evident from above that the students enrolled for the first semester of the BSc Nursing course are at the primary stages of their nursing education where they learn basics of nursing knowledge and skills. At such a primary stage, there needs to be a suitable approach to teaching in order to improve the learning experience of the students. One effective strategy is using Simulation Based Learning.

One of the key elements in the practice of nurses is knowledge. This element serves as a basis for clinical decision making in relation to patient care. To make sure that nursing students practice in a safe manner, their knowledge base has to be improved. Studies have proved that simulation-based training helps improve the level of knowledge in students significantly. Such approach gives students practical experience which helps them learn in a better way.

However, the effectiveness of simulation-based learning has not been evaluated systematically yet. In order to do so, one has to evaluate the effects of the simulation-based teaching strategy on the knowledge of the learners.

This paper presents a study carried out to find out the effectiveness of simulation-based teaching in enhancing the level of knowledge in first-semester BSc nursing students of a selected nursing college, Bengaluru. The study will help identify the role of simulation in this particular process.

The importance of the acquisition of knowledge within nursing studies cannot be overemphasized. It is only through knowledge that clinical skills can be developed successfully. In case of first semester students pursuing BSc nursing courses, it is important for them to acquire sufficient knowledge since this will prepare them for clinical studies. There is need for effective pedagogy for students to not only acquire knowledge but also learn how to implement it practically. The method used is Simulation Based Learning as this is one of the most effective means of developing knowledge.

Besides knowledge development, SBL can also expose students to emergency scenarios and thus enable them to undertake some life saving measures. This implies that some practices like Basic Life Support and Cardiopulmonary Resuscitation (CPR) can be done in a simulated scenario hence making it easy for the trainee nurses to acquire sufficient skill sets and confidence for dealing with emergencies in their respective clinical settings.

Despite all the benefits associated with this technique, it is crucial to analyze its efficiency when used for knowledge acquisition among first-semester BSc nursing students. Although SBL has proven to be a powerful tool in promoting learning, its efficiency could depend on several other factors such as teaching techniques employed, duration of training, and students' level of comprehension, hence the necessity for conducting researches that would evaluate its efficiency.

Additionally, Simulation-Based Teaching fosters the ability of students to integrate their knowledge from various fields like anatomy, physiology, microbiology, and fundamentals of nursing. Traditional ways of learning involve isolated learning of the above disciplines, which poses difficulties when trying to utilize this knowledge when handling patient cases. Simulations offer opportunities for students to apply knowledge in an integrated way when handling patient care.

Simulation-Based Learning also contributes significantly to the formation of nursing practices in terms of ethical practices. Ethical principles that require students to protect their patients' confidentiality, be respectful, and show professionalism in handling the patients during simulated cases are instilled within the students. They get sensitized on how to approach patients and their families in crucial situations.

Although the use of simulation in nursing education has been growing, there is a lack of evidence about its efficacy when it comes to BSc nursing first-semester students, especially within the Indian setting. These learners require specific learning experiences that need to be met for them to be successful. As such, it is crucial to ascertain whether Simulation-Based Learning is appropriate and effective in meeting the needs of first-semester students and their subsequent performance.

Bengaluru city hosts many educational institutions offering nursing programs. The institutions are embracing new ways of delivering education. Nevertheless, the degree of improvement in knowledge through Simulation-Based Learning among nursing students requires empirical investigation to establish the effects of the method. The results from the study will offer insights into how nursing education can be delivered effectively.

Thus, it is vital to assess the efficacy of Simulation-Based Learning to prepare nurses for the challenges ahead of them in the health sector. Through the provision of improved knowledge, skills, and confidence, Simulation-Based Learning can make great strides in the production of competent nurses.