

# “TRAIN TO WIN” – SIMULATION BASED CLINICAL EDUCATION

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## ABSTRACT

Simulation based clinical education is a pedagogical method of innovative teaching strategies used for developing the technical skills for Nursing students to provide safe patient care. This study designed to determine the effectiveness of deliberate practice and simulation technology on New born Resuscitation. A quasi-experimental one group pre test post test design was adapted for the study. Students were selected through simple random technique after pretest the students were educated on New born Resuscitation by case scenarios through simulation. Post test was assessed after one week through Objective Structured Clinical Evaluation (OSCE) checklist. Results showed that the simulation-based clinical education improved the skill of the students.

**IndexTerms - Simulation based clinical education, Objective Structured Clinical Evaluation (OSCE), Newborn Resuscitation.**

## INTRODUCTION

Simulation-based clinical education in Nursing refers to a variety of activities using patient simulators, including devices, trained persons, lifelike virtual environments, and role-playing, not just handling mannequins. With realistic clinical scenarios, simulation-based educational interventions in Nursing can train novice as well as experienced nurses, helping them develop effective technical skills, practice rare emergency situations, and providing a variety of authentic life-threatening situations. The advantages of simulation-based educational interventions include the ability to provide immediate feedback, repetitive practice learning, the integration of simulation into the curriculum, the ability to adjust the difficulty level, opportunities to individualize learning, and the adaptability to diverse types of learning strategies (McGaghie WC,).

It is now imperative to integrate simulation throughout the entire curriculum. Today, simulation allows students to learn skills; develop clinical reasoning abilities; and to become competent in caring for patients/families in a safe environment. The variety of simulation-based learning options can offer a way to replace traditional, and often hard to find, clinical experiences (Aebersold, M)

Simulation facilitates learning with practice opportunities with feedback for the students in preparatory programme in health care profession. Simulation takes active role in simulating reality experiences to students to learn and acquire skills in neonatal resuscitation.

## NEED FOR THE STUDY

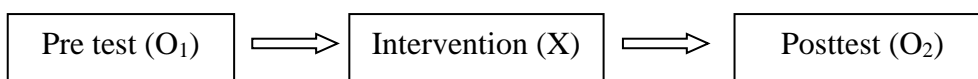
Teaching teamwork is critical in Newborn Resuscitation. Resuscitation is most often an interdisciplinary process. It is essential that each person is fully aware of their role and what is required. This can only be taught primarily in a simulation environment. Simulation based clinical education is a pedagogical method of innovative teaching strategies helps to improve the student knowledge and confidence. It assists for student motivation, satisfaction, reflection, leadership as well as patient safety. Simulation specifically designed for skill development rather than testing, because students may experience performance anxiety while providing direct care to the patient and feel like they need to achieve near-perfect execution. Learning clinical motor skills permanently changes the student's ability to perform proficiently.

## OBJECTIVE

To evaluate the effectiveness of simulation-based clinical education for Nursing students.

## DESIGN

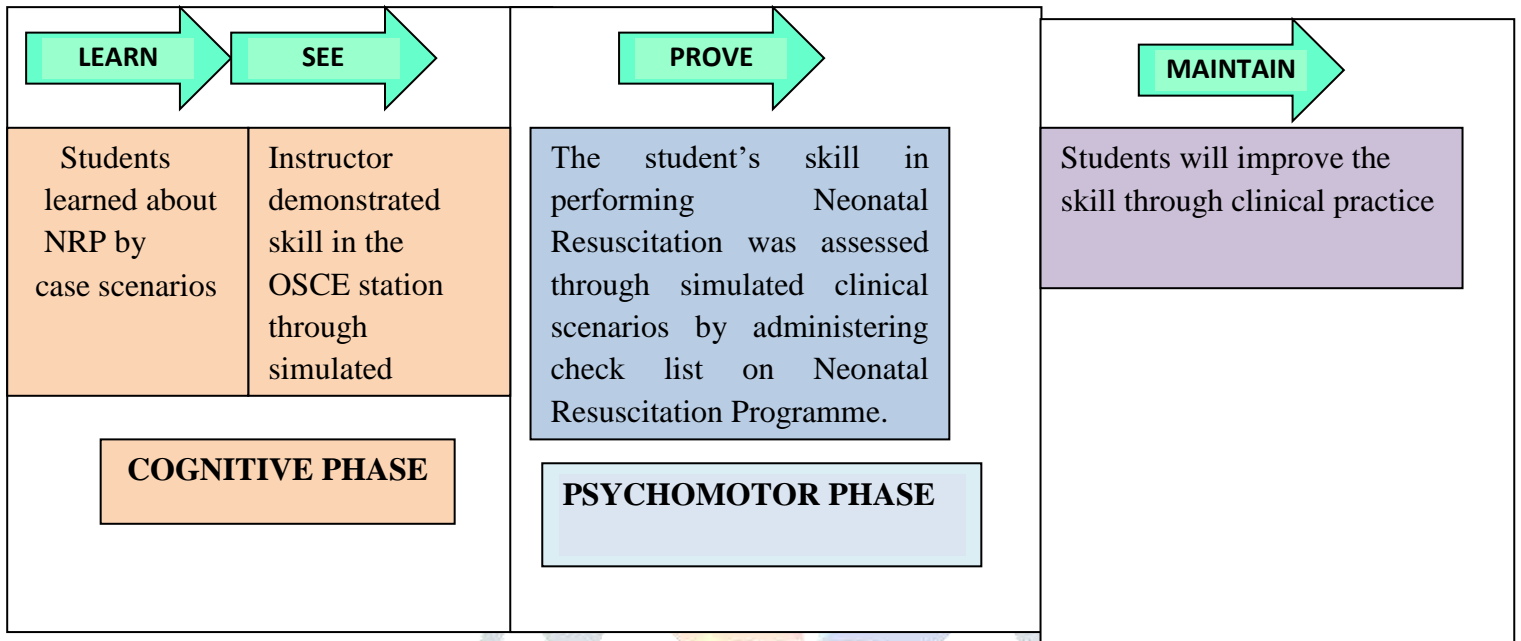
Quasi experimental one group pretest and post test design



**MATERIALS AND METHODS**

Quasi experimental one group pretest and post test design was used to assess the Psychomotor skill of nursing students in performing Neonatal Resuscitation through Clinical Simulation. Simple random sampling technique was used to select fifty students of B.Sc Nursing III year. The present study was undertaken in Simulation Lab, PSG IMSR, Coimbatore. The students were educated on Neonatal Resuscitation programme in case scenarios. After Pre test, investigators demonstrated Neonatal Resuscitation in different clinical scenario stations such as STATION –I: skill in resuscitating normal new born, STATION –II: skill in resuscitating newborn not breathing, STATION-III: skill in resuscitating newborn with positive pressure ventilation and STATION - IV: skill in resuscitating newborn with chest compression. Post test was assessed after the period of one week on psychomotor skill with the help of checklist in Neonatal Resuscitation through Objective Structured Clinical Examination (OSCE) procedural stations.

**FRAMEWORK**



**RESULTS AND DISCUSSION**

**Table 4.1** Overall mean and standard deviation of pre test and post test score

	Mean	Standard Deviation	't' value	Table value
Pre test	3.47	0.65		
Post test	8.56	2.12	3.84*	3.551

**Note:** Significant at the level of  $p < 0.001^*$

The above table showed that simulation based clinical education is effective in improving the skill towards newborn resuscitation.

The primary outcome was to improve the Nursing students' self-report of perceived clinical competence and confidence. The posttest measurement was increased as compared with the pretest measurement. Nursing students who are exposed to a deliberate practice program in a simulation lab are highly likely to be competent and confident in safely performing those skills in the patient-care setting.

**CONCLUSION**

Simulation based Nursing clinical education has changed the way we teach and has been shown to be superior to the traditional approach to clinical teaching. This study shows that the psychomotor skill of the students improved which enhanced for their clinical competencies in New born Resuscitation.

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