<u>**Review Article**</u>

EFFECTIVENESS OF SIMULATION TEACHING AMONG UNDERGRADUATE NURSING STUDENTS IN CHILD CARE

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Abstract
Aim: Simulation preparing is created as of late and is presently generally utilized in medication and nursing training. The reason for the present research is to assess nursing understudies' information abilities and self-announced certainty, capability, fulfillment levels identified with the utilization of simulation in child care.
Materials and Methods: This randomized controlled investigation was led with a comfort test of 50 nursing understudies from B.Sc Nursing course understudies was chosen in the year 2019-2020. Students were assigned to experimental and control groups.. To collect the study data educational practices questionnaire consists of nursing care knowledge assessment form and nursing care skill assessment form for children were used. A pre-test post-test design was used to evaluate the effectiveness of simulation teaching in child assessment. The students in the experimental group had simulation training about assessment and care of children; the understudies in the benchmark group were prepared with conventional training strategies. The students from both groups were observed in the hospital environment. **Results:** Clinical skills and information scores of the understudies in the experimental group were higher than the control group. Simulation preparing added to the advancement of their fearlessness emphatically.
Conclusion: In this paper, the simulation teaching on Megacore kid simulator was beneficial and student's clinical application skill achievements improved.

Keywords: Child assessment, simulation, under graduate nursing, satisfaction, self-confidence

INTRODUCTION

Medical simulation is an emerging professional field within healthcare education training and patient safety. Over the years, health care requirements have grown and health care organizations have become larger, more complex and costly.(navonil mustafee-2010). Simulation is a controlled process of fostering experiential learning. In India, there is still some resistancce in accepting use of simulators as a viable tool or technique. Of teaching learning. (pankaj kundra-2014). Simulation instructing is a compelling technique for preparing which empowers nursing understudies to pick up abilities in a controlled domain. Simulation is increasingly being used to prepare and supplement clinical practice in critical care areas for under graduate Bachelor of Nursing students, with some success (Jonathan Mould 2011). Understudies to increase essential abilities in a controlled domain performed health-care medication required for the child and his/her family in clinical setting all the more securely. Simulation is a strategy for training and discovering that can be applied to various controls & kinds of trainee\'s Medical, Nursing, and other health care staff likewise have their chance to create and refine their abilities over and again if fundamental, utilizing re-enactment innovation without putting patients at risk.(Fatimah lateef - 2010). Practicing the technical and non-teachnical skills in a safe environment such as a clinical lab with simulation, allows for risk free, hands on learning without patient harm.(campbells). This additionally implies students go to the clinical practice site progressively arranged expanding the security of the consideration gave. Students are increasingly effective in setting up an association among hypothesis and practice. Students are additionally expected to get readied for clinical practice and to be increasingly fruitful in performing medication in children through reenactment preparing in a situation very like genuine practice condition with child responses are uncovered. Students have elevated

standards utilizing trend setting innovation and data innovation for learning (D'souza MS, 2014).

Conveying quality patient consideration requires persistent preparing so as to decrease mistakes and improve results. MegaCode Kid matched with the SimPad PLUS System can assist instructors with actualizing preparing for a wide scope of crisis aptitudes including CPR, ACLS, trauma, first aid, and child abuse mindfulness preparing in the field, transport, and in-medical clinic settings.

Instructing and improving the competency of pediatric health care suppliers requests a robust training solution. MegaCode Kid has a realistic airway, extensive ECG library, and defibrillation and pacing capacities, permits sedate organization and intraosseous infusion to help show the basic abilities of overseeing pediatric emergencies. MegaCode Kid Advanced allows for the auscultation of normal and abnormal heart, breath, and bowel sounds. Despite recommendations for using simulation and growing integration of simulation into education, we still lack empirical evidence of its impact on patient outcomes (Aebersold M 2013).

Simulation training given to add to the advancement of psychomotor skills of nurses and to help understudies with constrained clinical encounters so as to improve their clinical skills through simulation-based Nursing care situations in regards to child care. Hence, this examination was planned for exploring the impact of simulation training on the information and skills of third-year nursing understudies, taking care of children in clinical practice and to decide these understudy fulfilment and fearlessness levels identified with the utilization of simulation. Positive emotions such as enjoying a task, can lead to greater interest and greater intrinsic motivation to engage in the task of its own sake (Le Blane, 2019).

Nurse instructors endeavor to connect with students in a functioning learning process. Human patient simulation may give an intuitive learning experience to nursing students (Mary Ann Shinnick, 2011).

The comprehensive study of National Council of State Boards of Nursing (NCSBN) published the results shows the use of simulation as a substituted for up to 50% of traditional clinical hours across the pre-licensure nursing curriculum. NCSBN guidelines on simulation proof to help the utilization of simulation and information for workforce and program chiefs on arrangement and getting ready for utilizing simulation effectively in their nursing programs (Alexander M, 2015).

The simulation upgrades clinical aptitudes, and improves certainty, however because of the expanded fulfillment students report it adds to the pleasure in their realizing which is a significant factor for UG Nursing Students (Burten 2010).

METHODOLOGY
Design: A pre-test and post-test design was utilized to assess the adequacy of recreation educating among nursing understudies in child appraisal and nursing care.

Setting and population: GSL college of Nursing affiliated to D.NTR University was chosen to direct this examination in the accredited simulation laboratory utilizing pre-modified puppets and cutting-edge innovation. The simulation lab had three fundamental units, wet lab, mechanical lab, and vertical reality lab.

Sample size and sampling technique: Convenience samples of 50 nursing students were used in the study. Students elected to join the examination and overviews were mysterious to ensure the understudy personality and to limit any apparent weight by the students to take part.

Data collection: Information was gathering utilizing a poll and observational agenda. It was grown explicitly for the investigation and included information, practice, certainty, and fitness in successful method for learning and connecting hypothesis to rehearse, to which students reacted by utilizing a three-point likert scale from unequivocally consent to firmly oppose this idea.

Step1: After the students were haphazardly allotted to the test and control bunches in the nursing care information evaluation structure regulated to all the students in the pre-simulation preparing period. All the students were approached to stamp answers for the pre-test.

Step2: The students in the test bunch had the nursing care recreation preparing and the students were seen with the nursing care information evaluation structure.

Step3: All the students directed the nursing care information appraisal structure and approached to check the responses for the post-test.

Step4: All the students in the two gatherings were watched for knowledge and practice skills, confidence and competence in child assessment and care.

Measurements: Knowledge and Performance questionnaire used to evaluate the simulation training in physical assessment score of children, Heart sounds, Lung sounds, Bowel sounds, Circulatory skills and airway management were observed. The estimation scale is a 10-thing poll that utilizes a three-point likert scale to quantify everything. An all out score is gotten by adding all things Content legitimacy was set up by three teachers in re-enactment.

Student satisfaction and self confidence in learning is assessed by behavioural observations check list, which consists of 15 items questionnaire that uses yes or no options. A total score is acquired for the self confidence in learning and behaviour is 15 points.

Demographic characterises include age, gender, education of parents, occupation of parents and the source of health information was observed.

ANALYSIS
Using pre-test and post test design evaluated the effect of simulation teaching on student nurse knowledge and performance in the child care was assessed. Both knowledge and performance increased significantly across single group pre test and post test analysis simulations based interventions have stronger influence on performance and self confidence knowledge scores Third year B.Sc nursing students reported their confidence and competence before and after the simulation training is more effective in providing child care.

In our study post test knowledge and execution scores explained fundamentally higher in the students exposed to Megacore kid physical examination scenarios. Better among intensive consideration nurses in simulated emergency scenarios (Randi 2014) and increased basic thinking, clinical judgment, ability question, clinical reasoning (Fisher D, 2013).

Table-1: Demographic Variables

S No	Independent Variables	Classification	Frequency	Percentage
1	Age	19-20 Years	36	20.0
		20.1-21 Years	10	72.0
		21.1-22 Years	4	8.0
2	Gender	Male	5	10.0
		Female	45	90.0
3	Source of Information	Media	15	30.0
		Health Professional	24	48.0
		Relatives	6	12.0
		Peer Group	5	10.0

In table-1 shows that samples are divided into subgroups based on their age as 19-20 years, 20.1-21 years, 21.1-22 years, out of that 20 percent falling in 19-20 years age group, 72 percent in 20.1-21 years age group and 8 percent falling in 21.1-22 years age group. Among the participants 10 percent of male and 90 percent are female. Out of the total respondents considered 30 percent got the information through media, 48 percent from health professionals, 12 percent awarded by relatives and 10 percent through peer group.
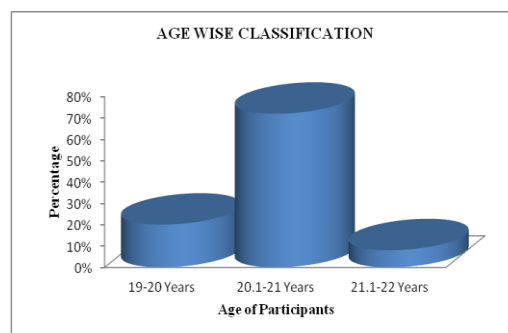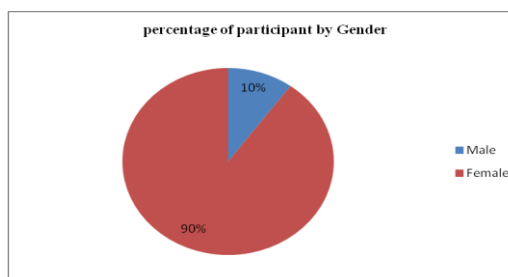

Figure-1: Age wise classification of participants
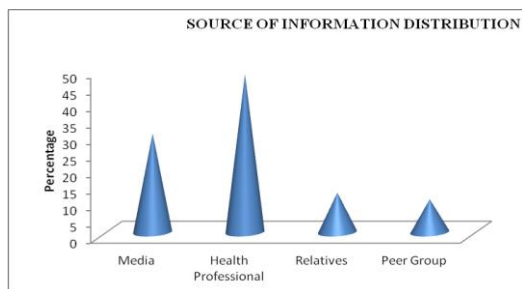

Figure-2: Gender wise classification of participants

Figure-3: Source of Information Distribution

Table -2: Knowledge Level of Participants

Knowledge Comparison	Paired Differences			
	Mean	Std. Deviation	t value	Significant Value
PRE - POST	-5.780	3.919	10.429	0.00

The mean and standard deviation of the paired difference of pre-and post-test knowledge was observed 5.78 and 3.919 and found that there is no significant difference between the knowledge level of participants.

Table -3: Practice Level of Participants

Practice Level Participants	Paired Differences			
	Mean	Std. Deviation	t value	Significant Value
PRE - POST	-7.48	3.37	8.69	0.06

The mean and standard deviation of the paired difference of pre-and post-test practice level of participants identified as 7.48 and 3.37 and noticed that there is a significant difference between the practice level of participants by pre-and post-practices.

Table -4: Practice Level of Participants

Satisfaction Level	Paired Differences			
	Mean	Std. Deviation	t value	Significant Value
PRE - POST	-5.37	1.24	3.41	0.10

The mean and standard deviation of the paired difference of pre-and post-test level of work satisfaction observed that 5.37 and 1.24 and identified that there is a significant difference between the level of satisfaction by the participants.

CONCLUSION

Our study confirmed the effectiveness of simulation training on students' knowledge and performance in physical examination and child care. Students gave higher fulfillment and fearlessness in the safe controlled condition. Intuitive simulation in a protected situation (Bradleye-2011) and yield contrasts in simulation contrasted with customary learning (Rode JL-2016).

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