



Simulation and its role in improving neonatal resuscitation competencies among GNM 3rd nursing students in selected Index School of Nursing Indore “A pre-experimental investigation”

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Abstract

Neonatal resuscitation is an emergency procedure used to save the lives of around 10% of newborns who are not breathing on their own. This study aimed to determine the mean pre-test knowledge score of GNM 3rd year nursing students in neonatal resuscitation, evaluate the value of simulation in improving these competencies, and determine the association between pre-test knowledge score and selected demographic variables. Findings of the present study showed that post test mean knowledge score regarding simulation on neonatal resuscitation is much higher than the pretest. Regarding skill score the posttest mean skill score was higher than the pretest. It was observed in the present study that there was significant relationship between knowledge and skill among the GNM IIIrd year nursing students related to neonatal resuscitation.

Keywords: Neonatal resuscitation, nursing students, simulation

Introduction

Around 10% of newborns who do not begin breathing on their own are put at risk of irreversible organ damage and death. Neonatal resuscitation, also known as infant resuscitation, is an emergency procedure performed to save them. After assistance, a significant number of neonates who need it start breathing on their own.

Problem Statement

“A experimental study to assess effectiveness of simulation and its role in improving Neonatal resuscitation, among GNM 3rd nursing students in selected INDEX School of nursing Indore”

Objectives

1. To assess mean pre-test knowledge score of GNM 3rd nursing students regarding Neonatal resuscitation,
2. To assess mean pre-test skill score regarding among Neonatal resuscitation, GNM 3rd nursing students.
3. To determine the effectiveness of simulation and its role in improving Neonatal resuscitation, competencies among GNM 3rd nursing students
4. To determine the effectiveness of skill scores simulation and its role in improving Neonatal resuscitation, competencies among GNM 3rd nursing students.
5. To find out association between pre-test knowledge score with selected demographic variables.
6. To find out association between pre-test skill score with selected demographic variables.

Hypothesis

H1: The mean pre-test knowledge scores will be significantly higher than post test knowledge score of GNM 3rd Nursing students regarding simulation and its role in improving Neonatal resuscitation, competencies at 0.05 level of significance.

H2: The mean pre-test skill scores will be significantly higher than post test skill score of GNM 3rd Nursing students regarding simulation and its role in improving

Neonatal resuscitation, competencies at 0.05 level of significance.

Research methodology

Quantative research will be used. experimental research design were used. independent variable is the simulation on Neonatal resuscitation competencies. Dependent Variable is the clinical competence of GNM 3rd nursing students on Neonatal resuscitation, extraneous variables includes the demographic characteristics of the subjects namely age, sex, year of study, exposure to information, sources of information. The setting chosen for the study was fundamental lab of INDEX nursing school. Target population for this study was the nursing students from nursing college in Indore. Convenience sampling used to facilitate maximum participation within the data collection period. Sample of this study consisted of.: 60 nursing students. Structured opinionnaire and observational checklist was used. Section-I This describe socio demographic variables. It compares 3 items for obtaining information regarding age, sex studying. Section -II It consists of items observational checklist.

Data analysis and interpretation

The investigator had planned to analyze the data by using descriptive and inferential statistics. All the data were analyzed by using frequency distribution, percentage and cross tabulation and it was presented in the form of the Tables and Graphs. Chi square test was used to find out association between selected demographic variables and knowledge.

Result

Table 1: Mean, mean difference, SD and paired ‘t’ taste value showing pre-test and post-test knowledge scores of the GNM IIIrd yr nursing students. N=50

Test	Max Score	Mean	Mean Difference	SD	SEMD	t' Value
Pre-test	40	25.13	14.17	5.47	0.875	24.12
Post-test	40	39.30				

According to the data in Table 1, the mean post-test knowledge score of third-year GNM nursing students is higher than the mean pretest knowledge score. The "t" value of 24.12 at the 0.05 level of significance indicates that the data is statistically significant.

Table 2: Mean, Mean Difference, SD and paired 't' test value showing pretest and post test practice score of the GNM IIIrd year nursing students regarding simulation on neonatal resuscitation

Test	Max Score	Mean	Mean Difference	SD	SEMD	't' Value
Pretest	40	22.36	10.36	3.89	0.803	42.12
Post test	40	32.11				

Data predicted in table 2 shown that mean of post test practice scores of GNM IIIrd year Nursing students is higher than the mean of pretest practice. The 't' value was found statistically significant as evident from 't' value 42.12 at 0.05 level of significance.

Table 3: Mean, SD, Correlation between the knowledge and skills among the GNM IIIrd year Nursing students related to simulation on neonatal resuscitation

Test	Knowledge		Skill	
	Mean	SD	Mean	SD
Pretest	25.13	9.81	22.36	8.04
Post test	39.30	5.47	32.11	3.89

S=Significance $p < 0.05$

The Correlation value of knowledge and skill $r = 0.64, 0.47$ showed that there was statistically high positive significant relationship between knowledge and skill among the GNM IIIrd year Nursing students regarding simulation on neonatal resuscitation.

Discussion

Findings of the present study showed that post test mean knowledgescore regarding simulation on neonatal resuscitation is much higher than the pretest. Regarding skill score the posttest mean skill score was higher than the pretest. It was observed in the present study that there was significant relationship between knowledge and skill among the GNM IIIrd year nursing students related to neonatal resuscitation.

Conclusion

Simulation can be recommended as an effective training strategy among GNM nursing students. Simulation on was improving effectiveness of simulation and its role in improving Neonatal resuscitation.

Nursing administration:

- Nurses should be given the administrative assistance they need to create and implement teaching materials, such as simulations of Neonatal resuscitation, competencies.
- Nursing administrators should work with the government to implement rules that ensure the availability of suitable facilities for teaching Neonatal resuscitation, competencies simulation.
- Administrators should implement an in-service education program for nurses so that they may increase their expertise and apply it to patients.

- Institutes should conduct periodic inspections to ensure that students have proper knowledge of the Neonatal resuscitation, process.
- Administrative assistance should be provided for the production of such teaching materials, which are driven by simulation, etc.

Nursing research

The findings of the study add to the corpus of knowledge in nursing. In the future, the investigators can utilize the findings and technique as reference materials. It identifies the areas that deserve more investigation. Other researchers undertaking more research in the same topic can use the ideas and recommendations. Further research may be undertaken on this area to have a more comprehensive understanding of low and Neonatal resuscitation, simulation among GNM 3rd nursing students. A behaviour change message that will effectively raise awareness of low and simulation.

Recommendations

The following recommendations are made on the basis of the findings of the study:

- A similar study can be undertaken on a large scale for making a more valid generalization.
- A comparative study can be arranged between knowledge and practice.
- A similar study can be arranged for b.sc nursing students working in specialist hospitals or multispecialist hospitals in different settings.
- An experimental study can be conducted to evaluate effectiveness of self-instructional module in terms of knowledge and attitude of nursing students.
- Periodical assessment of NURSING officers who work into hospitals, knowledge and attitude regarding Neonatal resuscitation, procedure.
- A similar study can be undertaken with a descriptive survey research design.

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