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"A pre-experimental investigation on simulation and its role in improving cardiac life support competencies among GNM nursing students in selected Kerala Nursing College

Naga Laxmi N S[1], Anu V Kumar[2]
[1] Department of Nursing, Malwanchal University, Indore, Madhya Pradesh, India
[2] Research Supervisor, Department of Nursing, Malwanchal University, Indore, Madhya Pradesh, India

Abstract
Successful cardiopulmonary resuscitation is the first step in bringing someone back to life after a cardiac arrest. Successful cardiopulmonary resuscitation at the site by health team members has a role in lowering fatality rates caused by cardiac arrest. simulation experiences that are extremely realistic and provide a high level of interactivity and realism for the learner, and can apply to any mode or method of simulation.
Objectives: To assess mean pre-test knowledge score of GNM nursing students regardingcardiac life support competencies.To assess mean pre-test skill score regarding cardiac life support among GNM nursing students.to determine the effectiveness of simulation and its role in improving cardiac life support competencies among GNM nursing students.To determine the effectiveness of skill scores simulation and its role in improving cardiac life support competencies among GNM nursing students.To find out association between pre-test knowledge score with selected demographic variables.
Research Methodology: Quantative research will be used. A Pre-experimental research design were used. Independent variable is thesimulation competencies. Dependent Variable is the clinical competence of GNM nursing students on cardiac life support. 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 Kerala nursing college. target population for this study was the nursing students from nursing college in Indore. Convenience sampling used. Sample of this study consisted of.: 60 nursing students. Structured opinionnaire and observational checklistwas used.
Result: The total number of GNM nursing students was 60, with 56.7 percent being female and a mean age of 22.2 years. Following BLS, simulation all four categories of self-efficacy showed improvements: recognition, debriefing, recording, reacting and rescuing, and reporting. ($t(59) = 26.80$, $p < 0.001$, CI [29.32, 34.05]). After receiving CLS simulation, the post-intervention skill for the same group dramatically rose from 32.83 (SD = 15.35) to 54.58 (SD = 8.540) for emotion, 6.72 (SD = 2.44) to 10.40 (SD = 1.40) for behaviour, and 7.03 (SD = 2.03) to 10.33 (SD = 1.42). After simulation, knowledge from 3.53 (SD = 0.3) to 2.14 (SD = 0.65), which was statistically significant ($t(59) = 16.68$, $p < 0.001$, 95% CI [1.22 to 1.55]. Female students (M = 73.18), those who saw a real resuscitation (M = 71.16), and those who were happy with their nursing major (M = 72.17) showed substantially better self-efficacy scores after simulation.
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 cardiac life support competencies of the students' self-efficacy.

Keywords: Simulation, cardiac life support, competencies

Introduction
Successful cardiopulmonary resuscitation is the first step in bringing someone back to life after a cardiac arrest. Successful cardiopulmonary resuscitation at the site by health team members has a role in lowering fatality rates caused by cardiac arrest. Simulation experiences that are extremely realistic and provide a high level of interactivity and realism for the learner, and can apply to any mode or method of simulation (e.g., human, manikin, task trainer, or virtual reality)."

Problem Statement
"APre-experimental study to assess effectiveness of simulation and its role in improving cardiac life support competencies among GNM nursing students in selected Kerala nursing college in the year "

Objectives
1. To assess mean pre-test knowledge score of GNM nursing students regarding cardiac life support competencies.
2. To assess mean pre-test skill score regarding cardiac life support among GNM nursing students.
3. To determine the effectiveness of simulation and its role in improving cardiac life support competencies among GNM nursing students.
4. To determine the effectiveness of skill scores simulation and its role in improving cardiac life support competencies among GNM 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
H_1: The mean pre-test knowledge scores will be significantly higher than post-test knowledge score of GNM Nursing students regarding simulation and its role in improving cardiac life support competencies at 0.05 level of significance.

H_2: The mean pre-test skill scores will be significantly higher than post-test skill score of GNM Nursing students regarding simulation and its role in improving cardiac life support competencies at 0.05 level of significance.

Research Methodology

Quantative research will be used. Pre-experimental research designs were used. Independent variable is thesimulation competencies. Dependent Variable is the clinical competence of GNM nursing students on cardiac life support.An extraneous variable includes the demographic characteristics of the subjects namely age, sex, year of study, exposure to information,sources of information.The setting chosen for the studywas fundamental lab of Kerala nursing college. 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 wasused. Section-I This describe socio demographic variables. It compares 3 items for obtaining information regarding age, sex studying. Section -IIIt consists of items observational checklist.

Data Analysis Andinterpretation

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

Result

The total number of GNM nursing students was 60, with 56.7 percent being female and a mean age of 22.2 years. Following BLS, simulation all four categories of self-efficacy showed improvements: recognition, debriefing, recording, reacting and rescuing, and reporting. ($t(59) = 26.80$, $p < 0.001$, CI [29.32, 34.05]). After receiving CLS simulation, the post-intervention skill for the same group dramatically rose from 32.83 ($SD = 15.35$) to 54.58 ($SD = 8.540$) for emotion, 6.72 ($SD = 2.44$) to 10.40 ($SD = 1.40$) for behaviour, and 7.03 ($SD = 2.03$) to 10.33 ($SD = 1.42$). After simulation, knowledge from 3.53 ($SD = 0.3$) to 2.14 ($SD = 0.65$), which was statistically significant ($t(59) = 16.68$, $p < 0.001$, 95% CI [1.22 to 1.55]. Female students ($M = 73.18$), those who saw a real resuscitation ($M = 71.16$), and those who were happy with their nursing major ($M = 72.17$) showed substantially better self-efficacy scores after simulation.

Conclusion

Simulationcan be recommended as an effective training strategy among GNM nursing students. Simulation on was improving effectiveness of simulation and its role in improving cardiac life support competencies of the students' self-efficacy and attitudes and decreasing their anxiety.

Nursing Administration

- Nurses should be given the administrative assistance they need to create and implement teaching materials, such as simulations of cardiac life supports competencies.
- Nursing administrators should work with the government to implement rules that ensure the availability of suitable facilities for teaching CLS 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 BLS 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 CPR simulation among GNM nursing students. A behavior 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-instructionalmodule in terms of knowledgeand attitude of nursing students.
- Periodical assessment of NURSING officers who work into hospitals, knowledge and attituderegarding CPR procedure.
- A similar study can be undertaken with a descriptive survey research design.

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