

Effectiveness of Demonstration on Cardio Pulmonary Resuscitation among GNM 2nd Year Nursing Students in Selected Colleges, Kanpur

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ABSTRACT

Cardiac Pulmonary Resuscitation (CPR) is the foundational technique for the emergency treatment of Cardiac Cardio Pulmonary arrest (CA). Cardio means “of the heart” and pulmonary means “of the lungs” Resuscitation is a medical word that means “to revive” or bring back to life. The objectives of the study were to assess the knowledge regarding cardiopulmonary resuscitation technique, to evaluate the effectiveness of demonstration and to find out the association between pre-test knowledge score on cardio pulmonary Resuscitation techniques among GNM 2nd year students with their selected demographic Variables. An Evaluator approach with Quasi Experimental Non- Randomized control group design was used. 60 students from GNM 2nd year was selected by Purposive Sampling technique 30 in control group and 30 in experimental group. The result of the study shows In pre test in Experimental group highest (60%) were Inadequate followed by (33.33%) Moderate adequate, (6.67%) adequate. It can be interrelated that a majority GNM 2nd year student belongs to inadequate knowledge. In Control group highest (70%) were Inadequate followed by (20%) Moderate adequate, (10%) adequate. It can be interoperated that majority GNM 2nd year students belong to Inadequate Knowledge. In Post Test, Experimental group highest (73.34%) were adequate followed by (26.66%) Moderate adequate, (00%) inadequate. It can be interrelated that majority GNM 2nd year students belong to adequate knowledge. Control group highest (63.33%) were Inadequate followed by (26.67%) Moderate adequate, (10%) adequate. It can be interrelated that majority GNM 2nd year students belong to Inadequate Knowledge. Effectiveness of demonstration score of GNM 2nd year students on CPR of Calculative value is (8.24) , D.F. is (29), Table value is (1.699) and inference is (significant). The study concludes that demonstration helps to increase the knowledge among the students.

Key Words: Effectiveness, demonstration, knowledge, cardiac pulmonary Resuscitation, GNM2nd year Students.

Introduction

Cardio means “of the heart” and pulmonary means “of the lungs”. Resuscitation is a medical word that means “to revive” or bring back to life. Sometimes cardio pulmonary resuscitation (CPR) can help a person who has stopped breathing, and whose heart may have stopped beating, to stay

alive. People who handle emergencies such as paramedics, doctors and nurses are all trained to do CPR. [1]

Resuscitation (CPR) is the foundational technique for the emergency treatment of cardiac Cardio pulmonary arrest (CA). The standardized training of CPR has been emphasized more than ever. Common people in developed countries and regions have received popular education of CPR program of advanced cardiac life support

(ACLS) training which was launched jointly by Universal Medical Assistance International Center, Ministry of Health. [2]

Nationally over 80% of emergency victims in India do not receive proper medical attention during the golden hour and statistics indicate that 62% of those getting involved in emergencies are those belonging to the productive age group of 25 to 50 years, and for the country this is a major drain on the nation most important resource, trained man powers. There are 250,000 to 450,000 sudden cardiac arrests each year in the United States alone, but most deaths due to sudden cardiac arrest are in older adults. Of those sudden cardiac arrests, very few occur in young people, and only some of those young people die of sudden cardiac arrest In developing countries alone, some 16 million time CPR is administered annually, over 90% are administered for survival aims whereas 5 to 10% are administered for disease prevention. The quality of ACLS /CPR performed by various healthcare providers (Wiketal 2005; Nyman and

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Sihvonen 2000). Often chest compression is performed inadequately with slow rates of compression and inadequate depth of compression. CPR traditionally has integrated chest compressions and rescue breathing with the goal of optimizing circulations. [3]

Everyone can be a lifesaving rescuer for a cardiac arrest victim. CPR skills and their applications depend on the rescuers training experience and confidence. Chest compressions are the foundations of C.P.R. All rescuer’s regardless of training should provide chest compressions to all cardiac arrest victims. Because of their importance, chest compressions should be the initial CPR actions for all victims regardless of age. Rescuers who are able should add ventilations to chest compressions. Highly trained rescuers working together should coordinate their care and perform chest compressions as well as ventilations in a team-based approach. Integrating the critical components of CPR. [4]

According to the universal Adult advanced cardiac life support (ACLS) algorithm conceptual frame work explains that all levels of rescuer can and should perform this CPR procedure, when encountering a victim has experienced a cardiac arrest, based on 3 unresponsiveness and lack of normal breathing. After recognition, the rescuer should immediately activate the emergency response system can start CPR with chest compressions in anywhere at any time and for any age group with any gender. [5]

Research Problem

A study to assess the effectiveness of Demonstration on knowledge about cardiopulmonary Resuscitation technique among GNM 2nd year students in selected Nursing College Kanpur, UP.

Objective

1. To assess the Knowledge regarding cardiopulmonary Resuscitation technique among GNM 2nd year students.
2. To evaluate the effectiveness of demonstration regarding cardio pulmonary Resuscitation Technique among GNM 2nd year students.

To find out the association between pre-test knowledge score on cardio pulmonary Resuscitation Techniques among GNM 2nd year students with selected demographic variables.

Hypothesis

H₁: The mean post-test knowledge score of G.N.M 2nd year nursing students regarding effectiveness of C.P.R demonstration will be significantly higher than the mean pre-test knowledge.

H₂: There will be significant association between the gained levels of knowledge score of 2nd year GNM students with demographic variables.

Methodology

Research Approach: The research approach adapted in this study was a Evaluator Research Approach.

Research Design: In the present study quasi-experimental research –design is selected, Non-Randomized Control group design was adopted in this study.

Research Variables

Independent variable: Demonstration on CPR is Independent variable.

Dependent variable: The knowledge regarding C.P.R.

Study Setting: The study was conducted in Faculty of Nursing, Rama University, and Kanpur U.P. Population- G.N.M Nursing 2nd year students of Faculty of nursing Kanpur U. P.

Sample size: The sample size was 60 students of Faculty of nursing at Kanpur, U.P., who fulfil the required inclusion and exclusion criteria.

Sampling Technique: In this study the purposive sampling technique was used.

Tool Description:

Part–1 Socio- demographic variable:

Baseline perform a consist of 05 items to obtain information regarding age, gender, area of residence, previous knowledge, source of knowledge.

Part-2 Structured Knowledge Questionnaire:

This section of the tool consist of 30 multiple questions and each of them had one correct answer and three distracters .Each correct answer was given score of ‘1’.

Table: 1 Knowledge score regarding C.P.R

Level of Knowledge	Score	Percentage
Excellent	21-30	70-100
Average	11-20	36-66
Poor	0-10	0-33

Data Analysis and Interpretation

Results were discussed under following sections -

Section 1: Frequency and Percentage distribution of G.N.M 2nd year students.

Section 2: Level of knowledge regarding CPR.

Section 3: Effectiveness of demonstration regarding CPR.

Section 4: Association between levels of knowledge with selected demographic variables.

Section-1

Age: Percentage wise distribution of GNM 2nd year students according to their age group reveals that (Experimental group) highest percentage (46%) were between 20-22 years of age group followed, (43%) with 22-24 years of age group, (6%) with 18-20 years of age group, (3%) with 24-26 years of age group. It can be interpreted that majority were in the age group 20-22 years and as the age increases the number of GNM 2nd year students. (Control group) highest percentage (46%) were between 22 – 24 years of age group followed, (36.67%) with 20 – 22 years of age group, (16.67%) with 18 – 20 years of age group, (0%) with 24- 26 years of age group. It can be interpreted that majority were in the age group 22-24 years and as the age increases the number of GNM 2nd year students.

Gender: Percentage wise distribution of GNM 2nd year students according to their sex (Experimental group and Control group) both groups, shows that highest (100%) were females, followed by (0) percent males.

Area of Residence: Percentage wise distribution of GNM 2nd year students according to their area of residence (Experimental group) shows highest (60%) were rural residence, followed by (40 %) Urban residence. It can be interpreted that majority GNM 2nd year a student belongs to rural residence. (Control group) shows highest (56.54%) were urban residence, followed by (43.46%) Rural residence.

Previous knowledge: Percentage wise distribution of GNM 2nd year students according to their previous knowledge shows (Experimental group) highest (80%) were “yes” followed by (20 %) “No”. It can be interrelated that majority GNM 2nd year students belongs to “yes”. (Control group) highest (86%) were “no” followed by (13%) “Yes” It can be interrelated that majority GNM 2nd year students belong to “no”.

Source of Knowledge: Percentage wise distribution of GNM 2nd year students according to their source of knowledge shows (Experimental group) highest (43%) were from Teacher, followed by (30%) from Book, (26%) from Mass media, (0) percent from Journal. (Control group) highest (46.20%) were from Teacher, followed by (33.50%) from Mass media, (20.30%) from Book, (0) percent from Journal.

Section-B

Table: 2 Frequency and Percentage wise distribution of GNM 2nd year students, according to their Knowledge level (Pre-test).n = 60

Knowledge level	Experimental group		Control group	
	Frequency	Percentage	Frequency	Percentage
Inadequate	18	60	21	70
Moderate adequate	10	33.3	6	20
Adequate	02	6.7	3	10

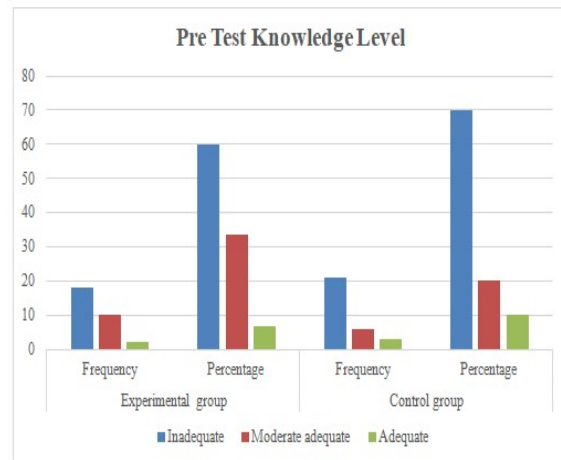


Figure 1: Shows the Pre-test knowledge score on Cardio Pulmonary Resuscitation

Percentage wise distribution of GNM 2nd year students according to their knowledge level shows (Experimental group) highest (60%) were inadequate followed by (33.33%) Moderate adequate, (6.67%) adequate. It can be interrelated that a majority GNM 2nd year student belongs to inadequate knowledge.

(Control group) highest (70%) were Inadequate followed by (20%) Moderate adequate, (10%) adequate. It can be interrelated that a majority GNM 2nd year student belongs to Inadequate Knowledge.

Table: 5 Mean and Standard deviation according to their Post-Test Knowledge score. n=60

Post-test	Mean	Std. deviation
Experimental group	18.2	3.28
Control group	7.2	1.56

The overall mean knowledge score of GNM 2nd year students on CPR of Experimental group is (18.2) and of control group is (7.2).The overall

knowledge score of Std deviation of Experimental group is (3.28) and of Control group is (1.56).

Section-C

Table: 6 Effectiveness of Demonstration on CPR among GNM 2nd year students. n=60

	Cal. value	D.F.	Table value	Inference
Effectiveness of demonstration	8.24	29	1.699	Significant

The overall Effectiveness of demonstration score of GNM 2nd year students on CPR of Calculative value is (8.24), D.F.is (29), and Table value is (1.699) and inference is (significant).

Section: D

The association between Knowledge score and selected demographic variables, Age, Area of residence, previous knowledge, Source of Knowledge, shows no Significant.

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Nursing Implications

According to Tolima (1995) the section of the research report that focuses on nursing implication usually includes specific suggestions for nursing practice, nursing education, nursing research and nursing administration. Nursing implication for this study is enlisted below:

- Can learn the techniques of C.P.R demonstration.
- Can learn the chain of survival.
- Understand the importance of C-A-B.
- Use as an emergency treatment.
- Use this as a simple technique for reducing respiratory distress.
- Motivate the student nurses to use oxygen mask.
- Suggest this simple technique for preventing further complication associated with compression.

Nursing Education

Nurse educators can motivate student to:

- Learn the effectiveness of C.P.R demonstration, as an independent nursing intervention.
- Learn the assessment of level of consciousness sand attempt of C.P.R
- Learn the technique and mechanism of giving C.P.R Nursing Research

Nursing Research

Nurse researcher can:

- Add to their search review about the importance of C.P.R technique.
- Conduct further research indifferent setting using the above findings as a baseline data.
- Expanding the scientific body of professional knowledge upon which further researches can be conducted.
- Help in practice aspect and the role of nurse.
- Disseminate the finding through the conference, seminars, publications, national and international journal and Worldwide Web.

Nursing Administration

Nurse administrator can:

- Organize in service education programmes for the nurse’s on this technique.
- Develop a written protocol on method of C.P.R implication.
- Make staff nurses to focus on the important aspect of C.P.R demonstration.

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