ISSN Print: 2394-7500
ISSN Online: 2394-5869
Impact Factor: 8.4
IJAR 2021; 7(11): 117-121
www.allresearchjournal.com
Received: 07-09-2021
Accepted: 16-10-2021

Supreet Rupam
Assistant Professor, Amity College of Nursing, Amity University, Haryana, India

Lovely Thapar
Tutor, Amity College of Nursing, Amity University, Haryana, India

Corresponding Author:
Supreet Rupam
Assistant Professor, Amity College of Nursing, Amity University, Haryana, India

Effectiveness of planned teaching programme on knowledge and practice regarding cardio pulmonary resuscitation (C.P.R) among nursing students in S.K.S.S College of nursing, Sarabha, Ludhiana, Punjab

Supreet Rupam and Lovely Thapar

Abstract
Sudden cardiac death is one of the most common cause of mortality worldwide. Cardiopulmonary resuscitation has been used in hospitals for approximately 40 years where the staff nurses are generally the first responders to cardiac arrest and initiate basic life support while waiting for the advanced cardiac life support team to arrive. A quasi-experimental study is done to check the effectiveness of planned teaching programme on knowledge and practice. The result revealed that in quasi-experimental study the pre-test, experimental group consist of research study sample from which 18 (60%) had average knowledge score, 12(40%) had good score and none of students were having below average knowledge score. During pre-test, in control group 20(66.7%) had average knowledge score, 10(33.3%) had good score and none of students were having below average knowledge score. Post-test in control group consists of research study from which 17(56.7%) had average knowledge score and 13 (43.3%) had good knowledge score. During post-test in experimental group there were 9(30%) students who had below average knowledge level.

Keywords: Effectiveness, knowledge, practice, cardio pulmonary resuscitation, planned teaching programme, nursing students

1. Introduction
Sudden cardiac death is one of the most common cause of mortality worldwide. Despite significant advances in the medical science, there is little improvement in the sudden cardiac death related mortality. According to WHO, 17.9 million people die each year from cardio vascular diseases, an estimated 31% of all deaths worldwide According to statistics nearly 7.5 lakh people die of sudden cardiac arrests every year in India [1]. On an average, a victim begins to suffer irreversible brain damage four minutes after the cardiac arrest takes place and if no CPR administered. Cardiopulmonary resuscitation has been used in hospitals for approximately 40 years where the staff nurses are generally the first responders to cardiac arrest and initiate basic life support while waiting for the advanced cardiac life support team to arrive speed and competence of the first responder are factors contributing to the initial survival of the person following a cardiac arrest.
Cardiac arrest is a common and treatable cause of death and disability. Each year 424 000 people experience emergency medical services (EMS)-assessed out-of-hospital cardiac arrest (OHCA) in the United States. According to statistics nearly 7.5 lakh people die of sudden cardiac arrests every year in India. On an average, a victim begins to suffer irreversible brain damage four minutes after the cardiac arrest takes place and if no CPR administered [2].

2. Need of the study
Cardiopulmonary resuscitation has been used in hospitals for approximately 40 years where the staff nurses are generally the first responders to cardiac arrest and initiate basic life support while waiting for the advanced cardiac life support team to arrive. speed and competence of the first responder are factors contributing to the initial survival of the person following a cardiac arrest. The knowledge and practice of staff nurses may influence the speed and level of involvement in the emergency situation (Makinen *et al*., 2010) [3]

Regarding basic CPR skills a study to investigate the retention of skills of knowledge by qualified nurse proved that these deteriorate with times especially if not used for update regularly. Study suggested that resuscitation skills and knowledge should be refreshed and updated 3 to 6 months so to maintain his or her resuscitation skills at stable level [3].

A study proved that the nurse's poor knowledge on CPR influence the death rate among the cardiac arrest patients. In some cases, a basic life support (BLS) is enough to achieve prompt and complete recovery, which is based on an understanding of CPR through scientific acquisition of knowledge and skill [4].

A study stated that planning is essential for any activity particularly effective teaching and the teaching learning process is aimed the acquisition of knowledge, skills and attitudes which enable the learners to lead efficiently to improve the knowledge and skill among staff nurses, the investigator planned to provide the structured teaching programme and to assess the effectiveness of this programme in increasing knowledge and skills about CPR among staff nurses working in selected hospitals [5].

3. Statement of the Problem

A quasi-experimental study to assess the effectiveness of planned teaching programme on knowledge and practice regarding cardiopulmonary resuscitation (C.P.R) among Nursing students in S.K.S.S College of Nursing, Sarabha, Ludhiana.

4. Objectives

1. To assess the pretest knowledge and practice score regarding cardiopulmonary resuscitation among the Nursing students in S.K.S.S College of Nursing of Sarabha, Ludhiana.
2. To develop and implement planned teaching programme regarding cardiopulmonary resuscitation among Nursing students in S.K.S.S College of Nursing in experimental group.
3. To assess the posttest knowledge and practice score regarding cardiopulmonary resuscitation among the Nursing students of S.K.S.S College of Nursing in experimental and control group.
4. To compare the pretest and posttest knowledge and practice regarding cardio pulmonary resuscitation among the Nursing students of S.K.S.S College of Nursing in experimental and control group.
5. To find out the association of pre-test knowledge score with selected demographic variables.

5. Assumption

- Nursing students may have some knowledge regarding cardiopulmonary Resuscitation
- There will be enhancement in the knowledge of nursing students after administration of STP.
- There may be increase in the mean pretest knowledge and post Test knowledge.

6. Operational definitions

- **Assess:** It is statistical measurement of knowledge and skills of Nursing students regarding CPR as observed by close ended questionnaire and checklist.
- **Structured teaching programme:** It refers to a systematically developed instructional programme using instructional aids, designed to provide information on CPR.
- **Effectiveness:** It is the statistical measurement of difference between the pre-test and post-test knowledge and practice score.
- **Knowledge:** It refers to the correct responses of students to the knowledge items in the close ended questionnaire regarding CPR.
- **Practice:** is defined as to sessions scheduled for purpose of rehearsing and Performance improvement.
- **Cardio Pulmonary Resuscitation:** CPR consisting of external cardiac massage and artificial respiration; the first treatment for a person who has collapsed and has no pulse and has stopped breathing; attempts to restore circulation of the blood and prevent death or brain damage due to lack of Oxygen.

7. Methodology

- **Research approach:** Quantitative approach
- **Research design:** Quasi experimental design was adopted for this study
- **Variables**
  - **Independent variable:** Structured teaching programme
  - **Dependent variable:** Knowledge and practice
- **Setting of the study:** Shaheed Kartar Singh Sarabha College of Nursing, Sarabha, Ludhiana, Punjab
- **Population:** Population refers to the aggregate or totality of those conforming to a set of specification. The population of this study was degree students.
- **Sample:** Sampling refers to the process of selecting the portion of population to represent the entire population. The students studying in Shaheed Kartar Singh Sarabha College of nursing, Ludhiana.
- **Sample size:** Sample is subset of the population selected for a particular study and the number of samples are the subjects. The sample size was 60 students in Shaheed Kartar Singh Sarabha College of nursing.
- **Sampling technique:** Purposive sampling technique was used to select the subjects for study.

Table 1: Association of pre-test knowledge score of experimental groups with selected demographic variables

Demographic variables		(Pre-test knowledge) experimental group						
Variables	**Options**	**Good**	**Average**	**Below average**	**Chi-square**	**P value**	**df**	**Table value**
Age (in years)	18-19	1	1	0	1.2500	0.741	3	NS 3.18
	19-20	4	4	0				
	20-21	6	9	0				
	21-22	1	4	0				
Gender	Male	1	3	0	0.4327	0.510	1	NS 12.71
	Female	11	15	0				

Professional qualification	B.sc 2nd year	1	2	0	00.0617	0.803	1	NS 12.71
	B.sc 3rd year	11	16	0				
Area of training	Private hospital	4	9	0	0.8145	0.366	1	NS 12.71
	Government hospital	8	9	0				
Source of information	Print media	1	1	0	1.8750	0.598	3	NS 3.18
	Mass media	5	5	0				
	Curriculum	0	2	0				

Table 1 Describes frequency and percentage distribution of socio demographic variables which reveals that majority of subjects, experimental group 1(3.33%) and 1 (3.33%) in control group were from age group of 18-19 years followed by experimental group 9(30%) and 13(43.33%) in control group from age group of 19-20 years. Similarly experimental group 15(50%) and 14(46.67%) in control group from 20-21 years. At least experimental group 5(16.67%) and 2(6.67%) in control group from 21-22 years.
Regarding professional qualification it shows that 0(0%) in experimental and 9(30%) in control group were from B.Sc. 2nd year, followed by 30(100%) in experimental group and 21(70%) in control group from B.Sc. 3rd year.
Regarding to area of training, 13(43.3%) of experimental group and 13(43.3%) of control group was trained in private hospital. 19(56.67%) of experimental group and 17(56.67%) of control group trained in government hospital So majority of students training were in government hospital.
Regarding the source of information related to cardiopulmonary resuscitation 2(6.67%) of experimental group and 3(10%) of control group had through print media, 10(33.33%) of experimental group and 6(20%) of control group got information through mass media, 1(3.33%) of experimental group and 2(6.67%) of control group had through curriculum Majority of students 17(6.67%) of experimental and 19(63.3%) of control group obtained information from health personnel.

Table 2: Criteria measure of knowledge score of pre-experimental group and control group N=60

Criteria measure of knowledge score		
Category score	**Pre- experimental**	**Pre- control**
Good (32-40)	12 (40%)	10 (33.3%)
Average (11- 31)	18 (60%)	20 (66.7%)
Below average (0-10)	0 (0%)	0 (0%)

Maximum = 40
Minimum = 0

Table 2- depicts that maximum number of pre-experimental group 18 (60%) and pre- control group 20 (66.7%) had average (11- 31) knowledge score, while pre-experimental group 12 (40%) and pre- Control 10 (33.3%) had good (32-40) knowledge score and none of pre- experimental and pre-control Had below average (0-10) knowledge score. Hence it is concluded that majority of students had average knowledge score regarding cardiopulmonary resuscitation.

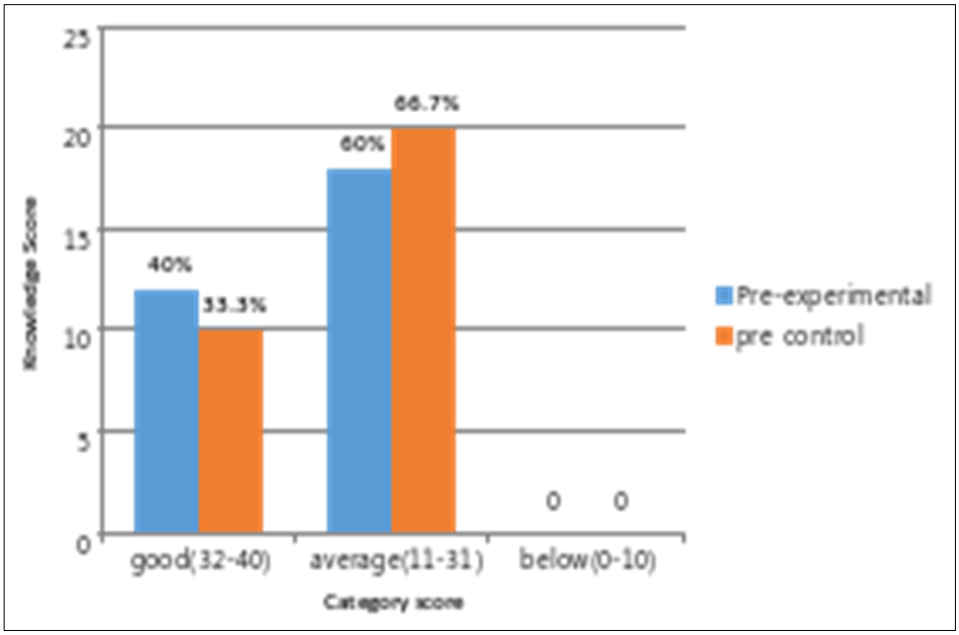

Fig 1: Comparison the Knowledge Score of pre-experiment and pre control group

Table 3: Criteria measure of practice score for pre- experimental and pre-control group N=60

Criteria measure of practice score		
Category score	**Pre- experimental**	**Pre- control**
Good (13- 16)	14 (46.5%)	13 (43.5%)
Average (6- 12)	16 (53.5%)	17 (56.5%)
Below average (0 -5)	0 (0%)	0 (0%)

Maximum =16
Minimum =*0*

Table 3 Depicts that majority of 16 (53.5%) of experimental group and 17 (56.5%) of control group had average (6-12) practice score, followed by 14 (46.5%) of experimental group and 13 (43.5%) of pre-control group had good (13-16) practice score while none of the pre-experimental and pre-control group had below average (0-5) practice score.
Hence, it is concluded that majority of students have average (6 -12) practice score regarding cardiopulmonary resuscitation.

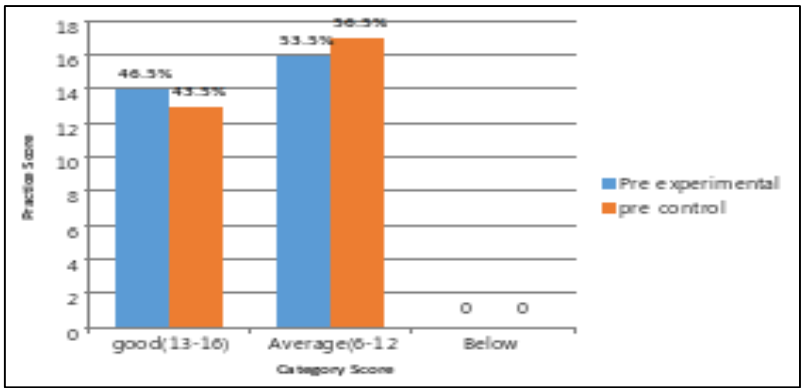

Fig 2: Comparison the practice score of pre-experimental and pre-control group

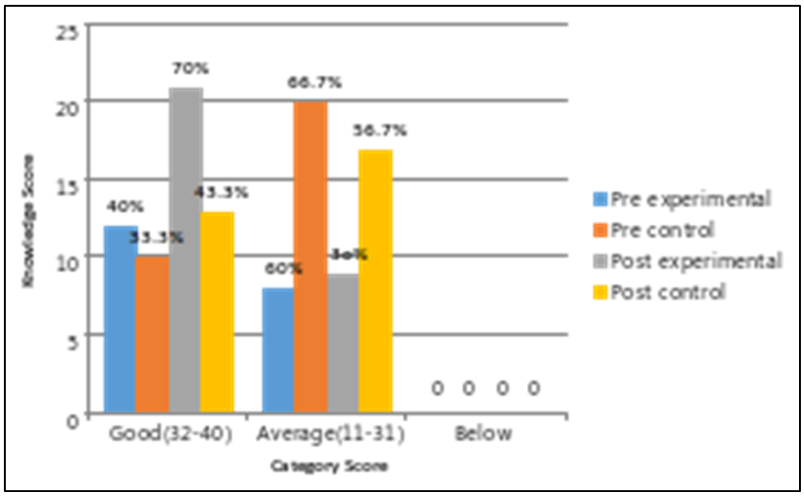

Fig 3: Comparison of knowledge score of pre-experimental, pre-control, Post-Experiment and Post –control Group

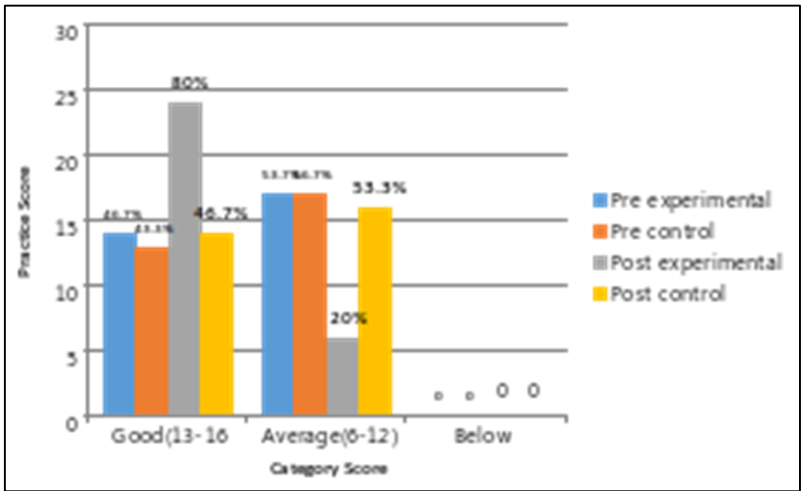

Fig 4: Comparison of practice score of pre-experiment pre-control, post-experiment and post-control group

8. Discussion

In experimental study the pretest experimental group consist of research study sample from which 12(40%) had good knowledge score 18(60%) had average knowledge score and none of the students were having below average score. During pretest, in control group sample from 10(33.3%) had good knowledge score, 20(66.7%) had average knowledge score and none of the students were having below average score. Hence its concluded that none of the group have below average knowledge score. Similar study has been reported to assess the Effectiveness of Structured Teaching regarding Basic Life Support (BLS) in Selected Colleges of Nursing, Ludhiana Punjab, by using purposive sampling technique among 60 Nursing Students with structured questionnaire. The study findings were that the pre- test mean knowledge score in control and experimental group were (17.80, 17.13) and post- test mean knowledge score were (17.43, 27.03) respectively, it was inferred that post - test mean knowledge score was high in experimental group than in the control group.

9. Implications

The findings of the present study have several implications which are discussed in the following areas- Nursing education, Nursing services, Nursing administration, Nursing research.

10. Nursing education

Nurse must be lifelong learner and they need to give an opportunity for continuing education. Nurse educator play critical role in providing font icons for research-based practice. Nurse educator can refer these research findings regularly in their lectures, clinical seminars should also include discussion of these results findings so that students can get knowledge about CPR, so they should encourage to seek the research findings to improve knowledge.

11. Nursing services

Nursing profession should also render services according to the changing need of society. There is lack of knowledge about CPR among students, so nurse should educate students about CPR through an in-service programme, continuing education.

12. Nursing administration

It is essential for nurse administrator to be familiar with the philosophy of holistic health and they should see the services of nurse service department. The nurse administrator should provide all the necessary support for conducting in-service education programme for the nurse so that they can provide better care and educate the nursing students about CPR.

13. Nursing research

Finding of this study will provide baseline data about effectiveness of CPR. It is the need of time that all nursing research should educate the nursing students regarding effectiveness of CPR. Study is done in this regard that it will improve the knowledge of nursing students.

14. Recommendations

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

1. The study can be replicated on large sample to validate and generalize the findings.
2. Similar study can be conducted in different settings with different target population.
3. A descriptive study to assess knowledge regarding CPR.

15. Conclusions

In quasi-experimental study the pre-test, experimental group consist of research study sample from which 18 (60%) had average knowledge score, 12(40%) had good score and none of students were having below average knowledge score. During pre-test, in control group 20(66.7%) had average knowledge score, 10(33.3%) had good score and none of students were having below average knowledge score. Post-test in control group consists of research study from which 17(56.7%) had average knowledge score and 13 (43.3%) had good knowledge score. During post-test in experimental group there were 9(30%) students who had below average knowledge level.

16. References

1. Review of literature definition is available from URL:http://www.pubmed.com
2. Dr. Gurbir Singh. A workshop regarding CPR, May 2011, Available from: http://www.timesofindia.com
3. Karthik Murugiah and team, the widespread knowledge of CPR, 6th August 2010, Available from http://www.indianjournal.com
4. TVS Murthy, Bhavna Hooda. Cardio cerebral resuscitation is better than CPR, September 13 2009, Available from http://www.indianjournal.com
5. McNally B, Robb R, Mehta M, Vellano K, Valderrama AL, Yoon PW *et al*. Out-of-hospital cardiac arrest surveillance - cardiac arrest registry to enhance survival (CARES), United States, 2005-December 31, 2010. MMWR Surveill Summ. 2011;60(8):1-19. Available from: https://www.ncbi.nlm.nih.gov/pubmed/21796098