

## Research Article

# A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING CARDIO PULMONARY RESUSCITATION AMONG 3RD YEAR GNM STUDENTS IN SELECTED SCHOOLS OF NURSING, AT TUMKURU

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### ABSTRACT

**Objectives:** 1.To assess the pre-test knowledge on cardio pulmonary resuscitation among 3rd Year GNM students. 2.To evaluate the effectiveness of structured teaching programme on knowledge regarding cardio pulmonary resuscitation among 3rd Year GNM students. 3 To find out the association between pretest knowledge with selected sociodemographic variables. **Methodology:** A pre experimental one group pre-test post-test design and a quantitative research approach was carried out on 60 pu students selected by convenient sampling technique to test the effectiveness of structured teaching programme .the data was collected by using structured questionnaire consists of 36 items **Result:** the resent study evaluates and found that demographic variables majority 36% of them were in the age group 22 and above age in years, majority 66 of them females ,majority 55% of hindu religion ,majority 58.3% of urban area. **Conclusion:** the data were analysed by applying descriptive and inferential statistics .the result of the study indicate that after intervention there was an improvement in the knowledge and they gain good knowledge about cardio pulmonary resuscitation ,analysis data shows highly significance difference found between pre-test and post-test knowledge score at the level of( $P<0.05$ ). the hypothesis is proved and accepted. Techinq to save the patient from cardiac respiratory failure in adults both in males and female.

**Keywords:** Effectiveness, structurds teaching programme(STP), cardio pulmonary resuscitation (CPR), knowledge.

### 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. CPR is the first treatment for a person who has collapsed, has no pulse, and has stopped breathing. Effective CPR enables enough oxygen to reach the brain to delay brain death, and allows the heart to remain responsive to defibrillation attempts. On Oct. 18, 2010 new guidelines released by the American Heart Association recommend that the three steps of cardiopulmonary resuscitation (CPR) be rearranged. Every nurse and student nurse should have knowledge and skilled in CPR because cardiac arrest, the sudden cessation of breathing, and adequate circulation of blood by the heart, may occur at any time or in any setting.

However Heart disease is the world’s largest killer, claiming 17.5 million lives every year. About every 29 seconds, an Indian dies of heart problem. As many as 20,000 new heart patients develop every day in India, six core Indians suffer from heart disease and 30 percent more are at high risk. By 2020, India will have the largest coronary heart disease (CAD) burden in the world and will account for one third of all deaths; many of them will be young. The risk of sudden cardiac death from coronary artery disease in adults is estimated to be 1 per 1,000 adults 35 years of age and older per year.

More ever Human life is a precious gift of God where we all are connected with each other in this beautiful world and lives with our loved one. Sometimes when our loved one or other person get

entangle in sudden or unexpected accidents which could be fatal as road traffic accident, respiratory arrest, cardiac arrest, heart attack, burn, poison, or become suddenly unconscious with no pulse and breath. Non- medical people get more panic than the victim and not able to handle these emergency situations, due to lake of knowledge and skills but victim can survive by doing some emergency procedures and lifesaving technique such as cardiopulmonary resuscitation instead of doing nothing.

### NEED FOR THE STUDY

Today Cardio pulmonary resuscitation Technique is considered as a fundamental skill for health care providers. In the wider community, it is an expectation that knowledge and competence in CPR is at a high standard in nursing education. Participation in both successful and unsuccessful cardiopulmonary resuscitation is one of the most stressful situations that the nursing students have to deal with after their registration. A thorough knowledge and competency (skill) help them to perform CPR to the patient’s whenever is needed. We might remember ABCs — airway, breathing, chest compressions. First open the airway and try to resuscitate the victim by giving quick breaths through the mouth. Then move on to pumping the chest to get the heart beating again. But now the American Heart Association (AHA) is officially changing the order of CPR, and urging rescuers to start with chest compressions first and now it is CAB.

In addition Many students are not aware about American heart association guidelines of CPR. Cardiopulmonary resuscitation is the fundamental technique for the emergency treatment of cardiac arrest. The standardized training of cardio pulmonary resuscitation has been emphasized more than ever. Cardio pulmonary resuscitation training is mandatory for nurses and is important as nurses often first discover the victims of cardiac arrest in-hospital. Available literature suggests a

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need for both initial cardiopulmonary resuscitation training and refresher courses. In this context, the training of nursing students to improve the knowledge and competency in cardio pulmonary resuscitation is having at most significance. It is because in future they are the one who is assessing and providing the needed care for the patient at the earlier stage.

However CPR is a rescue procedure to be used when the heart and lungs have stopped working. There is a wide variation in the reported incidence and outcome for out of hospital cardiac arrest. These differences are due to definition and ascertainment of cardiac arrest as well as differences in treatment after its onset. Several authors described the problem of poor performance in CPR, even when provided by medical professionals. Numerous investigations have reported the problem of poor skills retention after various CPR courses. Studies reporting the need for improvement of resuscitation techniques led to the recent changes in BLS and ALS algorithms. The dangers of Sudden Cardiac Arrests (SCA) that can lead to death of an individual within a few minutes. As per WHO census statistics mortality due to cardiac arrest approximately 4280 out of every one lakh people die every year from SCA in India alone.

After a cardiac arrest there are four to six minutes before brain death and death occur. Chances of survival reduce by 7-10 percent with every passing minute. It is a silent epidemic. Cardiac arrest is reversible if the victim is administered prompt and appropriate emergency care. This generally involves administration of cardiopulmonary resuscitation (CPR), shock treatment to the chest to reset the heart's rhythm (defibrillation) and advanced life support. In India the annual incidence of sudden cardiac death accounts for 0.55 per 1000 population. The survival rate of a sudden cardiac arrest is almost less than 1%. Sudden cardiac death constitutes 40-45% of cardiovascular deaths and out of this almost 80% are due to heart arrhythmia disturbances or arrhythmia.

Now the Maximum arrests were because of cardio respiratory arrests. Immediate survivors were 5 out of 6 (83.3%), out of 5 patients only 2 were alive at the end of 24 h (40%), and none of them survived to be discharged. Overall survival to hospital discharge was 3.8% (1.7-13%) of a 3,220 pooled patient group. Analysis of their functional recovery found good outcome in 86.7% (44-89%), moderate impairment in 10.2% (8.5-44%) and severe impairment in 3.1% (2-36%) of survivors from a cohort of 1679 pooled patients. Although, survival from prehospital arrest is diminished in geriatric groups, those who survive often have good functional recovery.

Heart disease is the world's largest killer, claiming 17.5 million lives every year. About every 29 seconds, an Indian dies of heart problem. As many as 20,000 new heart patients develop every day in India, six core Indians suffer from heart disease and 30 percent more are at high risk. The risk of sudden cardiac death from coronary artery disease in adults is estimated to be 1 per 1,000 adults 35 years of age and older per year. About 75 percent to 80 percent of all out-of-hospital cardiac arrests happen at home. Hence, being trained to perform CPR can make the difference between life and death for a victim.

Each year almost 330,000 peoples die from heart disease. Half of these will die suddenly, outside of the hospital because their heart stops beating. The most common cause of death from heart attack in adult is a disturbance in the electrical rhythm of the heart or ventricular fibrillation. It can be treated by applying an electrical shock to the chest. One way of buying time until a defibrillator becomes available is to provide artificial breathing and circulation by performing CPR

## THE STUDY OBJECTIVES

1. To assess the pre-test knowledge on cardio pulmonary resuscitation among 3rd Year GNM students.
2. To evaluate the effectiveness of structured teaching programme on knowledge regarding cardio pulmonary resuscitation among 3rd Year GNM students.
3. To find out the association between pretest knowledge with selected sociodemographic variables.

## HYPOTHESIS

- H1- There will be significant difference in the mean pretest and posttest knowledge scores regarding a cardio pulmonary resuscitation among 3rd year GNM students
- H2- There will be significant association between the pre-test knowledge on Cardio pulmonary resuscitation with their selected sociodemographic variables

## METHODOLOGY

The research design of the study was pre experimental one group pre-test post-test design. The population was third year GNM students .a quantitative research approach will be used. the sample consists of 60 third year GNM students in shri Ramanamaharshi school of Nursing at tumkur .convenient sampling technique was used for the study .the pre-test was conducted using structured questionnaire and structured teaching programme was given to the third yea gnm students after pre -test on the same day..The post-test was conducted after 7 days of intervention by using the same questionnaie. The data was analyzed by using descriptive and inferential statistics.

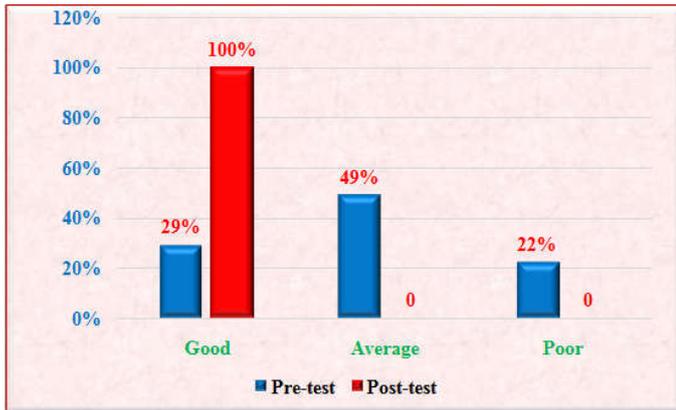
## RESULT

**Table No.1: Frequency and Percentage distribution of knowledge scores regarding Cardio Pulmonary Resuscitation.**

Level of knowledge	Pre-test		Post-test	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Good (above 25.79)	17	29	60	100
Average (25.79-21.49)	30	49	00	00
Poor (below 21.49)	13	22	00	00

**Table No. 1** Reveals that, distribution of level of knowledge among 3rd year GNM students regarding a cardio pulmonary resuscitation during pre-test and post-test. Most of them in the pre-test 30 (49%) had average knowledge, 17 (29%) had good knowledge and 13 (22%) had poor knowledge. In post-test after Structured Teaching Programme, majority of the subjects 60 (100%) had good knowledge regarding cardio pulmonary resuscitation.

## PRE AND POST KNOWLEDGE OF CARDIO PULMONARY RESUSCITATION



## DISCUSSION

The discussion brings the research report to closure. A well-developed discussion section "makes sense" of the research results. This is the most important section of research report. The findings of the study have been discussed with reference to the objective and hypothesis.

Here this study evaluated the effectiveness of structured teaching programme on knowledge regarding CPR among 3RD year GNM students in Shridevi school of nursing at Tumakuru. A pre-experiment alone group pre-test, post-test design was used to assess the effectiveness of structured teaching programme on knowledge regarding CPR among 3rd year GNM students. A structured questionnaire was used to collect the data. A structured teaching programme was implemented to find out the effectiveness. The investigator utilized the convenient sampling technique to select the subjects. Pre-test was conducted prior to implementation of intervention (structured teaching programme) and post-test was conducted after a week, using the same questionnaire as employed for pre-test.

## CONCLUSION

Based on the findings of the study, the following conclusions were drawn.

1. The overall pre-test knowledge of 3rd Year GNM students was average.
2. The post-test knowledge scores of the subjects after administration of Structured Teaching Programme was significantly improved in the level of knowledge & CPR Skills.
3. The post-test knowledge score of 3rd Year GNM students after administration of Structured Teaching Programme was significantly higher than pre-test scores.
4. There was no association found between one variable i.e. residential area, whereas in regards with remaining variables there was no association found.

## RECOMMENDATION

A similar study that can be done on large and wider sample size and period of time would be more pertinent in making broad generalizations.

1. A structured teaching programme can be done for all 3rd Year GNM students regarding awareness of Cardio Pulmonary Resuscitation.

2. A comparative study can be conducted regarding Cardio Pulmonary Resuscitation among GNM and B. Sc. Nursing students.
3. A descriptive study can be conducted to assess the knowledge regarding Cardio Pulmonary Resuscitation with larger sample size.
4. An observational study can be conducted regarding awareness on Cardio Pulmonary Resuscitation among different populations.

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