



INTERNATIONAL JOURNAL OF ADVANCE RESEARCH AND DEVELOPMENT

(Volume2, Issue8)

Available online at www.ijarnd.com

A Quasi-Experimental Study to Assess the Effectiveness of Hands on Skill Training Program on CPR among Adolescents in Selected Schools, Bangalore

CH. Lavanya

Gitam Institute of Nursing, Gitam University, Visakhapatnam, Andhra Pradesh

ch.lavanaya@gmail.com

INTRODUCTION

We are responsible for what we are, and what ever we wish ourselves to be; we have the power to make ourselves. If what we are now has been the result of our own past actions, it certainly follows that what we wish to do in future can be produced by our present action; so we have to know how to act. ” Swami Vivekananda.

Birth and death are the two natural phenomena that all of us have to accept. When a child is born we are happy because a new person is added to our company, where as, when someone dies, we grieve because he/she is no more with us. Death can occur at any time due to any cause. However, death in certain instances can be prevented. For instance death due to cardiac arrest can be prevented by giving cardio pulmonary resuscitation in time. Cardio pulmonary resuscitation is a technique used in cardiac arrest to establish heart and lung function until more advanced life support is available.

Resuscitation was attempted in the past through various methods e.g. slapping victims, making loud noises. The mouth – to mouth method was reported prior to 1950 but it has now become the most preferred method.

At first, only medically trained personnel were allowed to perform CPR since chest compression could produce internal injuries. Kouwenhoven and his colleagues set a new land mark for effective external cardiac compression, coupled with mouth to mouth breathing in the resuscitation of the victim who had total circulatory stand till. As a result, the combination of closed – chest cardiac massage and mouth-to-mouth rescue breathing, coupled with the introduction of external defibrillation, created cardio pulmonary, resuscitations as it is known today. Thus the foundation of modern CPR was laid in 1960.

HOW CPR WORKS

The air we breathe travels to our lungs where oxygen is picked up by the blood and then pumped by the heart to the body tissue and organs. When a person experiences cardiac arrest either due to heart failure or an injury such as drowning, electrocution or severe trauma– the heartbeat goes from a normal beat to an arrhythmic pattern called ventricular fibrillation, and eventually, the heart ceases to beat altogether. This prevents oxygen from circulating throughout the body, rapidly killing cells and tissues. Here lies the importance of CPR, cardio pulmonary resuscitation serves as an artificial heartbeat on an artificial respirator.

CPR may not save the victim even when performed properly, but if started with in 4 minutes of cardiac arrest and defibrillation is provided within 10 minutes a person has a 40 percent chance of survival.

Recent statistics suggest that sudden cardiac arrest is rapidly becoming the leading cause of death. Once the heart ceases to function, a healthy human brain may survive without oxygen for up to 4 minutes without any permanent damage. Unfortunately, a typical emergency medical service response may take 6, 8 or even 10 minutes.

It is during those critical minutes that cardio pulmonary resuscitation can provide oxygenated blood to the victim's brain and the heart, dramatically increasing his chance of survival. And if properly instructed, almost anyone can learn and perform CPR.⁵

Need for the Study

Everyone has a purpose in life – a unique or special talent to give to others, and when we blend this unique talent with service to others, we experience the ecstasy and exultation of our own spirit, which is the ultimate goal of all goals.
Deepak

Chopra

In this technological world, most of the research studies are focusing on a holistic approach. It involves teaching all aspect of health. Cardiac arrest is a major emergency situation faced by the people. It requires emergency intervention in terms of resuscitation by using an advanced skill called cardio pulmonary resuscitation. The incidence of the disease in India is as high, as in the west, with approximately 14 million people affected by the cardiac disease. According to the WHO estimate, 16.7 million people around the globe die of cardiovascular diseases every year, which represents 1/3 rd of all deaths globally.

Cardiopulmonary resuscitation (CPR) is one of the compulsory skills for health care professionals. Health professionals (and lay people) are offered CPR courses to learn this skill that may be implemented after a long time. After the exclusion of the articles on pediatric and advanced resuscitation, whose objective was the evaluation of the effectiveness of teaching methods; 8 studies were finally identified. Resuscitation skills deteriorate quickly and theoretical knowledge is retained longer than practical skills. The retraining should be offered frequently but no time intervals are proposed.

Despite all the advancements in science and technology, rural India is still unable to access health care services due to lack of awareness, transportation, illiteracy, poverty, rising cost of medical care and less number of health care professionals.

As cardiac arrest comes quite unpredicted in a remote community, the victim's life is at stake due to lack of timely intervention. According to WHO report, 75 percent of the annual estimated 9.5 million deaths in India occur in homes. Hence it is important that community people should possess adequate skill and knowledge on cardio pulmonary resuscitation so that the victim's life can be sustained till he is brought to the hospital.

No statistics are available for the exact number of cardiac arrest that occurs each year. It is estimated that more than 95 percent of cardiac arrest victims die before reaching the hospital. In cities where defibrillation is provided within 5 to 7 minutes, the survival rate from sudden cardiac arrest is as high as 49percent.

If bystander CPR was initiated more consistently, if AEDs were more widely available, and if every community could achieve 20percent cardiac arrest survival rate; an estimated 50,000 more lives could be saved each year. Death from sudden cardiac arrest is not inevitable. If more people react quickly by calling 9-1-1 and performing CPR, more lives can be saved.

Today's society is complex and ever changing. As children grow they must learn not only to cope with current demands but also to prepare for the many unexpected events facing tomorrow. Therefore the researchers set to impart the knowledge and skill on CPR among adolescents because they are the ones who come forward to face any situation.

OBJECTIVES OF THE STUDY

- 1) To assess the knowledge and skill on CPR before and after hands on skill training program.
- 2) To determine the effectiveness of hands on skill training program on CPR.
- 3) To associate the knowledge and skill on CPR with selected variables.

METHODOLOGY

The conceptual framework selected for the present study was based on "Goal Attainment theory of Imogene King". The study was conducted in Anupama High School, Kurubarahalli, and Bangalore. The sample comprises of 30 adolescents students. A self-administered questionnaire of 30 items and an observational checklist of 10 items was used to assess the effectiveness of hands on skill training among the adolescents. The validity of the tool was done by 7 experts. Reliability of the tool was 0.8919. The data collection was from 03 -09 -2007 to 03 -10-2007. The data to be analyzed is planned on the basis of objective and hypothesis of the study. The data obtained will be analyzed by using descriptive and inferential statistical tests.

MAJOR FINDINGS

The level of knowledge of adolescents in pre test regarding CPR reveals that majority 18 (60.0percent) had inadequate knowledge, whose scores ranged between 0 -10, about 12(40.0percent) had moderately adequate knowledge, whose scores ranged between 11- 20 and nobody had adequate knowledge on CPR with a scores range between 21 - 30.

The level of knowledge among adolescents in the post test regarding knowledge about CPR reveals that no one had inadequate knowledge, about 4 (13.3percent) had the moderately adequate knowledge, scores range between 11 - 20 and majority 26 (86.7 percent) had adequate knowledge, with scores ranging between 21- 30.

The mean percentage of the skill scores in post-test is 56.0percent compared to the pre test mean score which is 39.0 percent, of the adolescents.

CONCLUSION

The present study revealed that the adolescents had inadequate knowledge regarding CPR in pre test and there was no significant association between the knowledge and skill with demographic variables. CPR is a way to emphasizing my belief that all life is a gift and needs to be protected.

IMPLICATIONS

NURSING EDUCATION

The community health nurse also has the obligation to update her knowledge and skill on CPR, by attending various training and continuing education programs as the same, to keep them experts in the field.

NURSING PRACTICE

Nursing Curriculum needs to have specific health education methods. As a nurse educator community health nurse should organize training program on CPR, for student's nurses, and to the public, which will be helpful in meeting an emergency situation and save the life of those victims.

NURSING ADMINISTRATION

The community health nurse should take extra care in policy making, planning and organizing the educational session to create awareness on basic life-saving measures.

NURSING RESEARCH

The researcher found that the knowledge and skill are deficient among the adolescents regarding CPR. Hence we can effectively conduct research on different aspects of first aid and CPR in different settings.

RECOMMENDATIONS FOR FURTHER STUDIES

Based on the findings of the study the following recommendations are made:

- A similar study can be conducted to assess the knowledge, attitude, and practice of adolescents regarding CPR.
- A similar study can be conducted to assess the attitude of the community people regarding CPR.
- A similar study can be conducted on school teachers to assess their knowledge and skill regarding CPR.
- A comparative study can be conducted between GNM's and B.SC nursing students.

REFERENCES

1. Sandra M. Nettina. The Lippincott manual of nursing practice. 7th ed, Philadelphia: Lippincott Williams & Wilkins, 2001 P. 1065-7.
2. John A. paraskos cardiopulmonary resuscitation in David L. Brown. Cardiac intensive care Philadelphia: wb sunders company, 1997.P. 1154 –7.
3. Adult CPR review Ms - Word version 1999-2006. First Aid, web Inc. (cited 2007 Sep 18) Available from URL: <http://www.pubmed.com>
4. Marco CA, Larkin GL Public education regarding resuscitation: Effects of a multimedia intervention. Ann Emerg Med. 2003 Aug; 42(2): 256-60. (Cited 2007 Oct 17). Available from URL: <http://www.pubmed.com>
5. Basic life support (MS –word) version (cited2007 June 2). Available from URL: <http://www.cprtoday.com>.