

 ISSN NO. 2320-5407	Journal Homepage: - www.journalijar.com INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR) Article DOI: 10.21474/IJAR01/18012 DOI URL: http://dx.doi.org/10.21474/IJAR01/18012	 INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR) ISSN 2320-5407 Journal Homepage: http://www.journalijar.com Article DOI: 10.21474/IJAR01/18012
---	---	--

RESEARCH ARTICLE

A STUDY TO ASSESS THE KNOWLEDGE ABOUT BASIC LIFE SUPPORT AMONG 1ST YEAR GNM STUDENTS(2022-2023) AT SMT NAGARATHNAMMA SCHOOL OF NURSING IN BENGALURU

Mrs. Ramya B¹., Prof. Devi Nanjappan²., Ms. Lumi Halder³, Ms. Manashi Modak³, Mr. MD Kaif³ and Mr. MD Asif Reza³

1. Author, Guide & Assistant Professor Department of Pediatric Nursing.
2. Principal, Smt. Nagarathnamma College of Nursing.
3. Final Year B.SC Nursing Student.

Manuscript Info

Manuscript History

Received: 15 October 2023

Final Accepted: 18 November 2023

Published: December 2023

Abstract

Statement of the problem: "A study to assess the knowledge about Basic life support among 1st year GNM students (2022-2023) at Smt Nagarathnamma school of Nursing in Bengaluru."

Background of the Study: Cardiac Arrest is a major emergency situation faced by the people and it requires emergency intervention in terms of resuscitation by using basic life support. As people grow they must learn not only to cope with current demands but also to prepare for many unexpected event to facing tomorrow's needing future.

Method: The research design used was quasi experimental i.e one group pre test and post test design. The sample size was 50 1 st year GNM nursing students at Smt Nagarathnamma school of nursing in Bengaluru. The tool develop and selected for the data collection were structured teaching method. The data were collected, analyzed and interpreted.

Result: Finding revealed the highest 70% of the students were in age Group of 19-20 years, 56% of the total students were female students, 40% were belongs to Hindu religion, 84% were not having hereditary cardiac disease. For pre test 24% of respondents have inadequate knowledge level, 46% of respondents have moderate knowledge level and 30% of respondents have adequate knowledge level regarding basic life support. For post test 2% of respondents have inadequate knowledge level, 28% of respondents have moderate knowledge level and 70% respondents have adequate knowledge level regarding basic life support. The obtained t- value in the area of general information is 5.30(P= 0.001); regarding the knowledge level on basic life support is 8.22(P= 0.001) and overall value of t is 6.21(P= 0.001) was highly significant. Therefore null hypothesis was rejected. The study finding reveal that there was highly significant enhancement in knowledge level after structured teaching programme among basic life support students.

Conclusion: This chapter gives a summary of the study salient features, implications and recommendations of nursing practice, nursing education and nursing research also gives addition to the limitation of the study.

..... Introduction:-

Life is a journey through a long tunnel of known length where birth is the initial point and the death, the end point. The human beings are the trains, passing through the tunnel, with health as the headlights and the knowledge as the fuel, which decides the distance that the train covers. Every in the presence of working headlight, the train could not move forward without the fuel. Here comes the relation between the knowledge and the health. Humans are the most valuable creations of god and the ever complicated living structure of science. They possess well differentiated functional body system that perform specific functions for the life sustenance. Birth and death are 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, whereas, 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 cardiopulmonary 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.⁽¹⁾

Resuscitation was attempted in the past through various methods, eg slapping victims, making loud noises. The mouth-to mouth method was reported prior to 1950 but it has now become the most perform BLS, 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 victim who had total circulatory stand still. As a result, the combination of closed - chest cardiac massage and mouth -to- mouth rescuer 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.⁽²⁾

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 spirit, which is the ultimate goal of all goals. In this technological world most of the research studies are focusing on holistic approach. It involves teaching all aspects of health. Cardiac arrest is a major emergency situation faced by the people.

It requires emergency intervention in terms of resuscitation by using advanced skill called Cardio Pulmonary resuscitations. The incidence of the disease in India is as high, as in the west, with approximately 14 million people affected by cardiac disease. According to the WHO estimate, 16.7 million people around the globe die of cardiovascular disease every year, which represents 1/3rd of all deaths globally.

It is said that coronary artery disease is one of the leading causes of death in India. Now it accounts for 16.5% of male death and 17.1% of all female death in India among which most of the deaths occur due to cardio pulmonary arrest. However whatever the cause, patient survival and positive outcome depends on recognition of the situation and rapid initiation of Basic life support or cardio pulmonary resuscitation.⁽³⁾

Basic life support (BLS) is one of the compulsory skills for health care professionals. Health professionals (and lay people) are offered BLS 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 method; 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.⁽⁴⁾

A study was conducted on knowledge and attitudes towards resuscitation in New Zealand high school students. The aim was to assess the attitude towards and knowledge of BLS in 16-17 years old high school students. The results showed poor theoretical knowledge, although there was no difference between male and female students, those who had previous first-aid training (70%) showed greater knowledge than untrained counterparts. Those students who had previous first aid training showed positive attitude towards BLS, than with untrained students.⁽⁵⁾

Another study was conducted on cardio pulmonary resuscitation training. Knowledge and attitude of newly qualified doctors in New Zealand in 2003. The objective was to assess the resuscitation knowledge and confidence of newly

qualified doctors in New Zealand in 2003. The results showed that 98.3 percent of doctors received advanced resuscitation training during their final year of medical school, of those 64.6 percent had received training in the previous 6 months had made fatal error 84 percent of doctor had read the level 7 manual got higher scores and were less likely to make a fatal error⁽⁶⁾.

A cohort study was conducted to assess knowledge and attitudes towards cardio pulmonary resuscitation in the community. The aim of this study examined basic aspects of knowledge and attitude towards resuscitation. The results of the CPR knowledge was poor, however, with only 4 percent knowing an acceptable rate at which to perform chest compression and only 9 percent knowing correct compression-to-ventilation ratio for adults taught in the previous year.⁽⁷⁾

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 victims 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 and the young generation should possess adequate skill and knowledge on cardio pulmonary resuscitation and basic life support 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 49 percent. If bystander CPR was initiated more consistently, if AEDs were more widely available, and if every community could achieve 20 percent cardiac arrest survival rate; an estimated 50,000 more lives could be saved each year.⁽⁸⁾

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 event 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.⁽⁹⁾

Hypothesis

H1: There will be a significant improvement in the knowledge of the preuniversity students after structured teaching program.

H2: There will be a significant association between the knowledge and selected demographic variables among the students.

Methodology:-

Research methodology refers to control investigations of the ways of retaining, organizing and analyzing data. Methodological studies address the development, validation and evaluation of research tools and techniques. In this chapter, efforts are made to present the cruxes of the present research population, sample, data collecting tool, content validity, pilot study, procedure of data collection, ethical consideration and plan for data analysis.

Research Approach

Research approach indicates the procedure for conducting the study. The research approach adopted for this study is evaluative research approach. Evaluative research approach helps to explain the effect of the independent variable on the dependent variables. For the present study evaluative approach was considered to be the most suitable.

Evaluative approach is applied form of research that deals with question how well program is meeting objective. Its goal is to assess or evaluates the success of a program. In order to achieve the objectives of the study, to assess the level of knowledge regarding basic life support among 1 st year GNM nursing students.

Research Design

The research design refers to the over- all plan for obtaining answers to the research questions and for testing the research hypothesis. Polit and Hungler stated that the research design incorporates the most methodological decisions that a researcher makes in conducting a research study. The design of a study comprises of the following aspects:

The methods of data collection and ethical considerations. The time, place and source of data.

The method of data analysis.

To achieve the aims and objectives of the study a quasi experimental study design one group pre-test and post-test was used without comparing the control group. Here in this study only one group is observed before and after the independent variable is introduced to “A study to assess the knowledge about basic life support among 1st year GNM students at Smt Nagarathnamma school of nursing.”

Population

Population refers to the entire set of individuals or objects in which the researcher is interested in the study. Population in the present study included all the 1st year GNM students (2022-2023) at Smt Nagarathnamma school of Nursing in Bengaluru.

Sample and Sampling Technique

Complete enumeration of students studying in Smt Nagarathnamma College of nursing, Bengaluru was done and 50 students who met Inclusion and exclusion criteria were included in this study

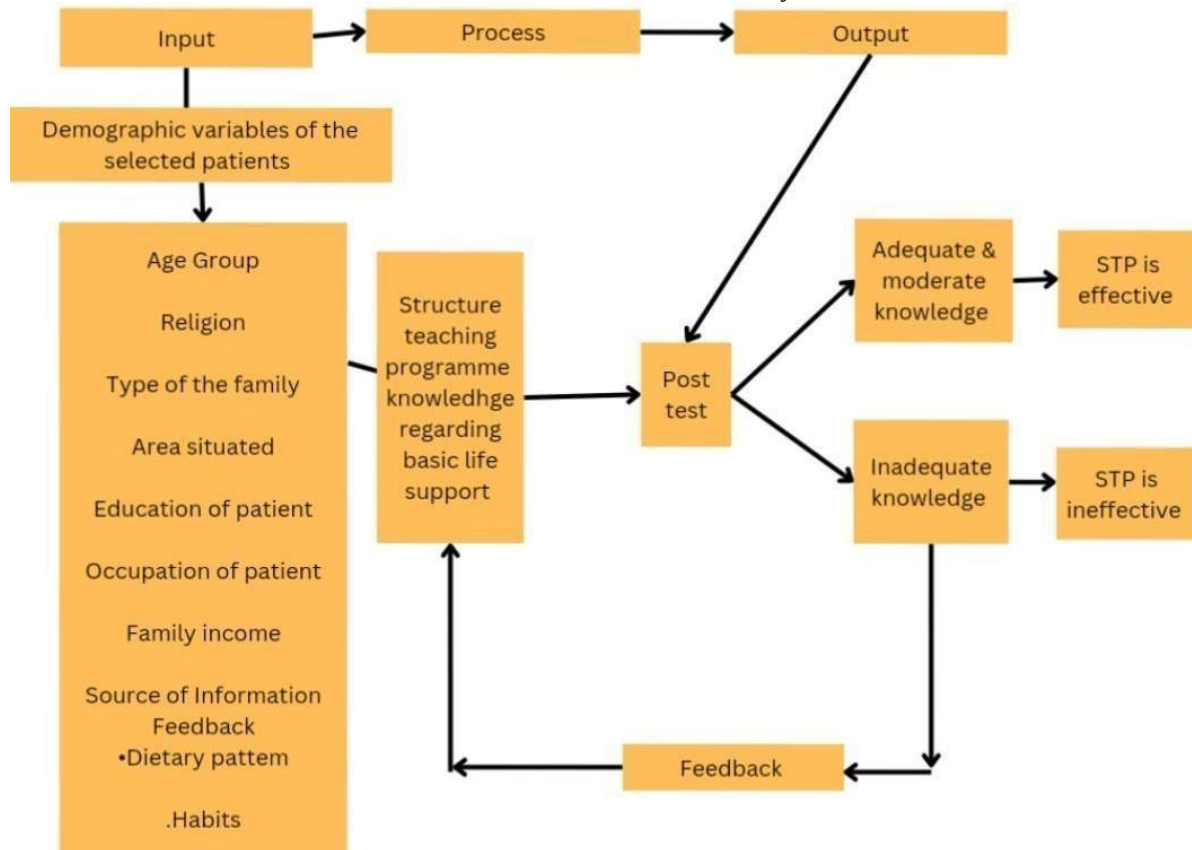


Fig:- Schematic Representation of Research Pla.

Result:-

The data was collected from 50 students from selected 1st year GNM students at Smt Nagarathnamma school of nursing, using a structured questionnaire before and after structured teaching program regarding basic life Support. The collected information was organized, tabulated, analyzed and interpreted using descriptive and inferential statistics. The collected information was organized and presented as follows:

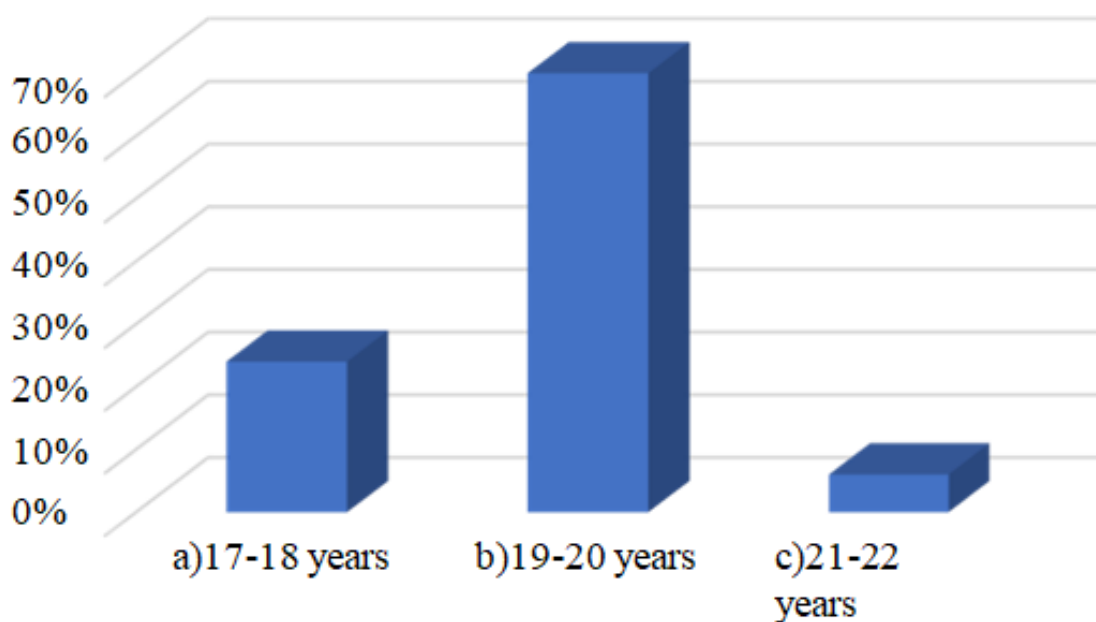
Part 1: Percentage distribution of demographic variables of students in selected preuniversity colleges.

Part 2: Data showing the pre-test knowledge of students regarding BLS. Part 3: Data showing the post test knowledge of students regarding BLS.

Part 4: Data on distribution of respondents by aspect wise knowledge score on Basic Life Support among students before and after structured teaching program. Part 5: Data showing the association between post test knowledge of students with selected demographic variables.

Table 1:- Data on percentage distribution of demographic variables of students in selected school of nursing n= 50.

SL No	Demographic variables	No	%
1	Age		
	a.17-18	12	24%
	b.19-20	35	70%
	c.20-21	3	6%
2	Sex		
	a. Male	22	44%
	b. Female	28	56%
3	Religion		
	a. Hindu	20	40%
	b. Muslim	6	12%
	c. Christian	10	20%
	d. Others	14	28%
4	Hereditary disease		
	a. Yes	8	16%
	b. No	42	84%

Graphical Presentation of Demographical Variables**Fig. 2:-** Percentage Distribution According to Age.

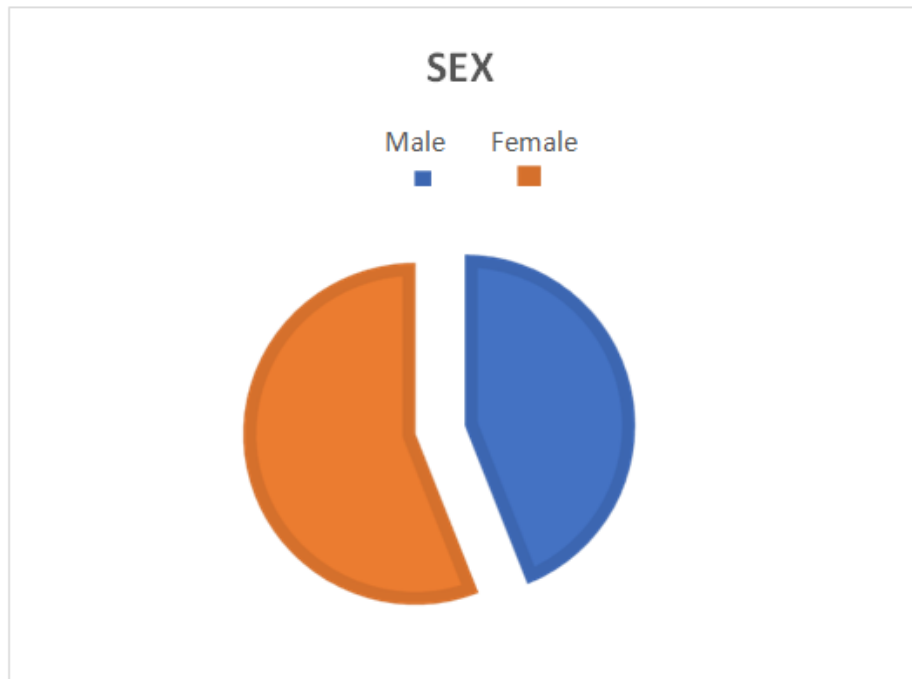


Fig. 3:- Percentage Distribution According to Sex.

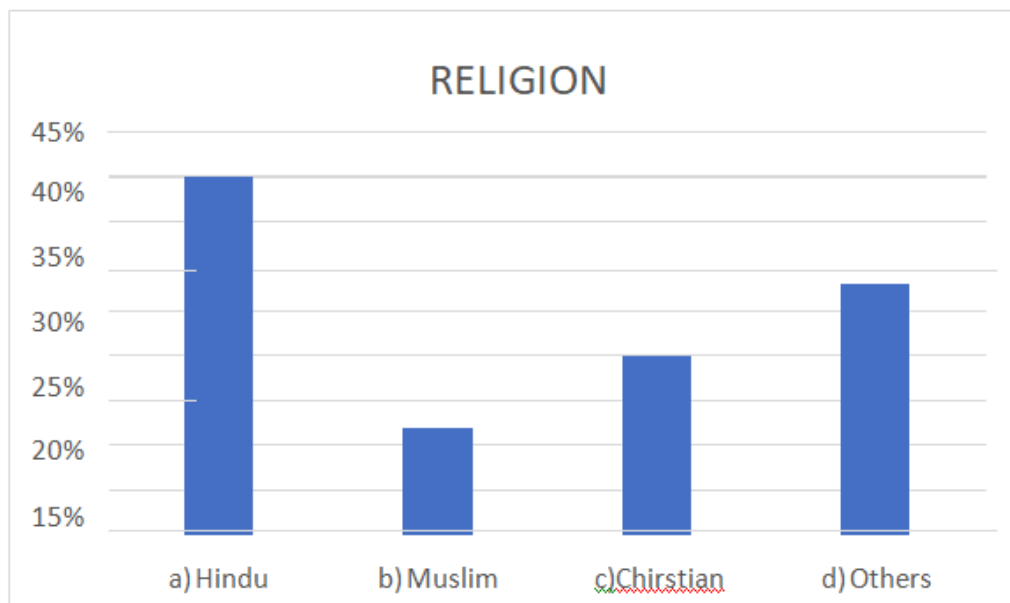


Fig 4:- Percentage Distribution According to Religion.

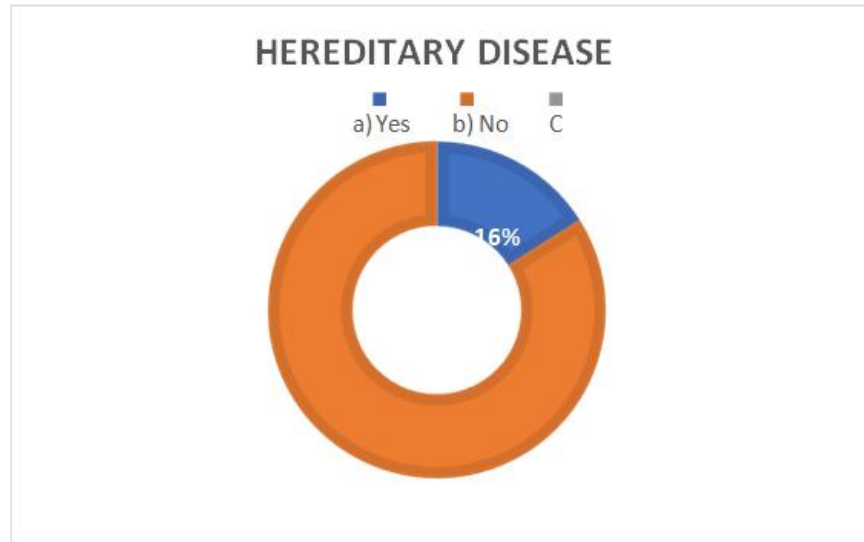


Fig 5:- Percentage Distribution According to Hereditary Cardiac Disease.

Table 2:- Data Shows the Pretest Knowledge of Students Regarding Basic Life Support. n=50.

Knowledge aspects	% of knowledge score	Number	%
Inadequate	<50%	12	24%
Moderate	51-75%	23	46%
Adequate	>75%	15	30%
Total		50	100%

Table 3:- Data Shows the Post Test Knowledge of Students Regarding Basic Life Support. n=50

Level of knowledge	% Knowledge Score	Number	%
Inadequate	<50%	1	2%
Moderate	51-75%	14	28%
Adequate	>75%	35	70%
Total		50	100%

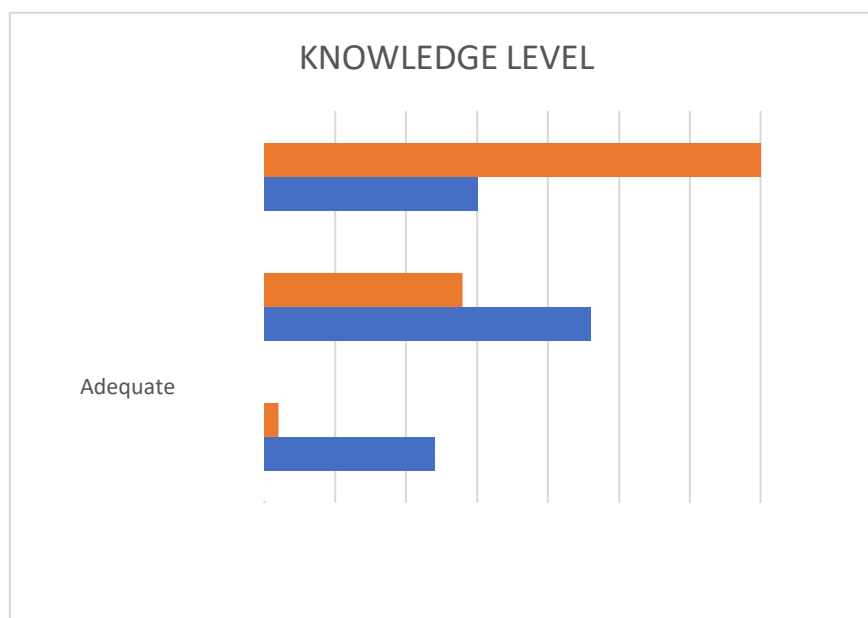


Fig 6:- Percentage Distribution on Pretest Knowledge and Post Test Knowledge.

Table 4:- Data on distribution of respondents by aspect wise knowledge score regarding basic life support among students before and after structured teaching program. n=50

Aspects of Knowledge	Max score	Pre test			Post test			Enhancement		
		Mean	SD	Mean %	Mean	SD	Mean %	Mean	SD	Mean %
General Information	9	7.5	0.67	83.3	8.7	0.27	96.66	1.2	0.65	13.33
Basic Life Support	21	11.3	3.37	53.8	16.3	2.81	77.72	5	2.71	23.80
Overall	30	18.8	5.83	62.7	25.0	4.30	83.4	6.2	6.1	20.7

Conclusion:-

This chapter gives a summary of the study salient features, implications and recommendations of nursing practice, nursing education and nursing research also gives addition to the limitation of the study.

Limitations

1. The students were from selected from colleges in Bangalore.
2. The students were selected by Non probability convenience sampling method.
3. The knowledge level was measured by a structured questionnaire, which was developed by the researcher.
4. The duration of the study was 2 days.

Recommendations:-

1. Similar studies can be conducted in hospital settings among staff nurses in ICU.
2. A similar study can be conducted on a larger sample.
3. A comparative study can be done between rural and urban students and the findings can be compared.
4. An experimental study can be conducted using control and experimental group.

Bibliography:-

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: wbsunders company, 1997.P. 1154-7.
3. Dr.k. Srinath Reddy India's silent killer reader's digest 2004 Sep; 113-7.
4. Palese A, Trenti G, Sbrojavacca R. Effectiveness of retraining after basic cardiopulmonary resuscitation courses

- Assist 2003 Apr-Jun; 22(2): 68-75. (Cited 2007 Oct 17). Available from URL: <http://www.pubmed.com>.
5. Parnell MM, Pearson J, Galletly DC, Larsen PD. knowledge of and attitudes towards resuscitation in New Zealand high-school students. *emerg med j*. 2006 Dec; 23 9120:899- 902. (Cited 2007 Sep 18) Available from URL <http://www.pubmed.com>.
 6. Price CS, Bell SF, Janes SE, Ardagh M, cardio-pulmonary resuscitation training knowledge and attitudes of newly-qualified doctors in New Zealand in 2003. *resuscitation*. 2006 Feb; 68(2): 295-9. *pub 2005 Decl*. (Cited 2007 Sep 19). Available from URL: <http://www.pubmed.com>.
 7. Larsen P, Pearson J, Galletly D. knowledge and attitudes towards cardiopulmonary resuscitation in the community. *NZ Med J*. 2004 May 7; 117(1193) U870. (Cited 2007 Sep 9) Available from URL: <http://www.pubmed.com>.
 8. Polit FB, Hungler P B, Text book Nursing Research Principles and methods 6 Edition Philadelphia: Lippincott company, 1999.
 9. Julia. B. George, "Nursing Theories the base for Professional Nursing practice" fifth edition upper saddleriver, New Jersey.