

Research Article

Effectiveness of Information Booklet on Knowledge regarding Basic Life Support among GNM Student Nurses in Selected College of Jammu

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A B S T R A C T

Background: Basic Life Support (BLS) is a level of medical care which is used for victims with life threatening illnesses or injuries until they can be given full medical care at a hospital. The techniques in BLS are mainly focused on airway maintenance, breathing and circulation. At least doctors, nursing and paramedical staff are expected to know about it as they are frequently facing the life threatening situations and the knowledge of BLS will definitely be useful.

Methods: Quantitative research approach was used with one group pre-test post-test design. The study takes place at Rajiv Gandhi College of nursing and Kawa Institute of Paramedical Sciences. 50 students of GNM were selected by simple random sampling. Self-structured questionnaire was used for data collection.

Results: The Information booklet was found effective in pre-test 24% of the study subjects were having inadequate knowledge, 76% subjects were having moderate knowledge and 0% subjects have adequate knowledge regarding basic life support in post-test 0% of the study subjects were having inadequate knowledge, 0% of the subjects were having moderate knowledge and 100% of the subjects were having adequate knowledge regarding basic life support after information booklet.

Conclusion: The findings of the study concluded that the information booklet on knowledge regarding basic life support was effective in improving the knowledge level among GNM student nurses of selected college Jammu.

Keywords: Effectiveness, Information Booklet, Diarrhea, Basic Life Support, GNM Student Nurses

Introduction

Once life begins instincts begin to work and also to preserve it. For life by itself strives to live and not to die and that is the normal natural process called life. Meanwhile, there are many challenges too but instincts again seek and find ways and means of preserving that precious little life.¹

In a normal and healthy individual life processes can be achieved by the physiological and physical processes on their own. But there are certain moments like accidents which needs on the spot admission or at least the quickest possible attention to pull the victim out of the trauma or crisis. The occurrence of such an emergency is obviously unpredictable. Most of the time the emergencies would be airway obstruction, hypoventilation, apnea, blood loss, cardiac arrest resulting from accident, heart attack or other medical causes. Hence to save the precious life measures are to be taken immediately at the shortest time elapsed possible. Hence, basic life support is the most appropriate life saving emergency technique known so far.² The most important aspects in basic life support are ABC, is nothing but airway, breathing and circulation. Failure of the circulation for 3-4 minutes will lead to irreversible cerebral damage. Basic life support is the fundamental technique for the emergency treatment of cardiac arrest. For every minute that passes after a patient goes into cardiac arrest, their chances of survival decreases by 7-10% until a defibrillator arrives. A patient who has suffered sudden cardiac arrest must receive effective treatment rapidly when delivered promptly, resuscitation can save the lives of many patients in cardiac arrest. Basic life support acts to slow down the deterioration of the brain and heart until defibrillation or advanced life support can be provided. Prompt recognition of cardiopulmonary arrest and prompt investigation of basic life support can double the patients' chance of survival.³

Basic life support training is gaining more importance in nursing education. All nurses with a responsibility for patients must be offered regular training and updates in resuscitation as registered nurses. Basic life support training is highly essential for all health care staff members especially to those who are working in emergency and critical care units.⁴ Emergency nursing is a specialty within the field of professional nursing focusing on the care of patients with medical emergencies that is those who require prompt medical attention to avoid long term disability or death.⁵

Emergency nursing is demanding job and can be unpredictable. Emergency nurses need to have basic knowledge of most specialty areas to be able to work under pressure, communicate effectively with many types of patients, collaborate with a variety of health care providers and prioritize the tasks that must be performed.⁶

Need for the Study

There is no reliable national statistics on cardiopulmonary

resuscitation because no single agency collects information about how many people get cardiopulmonary resuscitation, how many people do not get it, who needs it, how many people are trained etc. Many studies have examined basic life support in specific communities while they show varying rates of success. All are consistent in showing benefits from early cardiopulmonary resuscitation.⁷

According to world health organization cardio vascular diseases such as heart diseases, stroke are the leading cause of death globally killing more than 17 million in 2005. Each year 3.8 million men and 3.4 million women worldwide die from coronary heart diseases. Since 1990 more have died from coronary heart diseases than from any other causes.⁸

According to statistics nearly 7.5 lakh people die of sudden cardiac arrest every year in India. World heart federation says that less than 1% Indians presently knows how to carry out CPR.⁴ In a study conducted to assess the knowledge and skill regarding basic life support among nurses and nursing students in Finland, results showed that the best predictors for good response, assessment and resuscitation skills went to those who were nursing student who have studied basic life support sometime during the previous six months.⁹

In a survey conducted in Haiman province regarding the knowledge of basic life support and cardiopulmonary resuscitation was found that the knowledge level was very low among nurses.¹⁰

Poor knowledge and skill retention following cardiopulmonary resuscitation and basic life support for the second time achieved better results than those undertaking practice and testing for the first time. These studies figure out the need of repeated assessment and teaching to ensure adequate knowledge and skill gained among the students. The repeated training provides students with sound basic knowledge and adequate practical skills in first aid and basic life support.⁴

In a study the nursing students performing basic life support for the second time achieved better results than those undertaking practice and testing for first time.¹¹

The 2010 AHA (American Heart Association) guidelines for CPR and ECC (Emergency Cardiovascular Care Committee) once again emphasize the need for high CPR including: A compression rate of at least 100/min (this is a chain from approximately 100/ min) a compression depth of at least 2 inches (5 cms) in adults and a compression depth of at least one third of the anterior-posterior diameter of the chest in infants and children. Allowing complete chest recoil, minimizing interruptions in compression and avoiding excessive ventilation continue to be important components of high quality CPR.¹¹

Basic life support is a fundamental technique for the emergency treatment of cardiac arrest. The standardized

training of CPR has been emphasized more than ever. Common people in developed countries have received popular education of CPR Program of basic life support training.

Hence, we the investigators felt the need and desire to carry out a study on assessing the effectiveness of information booklet on progressive improvement in knowledge and skills of administering basic life support among student nurses in selected colleges of Jammu.

Objectives

- To assess the pre-test knowledge score regarding basic life support among student nurses
- To assess the effectiveness of information booklet regarding basic life support
- To improve the knowledge of students on recent modalities of basic life support
- To evaluate the post-test knowledge score of the subjects regarding basic life support
- To explore the association between the pre-test knowledge score and post-test knowledge score

Hypothesis

- **H1:** The mean post test score of the subjects regarding knowledge of basic life support will be significantly higher than the mean pre-test scores of level of significance 0.05
- **H2:** There will be significant association between pre-test knowledge with selected demographic variables

Operational Definitions

Assess: In this study it refers to the measures taken to find out the knowledge and skill of nursing students regarding basic life support.

Effectiveness: It refers to the extent to which the information booklet enhances the knowledge and skill of the students in CPR.

Knowledge: It refers to the awareness or information gained by the nursing students regarding basic life support.

Information Booklet: A small book with paper covers typically giving information on a particular subject.

Basic Life Support: It is the provision of treatment designed to maintain adequate circulation and ventilation to the patient in cardiac arrest, without the use of drugs or special equipments.

Conceptual Framework

The study is based on modified pendens Health promotion model (1984). The study seeks to increase on individual level of well-being. The model focus on aspects to individual cognitive perceptual factors, modifying factors and

participation on health promoting behaviors. The model also identified factors that influence health promotion activities.

Methodology

Research methodology is a way to systematically solve the research problem. Research methods are the techniques used by the researcher to structure a study, gather & analyze the information relevant to the research questions.

Research Approach

In view of the nature of the problem under study and to accomplish the objectives of the study, quantitative approach was found to be appropriate.

Research Design

Quasiexperimental one group Pre-test Post-test design.

Sample Size and Technique

50 GNM students of 2nd year of Rajiv Gandhi College of nursing and Kawa institute of paramedical sciences were selected by Randomizedsampling technique.

Method of Data Collection and Tool

Self-structured Questionnaire was used.

Data Analysis

The data was analyzed by descriptive and inferential statistics.

Results

Description of Demographic Variables of Study Subjects

Table 1. Frequency and Percentage Distribution of Study Subjects according to their Demographic Variables

(N=50)

Demographic variables	Category	Frequency	Percentage
Age	18-19	6	12%
	20-21	16	32%
	22-23	13	26%
	24-25	08	16%
	26-27	07	14%
Gender	Male	1	2%
	Female	49	98%
Marital status	Single	50	100%
	Married	0	0%
Type of family	Nuclear	35	70%
	Joint	15	30%

Exposure to any occupational programme	Yes	50	100%
	No	0	0%
Source of information	Workshop	36	72%
	Seminar	3	6%
	Refreshment course	11	22%

The data presented in Table 3 revealed that significant association was found between age, gender, place of living, type of family, source of information with their pre-test knowledge scores.

While as no association was found between educational status, marital status, exposure to any educational program of study subjects with their pre-test knowledge scores ($p \geq 0.05$).

Table 2. Analysis and Interpretation of Knowledge of Study Subjects Regarding Basic Life Support

	Pre-test score	Post-test score
Mean	11.88	28.98
Median	12	29
Mode	32	44
Std. Deviation	2.434	1.078
Range	13	16
Minimum	10	16
Maximum	22	36

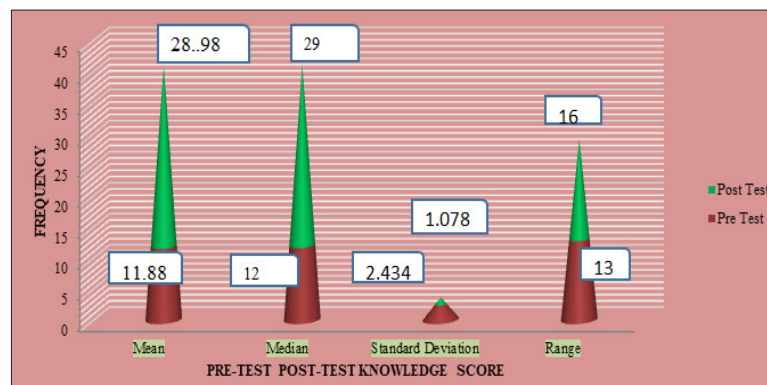


Figure 1. Pre-Test Post-Test Knowledge Score

Table 3. Comparison of Pre-and Post-test Mean %Age Knowledge Scores of Study Subjects Regarding Basic Life Support

Group	Mean score	Mean score (%)	Standard deviation	Mean difference	P value
Pre-test score	11.88	23.76	2.434	18	≤ 0.001
Post-test score	29.88	59.76	1.078		

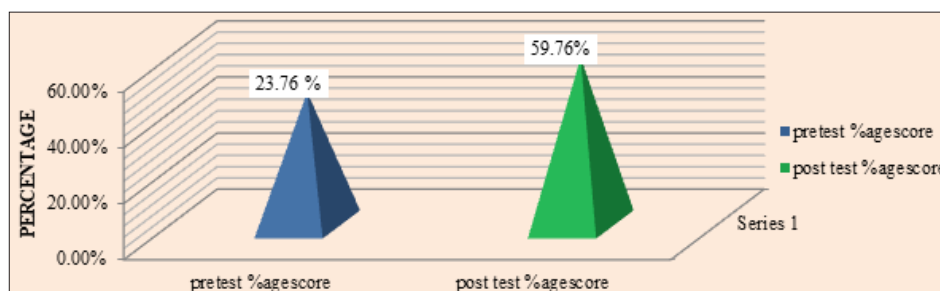


Figure 2. Pre-Test Post-Test Mean %Age Knowledge Score

Table 4. Association between Pre-test Knowledge Scores of Study Subjects with Selected Demographic Variables

(N=50)

Variables	Opts	Good	Average	Poor	Chi test	P value	df	Table value	Results
Age in years	18-19 years		5	1	3.112	0.539	4	9.488	Not sig
	20-21 years		13	3					
	22-23 years		11	2					
	24- 25 years		5	3					
	26-27 years		4	3					
Gender	Male		0	1	3.231	0.072	1	3.841	Not sig
	Female		38	11					
Educational status	General Nursing		38	12	NA				
	B.Sc. Nursing		0	0					
	M.Sc. Nursing		0	0					
Marital status	Single		38	12	NA				
	Married		0	0					
Place of living	Rural		15	6	0.415	0.520	1	3.841	Not sig
	Urban		23	6					
Type of family	Nuclear family		27	8	0.501	0.778	2	5.991	Not sig
	Joint family		11	4					
Exposure to any educational programme	Yes		38	12	NA				
	No		0	0					
Source of information	Workshop		25	11	3.136	0.208	2	5.991	Not sig
	Seminar		3	0					
	Refreshment		10	1					

Discussion

The present study was aimed to assess the effectiveness of information booklet on knowledge regarding basic life support among the student nurses of GNM in selected colleges Jammu. In order to achieve the objectives of the study, one group pre and post test design with quasi-experimental research design was adopted. Simple random sampling technique was used to select the sample. The data was collected from 50 subjects through structured knowledge questionnaire and structured practice case scenarios on knowledge regarding basic life support among GNM nursing students.

Conclusion

The findings of the study concluded that the information booklet was effective in improving knowledge regarding basic life support among GNM student nurses of selected colleges of Jammu.

Recommendations

On the basis of the findings of present study the following recommendations have been made:

- Studies may be conducted to evaluate the effectiveness of the structured teaching programme regarding basic life support among student nurses
- A similar study may be repeated on repeated on a large sample covering more student nurses
- A similar study can be recommended by using different methods of imparting information

Conflict of Interest: None

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