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A QUASI EXPERIMENTAL STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME AMONG NURSING STUDENTS REGARDING ADVANCED CARDIAC LIFE SUPPORT (ACLS) IN SELECTED COLLEGES OF NURSING, MOGA, PUNJAB

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ABSTRACT

The present study was conducted to assess the effectiveness of structured teaching programme regarding Advanced Cardiac Life Support among nursing students in -Dr. Shyam Lal Thapar College of Nursing "The research project was undertaken by Kiran bala in partial fulfilment of the requirement for the degree of Master of Science in Nursing from University school of nursing, Baba Farid University of Health Sciences, Faridkot, Punjab. From the findings of study the following conclusions were drawn that the knowledge of the students regarding Advanced Cardiac Life Support was average before imparting the structured teaching programme but knowledge was good and excellent after imparting structured teaching programme in experimental group. The post test mean knowledge score of students of experimental group was found significantly higher than post test mean knowledge score of control group at $p < 0.05$ level. This indicates that structured teaching programme was effective. Statistically, there was non-significant effect of Age, Habitat, Place of clinical exposure, Area of clinical exposure, Duration of exposure to ACLS, Source of information on student's knowledge regarding Advanced Cardiac Life Support: The following conclusions were drawn based on the findings of the study i.e. in control group mean pre test knowledge score was 20.90 and in experimental group mean pre test Knowledge score was 21.60. In control group mean post test knowledge score was 22.46 and in experimental group mean post test knowledge score was 32.53. The difference between the post test mean knowledge score of students of experimental group regarding Advanced Cardiac Life Support was found significantly higher than post test mean **Key words:** Knowledge, regarding Advanced Cardiac Life Support

INTRODUCTION

Heart is the muscular pump that provides the necessary force to circulate the blood to all the tissues in the body. Its function is vital to survive the tissues need continuous supply of oxygen and nutrients and to remove metabolic waste products. Deprived of these necessities, cells soon undergo reversible changes that lead to death. Blood is the transport medium, the heart is the organ that keeps the blood moving through the vessels.1

NEED FOR THE STUDY

Cardio pulmonary resuscitation and advanced cardiac Life Support training is mandatory for nurses and is important as nurses often first discover the victims of cardiac arrest in hospital. Available literature suggests a 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 advanced cardiac Life Support 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

Purpose of the study:

The purpose of the study was to assess the effectiveness of structured teaching programme by improving the knowledge of the students and imparting factual information through structured teaching programme.

Objectives:

1. To assess the pre-test knowledge regarding Advanced Cardiac Life Support among nursing students in control and experimental group.
2. To assess the post-test knowledge regarding Advanced Cardiac Life Support among nursing students in control and experimental group.
3. To compare the pre and post test knowledge regarding Advanced Cardiac Life Support among nursing students in control and experimental group.
4. To find out the relationship between the pre and post test knowledge regarding Advanced Cardiac Life Support among nursing students in control and experimental group with selected variables, i.e. Age, (in year) Habitat, Clinical Posting, Area Of Clinical Exposure, Duration Of Clinical Exposure and Source of Information.
5. To prepare the guidelines on Advanced Cardiac Life Support among nursing students

Operational definitions:

EFFECTIVENESS: It refers to gain in knowledge by nursing students regarding Advanced Cardiac Life Support as determined by significant improvement in post test scores measured by structured knowledge questionnaire.

STRUCTURED TEACHING PROGRAMME: It refers to the planned verbal and written instructions consisting of objectives, visual aids designed to provide information regarding Advanced Cardiac Life Support.

NURSING STUDENTS: B.sc Nursing 4th year students who are undergoing 4th year training in bachelor degree of nursing.

ADVANCED CARDIAC LIFE SUPPORT (ACLS): It refers to a form of management to the cardiac arrest victims through the use of techniques such as endo Tracheal intubations, administration of drugs, cardiac monitoring, defibrillation and Electro cardiogram interpretation.

Research hypothesis:29

The post test mean knowledge score of nursing students in experimental group regarding Advanced Cardiac Life Support will be significantly higher than the post test mean knowledge score of nursing students in control group as measured by self structure questionnaire at $p < 0.05$ level.

Delimitations:

1. The study is delimited to B.sc Nursing 4 th year students only in selected nursing Colleges.
2. Study is delimited to Advanced Cardiac Life Support strategies only

METHODOLOGY**Research approach**

The research approach for the study was an quasi experimental approach. This approach involves manipulation but lacks at least one of the other two properties of true experimental i.e. randomization or control. The present study lacks randomization .Attempt has been made to assess the effectiveness of structured teaching programme regarding Advanced Cardiac Life Support among nursing students.

Research Design

A quasi experimental design was prepared to develop a plan that would guide the collection and analysis of data. Research design is an overall plan for collecting and analyzing data, including specification for enhancing the internal and external validity of the study. **Polit and Hungler (1984)**

(E)

O1

X

O2

(C)

O1

O2

➤ (E)- Experimental Group

➤ (C)- Control Group

➤ (O1) - Pre test

➤ (X) – Structured teaching programme

➤ (O2) – Post test

The independent variables in this study were: age (in year), habitat, place of clinical exposure, area of clinical exposure to ACLS, duration of exposure, source of information and structured teaching programme regarding Advanced Cardiac Life Support. The dependent variable was knowledge regarding Advanced Cardiac Life Support among Nursing students.

Selection and description of Setting:

The present study was conducted at selected college's i.e. experimental group taken from Rajiv Hospital Moga . Total student strength of the college is 600. The total students in B.Sc 4th year were 50. The college runs ANM GNM, Post Basic B.Sc Nursing, Basic B.Sc Nursing, and M.Sc Nursing Programs. The control group was taken from Dr. Shyam Lal Thapar college of Nursing Moga and Babe ke College of Nursing Moga Total students strength of college is 450. Total students in B.Sc 4th year were 40. The college runs GNM, Post Basic B.Sc Nursing, and Basic B.Sc Nursing. Both the colleges are recognized under PNRC and INC, using the same syllabus. The distances between the two colleges are Km. Investigator selected two colleges to prevent contamination

of tool. The reason for selecting these colleges was investigator's convenience and Expected cooperation from authorities in getting permission for conducting the study. The Permission was sought for students in B.Sc 4th years.

Target Population:

The target populations of this study were nursing students studying in B.Sc nursing 4th year of selected colleges. The target population of the study consisted of nursing students from Dr. Shyam Lal Thapar college of Nursing Moga

Sample and Sampling Technique:

Nursing students who were studying in B.Sc nursing 4th year of selected colleges were the constituted sample. The investigator adopted purposive sampling technique which was used to select the sample and 60 students were taken for the study i.e. 30 in Experimental and 30 in control group.

Total Sample (N=60)

Experimental Group

Control Group

(n = 30)

(n = 30)

Inclusion and Exclusion Criteria:**Inclusion Criteria**

- Students who were studying B.Sc nursing Dr. Shyam Lal Thapar college of Nursing Moga
- Students who were willing to participate in the study.43

Exclusion Criteria:

- A) B.Sc nursing 1st, 2nd, 3rd year students.
- B) B.Sc 4th year students who are absent on that day

Development and description of tool:

As the study was to assess the effectiveness of structured teaching programme regarding Advanced Cardiac Life Support among nursing students in selected college Ibn Dr. Shyam Lal Thapar college of Nursing Moga . Therefore, a structured multiple choice questionnaire on Advanced Cardiac Life Support was prepared to assess the knowledge of nursing students. The review of the literature, expert's opinion and investigator's own experience provided the basis for construction of the tool.

Description of tool:

The tool consisted of following three parts

Part1:- Demographic Data:

This part consists of 6 items for obtaining personal information about respondents i.e. age (in year), habitat, place of clinical exposure, area of clinical exposure to ACLS, duration of exposure, and source of information.

Part 2:- Structured Multiple Choice Questions:

This part consists of self structured multiple choice questionnaires regarding Advanced Cardiac Life Support to assess the effectiveness of structured teaching programme among nursing students. It consists of total 40 questions and 5 sub-areas. Each question has 4 options out of which one is the correct response. Each item has a score of one (1) mark for the correct answer and zero (0) mark for incorrect answer.

Criteria measure:

- Maximum Knowledge score = 40
- Minimum knowledge score = 0

Part 3: Structured Teaching Programme:

This part consists of structured teaching programme regarding Advanced Cardiac Life Support that consisted of the following contributory objectives:

- Introduction of ACLS
- Explain the Indication for ACLS
- Describe the mechanism of ACLS
- Discuss the complications during ACLS
- Explain the procedure of ACLS

Content Validity

Content validity was determined by expert's opinion on the relevant items. The tool was circulated to 17 experts from various specialties i.e. medical surgical nursing mental health nursing, community health nursing, obstetrical and gynecology nursing and child health nursing. The experts were requested to give their valuable suggestions. 1 variable was modified. In knowledge questionnaire 3 items were deleted and 2 items were modified. The modifications were done on the tool based on expert's suggestions. Final tool was restructured.

Reliability

Reliability of structured multiple choice question was computed by applying Split Half method and calculated by Karl Pearson's Coefficient of correlation & spearman's brown prophecy formula the reliability was found to be 0.85. Hence the tool was reliable.⁴⁵

Pilot study

Pilot study was conducted during the last week of September 2022 on 6 nursing students studying in selected college Dr. Shyam Lal Thapar college of Nursing Moga permission taken from the principals of nursing colleges. The control group was taken from Dr. Shyam Lal Thapar college of Nursing Moga and experimental group was taken from Govt. Nursing College Srinagar J&K. The distance between the two colleges was more than 50 km. this procedure was done to ensure the reliability of tool and feasibility of the tool. The sample consists of 6 subjects 3 in experimental and 3 in control group, pre-test of both experimental and control group was taken. The subjects in experimental group were given structured teaching on advanced cardiac life support. Then post test was taken third day from both the groups to assess the effectiveness of structured teaching programme. Time spent for structured teaching programme was 45 minutes.

Data Collection procedure

Permission – A formal written permission was obtained from the principals of selected colleges after discussing the purpose and objective of the study with them. Also the Nursing students were explained about the purpose of study and confidentiality was Assured to them. Verbal consent was taken from all the subjects for their participation of the study.

Procedure – The Data collection procedure of the study was carried out in the last week of September 2022. The total group sample consists of 60 subjects, 30 in experimental group and 30 in control group. The sample who were willing to participate and who the investigator's criteria was taken in the study. Purposive sampling technique was used for the selection of the sample. Matching of the samples was done by matching all the independent variables taken for the study. To prevent the contamination experimental group was taken from Dr. Shyam Lal Thapar college of Nursing Moga and control group was taken from Babe ke College of Nursing Moga . Pre test was taken from experimental and control group. The subjects in experimental group were then given to structure teaching on Advanced Cardiac Life Support with the help of lesson46 plan and audio-visual aids. Post-test was taken after sixth day from both the groups to assess the effectiveness of structured teaching programme. Time spent for structured teaching was 45 minutes

Steps for conducting structured Teaching

The following steps were taken: a) A good rapport was established with students of both the groups.

b) Information given to class teacher on day before teaching.

c) Forty five minutes were spent to teach the students of the experimental group with audio visual aids.

d) Queries of the students were answered.

Difficulties faced by the investigator

- The students were busy with their clinical area posting and were difficult to get them to fill the questionnaire twice.- Researcher found it difficult to get permission from the colleges.- Investigator Moga to the other end.

Ethical consideration

With the view of ethical consideration the researcher discussed the type and purpose of the study with the principals of both colleges i.e. Dr. Shyam Lal Thapar College of Nursing Moga and Babe ke College of Nursing. And written permission was obtained thereafter. The Nursing students were also explained about the purpose of the study and verbal consent was taken from them for their participation in study. They were explained about to refuse from participation in the study. The nursing students were assured that the information given by them will be kept confidential and will be purely used for research purpose.

Plan of data analysis:-

Analysis and interpretation of data was in accordance with the objective of the study. The data analysis was done by using descriptive and inferential statistics such as percentage, mean, mean percentage, standard deviation, 't' test and analysis of variance (ANOVA) etc

Summary:-

SECTION – I Demographic data

TABLE – 1

Frequency and Percentage Distribution of Sample Characteristics

SECTION – II

Objective 1: To assess the pre-test knowledge regarding Advanced Cardiac Life Support among nursing students in control and experimental group.

Demographic variables	n	%	Control		Experimental	
			n	%	df	x ²
N=60						
			30		30	
1. Age	2	6.66	6	20	2	2.32
21-23	23	7.66	20	66.6	13.33	
24above	5	16.66	4	13.33		
2. Habit						
Urban	16	53.33	19	63.33	1	0.617
Rural	14	46.66	11	36.66		
Place of clinical exposure						
Private hospital	16	53.33	8	26.66	2	4.952NS
Government Hospital	4	13.33	4	13.33		
Both	10	33.33	18	60		
Area of exposure to ACLS						
ICU	15	50	17	56.66	2	0.347NS
MICU	10	33.33	8	26.66		
HDU	5	16.66	5	16.66		
Duration of exposure						
5-10 times	3	10	5	16.55		

6-10 times	6	20	10	33.33	
11&above	20	70	15	50	
Source of information					
Curriculum teacher	25	83.33	15	50.2	8.382*
Health personnel's	5	16.66	12	40	
Mass media exposure	0	0	0	0	
Any other	0	0	3	10	
					Significant at p < 0.05 NS= Non Significant

TABLE-2

Pre test Mean Knowledge Score regarding Advanced Cardiac Life Support in Control and Experimental Group.

N=60

Knowledge Score				
Pre test				
Group	N	Mean	SDN	
Control	30	20.90	2.78	
Experimental	30	21.60	3.0	

Maximum Score = 40**Minimum Score = 0**

Table 2 and figure 3 reveals that pre test mean knowledge score of control group was 20.90 , whereas the pre test mean knowledge score of experimental group was 21.60.It showed that in both the groups majority of the nursing students had good knowledge score in their pre-test.

Maximum Score=40**Minimum Score=0****REFERENCES**

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