

‘A STUDY TO ASSESS THE EFFECTIVENESS OF A STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING CARDIOPULMONARY RESUSCITATION(CPR) AMONG ADOLESCENTS AT A SELECTED P.U COLLEGE OF BAGALKOT’

Ms. Ashwini C Sankannavar¹, Mr. Vishal², Ms. Kavya³, Ms. Renuka⁴,

Dr. Sureshgouda S Patil, Dr Utalbasha N Dhandargi⁶,

¹Lecturer, Department of Medical surgical nursing, BES Bagalkot College of Nursing, Bagalkot

^{2,3,4}, Student, BES Bagalkot College of Nursing, Bagalkot

⁵Principal, Department of Child Health Nursing, Shanti Institute of nursing sciences Bagalkot

⁶Principal, Department of Community Health Nursing, Bagalkot college of Nursing Bagalkot

ABSTRACT

Background for the study:

Cardiovascular diseases are the most commonest cause of death globally, responsible for about 30% of mortalities worldwide yearly, which means around 17.3 million deaths reported annually that may reach up to 23.3 million by 2030.(23) Saudi Arabia is one of the rapidly developing countries, facing and increasing the burden of non-communicable diseases – the annual proportional death rate due to cardiac diseases is 42% of all deaths related to non-communicable diseases. In medical literature, the medical term of cardiovascular diseases (CVDs) is broad and describes a range of diseases related to the heart and blood vessels. Each of these diseases has a distinct pathophysiology; some of which are caused by block in the blood vessels, bleeding in coronary heart diseases such as myocardial infarction, angina, or stroke, while some affect the heart muscle, such as congestive heart failure¹

Aims : The aim of the study is to assess the effectiveness of a structured teaching programme on knowledge regarding cardiopulmonary resuscitation (CPR) among adolescents at a selected PU college in Bagalkot.

Method: In this study, a one-group pre-test and post-test design was used. A simple random sampling technique was used to select 60 students and collect data through a survey on knowledge of CPR. After data collection, subjects underwent a training session and 8 days later a test was administered using the same questionnaire. The collected data were analyzed using descriptive and inferential statistics.

RESULTS: Student's CPR knowledge level showed that most of the sample had average CPR knowledge in the pre-test, only some of the sample had poor CPR knowledge, and all samples had poor CPR knowledge in the post-test. had insufficient knowledge about cardiopulmonary resuscitation. had good knowledge of CPR and had general knowledge. The student's attitude level towards CPR showed that in the test most of the sample did average, did not do well in CPR, while in the later test achieved good CPR performance. The researcher believed that the mean pre-test knowledge score was higher than the post-test mean score. In this study, it was also found that post-test knowledge research concluded that students have sufficient knowledge and The investigator structured teaching helped them improve their knowledge and attitudes about CPR. The effectiveness of the STP was tested with cognitive and behavioral tests and the results showed significance. Findings show that STP are effective in improving student's knowledge, regardless of their individual abilities. All subject's knowledge and behavior improved relative to their pre-test scores.

Interpretation and Conclusion: The findings of the study have certain important implications for the nursing profession such as in nursing practice, nursing education, nursing research, and nursing administrations.

Keywords: Assess, Effectiveness, Structured teaching program, Cardiopulmonary resuscitation among students of P.U college, knowledge, Socio-demographic variables.

INTRODUCTION:

A global analysis of CPR research found 17,917 scientific publications, involving 53,634 authors. Most studies focused on cardiac arrest(38.56%), followed by CPR(21.8%), life-support training and education(17.16%), ethics and decision-making(12.45%), treatment methods(4.77%), life-support techniques(3.72%). These findings show that CPR is an important can improve patient outcomes.

The Bagalkot region of Karnataka has a growing population with varying levels of access to emergency healthcare services. Delays in reaching medical facilities make early bystander CPR an essential intervention for improving patient outcomes. Introducing structured CPR training programs in the Bagalkot regional area can enhance community preparedness to respond effectively to cardiac emergencies. Such training equips health care professionals, students, teachers, police personnel and the general public with the knowledge and practical skills required to recognize cardiac arrest, activate emergency medical services and perform high quality CPR until professional medical assistance arrives.

PU students represent an important group for CPR education because they are capable of learning and performing basic life support skills effectively. Providing CPR knowledge and training at this stage helps develop confidence, preparedness and a sense of responsibility to respond during medical emergencies. However, studies have shown that many students have inadequate knowledge and limited practical skills regarding CPR due to the lack of STP in educational institutions. Assessing the level of CPR knowledge among PU students is essential to identify knowledge gaps and to develop appropriate educational interventions.

MATERIALS AND METHODS: The research used an experimental design. Simple random method was used to obtain 60 samples from students of Bagalkot Government Girls P.U College. A semistructured survey was used to analyze pre university students' knowledge of cardiopulmonary resuscitation and collect data. The collected data were analyzed using descriptive and inferential statistics.

SOURCE OF DATA: In the present study data was collected from students of P.U college.

RESEARCH APPROACH: This study is an experimental study that aims to obtain information about the knowledge of pre university students by asking direct questions to a sample group. While the aim of this study was to assess the effectiveness of STP on CPR interns of knowledge of college students in Bagalkot, an experiment was designed.

RESEARCH DESIGN: All of the plans created by the researcher to find answers to research questions or test research findings are called research design. The design was a research study aimed at evaluating data on college student's knowledge about CPR. The research design represents the population, sample size, variables, data collection tools and methods, and data analysis plans. The research used in this study is shown in the figure.

VARIABLES: **Dependent variable:** Evaluation of the knowledge of mothers with children under five years of age regarding vitamin A deficiency. **Independent variable:** preUniversity students' knowledge about cardiopulmonary resuscitation. **Demographic variables:** Sociodemographic variables include the sociodemographic characteristics of the students. Age and gender, Year of education and religion, family type and income, father education and mother education, father occupation and mother occupation, Previous CPR program etc. like.

SETTING OF STUDY: Configurations are events based on which data collection occurs. The study was conducted in a selective college in Bagalkot. The learning environment is selected according to the suitability of the student. Ethnicity: Target ethnic group- The ethnic group in this study consists of PU students of girl college of Bagalkot.

DATA COLLECTION TOOL: The sample of this study consisted of 60 PU students studying in First P.U Government College, Bagalkot. Sample and number of samples: This sample consists of the classes that constitute the population of the research. The sample size of this study is Bagalkot Government Girls P.U College students (n=60).

Sampling Technique: Sampling technique is the technique used by the researcher to select the sample of the study. The sample of this study consists of 60. P.U students in Bagalkot. In this study, random sampling technique was used for sample selection.

Data collection tools: Data collection tools are methods or tools that researchers use to observe or measure important variables in a research question. A STP was used to collect data in this study.

PROCEDURE FOR DATA COLLECTION:

Preliminary Permission: Permission is obtained from the President. B.E.S Bagalkot college of Nursing Bagalkot. Ethical approval was obtained from the Ethical Committee of B.E.S College Nursing Department, Bagalkot. Studies meeting the inclusion criteria were selected using a simple randomization technique. The researcher explained the purpose of the study to the participants and obtained informed consent from the subjects. The study was completed at the end of the planned period in order to explore and test the research topic. To understand the feasibility and effectiveness of the research design, the research was conducted at Government Girls PU College, Bagalkot, between 8 September 2024. Six students were assigned to use or self-administer a Questionnaire consisting of knowledge.

ETHICAL APPROVAL: Ethical clearance certificate was obtained and enclosed from the ethical committee of B.E.S Bagalkot college of nursing, Bagalkot.

STATISTICAL ANALYSIS:Data analysis is the organization and synthesis of research data and the use of collected data to test research hypotheses. Data were analyzed using descriptive and inferential Chisquare test is used to find the relationship between the knowledge of collegestudents and their choices different from the population.

RESULTS:This study shows that in comparing the total mean percentage of knowledge scoresat pretest and posttest, the mean knowledge is 7.150, SD $\pm$ 2.916. Therefore, this shows that the saturated teaching programme is effective in improving the knowledge of adolescents students.

DESCRIPTION OF SOCIO-DEMOGRAPHIC VARIABLES OF STUDENTS OF P.U COLLEGE

TABLE 1: Frequency and percentage distribution of adolescentsocio- demographic variables

S.No	Socio demographic factor	Category	Frequency	Percentage
01	Age	16	13	21.6
		17	41	68.3
		18	6	10
04	Religion	Hindu	53	88.3
		Muslim	7	11.6
05	Family type	Nuclear	41	68.3
		Joint	19	31.6
06	Family monthly Income	10000	26	43.3
		15000	15	25
		20000	11	18.3
		25000	8	13.3
07	Father's education	SSLC	36	60
		PUC	13	21.6
		DEGREE	11	18.3
08	Mother's education	PRIMARY	11	18.3
		HIGHSCHOOL	4	6.6
		ILLTERATE	11	18.3
		SSLC	23	38.3
		PUC	11	18.3
09	Father's occupation	FARMER	15	25
		LABOUR	20	33.3
		DRIVER	13	21.6
		TALIOR	6	10
		SHOPKEEPER	1	1.6
		WELEDING WORKER	1	1.6
10	Mother's occupation	HOUSEWIFE	31	51.6
		TALIOR	14	23.3
		LABOUR	15	25

TABLE .2: Assess the knowledge of P.U students about cardiopulmonary resuscitation

SCORE INTERPRETATION

Score	Knowledge regarding CPR	Percentage %
0-5	VERY POOR	0-19
6-10	POOR	20-39
11-15	MEDIUM	40-59
16-20	GOOD	60-79
21-24	VERY GOOD	80-100

Observation	Mean	Std. Deviation	Std. Error Mean	T	Df	P value
Post test	13.78	2.811	.376	18.99	59	.000*
Pretest	6.63	2.000		4		

DISCUSSION:

The pre-test was conducted among 60 adolescents to assess their baseline knowledge regarding cardiopulmonary resuscitation (CPR). A structured teaching programme was then administered, followed by a post-test to evaluate its effectiveness. The findings of the study revealed that the structured teaching programme significantly improved the knowledge of adolescents regarding CPR. A statistically significant improvement was observed in the post-test knowledge scores compared with the pre-test scores ($p < 0.001$). Another objective of the study was to determine the association between the pre-test knowledge scores of adolescents and selected demographic variables.

CONCLUSION:

The percentage of knowledge scores in the areas related to cardiopulmonary resuscitations showed that the mean post-test knowledge score (13.78, $\pm$ SD 2.81) was higher than the mean Pre-test knowledge score (6.63, SD $\pm$ 2.00), indicating that the STP was effective in improving the adolescent's knowledge regarding CPR.

RECOMMENDATIONS

The similar study can be conducted on a large scale with a large sample size to improve the generalizability of the findings.

Acknowledgement: None

Conflict of interest: There is no conflict of interest.

Source of funding: Self

Ethical consideration:

Ethical clearance certificate was obtained and enclosed from the ethical committee of B.E.S Bagalkot college of nursing, Bagalkot.

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