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A study to assess the effectiveness of structured teaching programme on knowledge regarding cardiac arrhythmia and its management among student nurses of Adesh University Bathinda, Punjab India

Sulaiman Umar

Abstract

Background: The word Cardiac Arrhythmia was derived from Latin word “Cardiac” means heart, “A” means disturbance, distortion, or without and “Rhythmia” means to measure continuous normal rhythm. WHO, estimates about 60% of the total worlds cardiac patient will be Indians.

Objectives

1. To assess the knowledge regarding Cardiac Arrhythmia and its management among experimental and control group by pre-test.
2. To assess and the effectiveness of STP on knowledge regarding Cardiac Arrhythmia and its management among experimental and control group by post-test.
3. To find out the association between the post-test scores level of knowledge regarding Cardiac Arrhythmia and its management among experimental group with their selected socio-demographic variables.

Methods: A quasi experimental one group pre-test and post-test design. Questionnaire was used to collect the data from 50 student nurses, Pre-test was conducted and after the STP was given to the same group and post-test was conducted after 7days of teaching.

Result: The results shows a significant difference, calculated $p < 0.002$. STP was highly effective

Conclusion: There was no association between knowledge scores with their selected socio-demographic variables.

Keywords: structured teaching programme, knowledge, cardiac arrhythmia

Introduction

The word Cardiac Arrhythmia was derived from Latin word “Cardiac” means heart, “A” means disturbance, distortion, or without and “Rhythmia” means to measure continuous normal rhythm. Cardiac Arrhythmia is also known as Heart Arrhythmia, Heart Rhythm Disorder or Rhythm Disorder, Cardiac Arrhythmia is an irregular heart rate, rhythm or both. Arrhythmias are often grouped according to where in the conduction system the abnormality occurs. The word Cardiac Arrhythmia is used when there is abnormality in the conductive system of the heart.

Major elements in the conductive system of the heart are sinus node, atrioventricular node and the autonomic nervous system that keeps the normal conduction of the heart. However, even the importance of heart is countless; a healthy heart can be result of few factors, which includes good genes, right meal, good physical activities etc. While nothing can be done with one gene, they are God gifted and beyond the control of human being. But, about others they can be easily controlled by normal life style and healthy diet. According to World Health Organization (WHO) nearly 17.5 million lives are lost due to the heart disease worldwide, and in the race, the Indians are again running fast as Americans and others. WHO, estimates about 60% of the total worlds cardiac patient will be Indians. However, Learning is the addition of new knowledge, teaching and learning is an integral part of nursing, Nurses have the responsibility to educate student nurses and patients related to various aspects and keep themselves updated. Various teaching strategies are used to increase knowledge, such as STP, video assisted teaching and self-education, but STP is very effective when is incorporated with audiovisual aids can help to improve student nurses knowledge on Cardiac Arrhythmia.

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The latest statistics of the world prevalence and incidence of Arrhythmias based on United State (US), United Kingdom (UK), Australian and Canadian. The prevalence or incidence statistics are calculated and explored against the populations of a particular country, these statistics does not take into account of any genetic, racial, cultural, social, environmental or other differences across the various countries. The statistics shows that India has 56,448,744 (extrapolated prevalence) against 1,065,070,607² populations, UK has 3,194,347 (extrapolated prevalence) against 60,270,708² populations, USA has 15,563,737 (extrapolated prevalence) against 293,655,405¹ populations, Canada has 1,722,917 (extrapolated prevalence) against 32,507,874² populations, and Australia has 1,055,396 (extrapolated prevalence) against 19,913,144² populations.⁵ The world has undergone a swift epidemiological transition towards non-communicable diseases, chronic diseases are now the leading cause of illness and death in the world, accounting for 68% of deaths in the world and almost disability. According to United Nation projections, by the middle of this century, the number of elderly people in the world will exceed the number of young people and this would be the first of its kind. Many forms of heart diseases, genetics, electrolyte imbalance, certain medications, excessive stress, and chronic smoking can interrupt the normal contract-relax cycle cause abnormally fast or unusually slow heart rates called arrhythmias. Approximately one third of people with arrhythmia do not exhibit any symptoms, preventing there timely diagnosis and treatment.¹ Some people can experience the symptoms of slow or fast heart beat, skipping beat, chest pain, dizziness, weakness, headache, shortness of breath and sweating, in some case the Arrhythmia can be life-threatening or dangerous and may lead to sudden cardiac death and stroke. Sudden Cardiac Death is the common cause of death worldwide. Cardiac Arrhythmia can be in form of tachycardia or bradycardia ^[123].

Materials and Methods

Methodology

Research Approach

A research approach tells the researcher what data to collect and how to analyze it. It is the overall plan chosen to carry out study. It also suggest possible conclusions to withdrawn from the data.

In this present study the research approach was an evaluative research approach and the researcher aimed at evaluating the effectiveness of structured teaching programme on knowledge regarding cardiac arrhythmia and its management among student nurses.

Research Design

A research design is the determination and statement of the general research of the general research approach or strategy adopted for the particular project. It is the heart of planning. If the designed adhere to the research objective, it will ensure that the client's needs will be served.

The research design used for the study was one group pre-test and post-test with experimental and control group, which is type of quasi experimental design. In this study the dependent variable is knowledge of student nurses measured before and after the intervention. The effects of the independent variables will be assessed by measuring the difference in the pre-test and post test score.

Table 1: Showing intervention on experimental group

Group	Pre test (Day 1)	Intervention (Day 1)	Post test (Day 7)
Experimental Group	O ₁	X	O ₂
Control Group	O ₁	-	O ₂

Key

O₁: Pre-test is measured by assessment of knowledge through structured knowledge questionnaire.

X: Administration of STP on Cardiac Arrhythmia.

O₂: Post-test is measured by using the same structured knowledge questionnaire.

A structured questionnaire was administered to student nurses on day 1 regarding knowledge of cardiac arrhythmia and its management following a STP and post test was conducted on day 7 to assess the effectiveness of STP.

Research Setting

Setting is the physical location and conditions where data collection takes place. The setting chosen for this study was College of Nursing, Adesh University Bathinda, Punjab India.

Population

The population is an aggregate of element showing some common set of criteria.

Target population: Refers to the elements, people, objects to which the investigator want to generalize the findings. In this study, the target population was Student Nurses.

Accessible population: Refers to the part of the target population that is available to the investigator. In the present study, the accessible population was fourth year B.Sc. Nursing Students.

Sampling and Sample Size

Sample is a small population selected for observation and analysis.

In this study B. Sc. Nursing 4th year Student were selected as sample to conduct the study.

Sampling Technique

Sampling is the process of selecting a portion of population to represent the entire population.

In this study non-probability convenient sampling technique was used for selecting the sample.

Sample Size

Sample size consisted of 50 Student Nurses from College of Nursing, Adesh University Bathinda, Punjab (N=50).

Criteria for selection of the sample

Inclusion criteria

1. B. Sc Nursing 4th year students who are studying in College of Nursing, Adesh University Bathinda, Punjab.

Exclusion criteria

1. The nursing students who are not willing to participate.
2. The nursing students who will not be present on the day of data collection.

Variables

Variables refers to the attributes or characteristics that can have more than one value, such as height, weight.

In the present study the research variables are –structured teaching programme and student nurses.

Independent Variable: Variables that are purposely manipulated or changed by the researcher. In this study independent variable was structured teaching programme.

Dependent Variable: Variables that change as the independent variable is manipulated by the researcher. In this study dependent variable was student nurses.

Development and Description of Tool

A structured knowledge questionnaire was developed by the researcher in order to obtain answer from the student nurses. The tool used for the research study was structured knowledge questionnaire which was prepared to assess the knowledge regarding Cardiac Arrhythmia and its management. The tool was formulated on the basis of the clinical experience of the researcher, review of literature, extensive library research and consultation of experts.

Description of Tool

Part 1: It consisted of demographic variables of student nurses included 10 items such as age, sex, marital status, religion, area of residence, educational status of the father and mother, occupational status of the father and mother, and family history of cardiovascular disorders.

Part 2: It consisted of structured knowledge questionnaire on knowledge regarding Cardiac Arrhythmia and its management. There were 20 knowledge questions, each question had multiple choice with 4 responses. Each correct answer was given a score of one (1) mark while wrong answer and unanswered score zero (0).

Scoring

The knowledge regarding Cardiac Arrhythmia and its management was measured in terms of knowledge scores. Each correct answer was given a score of one (1) and incorrect answer zero (0). The maximum score were 20. To interpret the level of knowledge scores were distributed as follows,

Scoring interpretation

Table 2: Scoring key for knowledge questionnaire

Q. No.	Maximum score	Minimum score
1-20	20	0

Table 3: Level knowledge score

Level of knowledge	Score	Percentage
Adequate	15-20	75-100%
Moderate	10-14	50-70%
Inadequate	0-9	0-49%

Part 3: It consisted of structured teaching programme related to knowledge of Cardiac Arrhythmia and its management. Teaching plan was a guide for the teacher because it helps to cover the topic comprehensively with proper sequence of points and without anything.

The steps to prepare the teaching plan were:

1. Review of literature
2. Framing the outline of the content
3. Preparation and organization of the content
4. Selection of audiovisual aids
5. Preparation of final draft

Plan for Data Collection Procedure

Data collection was conducted in the month of February 2018. The researcher introduced himself and explain the purpose of the study to the Principal and student nurses, permission was obtained from the Principal College of Nursing, Adesh University, Bthinda. Pre-test was conducted to assess the existing knowledge of student nurses regarding Cardiac Arrhythmia and its management. Pot-test was followed by administration of STP using black board, power point presentation and charts on the same day. The duration of the session was one hour. After 7days a post-test was conducted by using the same questionnaire to assess the STP. Data was tabulated and analyzed with the help of descriptive and inferential statistics.

Method of data analysis and presentation

Analysis is a systematic organization and synthesizing of research data and testing of research hypothesis using this data. It was decided to analyzed the data both descriptive and inferential statistics on the basis of objectives and hypothesis.

The collected data was carefully recorded, analyzed, summarized and tabulated through the following techniques:

Descriptive analysis

1. Frequency and percentage analysis were used to describe the demographic data of student nurses.
2. Mean and standard deviation was used to assess the knowledge regarding Cardiac Arrhythmia and its management among student nurses.

Inferential statistics

1. The ANOVA test was carried out to assess the statistically significant and to compare the pre and post-test knowledge score on Cardiac Arrhythmia and its management among experimental and control group.
2. The ANOVA was used to determine the association between post-test knowledge score on Cardiac Arrhythmia and its management among experimental and control group.

Summary

A quasi experimental pre-test post-test design with an evaluative approach was adopted to assess the effectiveness of STP on knowledge regarding Cardiac Arrhythmia and its management among student nurses. Pilot was conducted to find out the feasibility of the study. Validity and reliability of structured knowledge questionnaire and STP was tested. Structured knowledge questionnaire was used to assess the knowledge regarding Cardiac Arrhythmia and its management. Data was collected from the sample after obtaining the permission from the concerned authorities.

Results & Discussion

Data Analysis and Interpretation of Result

This chapter deal with analysis and interpretation of the data gather to assess the effectiveness of structured teaching

programme on knowledge regarding Cardiac Arrhythmia and its management among nursing students of Adesh University Bathinda, Punjab India.

Organization and presentation of the data

The collected data were edited, tabulated, analyzed, interpreted and findings obtained were presented in the form of tables and figures, which were presented under the following sections.

Section 1: Frequency percentage distribution of Socio-demographic data of the student nurses.

Section 2: Findings related to knowledge of cardiac

arrhythmia and its management among student nurses in pre-test and its comparison among the experimental and control group.

Section 3: Findings related to effectiveness of structured teaching programme on knowledge regarding cardiac arrhythmia and its management among student nurses in post-test and its comparison among the experimental and control group.

Section 4: Findings related to association of knowledge regarding cardiac arrhythmia and its management among student nurses of experimental and control group in post-test with their socio-demographic variables.

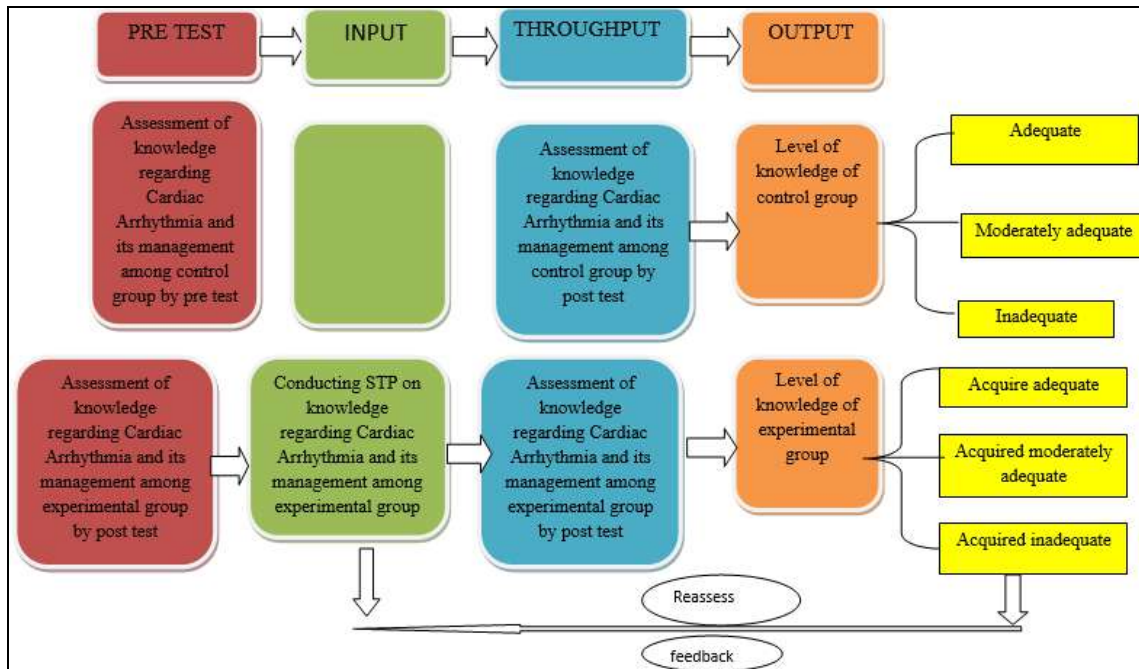


Fig 1: Schematic diagram of the conceptual frame work of general system theory by Ludwig Von Bertalanffy's (1986)

Table 4: Distribution of respondents according to Socio-Demographic variables N=50

	Experimental		Control	
	F	Percentage (%)	F	Percentage (%)
Age				
20-22yrs	20	80	21	84
23-25yrs	5	20	4	16
Sex				
Male	1	4	1	4
Female	24	96	24	96
Marital status				
Unmarried	25	100	25	100
Married	0	0	0	0
Religion				
Hindu	4	16	1	4
Sikh	21	84	23	92
Others	0	0	1	4
Area of Residence				
Rural	15	60	22	88
Urban	10	40	3	12
Education of the father				
Upto matric	15	60	13	52
Above matric	10	40	12	48
Education of the mother				
Upto matric	20	80	13	52
Above matric	5	20	12	48
Occupation of the father				
Employee	8	32	8	32
Business	17	68	17	68
Occupation of the mother				

Employee	3	12	3	12
House wife	22	88	22	88
Family history of cardiovascular disorders				
Yes	6	24	7	28
No	19	76	18	72

Age: It can be seen from the table above, the age group 20-22years were 20(80%) in experimental group and 24(84%) in control group. Similarly the age group 23-25years were 5(20%) in experimental group and 4(16%) in control group; indicating majority of the respondent age is 20-22years.

Sex: It can be seen from the table above that 1(4%) of the sample were male in experimental group and 1(4%) of the sample were male in control group. Similarly 24(96%) of the sample were females in experimental group and 24(96%) of the sample were females in control group; indicating that nursing profession is dominated by females.

Marital Status: It can be seen from the table above, that 25(100%) of the samples were unmarried in experimental group and 25(100%) of the samples were unmarried in control group. Similarly 0(0%) of the sample were married in experimental group and 0(0%) of the sample were married in control group; indicating the student nurses are unmarried.

Religion: It can be seen from the table above, that 4(16%) of the samples belong to Hindu in experimental group and 1(4%) of the sample belong to Hindu in control group. Similarly 21(84%) of the samples belong to Sikh in experimental group and 23(92%) of the samples belong to Sikh in control group. Whereas 0(0%) of the sample belong to others in experimental group and 1(4%) of the sample belong to others in control group; indicating that majority of the student nurses belong to Sikhism.

Area of Residence: It can be seen from the table above, that 15(60%) of the samples were from rural in experimental group and 22(88%) of the samples were from rural in control group. Similarly 10(60%) of the samples were from urban in experimental group and 3(12%) of the samples were from urban in control group; indicating that majority of the student nurses are from rural.

Education of the father: It can be seen from the table above, that 15(60%) of the samples were upto matric in experimental group and 13(52%) of the samples were upto matric in control group. Similarly 10(60%) of the samples above matric in experimental group and 12(48%) of the samples were upto above in control group; indicating that majority of fathers had studied upto matric.

Education of the mother: It can be seen from the table above, that 20(80%) of the samples were upto matric in experimental group and 13(52%) of the samples were upto matric in control group. Similarly 5(20%) of the samples above matric in experimental group and 12(48%) of the samples were upto above in control group; indicating that majority of mothers had studied above matric.

Occupation of the father: It can be seen from the table above, that 8(32%) of the samples fathers occupation were employee in experimental group and 8(32%) of the samples fathers occupation were employee in control group. Similarly 17(68%) of the samples fathers occupation were business in experimental group and 17(68%) of the samples fathers occupation were business in control group; indicating that majority of the students fathers are engaged in business.

Occupation of the mother: It can be seen from the table above, that 3(12%) of the samples mothers occupation were employee in experimental group and 3(12%) of the samples mothers occupation were employee in control group. Similarly 22(88%) of the samples mothers occupation were house wife in experimental group and 22(88%) of the samples mothers occupation were house wife in control group; indicating that majority of the students mothers are house wife.

Family history of cardiovascular disorders: It can be seen from the table above, that 6(24%) of the samples had family history of cardiovascular disorders in experimental group and 7 (28%) of the samples had family history of cardiovascular disorders in control group. Similarly 19(76%) of the samples have no family history of cardiovascular disorders in experimental group and 18(72%) of the samples have no family history of cardiovascular disorders in control group; indicating that student nurses of control group had more family history of cardiovascular disorders

Section 2: Findings related to pre-test knowledge of cardiac arrhythmia and Oits management among student nurses in experimental and control group.

Table 5: Mean and S.D of pre -est knowledge of respondents regarding cardiac arrhythmia and its management. N=50

Knowledge	Experimental group		Control group		P Value
	Mean	SD	Mean	S.D	
Pre-test	11.1600	3.4117	11.2000	2.5331	0.645 ^{NS}

Pre-test: It can be seen from the table 5 that mean pre-test score of the experimental group was 11.1600 with SD of 3.4117. Whereas in the control group the mean pre-test score was 11.2000 with SD of 2.5331, r ANOVA shows that the p value of 0.645 which is not statistically significant among the experimental and control group.

Section 3: Findings related to effectiveness of STP on knowledge regarding Cardiac Arrhythmia and its management between experimental and control group.

Table 6: Frequency of Knowledge Scores of Respondents N=50

Knowledge scores (n=25)	Experimental Group.		Control Group.	
	Pre test	Post test	Pre test	Post test
Adequate knowledge (75-100%)	2 (8%)	21 (84%)	0 (0%)	2 (8%)
Moderate knowledge (50-70%)	6(28%)	2 (8%)	11 (44%)	8 (32%)
Inadequate knowledge (0-45%)	17 (68%)	2 (8%)	14 (56%)	15 (60%)

The table 6 shows that 2(8%) respondents had adequate knowledge, 6(28%) had moderate knowledge and 17(68%) had inadequate knowledge among experimental group during pre-test. 11(44%) respondents had moderate knowledge and 14(56%) had inadequate knowledge among control group during pre-test. Whereas 21(84%) respondents

had adequate knowledge, 2(8%) had moderate knowledge and 2(8%) had inadequate knowledge among experimental group during post-test. 2(8%) respondents had adequate knowledge 8(32%) had moderate knowledge and 15(60%) had inadequate among control group during post-test.

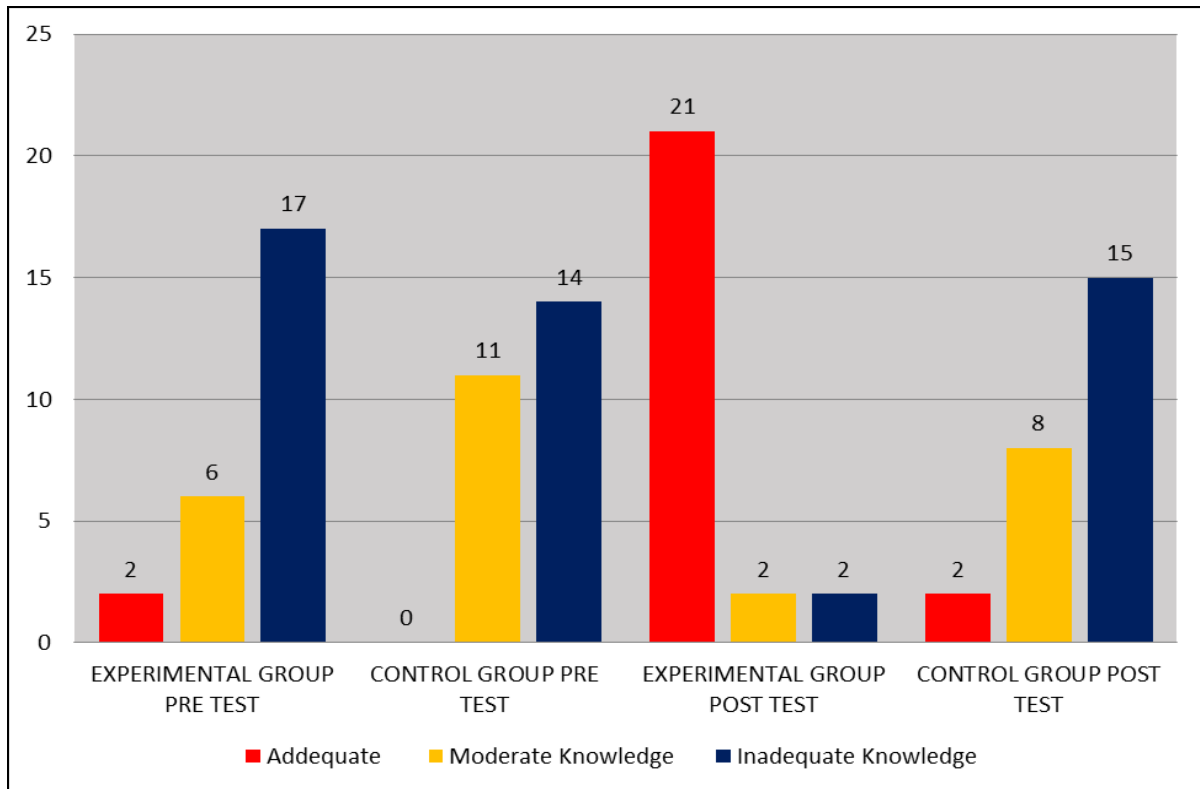


Fig 2: The cylindrical graph showing the improvement of knowledge from pre-test through post-test in control group.

Table 7: Comparison of the Mean, S.D, Pre-test and Posttest knowledge scores between experimental and control group. N=50

Criteria	Control group		Experimental group		P Value
	Mean	S.D	Mean	S.D	
Pre-test Knowledge scores	11.2000	2.5331	11.1600	3.4117	0.645 ^{NS}
Post-test Knowledge scores	11.4800	3.4655	18.6400	3.3402	0.002 ^S

Table 7: was computed to see whether the observed difference mean knowledge scores regarding management of Cardiac arrthmias among control group and experimental group was significant. It can be seen from the table that the observed difference in mean pre test scores and post test scores among control group respondents was 0.28 which was statistically not significant, since the observed P value of 0.645 was lower than table value. Where as the observed difference in mean pre test scores

and mean post test scores of was 7.48 which was statistically significant, indicating structured teaching programme was effective in improving the knowledge among experimental group respondents.

Section IV: Findings related to association of knowledge regarding cardiac arrhythmia and its management among student nurses of experimental and control group in pre-test with their socio-demographic variables.

Table 8: Association between knowledge scores of respondents with their selected socio-demographic variables –Experimental group. N=50

Demographic data	Adequate	Moderate	Inadequate	Df	P-Value
Age					
20-22years	16(64%)	2(8%)	2(8%)	24	0.773
23-25years	5(20%)				
Sex					
Male	1(4%)	2(8%)	2(8%)	24	0.812
Female	20(80%)				
Religion					
Hindu	3(12%)	1(4%)	1(4%)	24	0.812
Sikh	18(72%)	2(8%)			
Others					
Marital Status					
Unmarried	21(84%)	2(8%)	2(8%)	24	0.812
Married					
Area of Residence					
Rural	14(56%)	1(4%)	2(8%)	24	0.763
Urban	7(28%)	1(4%)			
Education of the Father					
Up to Matric	14(56%)	2(8%)	1(4%)	24	0.093
Above Matric	7(28%)		1(4%)		
Education of the Mother					
Up to Matric	16(64%)	2(8%)	2(8%)	24	0.909
Above Matric	5(20%)				
Occupation of the Father					
Employee	6(24%)	2(8%)	2(8%)	24	0.037
Business	15(60%)				
Occupation of the Mather					
Employee	1(4%)	2(8%)	2(8%)	24	0.584
Business	20(80%)				
Family history of cardiovascular disorder					
Yes	4(16%)	1(4%)	1(4%)	24	0.322
No	19(68%)	1(4%)	1(4%)		

The table shows association between knowledge scores with selected socio-demographic variables. In the present study there was no significant association between knowledge scores regarding cardiac arrhythmia and its management with their socio-demographic variables such as

Age, Sex, Marital status, Religion, Area of residence, Education of father, Education of mother, Occupation of father, Occupation of mother, and Family history of cardiovascular disorders.

Table 9: Association between knowledge scores of respondents with their selected socio-demographic variables –Control group N=50

Demographic data	Adequate	Moderate	Inadequate	Df	P-Value
Age					
20-22years	2(8%)	6(24%)	14(56%)	24	0.585
23-25years		2(8%)	1(4%)		
Sex					
Male		1(4%)	15(60%)	24	0.916
Female	2(8%)	7(28%)			
Religion					
Hindu	2(8%)	7(28%)	15(60%)	24	0.372
Sikh		1(4%)			
Others					
Marital Status					
Unmarried	1(4%)	8(32%)	16(64%)	24	0.373
Married					
Area of Residence					
Rural	2(8%)	5(20%)	15(60%)	24	0.225

Urban		3(12%)			
Education of the Father					
Up to Matric	1(4%)	4(16%)	8(32%)	24	0.916
Above Matric	1(4%)	4(16%)	7(28%)		
Education of the Mother					
Up to Matric	1(4%)	5(20%)	11(44%)	24	0.585
Above Matric	1(4%)	3(12%)	4(16%)		
Occupation of the Father					
Employee		2(8%)	6(24%)	24	0.729
Business	2(8%)	5(20%)	9(36%)		
Occupation of the Mather					
Employee	2(8%)	3(12%)	6(24%)	24	0.000
Business		5(20%)	9(36%)		
Family history of cardiovascular disorder					
Yes		3(12%)	4(16%)	24	0.447
No	2(8%)	5(20%)	11(44%)		

The table shows association between knowledge scores with selected socio-demographic variables. In the present study there was no significant association between knowledge scores regarding cardiac arrhythmia and its management with their socio-demographic variables such as Age, Sex, Marital status, Religion, Area of residence, Education of father, Education of mother, Occupation of father, Occupation of mother, and Family history of cardiovascular disorders.

Summary

In this chapter we have include analysis and interpretation of the data according to demographic variables and organization of findings.

Conclusion

This chapter present the conclusions drawn, implications, limitations, suggestions and recommendations. The focus of this study was to evaluate the effectiveness of STP on knowledge regarding Cardiac Arrhythmia and its management among student nurses studying in College of Nursing, Adesh University Bathinda, Punjab.

In this study quasi experimental study one group pre-test post-test design with evaluative approach was used. 50 samples were drawn using non probability convenient sampling technique. The data was collected using structured knowledge questionnaire and further analyzed and interpreted by applying statistical methods. The findings revealed that there was improvement in overall knowledge of student nurses regarding Cardiac Arrhythmia and its management. There was statistically significant difference between the pre-test and post-test knowledge score regarding Cardiac Arrhythmia and its management significant at $p < 0.002$ hence the research hypothesis ($H_{1.1}$) was accepted.

Implications of the Study on Nursing

The findings of this study have implications in the field of nursing education, nursing research, nursing administration and nursing practice.

Nursing Education

1. The study can help the student nurses to understand

- more about Cardiac Arrhythmia and its management.
- 2. The result can be use as an example by the Nurse educator for imparting knowledge to student nurses regarding Cardiac Arrhythmia and its management.
- 3. The Nurse educator and student nurses can also use STP while teaching Cardiac Arrhythmia.

Nursing Research

- 1. Findings of the study can be added to research review related to Cardiac Arrhythmia.
- 2. The extensive research must be conducted to identify more effective methods of teaching.
- 3. Further research can be conducted using different setting and samples.

Nursing Administration

- 1. Nurse administrators can utilize STP to conduct in-service education programme to staff nurses regarding Cardiac Arrhythmia and its management.
- 2. Nursing administration can formulate policies that will include all staff nurses to be actively involved in using STP in their respective Hospitals and Colleges.
- 3. Nurse administrators can create awareness to patient and their relatives by distributing booklet or charts.

Nursing Practice

- 1. The study can help the Nurses in understanding the actual condition of Cardiac Arrhythmia.
- 2. The study can equip the Nurses and their students to educate patients and their relatives regarding Cardiac Arrhythmia and its management in clinical area.

Recommendations for further study

- 1. Base on the findings of the study the following recommendations have been made:
- 2. Similar study can be undertaken to with a large sample to generalize the findings.
- 3. The same study can be conducted without control group using different setting.
- 4. A follow up study can be conducted to find out the effectiveness of STP.

Appendix

ADESH UNIVERSITY, BATHINDA
(Established under Government of Punjab Act.6 of 2012)
NH-7, Barnala Road, Bathinda, Punjab (India)

ETHICS COMMITTEE (EC)

Ref No: AU/EC/FM/05/2017 **Dated:** 22nd March 2017

Name of the Ethics Committee: Ethics Committee (EC), Adesh University, Bathinda

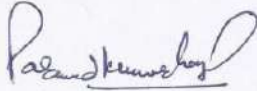
Title of the Thesis Plan: A study to assess the effectiveness of structured teaching programme on knowledge regarding cardiac arrhythmia and its management among student nurses studying in College of Nursing, Adesh University, Bathinda, PUNJAB

Principal Investigator : Sulaiman Umar, MSc, Medical Surgical Nursing, First year
College of Nursing, Adesh University Bathinda

- The Thesis Plan was received through Principal, College of Nursing for Ethical Approval vide Ref No: CON/AIMS&R/2017/015 Dated: 12th January 2017 after clearance from their institutional research Committee.
- Plan was reviewed in a meeting held on 28th January 2017 at Anatomy Lecture Hall of AIMS Bathinda under the chairmanship of Dr R K Soni, Professor, Community Medicine, DMC Ludhiana.
- Subsequent meetings to check the amendments were held in the office of undersigned.

Resolution: Thesis Plan is approved for carrying out the study.

Date of Approval: 22nd March 2017


 Dr Parmod Kumar Goyal
 Member Secretary
 EC, Adesh University Bathinda
 Member Secretary
 Institutional Ethical Committee
 Adesh University Bathinda

Copy To:

- Sulaiman Umar, Principal Investigator
- Registrar, Adesh University for Master File , EC, Adesh University
- Member Secretary, EC, Adesh University for record

Acknowledgments

I Sulaiman Umar thanks the participants of the study.

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