"IMPACT OF PLANNED TEACHING PROGRAMME (PTP) ON KNOWLEDGE REGARDING CARDIOVASCULAR REHABILITATION OF HEART PATIENT AMONG STAFF NURSES WORKING IN ICU AT SELECTED HOSPITALS, KOLHAPUR."

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Abstract

India has a large population of coronary artery disease patients. This gives the scenario for effective cardiovascular rehabilitation and improved health care delivery to such patients. Cardiovascular Rehabilitation is widely practiced all over the world as secondary prevention, for health promotion and rehabilitation as well. But the concept has not gained full acceptance in India

Cardiovascular rehabilitation is a professionally supervised program to help people recover from heart attacks, heart surgery and percutaneous coronary intervention procedures such as stenting, angioplasty and CABG. Cardiovascular rehabilitation programs usually provide education and counseling services to help heart patients increase physical fitness, reduce cardiovascular symptoms, improve health and reduce the risk of future heart problems, including heart attack. "A pre-experimental study to evaluate the impact of planned teaching programme (PTP) on knowledge regarding cardiovascular rehabilitation of heart patient among staff nurses working in ICU at selected Hospitals, Kolhapur." was conducted by the researcher. *OBJECTIVES*- 1) To evaluate the impact of planned teaching programme on knowledge regarding cardiovascular rehabilitation of heart patient among staff nurses. 2) To determine the association between pre-test knowledge scores with their selected socio-demographic variables of staff nurses. *METHODS:* A pre-experimental, one group pretest & posttest research design was used, which consist a group of 60 subjects that were selected by using non-probability, purposive sampling technique. Data was collected by using tool 1) Part A- socio demographic data 2) Part B- Structured knowledge questionnaire regarding cardiovascular rehabilitation of myocardial infarction patient. A planned teaching programme (PTP) was administered to the subjects soon after pretest and post test was conducted after 7 days. *RESULTS:* The result shows that, out of 60 staff nurses, In pretest majority of the subjects 35(58.33%) had average knowledge, 17(28.33%) had good knowledge and 8(13.33%) had poor knowledge, where as in posttest 33(55%) subjects had good knowledge, 27(45%) had average knowledge and none of the subjects had poor knowledge.

The calculated paired 't' value ($t_{cal} = 10.15$) is greater than tabulated value ($t_{tab} = 2.00$). Hence H_1 was accepted. This indicates that the gain in knowledge score is statistically significant at P<0.05 level. i.e. H_1: $\mu \neq \mu 0$. Therefore, the findings revealed that the PTP on cardiovascular rehabilitation for heart patient was effective in increasing the knowledge regarding cardiovascular rehabilitation of heart patient among staff nurses. In the present study, association between pre test knowledge scores of staff nurses regarding cardiovascular rehabilitation of heart patient with selected socio demographic variables are analyzed and categorized. Age of the staff nurses was significantly associated in the present study [$X^2_{cal}= 10.68$, $X^2_{tab}= 9.49$]. As nursing is a female dominating profession, in this study the female nurses are more as compared to male nurses, hence in present study, gender [$X^2_{cal} 29.48$, $X^2_{tab}= 3.84$] is statistically associated with pre test knowledge scores. Total experience of staff nurse also was significantly associated in the present study [$X^2_{cal}= 23.46$, $X^2_{tab}= 5.99$]. This proves that, the more experienced staff nurse are, the more knowledge on cardiovascular rehabilitation of heart patient they posses.

Key words: Knowledge, cardiovascular rehabilitation, staff nurses, ICU.

1.INTRODUCTION

The ischemic heart disease is the major cause of death and generates the greatest number of hospitalizations with increasing health care expenses; therefore management of ischemic heart disease should receive high priority. Along with the fear of recurrence of a heart attack, survivors of myocardial infarction can experience physical, psychological, and social difficulties owing to the numerous restrictions in their usual daily routine. Some limitations may be imposed on doing housework, climbing stairs and shopping. A variety of rehabilitation strategies are used to cope with these restrictions which include symptom management, medication information, lifestyle changes, psychological factors and physical activity.

Cardiac rehabilitation aims to reverse limitations experienced by patients who have suffered the adverse path physiologic and psychological consequences of cardiac events. Cardiac rehabilitation is a medically supervised program that helps improve the health and well-being of people who have heart problems. Rehabilitation programs include exercise training, education on heart healthy living, and counseling to reduce stress and help you return to an active life.

Cardiac rehabilitation is a professionally supervised program to help people recover from heart attacks, heart surgery and percutaneous coronary intervention procedures such as stenting, angioplasty and CABG. Cardiovascular rehabilitation programs usually provide education and counseling services to help heart patients increase physical fitness, reduce cardiac symptoms, improve health and reduce the risk of future heart problems, including heart attack.

Programs often include a medical evaluation to figure out patient's needs and limitations. The medical staff uses this information to tailor a rehabilitation program for the client and help him to set goals. A physical activity program tailored to patient's needs. Training often starts in a group setting where his heart rate and blood pressure are monitored during physical activity. He may work with a physical therapist, exercise physiologist or other healthcare professional. He learns how to check his heart rate and his level (intensity) of activity. Later, he work up to more intense aerobic activity on a treadmill or exercise bike.

Counseling and education to help the patient understand his condition and how to manage it. He may work with a dietitian to create a healthy eating plan. If he smokes, he may get counseling on how to stop. Counseling may also help him cope with depression, anger and stress during his recovery. Support and training to help him return to work or his normal activities and to help the client learn to manage his heart condition.

It is the responsibility of the cardiac rehabilitation nurse to care for patients recuperating from their cardiac diseases. Working together with a nurse supervisor, a cardiac rehabilitation nurse specifically carries out a care plan for the patients, counsels about rehabilitation strategies, evaluates the progress of the patients, and educates them and their loved ones about the treatment and rehabilitation strategies to be continued at home, including a diet and exercise regimen.

2.OBJECTIVE OF THE STUDY

1) To evaluate the impact of planned teaching programme on knowledge regarding cardiovascular rehabilitation of heart patient among staff nurses.

2) To determine the association between pre-test knowledge scores with their selected socio-demographic variables of staff nurses.

3.METHODOLOGY:

The population of this study was staff nurses working in ICUs of selected hospitals, Kolhapur. A quantitative, evaluative survey research approach was considered to carry out the study. Pre-experimental, one group pretest posttest research design selected for this study. Non probability, purposive sampling technique was used to select 60 subjects for the present study. The data was collected by using selected socio demographic data and structured knowledge questionnaire on cardiovascular rehabilitation for heart patient. A Planned teaching programme was administered to the subjects soon after pretest and post test was conducted 7 days after administration of PTP.

4.ANALYSIS AND INTERPRETATION

Section I: Findings related to distribution of socio-demographic data of subjects.

Section II: Findings related to distribution of pretest and posttest knowledge scores of subjects regarding cardiovascular rehabilitation of heart patient.

Section III: Findings related to mean, median, mode, range & standard deviation of pre and post knowledge scores of subjects regarding cardiovascular rehabilitation of heart patient.

Section IV: Testing of hypothesis to find out an impact of PTP on cardiovascular rehabilitation of heart patient among subjects.

Section V: Testing of hypothesis to find out an association between pre-test knowledge scores with the selected socio-demographic variables of subjects.

SECTION I: FINDINGS RELATED TO DISTRIBUTION OF SELECTED SOCIO DEMOGRAPHIC DATA OF THE SUBJECTS

In this section the researcher analyzed and categorized the subjects of the study to various groups based on the selected socio demographic data.

Table-1: Frequency and percentage distribution of the subjects according to their selected socio demographic variables.

n=60

Sr.No	Variables	Frequency f	Percentage %
1	Age in years		
	a) 24-27	36	60.00
	b) 28-31	20	33.33
	c) 32-35	04	6.66
2	Gender		
	a) Male	18	30
	b) Female	42	70
3	Professional education qualification		
	a) GNM	26	43.33
	b) PBBSc	12	20.00
	c) Bsc	22	36.66
4	Total years of clinical experience		
	a) 0-3	32	53.33
	b) 4-6	24	40.00
	c) 7-9	04	6.66
5	Total years of clinical experience in present working area		
	a) 0-3	47	78.33
	b) 4-6	13	21.66
6	In service education regarding cardiac rehabilitation		
	a) Yes	13	21.66
	b) No	47	78.33

Table 1: Indicates that,
1. Majority of the subjects 36 (60%) belonged to the age group of 24-27 years, and while minimum only 4 (6.66%) belonged to the age group of 32-35 years.
2. Majority of the subjects 42 (72%) were female, and 18 (30%) were male

3. Majority of the subjects 26 (43.33%) had GNM qualification, while 22 (36.66%) had B.Sc Nursing qualification and minimum 12 (20%) had P.B.B.Sc Nursing qualification.
4. Majority of the subjects 32(53.33%) had 0-3 year of total clinical experience, 24(40%) subjects had 4-6 years of experience and while minimum 4(6.66%) subjects had 7-9 years of clinical experience.
5. Majority of the subjects 47(78.33%) had 0-3 years of total clinical experience in present working area and 13(21.66%) had 4-6 years of total clinical experience in present working area.
6. Majority of the subjects 47(78.33%) had not attended any in-service education regarding cardiovascular rehabilitation for heart patient. While minimum 13(21.66) had in-service education.

SECTION II: FINDINGS RELATED TO DISTRIBUTION OF PRE AND POST TEST KNOWLEDGE SCORES OF SUBJECTS REGARDING CARDIOVASCULAR REHABILITATION OF HEART PATIENT
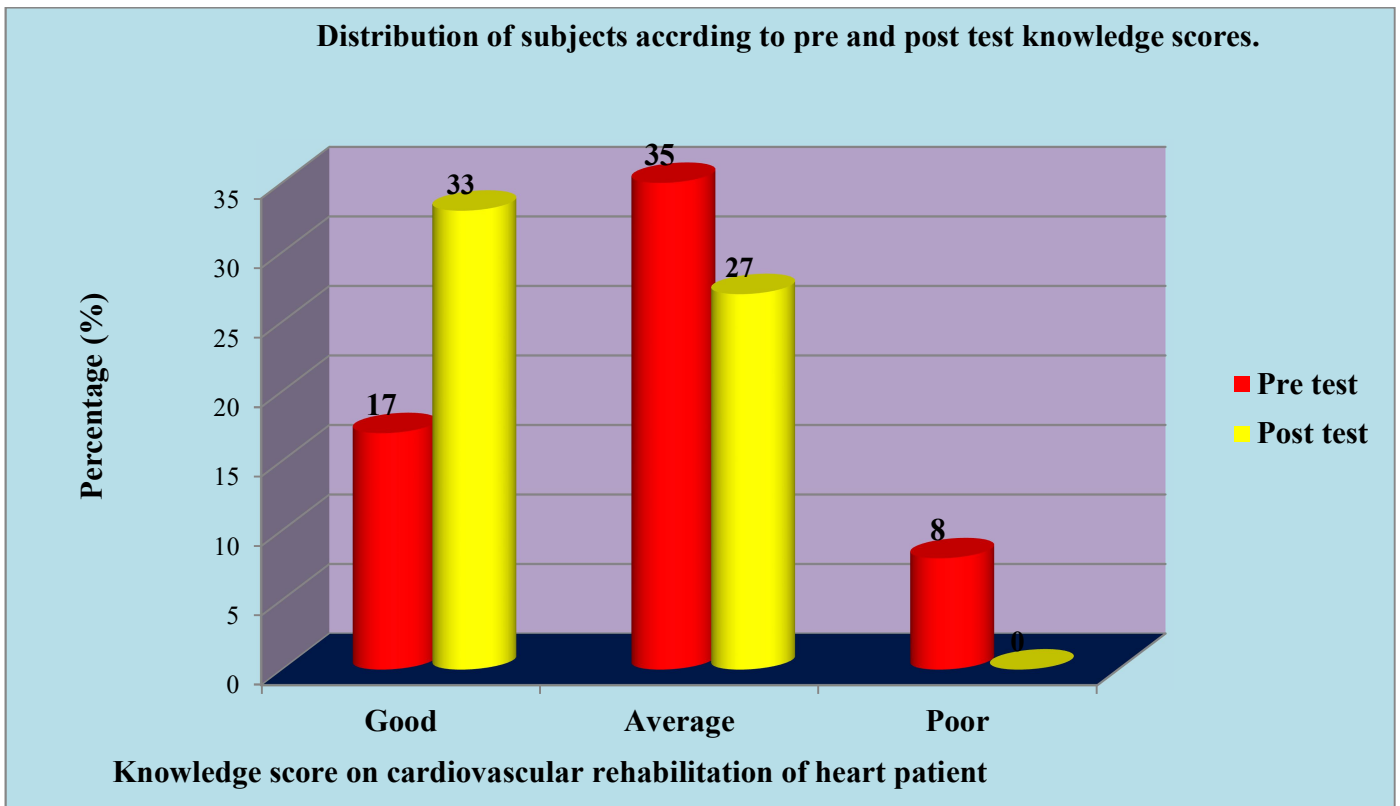In this section the researcher analyzed and categorized the pre test and post test knowledge scores of staff nurses regarding cardiovascular rehabilitation of heart patient.
Table 2: Frequency and percentage distribution of pre test and post test knowledge scores of subjects regarding cardiovascular rehabilitation of heart patient

n=60

Knowledge score	Pre test		Post test	
	Frequency f	Percentage %	Frequency f	Percentage %
Good 21-30	17	28.33	33	55
Average 11-20	35	58.33	27	45
Poor 0-10	08	13.33	00	00

Table 2: Indicates that,

✓ In pre test majority of the subjects 35(58.33%) had average knowledge, 17(28.33%) had good knowledge and 8(13.33%) had poor knowledge, where as in post test 33(55%) subjects had good knowledge, 27(45%) had average knowledge and none of the subjects had poor knowledge

Distribution of subjects accrding to pre and post test knowledge scores.

SECTION III: FINDINGS RELATED TO MEAN, MEDIAN, MODE, RANGE AND STANDERD DEVIATION OF PRE-TEST AND POST TEST KNOWLEDGE SCORES OF SUBJECTS REGARDING CARDIOVASCULAR REHABILITATION OF HEART PATIENT

 In this section the researcher analyzed and categorized the mean, median, mode, range and standard deviation of pre test and post test knowledge scores of staff nurses regarding cardiac rehabilitation of heart patient.

Table 3: Mean, Median, Mode, Range and standard deviation of knowledge scores on cardiovascular rehabilitation of heart patient among subjects regarding impact of planned teaching programme.

n=60

Area of analysis	Mean	Median	Mode	SD	Range
Pre test	17.48	18.5	20.54	4.51	16
Post test	21.45	22.5	24.6	3.27	12
Difference	3.93	4	4.06	-1.24	-04

Table 3: Indicates that,

1. The overall knowledge scores of subjects was increased by mean difference 3.93 units and median difference was 4 whereas mode difference was 4.06.
2. The variability around the mean of knowledge score distribution was 1.24.

3. The range between the highest and lowest score was increased by 4 units after administering the PTP.

TESTING OF HYPOTHESES:

H_1 - The mean post-test knowledge scores of staff nurses regarding cardiovascular rehabilitation of heart patient is significantly higher than their mean pre test knowledge score.

SECTION IV: TESTING OF HYPOTHESES TO FIND OUT AN IMPACT OF PTP ON CARDIOVASCULAR REHABILITATION OF HEART PATIENT AMONG SUBJECTS.

In this section the researcher analyzed and categorized the mean difference, standard error difference and paired 't' values of knowledge scores of staff nurses regarding cardiovascular rehabilitation of heart patient among staff nurses.

Table 4: Effectiveness of PTP on knowledge regarding cardiovascular rehabilitation of heart patient among subjects.

n=60

Mean difference	Standard error difference	Paired 't' value		df
		Calculated	Tabulated	
3.93	0.39	10.15*	2.00	59

*$P < 0.05$

Table 4: Indicates that,
1. The calculated paired 't' value ($t_{cal} = 10.15$) is greater than tabulated
   a. value ($t_{tab} = 2.00$). Hence H_1 was accepted. This indicates that the gain in
   b. knowledge score was statistically significant at $P < 0.05$ level.
2. Therefore the findings revealed that the planned teaching programme (PTP) on cardiovascular rehabilitation for heart patient was effective in increasing the knowledge of subjects.

H_2 - There is an association between the pre-test knowledge scores of staff nurses regarding cardiovascular rehabilitation of heart patient with their selected socio demographic variables.

SECTION V: TESTING OF HYPOTHESES TO FIND OUT AN ASSOCIATION BETWEEN PRE-TEST KNOWLEDGE SCORES WITH THEIR SELECTED SOCIO-DEMOGRAPHIC VARIABLES.

In this section the researcher analyzed and categorized the association between pre test knowledge scores of staff nurses regarding cardiovascular rehabilitation of heart patient with their selected socio-demographic variables.

Table 5: Association between pre-test knowledge scores with their selected socio demographic variables.

n=60

Sr.no	variables	Scores			Chi-square values		df
		Good	Average	Poor	Calculated	Tabulated	
1	Age a) 24-27 b) 28-31 c) 32-35	15 03 01	19 11 03	02 06 00	10.68*	9.49	4
2	Gender a) Male b) Female	03 15	12 22	03 05	29.48*	5.99	2
3	Professional education qualification						
	a) GNM b) PBBsc c) Bsc	06 03 07	14 07 15	06 02 00	5.69	9.49	4
4	Total years of clinical experience						
	a) 0-3 b) 4-6 c) 7-9	12 04 01	18 14 03	02 06 00	6.49	9.49	4
5	Total years of clinical experience in present working area						
	a) 0-3 b) 4-6	13 04	26 09	08 00	6.71*	5.99	2
6	In service education regarding cardiac rehabilitation						
	a) Yes b) No	04 13	07 28	02 06	0.142	5.99	2

Note: * indicates significance

Table 5: Indicates that,

There was significant association between pretest knowledge scores and selected socio-demographic variables like Age [X^2_{cal}= 10.68, X^2_{tab}=9.49], gender [X^2_{cal}= 29.48, X^2_{tab}=5.99], total years of clinical experience in present working area [X^2_{cal}= 6.71, X^2_{tab}=5.99],.The calculated Chi-square values were higher than tabulated value at 0.05 level of significance. Among six selected socio demographic variables age, gender and total years of experience in present working area shows association so H_2 was accepted. This indicates that there was significant association.

5. CONCLUSION

Based on the findings of the study, the following conclusions were drawn:

1. The knowledge results revealed that the calculated paired 't' value (t_{cal} = 10.15) was greater than tabulated value (t_{tab} = 2.00). This indicates that the gain in knowledge score was statistically significant at P<0.05 level. Therefore the findings revealed that the PTP on cardiovascular rehabilitation of heart patient was effective in increasing the knowledge regarding cardiovascular rehabilitation among staff nurses.

2. Study revealed that planned teaching programme was very effective in order to gain knowledge of cardiovascular rehabilitation for heart patient among staff nurses.

3. There was significant association between pre test knowledge scores with their selected socio demographic variables like age [X^2_{cal}= 10.68, X^2_{tab}= 9.49] gender [X^2_{cal}= 29.48, X^2_{tab}= 5.99], total clinical experience as a nurse (in years) [X^2_{cal}= 6.71, X^2_{tab}= 5.99].The calculated Chi-square values were higher than tabulated value at 0.05 level of significance. This indicates that there is significant association between pre test knowledge scores and selected socio demographic variables at 0.05 level of significance. Hense both H_1 and H_2 was accepted.

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7. SOURCE OF FUNDING:

8. CONFLICT OF INTEREST:

There is no conflict of interest for the present study

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