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A Pre Experimental Study Aims to Evaluate the Effectiveness of Screen Based Learning on Knowledge and Practice Regarding Cardiac Rehabilitation Among Patients with Myocardial Infarction in Selected Hospital at Coimbatore

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ABSTRACT

The main aim of the study was to evaluate the effectiveness of screen based learning on knowledge and practice regarding cardiac rehabilitation among patients with MI ,in this context pre operative education has its significance,this enhancing the scope of nursing.To assess the effectiveness of pre operative education in prevention of post operative complications among patients with MI.A quantitative approach using quasi experimental pre-test post-test with control group design.Participants:60 patients with MI were selected by using purposive sampling technique in Sree Abirami Hospital, Coimbatore.Pre operative education was given to the patients with MI over 30 minutes by using flashcards.Tools :The level of knowledge assessed by using Modified interview questionnaire. Results:Analysis using paired 't' test and unpaired 't' test found significant values at $p<0.05$ level.The study points out the effectiveness of pre-operative education in prevention of post-operative complications among patients with MI.

Keywords: Pre-operative education,patients with MI, post-operaive complications.

INTRODUCTION

Cardiac rehabilitation is a process that involves a multidisciplinary team of health professional in order to optimize the status of patient physical ,psychological,social,and vocational well being .the cardiac rehabilitation programme has been provide to influence health outcome in patients with cardiac disease.particularly myocardial infarction and stable angina .How ever patients compliance with cardiac rehabilitation programs remain a challenges.According to the world health organization(WHO),CAD induced mortality is on the top of the death list with 7.4 millions deaths each year in the world .It has reported that about 485.6 millions people suffered from CVD and 17.8 million deaths.

Exercise based cardiac rehabilitation aims to improve the health and outcome of people with CHD.This is an update of a coherence systematic review previously published in 2011.The estimated annual incidence of new myocardial infarction is 7,20,000 in addition to about 3,35,000 recurrent infarction.

Among 1821 person with incident MI(58% men 46%age>70years)55% participated in cardiac rehabilitation participants

In Coimbatore,approx .850 people affect in MI .after treating .2% of people re-admission in hospital in the same month.Because lack of knowledge in the people.

STATEMENT OF THE PROBLEM

A pre experimental study aims to evaluate the effectiveness of screen based learning on knowledge and practice regarding cardiac rehabilitation among patients with myocardial infarction in selected hospital Coimbatore.

OBJECTIVES OF THE STUDY

To assess the baseline knowledge and practice of myocardial infarction patients related to cardiac rehabilitation learning intervention.

To evaluate the improvement in knowledge regarding cardiac rehabilitation among myocardial infarction patients after participation in a screen based learning programme.

To associate the effectiveness of the screen based learning by comparing pretest and post test knowledge scores among myocardial infarction patients.

HYPOTHESIS

H1 - There will be a significant increase the level of knowledge after cardiac rehabilitation in prevention of post operative complication among patients undergo CAG,PCI.

H2 - There will be a significant difference between increase the level of knowledge after cardiac rehabilitation in prevention of post operative complication among patients among patients undergo CAG,PCI in experimental and control group.

H3 - There will be a significant association between post test level of knowledge in experimental and control group among patients with MI.

MATERIALS AND METHODS

In this study,s pre- experimental pre -test post-test control group design was used. The total sample size was 60 patients out of which 30 patients were in control group under 30 patients in experimental group selected by purposive sampling method.

The instrument for data collection was a form of demographic data and modified interview questionnaire.Modified interview questionnaire consisted of 30 questions.It consists of self-administered questionnaire which consists of 30 questions.

in which one mark was given for correct answer

zero mark for incorrect answer.

30 marks where given to assess the knowledge level.

RESULTS AND DISCUSSION

Table 4.1 shows that an experimental group according to age 2 (6.7%) sample belongs to the age group 31-40 in years,12 (40%) sample belongs to the age group,41-50 in years,20 (66.7%) sample belongs to the age group,51-60 in years,7 (23.3%) sample belongs to the age group 61 years and above.In control group,according to age there is no sample belongs to the age group 31-40 in years, 7 (23.3%) sample belongs to the age group,41-50 in years,14 (46.7%) sample belongs to the age group 51-60 in years, 6 (20%) sample belongs to the age group 61 years and above.

Table4.2.1 depicts the level of knowledge among the patients with MI ,in experimental group the findings revealed that pre test,27 (90%) sample had inadequate knowledge,2 (6.7%) sample had moderate knowledge and 1 (3.3%) sample had adequate knowledge,where as in post test 0 (0%) sample had inadequate knowledge and moderate knowledge,30 (100%) samples reported as adequate knowledge.Among control group 28 (93.3%) sample had inadequate knowledge,2 (6.7%) had moderate knowledge and 0 (0%) sample had a adequate knowledge,where as in post test 26 (86.7%) had inadequate knowledge,4 (13.3%) sample had moderate knowledge and 0 (0%) samples had adequate knowledge.

Table 4.3.1 reveals the comparison of overall mean standard deviation among experimental and control group before and after application of pre operative education.The mean score after intervention was higher than the mean score before intervention in experimental group with their mean difference as .whereas in control group,the mean score was in pre-test and in post-test with their mean differences .

DISCUSSION

This chapter deals with the discussion was based on the findings obtained from the statistical analysis and it's relation to the objectives of the study.The basic aim of the present study was to assess the effectiveness of screen based learning on knowledge and practice regarding cardiac rehabilitation among patients with MI.

Objective 1 :To assess the baseline knowledge and practices of myocardial infarction patients related to cardiac rehabilitation before exposure to a screen based learning intervention.

H1-There will be a significant increase the level of knowledge after cardiac rehabilitation in prevention of Myocardial infarction

In this study there was a significant difference in the level of knowledge among patients with myocardial infarction before and after screen based learning in experimental and control group.Hence this hypothesis was accepted.

Objective 2 :To evaluate the improvement in knowledge regarding cardiac rehabilitation among myocardial infarction patients after participation in a screen based learning programme.

H2-There will be a significant difference between increase the level of knowledge after screen based learning in prevention of myocardial infarction in experimental and control group.

In this study there was a significant difference in the level of knowledge among patients with Myocardial infarction before and after screen based learning in experimental and control group.Hence this hypothesis was accepted.

Objective 3:To associate the effectiveness of the screen based learning by comparing pretest and post test knowledge scores among myocardial infarction.

H3-There will be significant association between post test level of knowledge in experimental and control group among patients with MI.

In this study there was no significant difference in the level of knowledge among patients with MI before and after screen based learning in experimental and control group.Hence this hypothesis was rejected.

Table 4.1 Distribution of patients with MI according to their selected demographic variables in experimental and control group.

S.NO	DEMOGRAPHIC VARIABLES	EXPERIMENTAL GROUP		CONTROL GROUP	
		N	%	N	%
1	**Age**				
	a) 31-40 years	2	6.7%	0	0%
	b) 41-50 years	12	40%	7	23.3%
	c) 51-60 years	20	66.7%	14	46.7%
	d) 61 years and above	7	23.3%	6	20%
2	**Gender**				
	a. Male	22	73.3%	26	86.7%
	b. Female	13	43.3%	8	26.7%
3	**Type of work**				
	a) Sedentary work	12	40%	6	20%
	b) Moderate work	8	26.7%	12	40%
	c) Heavy work	9	30%	10	33.3%
4	**Dietary pattern**				
	a. Vegetarian	7	23.3%	5	16.7%
	b. Non-Vegetarian	28	93.3%	26	86.7%
5	**Family H/O Cardiac Disease**				
	a) Yes	15	50%	9	30%
	b) No	20	66.7%	22	73.3%
6	**Comorbid Conditions**				
	a. Diabetes mellitus	9	30%	7	23.3%
	b. Hypertension	3	10%	2	6.7%
	c. Diabetes mellitus with hypertension	6	20%	4	13.3%
	d. Thyroid disease				
	e. Nil	0	0%	0	0%
		15	50%	13	43.4%
7	**Personal Habits**				
	a) Smoking	12	40%	7	23.3%
	b) Consumption of alcohol	5	16.7%	3	10%
	c) Smoking and consumption of alcohol	7	23.3%	4	13.3%
	d) Substance abuse				
	e) Nil	0	0%	0	0%
		18	60%	17	56.7%
8	**Body Mass Index**				
	a. Under weight	3	10%	8	26.7%
	b. Moderate weight	20	66.7%	14	46.6%

	c. Over weight d. Obesity	5 0	16.7% 0%	3 0	10% 0%
9	**Marital status** a) Married b) Unmarried	 25 2	 83.3% 6.7%	 20 1	 66.7% 3.3%

Table 4.2.1 Distribution of patients with MI according to their level of knowledge in experimental and control group.

N=60

Level of knowledge	**Experimental group**				**Control group**			
	Pre-test		**Post-test**		**Pre-test**		**Post-test**	
	N	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Inadequate knowledge	**27**	**90%**	**0**	**0%**	**28**	**93.3%**	**26**	**86.7%**
Moderate knowledge	**2**	**6.7%**	**0**	**0%**	**2**	**6.7%**	**4**	**13.3%**
Adequate knowledge	**1**	**3.3%**	**30**	**100%**	**0**	**0%**	**0**	**0%**

Table 4.3.1 Comparison of latest and post just score of knowledge among experimental and control group.

N=60

		Test	**Mean**	**Standard Deviation**	**Mean Difference**
Level of Knowledge	**Experimental Group**	**Pre test**	14.8	3.47	7.300
		Post test	22.1	2.87	
	Control group	**Pre test**	13.0	3.34	7.170
		Post test	20.2	4.34	

CONCLUSION

The present study assessed the effectiveness of knowledge on after cardiac rehabilitation in prevention of post-operative complications among patients undergo interventional procedure(CAG,PCI).The result revealed that pre-operative education is very effective in increasing the level of knowledge at $p< 0.05$ .On the basis of the study,the investigator concluded that preoperative-education has an important role in

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