



Original Research Article

A Study to Evaluate the Effectiveness of Planned Teaching Program on Knowledge of Staff Nurses Regarding Cardiac Rehabilitation Working in Pt. B D Sharma PGIMS Rohtak, Haryana

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ABSTRACT

The study was undertaken to evaluate the effectiveness of planned teaching program on knowledge of staff nurses regarding cardiac rehabilitation working in Pt. B D Sharma PGIMS Rohtak, Haryana. Objectives of the study were to assess the knowledge of staff nurses regarding cardiac rehabilitation working in Pt. BD Sharma PGIMS, Rohtak, to evaluate the effectiveness of planned teaching program on knowledge regarding cardiac rehabilitation among staff nurses, to find association between post test knowledge scores with selected socio demographic variables. Study was conducted using Quantitative approach and one group pre test post test design on 100 staff nurses working in Pt. B D Sharma PGIMS Rohtak by convenient sampling technique. Structured Questionnaire was used to collect data regarding cardiac rehabilitation. Findings of study revealed that in pre test (76%) of samples had good knowledge, (13%) had average knowledge (11%) had excellent knowledge whereas in post test (78%) had excellent knowledge and (22%) had good knowledge. Effectiveness of Planned Teaching Program was assessed using paired t - test which revealed that there was significant gain in knowledge at 0.05 level of significance. There was significant association between post test knowledge scores and with selected demographic variables. The study findings depict that planned teaching program is effective strategy to improve knowledge of staff nurses regarding cardiac rehabilitation. There is significant association between knowledge scores and Socio demographic variables.

Keywords: Effectiveness, Cardiac rehabilitation, staff nurses.

1. INTRODUCTION

1.1 Introduction

A cardiac rehabilitation is a combination of activities designed to help patients recover from cardiovascular events such as myocardial infarction (heart attack) and to prevent future cardiovascular events. [1]

The purpose of cardiac rehabilitation is to provide comprehensive, multifaceted treatment, education, and secondary prevention for cardiac patients and

individuals with heart disease risk factors, in order to aid recovery and prevent recurrence of heart problems. [2]

Cardiac rehabilitation teaches the client how to be more active and make lifestyle changes that can lead stronger heart and better health. [3] It is important for the nurses in to become familiar with various types of cardiac problems. If the nurse's knowledge and skill is improved the patient can get better care and health teaching by them. [4]

Recent research has shown that heart attack patient who participated in a cardiac rehabilitation program that included exercise were 50% more likely to survive the next three years after their heart attack. Furthermore, those patients who exercise have significantly lower readmission rates to the hospital in comparison with those patients who do not exercise. Studies have shown that cardiac rehabilitation can also help to return to work safely and in a timely manner. [5]

The good news is that patients who use cardiac rehabilitation live longer than those who do not use it, regardless of their clinical diagnosis, gender, race, or socio-economic background. Patients with different clinical backgrounds-heart attacks, coronary bypass operations, and even congestive heart failure all had lower mortality when using cardiac rehabilitation. Experts have used three different statistical techniques to tally the rate of mortality of the cardiac patients using rehabilitation with the patients who did not. Mortality rates of the older patients using cardiac rehabilitation was 21% as against to the 34% of the patients who did not use cardiac rehabilitation. [6]

1.2 Need of study

By 2020 heart disease will become the leading cause of both death and disability worldwide, with the number of fatalities projected to increase to more than 20 million a year and to more than 24 million a year by 2030. [7]

It is found that India suffers the highest loss in potentially productive years of life (35-64yrs) due to deaths from cardiovascular disease. In Haryana, the prevalence rate was 22.8 and 17.3 per 1000 males & females respectively. [8]

Advanced-training personnel should recognize the need to enhance nurse skills in patient education and rehabilitation the importance of these skills also should be recognized in first-level training. [9]

1.3 Objective of the study

1. To assess the knowledge of staff nurses regarding cardiac

rehabilitation working in Pt. B D Sharma PGIMS, Rohtak.

2. To evaluate the effectiveness of planned teaching program on knowledge regarding cardiac rehabilitation among staff nurses working in Pt. B D Sharma PGIMS, Rohtak.
3. To find association between post test knowledge scores with selected socio demographic variables among staff nurses working in Pt. BD Sharma PGIMS, Rohtak.

2. Review Of Literature

Degavi Girish, Bhupali Preeti R (2015) conducted a study to assess knowledge of staff nurses regarding cardiac rehabilitation working in ICCU of Heart foundation of KLE's Dr. Prabhakar Kore Hospital and MRC, Belgaum Karnataka by using one group pre test post test design and purposive sampling technique on a sample of 40 staff nurses. Structured questionnaire were used to collect the data regarding cardiac rehabilitation among staff nurses. The study findings were that planned teaching programme (PTP) is effective teaching strategy to improve the knowledge regarding cardiac rehabilitation among staff nurses. There is no significant association between the knowledge scores with socio demographic variables. [10]

Taylor et al (2010) a descriptive study conducted by Indian cardiologist to highlight the role of nurse in cardiac rehabilitation programs. The nurse's multiple roles in cardiac rehabilitation have a 'spider in the web-like' character and depending in the phase of the patient's recovery, he/she acts as a container, a counselor, a coach and an educator. A two-phase naturalistic inquiry was undertaken. Interviews were conducted with 30 Nurses working in coronary care unit (phase 1) and 1 year after the initial interview (phase 2). Finally, the study concluded that cardiac rehabilitation nurse has to have a four-fold comprehensive perspective of the cardiac rehabilitation concept: an impact perspective, a timing perspective, a lifespan

perspective & a personal perspective. ^[11]

3. MATERIALS AND METHODS

3.1 Research Design and setting

Study was conducted using Quantitative approach and one group pre test post test design on 100 staff nurses working in Pt. B.D. Sharma PGIMS Rohtak by convenient sampling technique. Structured Questionnaire was used to collect data regarding cardiac rehabilitation. Data were analyzed by using descriptive and inferential statistics.

3.2 Data Collection

Data Collection Technique for the study - Structured Questionnaire

Tool of Study - Structured Questionnaire consists of:

Section A

Demographic characteristics of the samples: This section describes the characteristics of the sample and these are Age, Work experience in cardiac unit, Professional qualification, Attended any Formal education on cardiac rehabilitation

Section B

Knowledge questionnaire: It consists of questions including goals, types, components and phases and steps of rehabilitation.

3.3 Ethical Considerations

Regarding ethical considerations, the ethical approval was obtained from the research/ethical committee of Pt. B.D. Sharma PGIMS Rohtak was taken before starting the study. Anonymity of the subjects and confidentiality of the maintained. It was ensured that the study would not affect the participants in any way.

3.4 Statistical analysis

Data was analyzed and interpreted by employing descriptive and inferential statistics. SPSS version 16.0 was used to analyze the data. P value ≤ 0.05 was considered as significant.

RESULTS

The findings revealed that the subjects for the cardiac rehabilitation are as follows:

Section A: Demographic Characteristics of Study Subjects

This section describes the characteristics of the sample. The sample consisted of 100 staff nurses working in Pt. B D Sharma PGIMS, Rohtak. Frequency and percentage were computed for describing the sample characteristics.

Table 1: Frequency and Percentage distribution of sample characteristics (N=100)

Demographic Data	Frequency	Percentage
1.Age		
21-30	57	57%
31-40	31	31%
41-50	11	11%
51 and above	1	1%
2. Professional Qualification		
Diploma in Nursing	43	43%
Basic BSc Nursing	36	36%
Post B.Sc. Nursing	17	17%
MSc Nursing	4	4%
3. Work Experience In Cardiac Unit		
1-5 Yrs	21	21%
6-10 Yrs	9	9%
11-15 Yrs	1	1%
None	61	61%
4. Any Formal Education Program Attended		
YES	13	13%
NO	87	87%

Data represented in Table 1 shows that (57%) of samples belonged to the age group 21-30 years while 31% from age group 31-40 years whereas 11% were from 41-50 years and only 1% was in 51 and above years age group .92% of samples belong to female group while 8% from male group. Majority (43%) of the samples had completed GNM while (36%) samples were having B.Sc. Nursing degree and (17%) from Post basic B.Sc. Nursing and only 4% were M.Sc. Nursing. 69% of the candidates were having no work experience of cardiac unit while 21% were having 1-5 year experience where as 9% had experience of 6-10 years only 1% had experience of 11-15 years. 13% of samples had attended workshop on cardiac rehabilitation while 87% had not ever attended.

The findings revealed that the subjects for the cardiac rehabilitation are as follows:

Section B: Mean, Standard Deviation, Range & t- Test values of knowledge of staff nurses regarding cardiac

rehabilitation.

Table 2 - shows that the difference between Mean Post Test & Pretest Knowledge Score is 6.48 .The 't' Value calculated is 12.48 where as 't' Value tabulated at 0.05 level of significance (P

Value) is 1.98 which indicates that the 't' calculated is greater than 't' Value tabulated. Hence, null hypothesis is rejected & H₁ is accepted & planned teaching programme was found to be effective.

Table 2: Mean, Range & SD of knowledge scores regarding Cardiac Rehabilitation.

Components	Max. Score	Range	MEAN	SD	SE	t _{Cal}	P Value
Pretest scores	30	26-8 = 18	18.32	3.746	0.519	12.48	0.05
Post test scores	30	30-19 = 11	24.8	3.619			

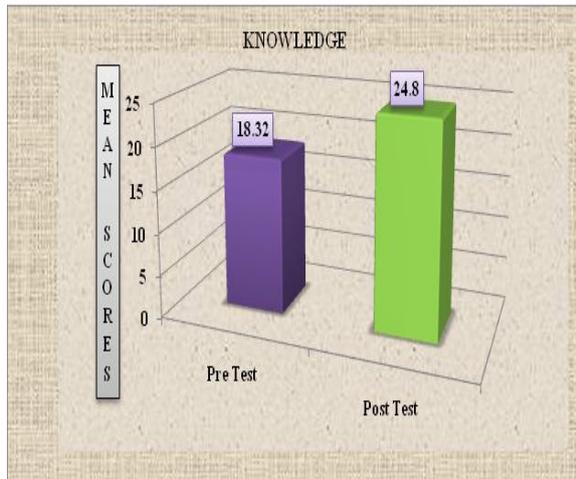


Figure 1: Pre-Post Test Knowledge mean score of samples

Figure 1 represents the mean of knowledge scores of samples before & after administration of PLANNED TEACHING PROGRAMME i.e. Pre-Post Test Mean Scores.

Section C: Effectiveness of Planned Teaching Programme on knowledge score of staff nurses regarding cardiac rehabilitation.

Table 3: Frequency and percentage distribution of level of knowledge of samples N =100

Level of knowledge	Score	Pretest		Post test	
		Frequency	%	Frequency	%
Average	< 50%	13	13	0	0
Good	50-<75%	76	76	22	22
Excellent	>=75%	11	11	78	78

Table 3 shows that in pre test 76% (maximum) of samples had good level of knowledge, 13% had average knowledge score & only 11% were having excellent knowledge, whereas in. post test the maximum samples (78%) were in excellent level of knowledge and none of the samples had average level of knowledge and 22 % were having good level of knowledge.

Section D: Association between post test knowledge scores with selected socio demographic variables among staff nurses working in Pt. BD Sharma PGIMS, Rohtak.

There was a significant association between post test knowledge score and selected demographic variables i.e. Age, professional qualification, total work experience in cardiac care unit and

workshop attended on cardiac rehabilitation, because the calculated χ^2 value is more than the tabulated value at $p > 0.05$ level of significance.

The data also indicates that there was no significant association between post test knowledge score and one selected demographic variables i.e. Gender as the calculated χ^2 value is less than the tabulated value at $P < 0.05$ level of significance.

Figure 2 shows that knowledge mean score regarding cardiac rehabilitation is higher in age group 21-30 years and least in 41-50 years

Figure 3 reveals that mean knowledge score is higher in Basic B.Sc. Nursing and least in GNM.

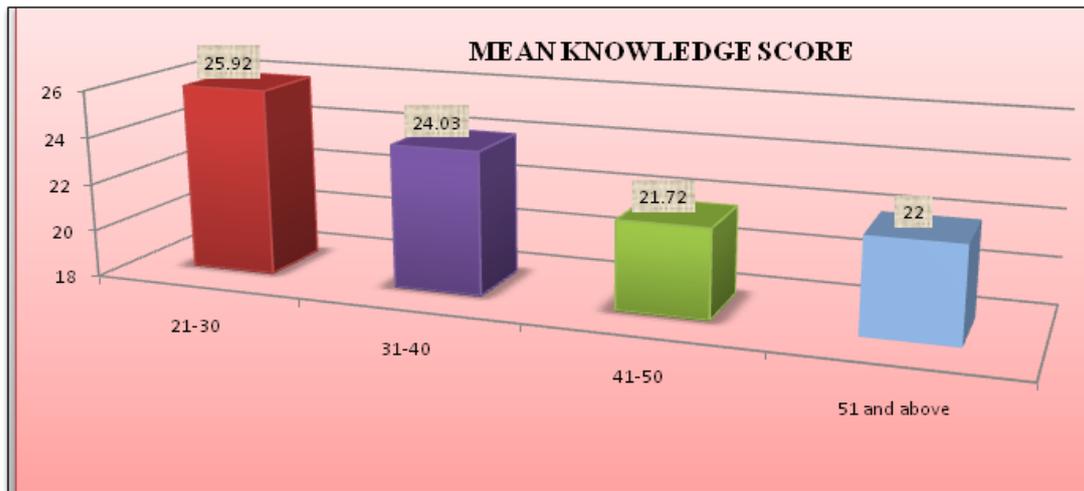


Figure 2: Mean knowledge scores on basis of Age

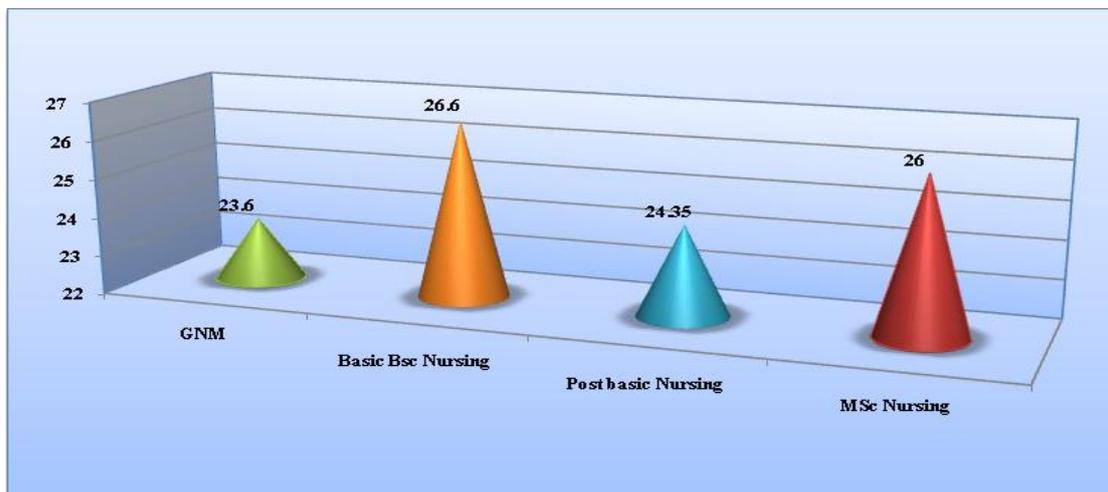


Figure 3: Mean knowledge scores on basis of professional qualification

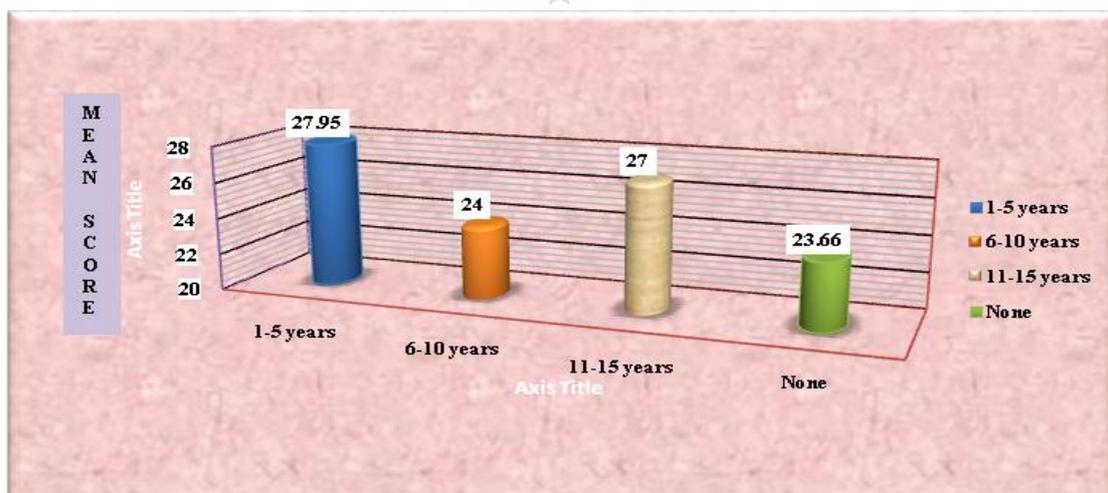


Figure 4: Mean knowledge scores on basis of work experience in cardiac care unit

Figure 4 shows that mean knowledge score is highest in group having 1- 5 year experience and lowest in group having no experience.

Figure 5 denote that mean knowledge score is more in staff nurses who have attended workshop on cardiac rehabilitation that who have not attended.

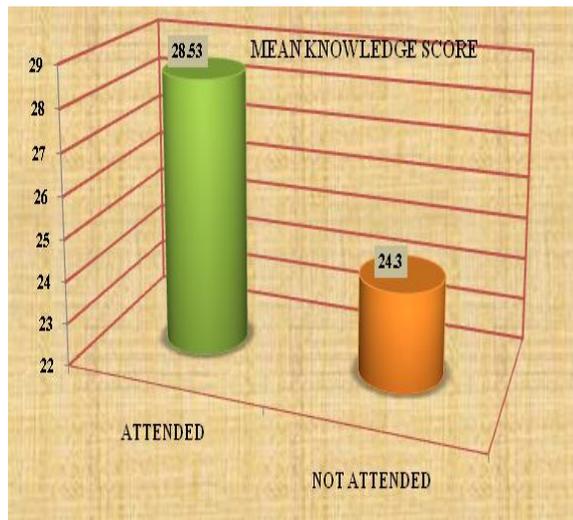


Figure 5: Mean knowledge scores on basis of any formal education program attended on Cardiac Rehabilitation

It was observed that 57% of samples belonged to the age group 21-30 years & 92% of samples belong to female group. Majority 43% of the samples had completed GNM .69% of the candidates were having no work experience of cardiac unit while 21% were having 1-5 year experience Only 13% of samples had attended workshop on cardiac rehabilitation while 87% had not ever attended.

The post test knowledge score regarding care of patients with cardiac rehabilitation was assessed and tabulated. Out of 100 staff nurses 78 had excellent knowledge, 22 had good knowledge and overall mean was 24.8 with SD of 3.619. These findings showed that there is significant effectiveness of planned teaching program regarding knowledge of staff nurses on cardiac rehabilitation.

There was a significant association between post test knowledge score and selected demographic variables i.e. Age, professional qualification, total work experience in cardiac care unit and workshop attended on cardiac rehabilitation.

4. CONCLUSION

- ✚ Samples were deficit of knowledge regarding cardiac rehabilitation.
- ✚ The Planned Teaching Program was effective in enhancing the

knowledge of staff nurses regarding cardiac rehabilitation.

- ✚ The written prepared material by the investigator in the form of planned teaching helped the nurses to improve their knowledge regarding cardiac rehabilitation.

5. Implications for Nursing Practice

Nurse should utilize the opportunity by giving prompt and adequate information regarding cardiac rehabilitation. There is a fundamental link between 'education and practice' as the need for education is to inform and influence the development of nursing practice and thereby improve the delivery of patient care. The concept of enhanced professional recognition was highlighted as important to the nurse's ability to deliver high standards of care. By using teaching strategies that are best suited to staff nurses, a nurse educator can motivate them to deliver higher standards of patient care.

6. Limitations

The study was limited to the assessment of knowledge of the staff nurses regarding cardiac rehabilitation.

★ REFERENCES

1. Payne ja. Group learning for adults with disabilities or chronic disease. *Rehabilitation nursing* 1995; 20 (5). p. 268-272.
2. Anitha Sardesai. Rehabilitation of the cardiac surgical patients. *Nightingale Nursing times*. I (iii): 2004:p. 29-31.
3. Anitha, n. A comparative study to assess the knowledge and attitude on awareness of myocardial infarction among patients with first and consequent attack: *Nightingale nursing times*. 2007; 6(11): 57-58.
4. Basavanthappa BT. *Nursing Administration*. 2nd ed: Jaypee Brothers Medical publishers (P) Ltd.; 2008. p.325.
5. Fredric and Ivan. Nurses knowledge on Cardiac Rehabilitation. 2010; 23(5):25-45 Available from: [http:// content. Onlinejacc.org/cgi/contetn/full](http://content.Onlinejacc.org/cgi/contetn/full)

6. Britny. Nurses and Cardiac Rehabilitation. British Medical journal. 2012; 36(2):31-35
7. Drucilla Dyess. Cardiac Rehabilitation Improves Chances for Survival. 2010; 43(6):90-134 Available from: [http://www. Health news.com/cardiarehabilitation](http://www.Healthnews.com/cardiarehabilitation).
8. Emmy. Extending better life. [Internet] 2010. (cited 2013 dec 11);22(3):64-78 available from :www.healthjockeyblog.com/?p=897/html
9. Josy and Monsede. Better life after cardiac rehabilitation.2010; 21(1):132-4
10. Mr. Degavi Girish, Mrs. Bhupali Preeti R. Knowledge of staff Nurses regarding Cardiac Rehabilitation. Asian Journal of Nursing Education and Research 2015; 5 (1):87-93.
11. Taylor. Prognosis of Cardiac Rehabilitation Patients. 2010; 28(8)56-78 Available from: www.upi.com/healthnews/2010/18.

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