

A STUDY TO ASSESS THE KNOWLEDGE, ATTITUDE AND PRACTICE OF CARDIAC PATIENTS ON CARDIAC REHABILITATION MEASURES IN SELECTED HOSPITALS, ERODE, TAMILNADU

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ABSTRACT

The study aims to assess the knowledge, attitude and practice of cardiac patients on cardiac rehabilitation measures, in selected hospital, Trichy. Structured questionnaires were used and data was collected by self report method. The conceptual framework of this study was based on Neuman's system model. Non probability purposive sampling was used for selecting the samples. Descriptive statistics (frequency, percentage, mean and standard deviation) and inferential statistics (chi-square) was used to analyze the data and to test hypothesis.

Keywords: Cardiac Patients, Cardiac Rehabilitation.

INTRODUCTION

The cardiac rehabilitation process is a series of activities (including life style modifications) requiring active participation by patients and their families. Its purpose is to restore heart attack victims, coronary surgery patients or coronary prone individuals to an optimally productive life.

It's remarkable that cardiac rehabilitation took so long to be accepted in a society in which self – reliance and independence are valued. Health care system have only recently developed means for meeting needs for prevention and rehabilitation of persons afflicted with the most costly disease and the number one killer, coronary artery disease. People are beginning to realize that the conditions that cause the most death and disability in our society are the conditions that can be prevented and trend towards assuming responsibility for ones own health finally is developing.

Today CVD accounts for approximately 30% of deaths world wide, including nearly 40% in high-income countries and about 28% in low and middle-income countries.

The global rise in CVD is the result of an unprecedented transformation in the causes of morbidity and mortality during the 20th century (Harrison's 2008).

Cardiovascular disease, which accounts for <10% of deaths, takes the form of rheumatic heart disease and cardiomyopathies due to infection and malnutrition. Approximately 10% of the world's population remains in the age of pestilence and famine (Harrison's 2008).

In the industrialized world, physical activity continues to decrease while total caloric intake increases. The resulting epidemic of overweight and obesity may signal the start of the age of inactivity and obesity.

CVD DEATH AS A PERCENTAGE OF TOTAL DEATH (WORLD BANK)

East Asia and Pacific	30.6%
Eastern Europe and Central Asia	58.1%
Latin America, the Caribbean	27.8%
Middle east and North Africa	35%
South Asia	52.2%
Sub – Sahonan Africa	97%

INDIA

Indians are nearly four times more susceptible to heart attacks, than white Americans. According to WHO, 60% of the world's cardiac patients will be Indians and by 2010 nearly 50% of cardiovascular related death in India occurs below the age of 70 compared with about 22% in the world.

India, the world capital for heart disease (VijayDikshit, Cardiothoracic Surgeon 2008). India experiencing an alarming increase in heart disease (Harrison's 2008). It has been suggested that Indians have exaggerated insulin insensitivity in response to the Western life style pattern that may differentially increase rates of CHD over stroke (Harrison's 2008).

RESEARCH PROBLEM

“A STUDY TO ASSESS THE KNOWLEDGE, ATTITUDE AND PRACTICE OF CARDIAC PATIENTS ON CARDIAC REHABILITATION MEASURES IN SELECTED HOSPITALS, ERODE, TAMILNADU.”

OBJECTIVES

- ❖ To assess the knowledge, attitude and practice of cardiac patients on cardiac rehabilitation measures.
- ❖ To assess the relationship between knowledge and attitude of cardiac patients on cardiac rehabilitation measures.
- ❖ To assess the relationship between knowledge and practice of cardiac patients on cardiac rehabilitation measures.
- ❖ To assess the relationship between attitude and practice of cardiac patients on cardiac rehabilitation measures.
- ❖ To assess the association between selected demographic variables of cardiac patients with their knowledge, attitude and practice of cardiac rehabilitation measures.

METHODOLOGY

- ❖ The study was aimed at evaluating the knowledge, attitude and practice of cardiac patients on cardiac rehabilitation measures.

RESEARCH APPROACH

A research approach tells the researcher as to what data to collect and how to analyze it. It also suggests possible conclusions to be drawn from the data. In this study the researcher sought to assess the knowledge, attitude and practice of cardiac patients on cardiac rehabilitation measures. In view of the nature of the problem selected for the study and the objectives to be accomplished, Non – experimental approach was used for this study.

In the analysis of data, the association between demographic variables and the knowledge, attitude and practice of cardiac rehabilitation measures and the relationship between knowledge, attitude and practice of cardiac rehabilitation measures represents the effect of the independent variable.

The nature of the study is also analytical where hypothesis are tested, examining relationship of knowledge, attitude and practice with demographic variables.

RESEARCH DESIGN

Research design is the researcher’s overall plan for obtaining answers to the research questions. The investigator has employed Descriptive research design with the help of questionnaire on knowledge, attitude and practice of cardiac rehabilitation measures.

TABLE 1
TABLE 1

PERCENTAGE OF DIFFERENT ASPECTS OF CARDIAC REHABILITATION KNOWLEDGE

	No. of questions	Min – Max score	Knowledge score	
			Mean score	%
Cardiac Rehabilitation	4	1 -4	1.70	42.5%
Risk factor	4	1 -4	3.32	83.0%
Diet	4	1 -4	2.97	74.3%
Exercise	4	1 -4	2.60	65.0%
Management	4	1 -4	3.28	82.0%

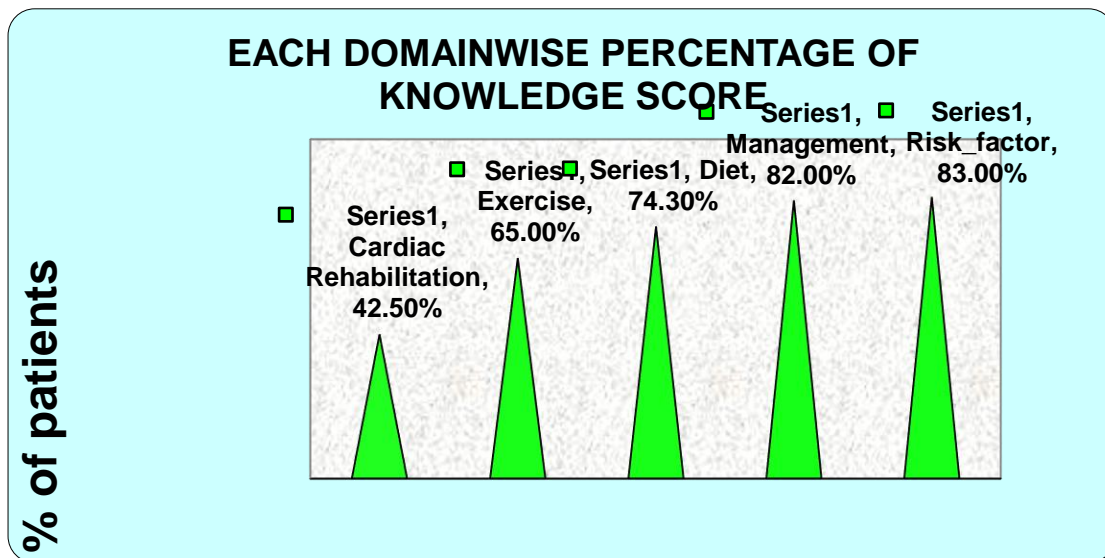


FIGURE.1

They are having more knowledge in risk factor and management but they are having poor knowledge in cardiac rehabilitation.

LEVEL OF CARDIAC REHABILITATION KNOWLEDGE

TABLE 2

Knowledge	Number of patients
Inadequate	20(20.0%)
Moderately adequate	45(45.0%)
Adequate	35(35.0%)

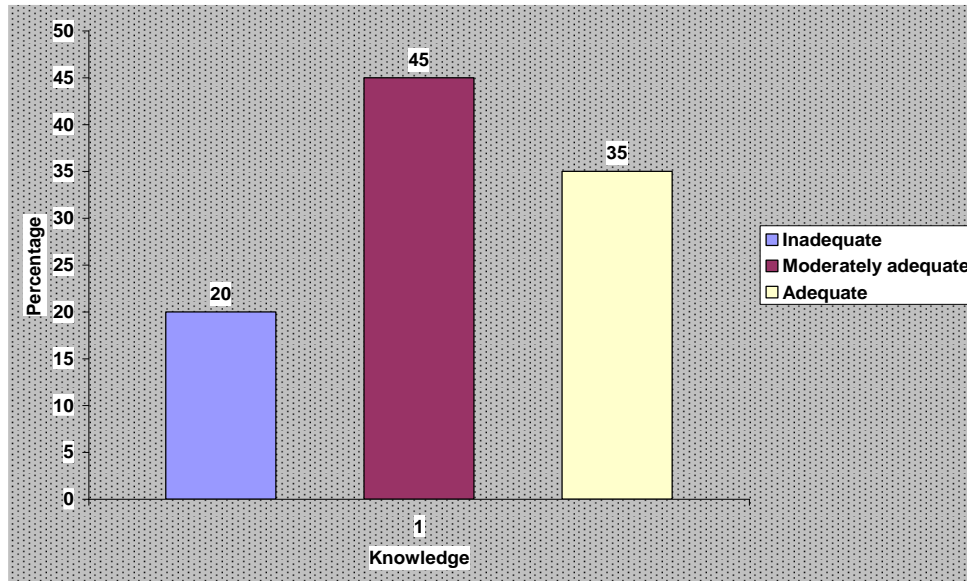


FIGURE 2

TABLE- 3

LEVEL OF CARDIAC REHABILITATION ATTITUDE

Attitude	Number of patients
Poor	22(22.0%)
Better	58(58.0%)
Good	20(20.0%)

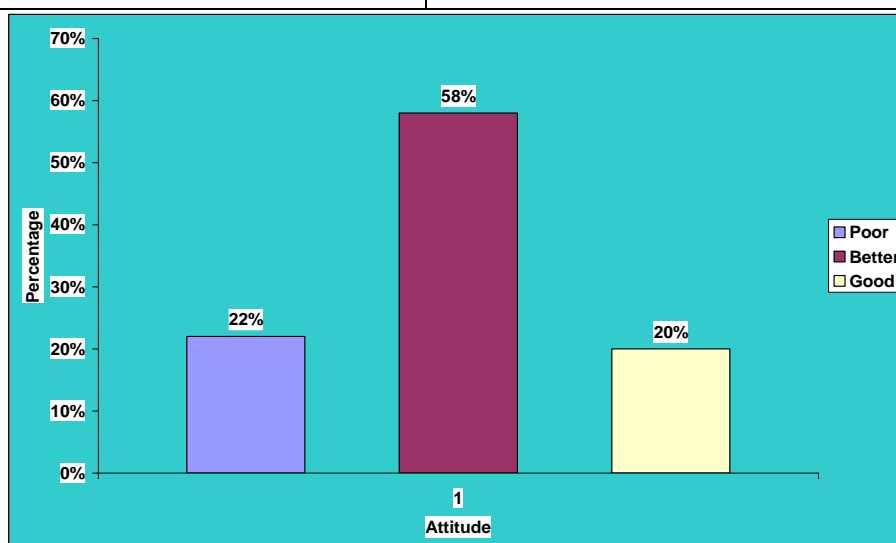


FIGURE 3

22% of the cardiac patients are having Poor attitude
 58% of the cardiac patients are having Better attitude
 20% of the cardiac patients are having Good attitude.

COMPARISON OF KNOWLEDGE, ATTITUDE AND PRACTICE SCORE
TABLE 4

	No. of questions	Min – Max score	COMPARISON	
			Mean score	%
Knowledge	5	1 - 20	13.87	69.35%
Attitude	10	10- 40	26.69	66.70%
Practice	10	1- 10	5.29	52.9%

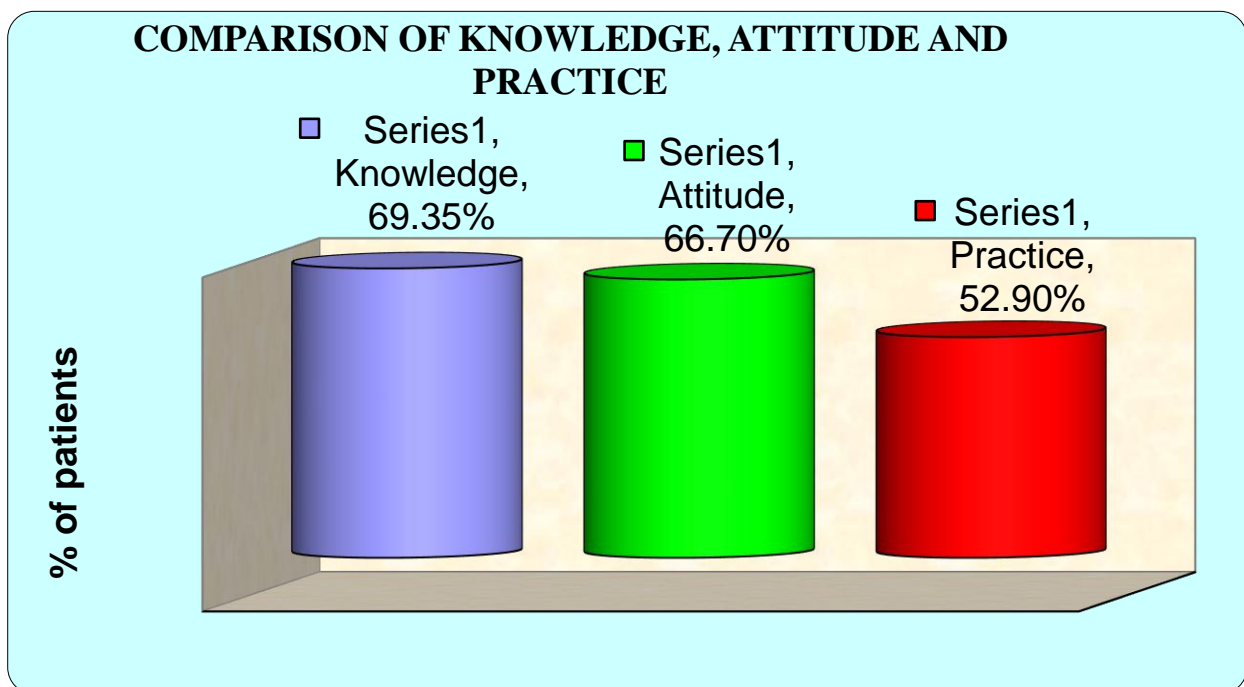


FIGURE 4

The above figure shows the overall knowledge attitude and practice of cardiac patients on cardiac rehabilitation measures. Cardiac patients are having on an average of 69.35% knowledge, 66.70% of attitude and 52.9% of practice on cardiac rehabilitation measures.

TABLE 5

CORRELATION BETWEEN KNOWLEDGE AND ATTITUDE

Correlation between	mean score	Karl Pearson correlation coefficient	Interpretation
	Mean±SD		
Knowledge	7±3.38	r = 0.52 P=0.001	Moderate Positive significant Correlation It means when knowledge increases their attitude also increases moderately
Attitude	9±4.13		

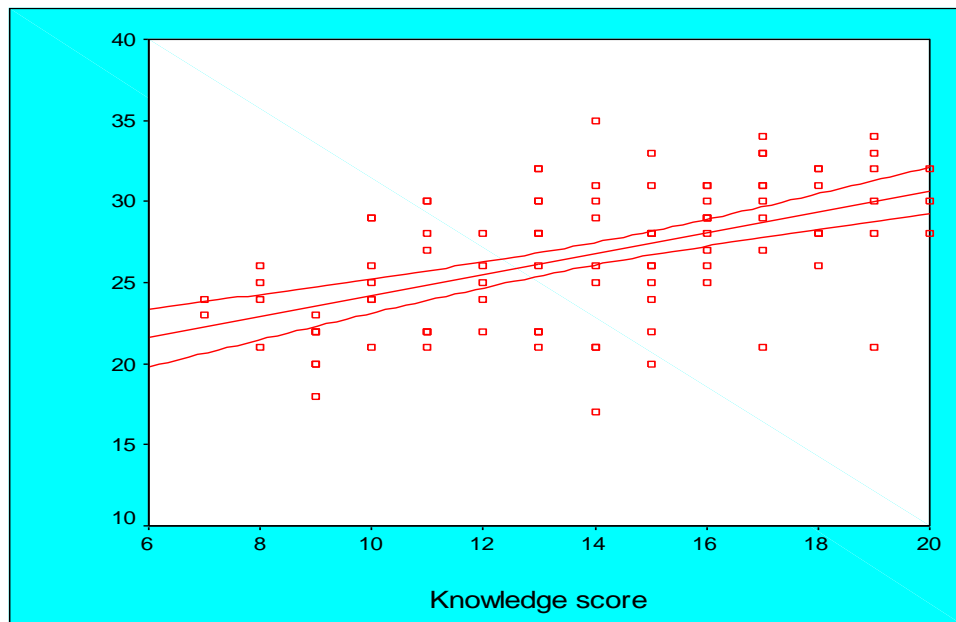


FIGURE 5

Scatter diagram with regression estimate shows the moderate correlation between cardiac patients knowledge score and attitude score (r=0.52 P=0.001)

TABLE 6

CORRELATION BETWEEN KNOWLEDGE AND PRACTICE

Correlation between	mean score	Karl Pearson correlation coefficient	Interpretation
	Mean±SD		
Knowledge	7±3.38	r = 0.43 P=0.01	Moderate Positive significant Correlation It means when knowledge increases their Practice also increases moderately
Practice	±1.49		

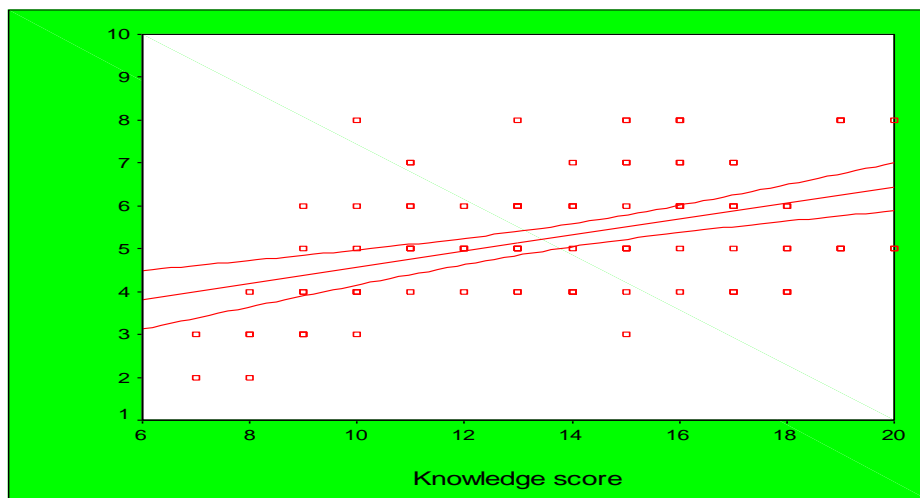


FIGURE 6

Scatter diagram with regression estimate shows the moderate correlation between cardiac patients knowledge score and Practice score (r = 0.43 P = 0.001).

TABLE 7

CORRELATION BETWEEN ATTITUDE AND PRACTICE

Correlation between	mean score	Karl Pearson correlation coefficient	Interpretation
	Mean±SD		
Attitude	±1.49	r = 0.26 P=0.01	Fair Positive significant Correlation
Practice	9±4.13		

It means when Attitude increases their Practice also increases fairly

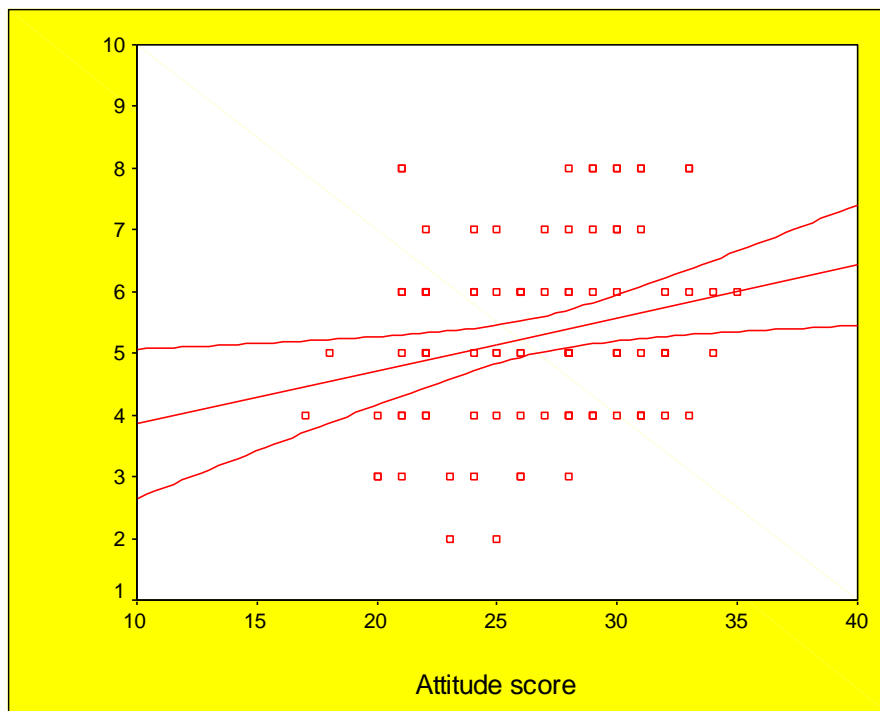


FIGURE 7

Scatter diagram with regression estimate shows the moderate correlation between cardiac patients Attitude score and Practice score ($r = 0.26$ $P = 0.001$)

DISCUSSION

This chapter deals with the discussion of the study with appropriate literature review, statistical analysis and the discussion of the main findings of the study in relation to objectives and hypothesis of the present study.

The first objective of the study was to “Assess the knowledge, attitude and practice of cardiac patients on cardiac rehabilitation measures”.

Table 2 revealed that 35% of patients had adequate knowledge, 45% had moderately adequate and 20.0% of the patients had inadequate knowledge on cardiac rehabilitation measures.

Table 3 showed that 20.0% of the patients had good attitude, 58% had better attitude and 22% of the patients had poor attitude on cardiac rehabilitation measures.

This is consistent with the report of “Agency for health care policy and research and the American Association of cardiovascular and pulmonary rehabilitation have recognized the wide variation in awareness and understanding of the role of cardiac rehabilitation among physicians, ancillary health care providers, third party payers and patients with heart disease. Only 11% of

patients participate in rehabilitation programme following acute coronary events.

The second objective was to “Assess the relationship between knowledge and attitude of cardiac patients on cardiac rehabilitation measures.

The study revealed that the mean score and standard deviation of knowledge was 13.897 and 3.38 respectively. The mean and standard deviation of attitude was 26.69 and 4.13 respectively. The p value was 0.001. It indicates that when knowledge increases their attitude also increases moderately.

The third objective of the study was to “ Assess the relationship between knowledge and practice of cardiac rehabilitation measures.

It also showed that the mean and standard deviation of knowledge and practice was found to be 13.87 ± 3.38 and 5.29 ± 1.49 respectively. The correlation was determined by Karl Pearson correlation coefficient. The value was 0.43 and $P=0.01$. It reveals that when knowledge increases their practice also increases moderately.

The fourth objective was to “Assess the relationship between attitude and practice of cardiac rehabilitation measures”.

It showed that the mean and the standard deviation of knowledge and attitude was 5.29 ± 1.49 and 26.69 ± 4.13 respectively. The r value was 0.26 and $p = 0.01$, it reveals that when attitude increases practice also increases fairly.

The Fifth objective was to “Associate the demographic variables with knowledge attitude and practice scores”.

Association between knowledge and demographic variables

It showed that demographic variables such as age, sex, marital status, income and educational status of the patient were associated with knowledge score of patients by Pearson chi-square test.

Among these demographic variables, only educational status ($p=0.001$) and monthly income ($p=0.006$) was significant. This shows that educated (90%) and more income patients (90%) have adequate knowledge than others.

Association between attitude and demographic variables.

It revealed that monthly income ($p=0.006$) and educational status ($p=0.004$) was significant.

It shows that higher educated and more income patients have good attitude (60% and 60%) respectively than others.

Association between demographic variables and practice

It showed that 40% of the patients in the age group of (20-30 yrs) and 50% more income patients had good practice of cardiac rehabilitation measures than others.

Over all it was estimated that Cardiac patients had an average of 69.35% of knowledge, 66.70% of attitude and 52.9% of practice of cardiac rehabilitation measures.

SOCIO DEMOGRAPHIC CHARACTERISTICS OF CARDIAC PATIENTS

From table 1 it was identified that majority of the participants (44%) were between the age of 51-60 yrs and 58% of them were males and 42.0% were females.

Majority of the subjects were married (90%) 35% of patients monthly income was below Rs .5000 and 10% above Rs 15000.

It was also identified that only 10% of them were graduates, 34.0% illiterate and 31% of them had higher secondary education.

80% of the subjects were non vegetarians, 63% of patients had no habit of smoking or alcohol drinking. Majority of the study participants (70%) were Hindus and 23% Christians.

MAJOR FINDINGS OF THE STUDY

- ❖ Most of the samples (44%) were between the age of 51-60 yrs.
- ❖ 58% were males and 42% females.
- ❖ Majority of them were married (90%)
- ❖ Most of the samples (34%) were illiterates.
- ❖ Majority of the samples (70%) were from Hindu background.
- ❖ The data showed that 35% of patients had adequate knowledge, 20% had inadequate knowledge on cardiac rehabilitation measures.
- ❖ 20% of patients had good attitude and 58% had better attitude.
- ❖ Only 11% of the patients had good practice of cardiac rehabilitation measures.
- ❖ The mean percentage knowledge, attitude and practice scores were 69.3%, 66.7% and 52.9% respectively.
- ❖ The data showed that when knowledge increases the attitude also increases moderately ($r=0.52$).
- ❖ The data showed that when knowledge increases the practice also increases moderately ($r=0.43$).
- ❖ It was determined that when attitude increases the practice also increases fairly ($r=0.26$).
- ❖ It was assessed that only monthly income and educational status was significant with knowledge and attitude level, whereas age and monthly income was significant with practice level of cardiac patients.

CONCLUSION

The present study assessed the knowledge attitude and practice of cardiac patients on cardiac rehabilitation measures. It was determined that 74% of patients had inadequate knowledge on cardiac rehabilitation programme and only 11% of the patients had good practice of cardiac rehabilitation

measures. The reasons given by the patients for poor practice were lack of time, busy schedule, stress in their job and poor economy.

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