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A Study to Assess the Anxiety Level among Patients who are Newly Diagnosed as Myocardial Infarction and their Primary Care Givers in a Selected Tertiary Hospital, Tamil nadu, India

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Abstract

The aim of the study was to assess the anxiety level of newly diagnosed Myocardial Infarction patients and their primary care givers and to compare their anxiety level and to associate the anxiety level of newly diagnosed Myocardial Infarction patients and their primary care givers with selected demographic variables and to compare the level of anxiety among newly diagnosed Myocardial Infarction patients and their primary care givers. A descriptive research design and quantitative non-experimental approach was selected. The study includes 50 patients selected by purposive sampling technique. The study was conducted in Trichy SRM Medical College hospital & Research institute at Irungalur, Trichy. Demographic data, state and trait anxiety scale were used for data collection procedure. To analyze the data, statistical analysis was used. The Johnson's behavioral system model, which is widely used to study health behavior, formed the theoretical framework for this study. The major findings of the study showed that, there was a significant relationship between the patients and primary care givers in State anxiety level with selected demographic variables. There was a significant association between the level of anxiety and demographic variables like Age, Sex and Education. There was a positive correlation between the level of anxiety of patients and their primary care givers. Symptoms of anxiety were prevalent and persistent problems among newly diagnosed as Myocardial Infarction patients and their primary care givers. This study highlights the importance of routine psychological assessment for newly diagnosed as Myocardial Infarction patients and their primary care givers in hospital and after discharge.

Keywords: *Myocardial infarction, Anxiety, primary care givers.*

Introduction

Acute myocardial infarction (AMI) is a major cause of morbidity and mortality in the United States. Myocardial infarction afflicts at least 1.5 million individuals a year and kills more than 500,000. The effect of various clinical and socio-demographic characteristics on the incidence of physical complications has been well-studied. Less attention has been paid to the acute psychological responses that accompany acute myocardial infarction (AMI). Anxiety is one of the earliest and most intense psychological responses to acute myocardial infarction (AMI).

Anxiety and depression are prevalent in patients hospitalized for myocardial infarction (MI) because patients are confronted with a diagnosis that is major, both psychologically and physically. In addition, the experience of a cardiac event is a significant source of stress for family members trying to adjust to the initial diagnosis and confront the uncertainties associated with hospitalization and the initial recovery phase. Anxiety has been demonstrated to predict in hospital recurrent ischemia and arrhythmias and cardiac events during the first year after amyocardial infarction (MI). Physicians' and nurses' subjective judgments of patient anxiety are not accurate when compared with measurements of anxiety on validated scales.

Statement of the problem

"A study to assess the anxiety level among patients who are newly diagnosed as Myocardial Infarction patients and their primary care givers in a selected tertiary hospital, Tamil Nadu, India".

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Objectives

1) To assess the anxiety level of newly diagnosed Myocardial Infarction patients and their primary care givers.
2) To associate the anxiety level of newly diagnosed Myocardial Infarction patients with selected demographic variables.
3) To associate the anxiety level of primary care givers with selected demographic variables.
4) To compare the anxiety level of newly diagnosed Myocardial Infarction patients and their primary care givers.

Methodology

Research approach. A descriptive research approach was considered appropriate for the present study.

Research design. A quantitative non-experimental descriptive study was found to be appropriate to assess the anxiety level among patients who are newly diagnosed as Myocardial Infarction and their primary care givers.

Variables under investigation

Variables are qualities, properties or characteristic of the person, things or situation that change or vary. In the present study the dependent variable was level of anxiety, the independent variables were newly diagnosed as Myocardial Infarction patients and their primary care givers and demographic variables were age, sex, marital status, education, occupation, income, present illness, relationship to the patient.

Setting. The study was conducted in cardiothoracic department at SRM Medical College hospital & Research institute at Irungalur, Trichy. It is a private hospital. It has 5 floors, and is 1980 bedded hospital. The ICCU includes separate units of Cath ICU and Cardio thoracic ICU. In each unit have 11 beds. The General ICU having 15 beds. It consists of all the specialties including medicine, surgery, ENT, Cardiology, Pediatrics, Nephrology, Neurology, Oncology and Obstetrics and Gynecology. It has the services like outpatient department, inpatient department, emergency and intensive care unit. The hospital is well equipped with modern techniques, competent and complex equipment's. The present study was conducted in Emergency care unit and cardio thoracic ICU.

Population. In the present study, the target population was the Patients who were admitted in SRM Medical College hospital & Research institute at Irungalur, Trichy. Myocardial infarction and their primary care givers.

Sample and sampling technique

Sample. Samples were the newly diagnosed as myocardial infarction and their primary care givers who admitted cardiac ICU and Emergency care unit in SRM Medical College hospital & Research institute at Irungalur, Trichy. who fulfilled the sampling criteria?

Sample size. The sample for the present study comprised of 50 newly diagnosed as Myocardial Infarction and their primary care givers.

Sampling technique. Non-probability purposive sampling technique was used for selecting samples for this study.

Criteria for sample selection

Inclusion criteria

1. Patients who are newly diagnosed as Myocardial infarction and their primary care givers.
2. The patients who knows Tamil and English.

Exclusion criteria

1. The psychiatric patients.
2. The patients' who were critically ill.

Description of the tool

The tool consists of two sections.

Section-A

It consists of 8 items of demographic variables like age, sex, marital status, education, occupation, income, Present illness, and Primary care givers.

Section-B

The Speilberger D. Charles State and Trait Anxiety Inventory form developed by Speilberger was used in present study. It consists of two divisions. Form 1 is the State Anxiety Questionnaire. Form 2 is the Trait Anxiety Questionnaire. Each division consists of 20 items on 4 point "Likert Scale".

1. Not at all
2. Somewhat
3. Moderately so
4. Very much so

Score and interpretation

The Form I State Anxiety Likert scale maximum score is '80', minimum score is '20'. For item no. 1,2,5,8,10,11,15,16,19 and 20, reverse scoring is given and for the remaining 10 items direct scoring is given. In the same way Form II Trait Anxiety contains 20 items with a maximum score of '80' and a minimum score of '20'.

For itemsno.2,3,4,5,8,9,11,12,14,15,17,18 and 20 direct scoring is given and for item no.1,6,7,10,13,16 and 19 reverse scoring is given as they indicate wellbeing and calmness.

Level of anxiety	Score	percentage
Normal	0 - 20	0% - 25%
Mild anxiety level	21 - 40	25% - 50%
Moderate anxiety	41 - 60	50% - 75%
Severe anxiety	61 - 80	75% - 100%

Data collection procedure

The investigator obtained prior permission from the dean of TSRMMCRI. Ethical Clearance was obtained from the research committee. Total50 samples were selected by using inclusion and exclusion criteria and the investigator met each participant and established rapport with them. The investigator interviewed the newly diagnosed Myocardial infarction patients and their primary care givers to assess the anxiety level with the State and Trait anxiety inventory and analyzed the results. The investigator spent 20 minutes for each sample.

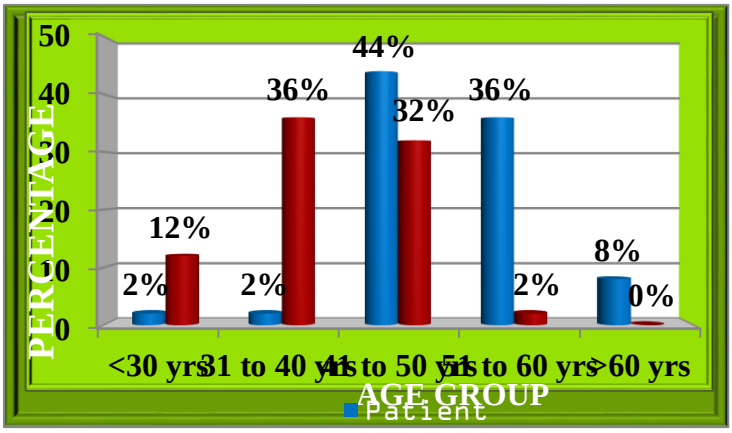

Figure 1. Frequency and percentage distribution of sample with reference to age

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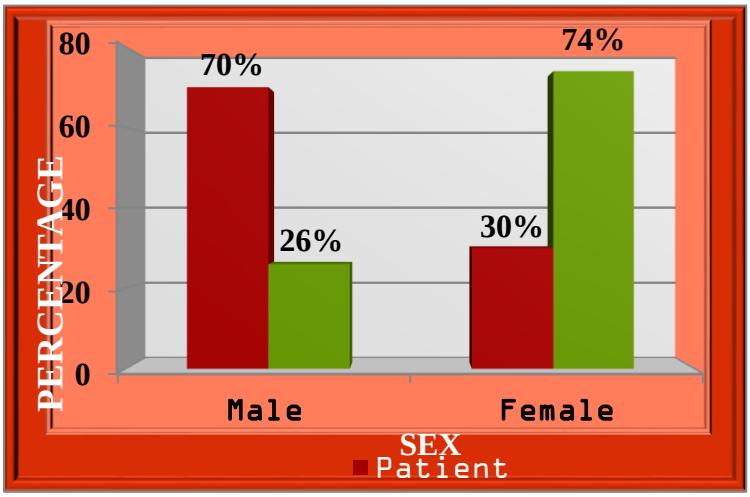

Figure 2. Frequency and percentage distribution of sample with reference to Sex

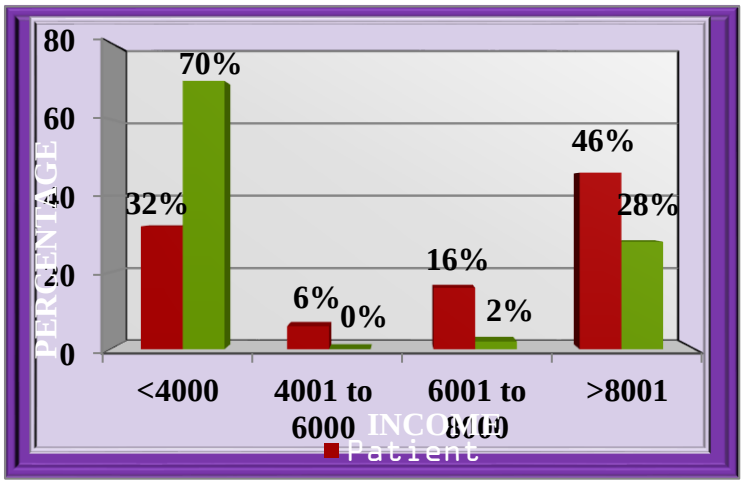

Figure 3. Frequency and percentage distribution of sample with reference to Income

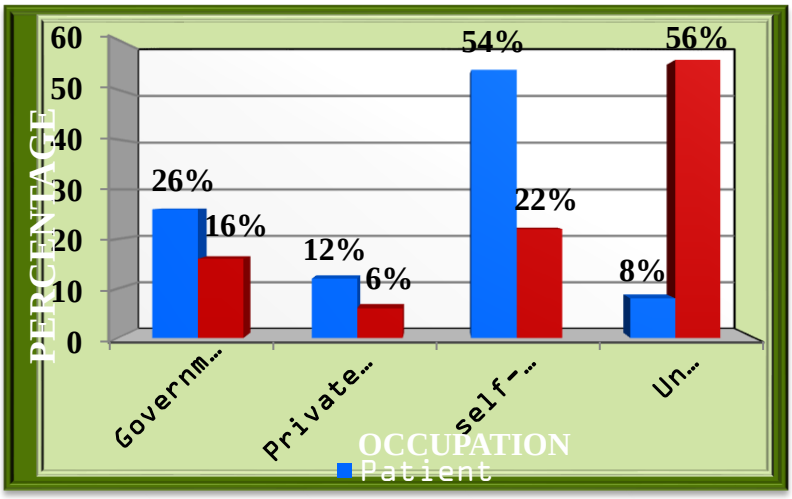

Figure 4. Frequency and percentage distribution of sample with reference to Occupation

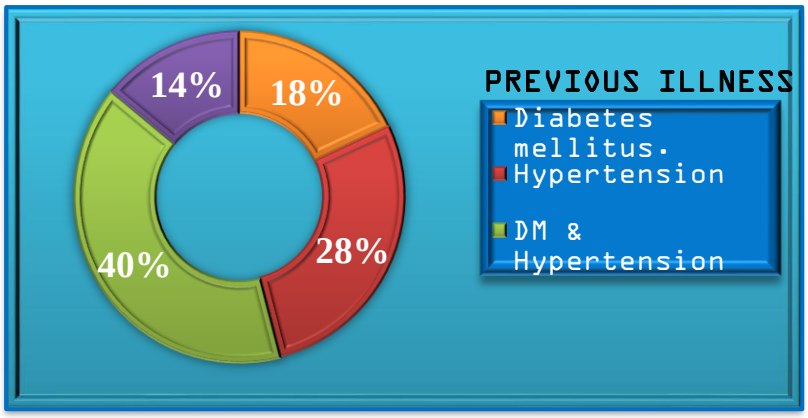

Figure 5. Frequency and percentage distribution of myocardial infarction Patients with reference to previous illness

Section B

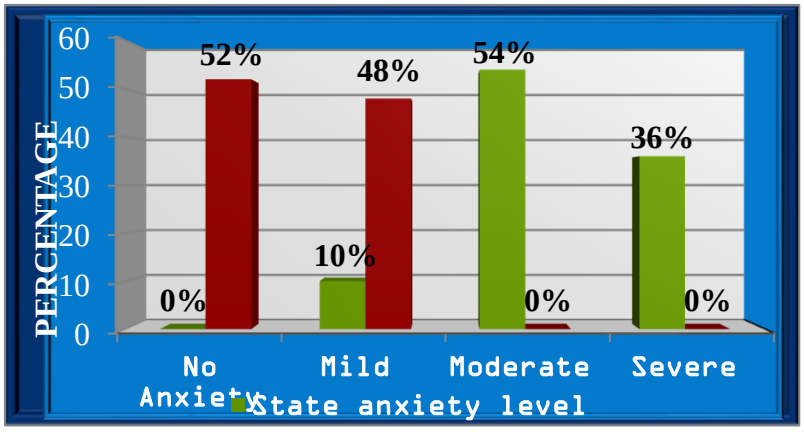

Figure 6. Assessment of the anxiety level of newly diagnosed myocardial infarction patients and their primary care givers

Figure reveals that 5 (10%) myocardial infarction patients had mild anxiety;27 (54%) patients had Moderate anxiety; 18 (36%) patients had severe anxiety in state scale.26(52%) patients had no anxiety; 24 (48%) patients had mild anxiety in trait scale.

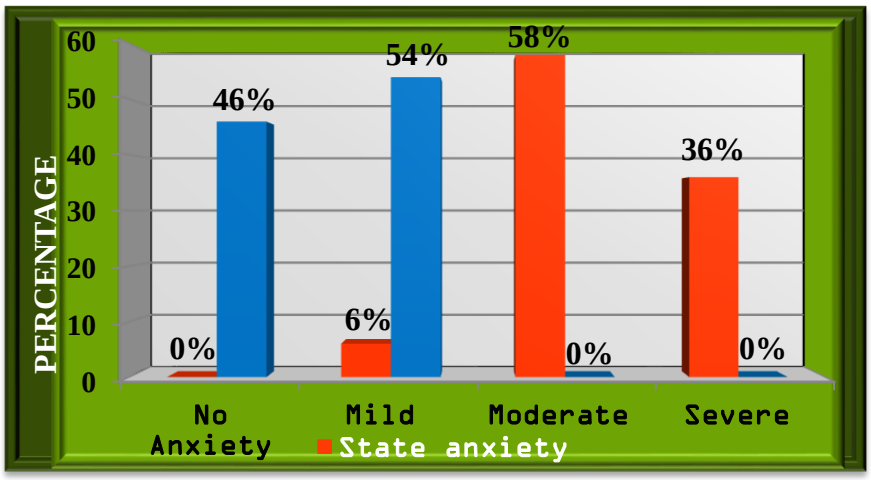

Figure 7. Frequency and percentage distribution of anxiety level of primary care givers

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Figure reveals that 3 (6%) patients had mild anxiety; 29(58%) patients had Moderate anxiety; 18 (36%) patients had severe anxiety in state scale. 23 (46%) had no anxiety; 27 (54%) patients had mild anxiety in trait scale.

Section C

Association of the anxiety level of primary care givers with selected demographic variables.

(N= 50)

DEMOGRAPHIC VARIABLES		Mild Anxiety		Moderate Anxiety		Severe Anxiety		Chi square test
		NO	%	NO	%	NO	%	
Age	a. <30 yrs	1	2%	0	0%	0	0%	$X^2 = 1.476$
	b. 31 to 40 yrs	2	4%	2	4%	1	2%	P = .718
	c. 41 to 50 yrs	0	0%	15	30%	7	14%	**NS**
	d. 51 to 60 yrs	2	4%	8	16%	8	16%	
	e. >60 yrs	0	0%	2	4%	2	4%	
Sex	a. Male	4	8%	18	36%	13	26%	$X^2 = .423$
	b. Female.	1	2%	9	18%	5	10%	P = .809 **NS**
Marital status	a. Single	1	2%	4	8%	1	2%	$X^2 = 1.214$
	b. Married	4	8%	23	46%	17	17%	P = .545
	c. Divorced	0	0%	0	0%	0	0%	**NS**
Education	a. No formal education	2	4%	7	14%	11	22%	$X^2 = 1.674$
	b. Primary school	0	0%	11	22%	5	10%	P = 0.832
	c. Secondary school	2	4%	3	6%	0	0%	**NS**
	d. Graduate and above	1	2%	6	12%	2	4%	
Occupation	a. Government employee	2	4%	6	12%	5	10%	$X^2 = 6.661$
	b. Private employed	0	0%	6	12%	0	0%	P = 0.353
	c. self-employee	3	6%	13	26%	11	22%	**NS**
	d. Un employee	0	0%	2	4%	2	4%	
Income	a. <4000	2	4%	6	12%	8	16%	$X^2 = 4.333$
	b. 4001 to 6000	0	0%	2	4%	1	2%	P = 0.632
	c. 6001 to 8000	0	0%	6	12%	2	4%	**NS**
	d. >8001	3	6%	13	26%	7	14%	
Previous illness?	a. Diabetes mellitus.	2	4%	6	12%	1	2%	$X^2 = 5.974$
	b. Hypertension	1	2%	7	14%	6	12%	P = 0.426
	c. Diabetes mellitus & Hypertension	1	2%	12	24%	7	14%	**NS**
	d. None of the above	1	2%	2	4%	4	8%	

Section D

Comparison of the anxiety level of newly diagnosed myocardial infarction patients with their primary care givers.

(N= 50)

	ANXIETY LEVEL		
	Mean	**S D**	**'t' Test**
Patient	2.26	633	P = .046*
Primary care givers	2.30	580	**Significant**

Implications

The findings emerged out of this study has got implications in the field of nursing service, nursing education, nursing administration and nursing research.

Nursing service

1. Nurse should arrange counseling sessions for both patients and their primary care givers.
2. Attempts must be made to motivate the patients as well as their Primary care givers in adhering to Post care of Myocardial infarction.
3. Increased attention must be directed to client education regarding important of Myocardial infarction and also after care of MI.
4. Nurses must educate the patients regarding the life style modification and provide psychological support for patients as well as Primary care givers.

Nursing education

1. Nurse educators can encourage the students who are posted in the CCU and wards to assess anxiety level of Myocardial infarction patients and provide the psychological support to them and their primary care givers.
2. Nursing curriculum can formulate guidelines related to control of risk factors of Myocardial infarction and that can be issued all CCU and Cardiac disease institute.
3. Nurse educators can prepare pamphlets, self-instruction module related to myocardial infarction and precaution of anxiety that can be distributed in CCU and Cardiac disease institute.

Nursing administration

1. The nurse administrator can plan and develop protocol, standing orders related to psychological aspect of care to Myocardial infarction patients and their primary caregivers.
2. The nurse administrator can disseminate the research knowledge to the nurses.
3. The nurse administrator can conduct continuing nursing education programme.

Nursing research

1. The present study can be replicated on a large population.
2. Nurses must incorporate newer methods to motivate patient with myocardial infarction towards life style modification and prevention of complication.

Limitations

1. The findings can only be generalized to the patients with myocardial infarction.
2. The study was conducted only in Trichy SRM Medical College hospital & Research institute at Irungalur, Trichy.
3. The researcher could not get adequate number of samples.

Recommendations

1. This study may be replicated on a large sample.
2. Similar studies may be conducted in other settings.
3. An experimental study to determine the effectiveness of the structured counseling sessions among patients with myocardial infarction.
4. A comparative study between male and female myocardial infarction patients can be conducted.

Conclusions

Based on the findings of the study the following conclusions were drawn i.e. 10% myocardial infarction patients had mild anxiety; 54% patients had Moderate anxiety; 36% patients had severe anxiety and 6% primary care givers had mild anxiety; 58% primary care givers had Moderate anxiety; 36% primary care givers had severe anxiety. There was a positive correlation between the patients and primary care givers anxiety level. The mean anxiety level of primary care giver is higher than patient's anxiety level. The study results shows that Anxiety is one of the earliest and most intense

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psychological responses to acute myocardial infarction (AMI) patients and their primary care givers. So, the health personnel insisted to pay more attention to the acute psychological responses that accompany acute myocardial infarction (AMI) to prevent further complications.

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