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ASSESSMENT OF ANXIETY AND DEPRESSION AMONG PATIENTS WITH MYOCARDIAL INFARCTION, WHO ARE ADMITTED IN CARDIAC CARE UNITS OF SELECTED HOSPITALS IN MANGALORE

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ABSTRACT

Anxiety and depressive disorders are common in the general population and are particularly prevalent in patients with cardiovascular disease. A descriptive research design was used to assess anxiety and depression among 50 patients with myocardial infarction, who are admitted in cardiac care units of selected hospitals in Mangalore. Purposive sampling technique was used to collect the sample for study. The data was collected by using Zung Anxiety Self Assessment Scale and Zung Depression Self Assessment Scale. Majority (94%) of the patients had minimal to moderate level of anxiety, (6%) of them had marked to severe level of anxiety.Majority (86%) of the patients had mild level of depression and (14%) of them had moderate level of depression. There was no significant association between level of anxiety and depression with demographic variables.The findings of the study concluded that the high proportion of patients with AMI found to be suffering from symptoms of depression and anxiety after AMI highlights the essential need to assess these symptoms in all such patients and no association was found between anxiety and depression with demographic variables.

INTRODUCTION

Coronary occlusion, heart attack, and Myocardial Infarction are terms used synonymously, but the preferred term is Myocardial Infarction [1]. Myocardial infarction (MI) is a life threatening condition characterized by the formation of formation of localized necrotic areas within the myocardium. It usually follows the sudden occlusion of a coronary artery and the abrupt cessation of blood and oxygen flow to the heart muscle. Because the heart muscle must function continuously, blockage of blood to the muscle and the development of necrotic areas can be lethal [2].

According to World Health Organisation (WHO) 12.2% of worldwide deaths were from myocardial infarction with it being the leading cause of death in high or middle income countries [3]. Worldwide more than 3 million people have ST elevation MI (STEMIs) and 4 million have non ST elevation MI (NSTEMIs) a year [4]. In India, myocardial infarction had become the leading cause of death by 2004 accounting for 1.46 million deaths (14% of total deaths) and deaths due to myocardial infarction were expected to double during 1985–2015 [5].

Mood is also called affect. Mood is a pervasive and sustained emotion that may have major influence on a

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person's perception of the world .An alteration in mood that is expressed by the feelings of sadness, despair, and pessimism. There is a loss of interest in usual activities, and somatic symptoms may be evident. Changes in appetite and sleep patterns are common [6].

Anxiety and depressive disorders are common in the general population and are particularly prevalent in patients with cardiovascular disease [7].Studies show that depression is about three times more common in heart attack patients. The American Heart Association recommends that heart patients be screened for depression and treated if necessary. Depressed heart disease patients often also have anxiety, suggesting it may underlie the risk previously attributed solely to depression.Anxiety and depression each influence risk of death in unique ways. Anxiety, for example, increases activity of the sympathetic nervous system that controls blood pressure. The link between depression and mortality is more related to behavioural risk factors. Depression results in lack of adherence to medical advice and treatments, along with behaviours like smoking and being sedentary [8].

Depression has been reported to occur in a significant percentage of patients suffering from acute Myocardial Infarction [9].Up to 15% of patients with cardiovascular disease and up to 20% of patients who have undergone Coronary Artery Bypass Grafting surgery experience major depression [10]. Anxiety disorders affect up to 20% of patients across different stages of coronary artery disease (CAD). Generalized anxiety disorder (GAD) is the most prevalent anxiety disorder with point prevalence rates ranging from 5% to 12% [11].

Anxiety and depressive disorders significantly impede the treatment and progress in cardiac events. So it is important to assess the level of anxiety and depression and the associated factors with AMI to plan and execute proper treatment strategies.

STATEMENT OF THE PROBLEM

Assessment of anxiety and depression among patients with myocardial infarction, who are admitted in cardiac care units of selected hospitals in Mangalore**.**

OBJECTIVES

The objectives of the study are:

1. To determine the level of anxiety and depression in hospitalized patients who had acute myocardial infarction.

2. To find out the association between level of anxiety and selected demographic variables

3. To find out the association between level of depression and selected demographic variables

HYPOTHESES

The hypotheses will be tested at 0.05 level of significance.

H_{01}: There is no significant association between the symptoms of anxiety and selected socio demographic variables.

H_{02}: There is no significant association between the symptoms of depression and selected demographic variables.

MATERIALS AND METHODS

Cross sectional research design was adopted for the study.The study was conducted in A. J. Hospital and Research Centre and Indiana hospital, Mangalore. Purposive sampling technique was used to select 50 patients with myocardial infarction who were admitted in coronary care units. Prior to data collection, permission was obtained from the concerned authority for conducting the study. Subjects were selected according to the selection criteria. Informed consent was obtained from the sample. A demographic proforma containing seven questions was administered to elicit baseline information. Zung Anxiety Self Rating Questionnaire [12] and Zung Depression Self Rating Questionnaire [13] were administered to the subjects to assess the level of anxiety and depression respectively. Descriptive and inferential statistics were used for analysis.

RESULTS

Section 1. Description of Demographic Variables of the Sample

Majority of the participants were in the age group of 50-59 years (62%), males (66%), married (92%) and highest percentage of them (32%) had PUC education. Majority of the sample (84%) had no history of acute myocardial infarction. Highest percentage of the participants(46%) were unemployed, and majority of them (86%) belonged to nuclear family.

The data in Table 3 show that there was no significant association between level of anxiety and age, sex, marital status, educational status, history of previous AMI, occupation and type of family. Hence the null hypothesis $H0_1$ was accepted. This finding revealed that the level of anxiety is not associated with any of the demographic variables.

The data in Table 4 show that there was no significant association between level of depression and age, sex, marital status, educational status, history of previous AMI, occupation and type of family Hence the null hypothesis $H0_2$ was accepted. This finding revealed that the level of depression is not associated with any of the demographic variables.

Table 1. Range, Mean, Median and Standard Deviation of Level of Anxiety among Myocardial Infarction Patients

N=50

Parameter	Obtained range	Mean	Median	Standard deviation
Level of anxiety	49-63	53.8	53	3.49

Data in the table 1 show that the range of score was in between 49-63 and mean anxiety score was 53.8 ± 3.49.

Table 2. Range, Mean, Median and Standard Deviation of Level of Depression among Myocardial Infarction

N=50

Parameter	Obtained range	Mean	Median	Standard deviation
Level of depression	46-67	53.24	52	5.1

Data in the table 2 show that the range of score was in between 46-67 and mean depression score was 53.24±5.1.

Table 3. Chi-Square Test Showing Association of Level of Anxiety and Selected Demographic Variables

N=50

Sl. No	Demographic Variables	χ^2	df	Table Value	Inference
1.	Age (in years)	0.175	2	5.991	Not significant
2.	Sex	0.081	1	3.841	Not Significant
3.	Marital status	0.818	1	3.841	Not Significant
4.	Education status	0.57	1	3.841	Not significant
5.	History of previous AMI	0.155	1	3.841	Not significant
6.	Occupation	0.06	1	3.841	Not significant
7.	Type of family	0.69	1	3.841	Not significant

($\chi^2_{(1)}$ =3.84, $\chi^2_{(2)}$= 5.99 p<0.05)

Table 4. Chi-Square Test Showing Association of Level of Depression and Selected Demographic Variables

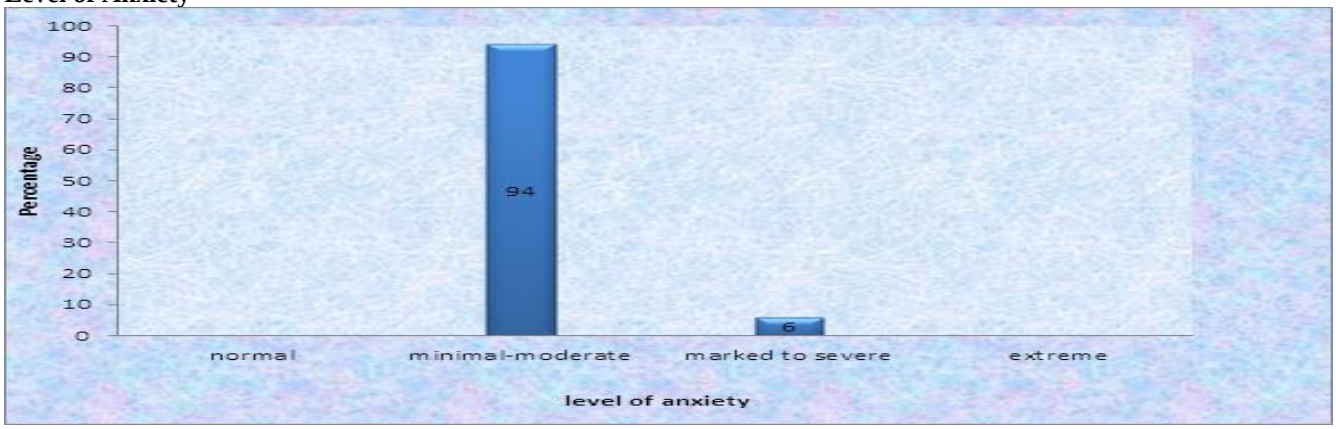
N=50

Sl. No	Demographic Variables	χ^2	df	Table Value	Inference
1.	Age (in years)	0.248	1	3.841	Not significant
2.	Sex	0.902	1	3.841	Not Significant
3.	Marital status	1.248	1	3.841	Not Significant
4.	Education status	0.06	1	3.841	Not significant
5.	History of previous AMI	0.79	1	3.841	Not significant
6.	Occupation	0.084	1	3.841	Not significant
7.	Type of family	0.238	1	3.841	Not significant

($\chi^2_{(1)}$ =3.84p<0.05)

Section 2. Description of Level of Anxiety among Patients who had Acute Myocardial Infarction

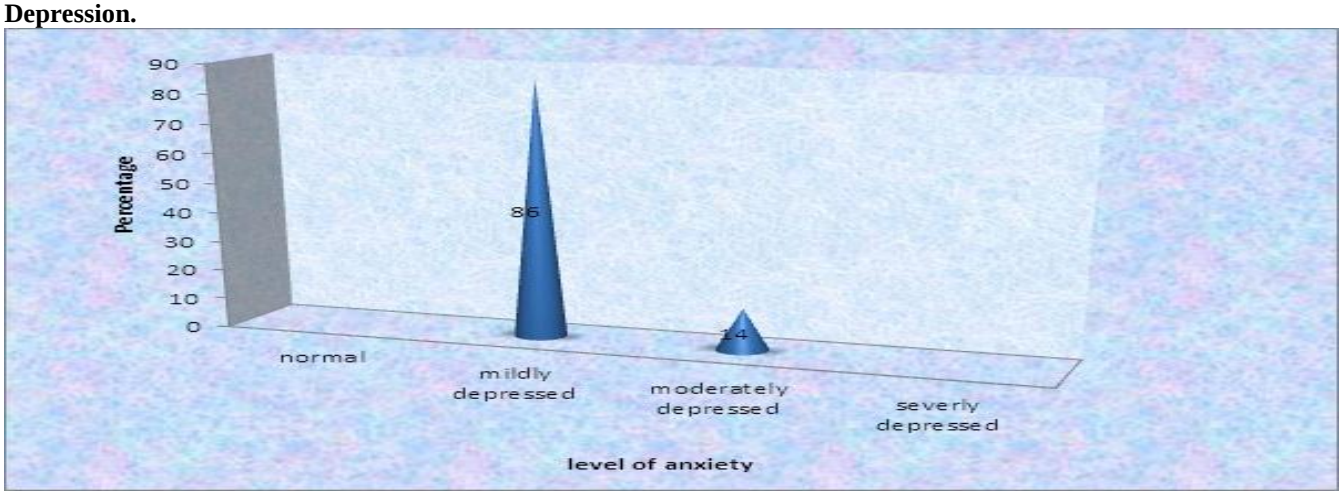
Fig 1. Bar Diagram Representing the Percentage Distribution of Myocardial Infarction Patients according to the Level of Anxiety



Datain Figure 1 shows that majority (94%) of the patients had minimal to moderate level of anxiety, (6%) of them had marked to severe level of anxiety

Section 3. Description of Level of Depression among Patients who had Acute Myocardial Infarction

Fig 2. Cone Diagram Showing the Percentage Distribution of Myocardial Infarction Patients according to the Level of Depression.



Datain Figure 2 shows that majority (86%) of the patients had mild level of depression and (14%) of them had moderate level of depression.

LIMITATIONS

1. The study was confined to specific geographical area (Mangalore), which imposes limits on generalization
2. Since the sample size was relatively small (50), generalization of the findings is limited.

RECOMMENDATIONS

1. The study can be replicated on a larger sample, spread over different hospitals for the generalization of findings.
2. An experimental study can be conducted to test a specific intervention in reducing anxiety and depression.

CONCLUSION

Coronary artery diseases are one of the leading causes of mortality and morbidity around the world despite the tremendous breakthroughs achieved in the field of medicine. According to World Health Organization (WHO) 12.2% of worldwide deaths were from myocardial infarction with it being the leading cause of death in high or middle income countries. Several clinical studies have proved that depression and anxiety, which is prevalent in patients with coronary artery diseases, can significantly increase the risk of mortality and hinder the treatment. It is high time the medical fraternity find effective ways to treat the anxiety and depression in coronary artery disease patients. Nurses need to be educated regarding the psychosocial aspects of coronary artery disease, especially anxiety and depressive disorders and how to identify and manage them effectively in a way that they don't interfere with treatment, and progress. A nurse needs to be adept in assessing the symptoms of depression and anxiety in cardiac patients and incorporating elements of clinical psychology in the treatment.

CONFLICTS OF INTEREST

There were no conflicts of interest reported in the study.

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