A Descriptive Study to Assess the Level of Anxiety and Depression among Post Myocardial Infarction (MI) Survivors.

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Abstract:

Background: According to various studies psychiatric morbidities in post Myocardial Infarction (MI) patients increases the morbidity and mortality. Prevalence of psychiatric morbidities is important for to early intervention and to improve the quality of life. Aim: To find out the prevalence of Depression and Anxiety following first attack of acute Myocardial Infarction. Method: 30 patients with an established diagnosis of acute MI were assessed in cardiology ward. Data was collected, analyzed and interpreted by using descriptive statistics. Results: 40% myocardial infarction patients were found to be suffering from depressive episode, 66% from mild to moderate anxiety symptoms. There was a positive correlation between anxiety and depression among MI patients. Conclusion: The high proportion of patients with MI found to be suffering from symptoms of depression and/ or anxiety two to three months after MI highlights the essential need to assess these symptoms in all such patients during the post - MI period as they merit appropriate treatment along with that of MI.

Key words: cardiovascular diseases, Myocardial infarction (mi), MI (nSTEMI), (STEMI),anxiety, depression, survivors,

1. Introduction:

Heart is a vital organ. It supplies and receives blood from other organs and parts of the body. Cardiovascular diseases (CVDs) are the number one cause of death globally, taking an estimated 17.9 million lives each year. CVDs are a group of disorders of the heart and blood vessels and include coronary heart disease, cerebrovascular disease, rheumatic heart disease and other conditions. Four out of 5 CVD deaths are due to heart attacks and strokes, and one third of these deaths occur prematurely in people under 70 years of age. Heart disease occupies a major portion in health care budget follow-up which increase the budget needed even more.

Myocardial infarction (MI), when the myocardium is deprived of oxygenated blood as a result of occluded or partially occluded coronary arteries. Necrosis (death) of the muscle cells begin about 20 – 30 minutes after the first onset of pain, thrombi are now know to be present in almost all acute coronary used to dissolve thrombi in the coronary arteries and restoring myocardial flow.

According to Glashow Monica project the death rate due to myocardial infarction (MI) is arrived with results stating that patients who were alive when they went to hospital were 66% and of them 64% were alive while admitted at ward and only 50% were alive after a period of 28 days in hospital. Approximately 1.5 million cases of myocardial infarction (MI) occur annually in the United States; the yearly incidence rate is approximately 600 cases per 100,000 people. The proportion of patients diagnosed with non–ST-elevation MI (NSTEMI) compared with ST-elevation MI (STEMI) has progressively increased.

Major depression and anxiety among patients recovering from a myocardial infarction (MI) is very common. Additionally, clinical significant depressive symptoms are present in patient whose
symptoms severity or duration does not meet established criteria for a diagnosis major anxiety and depression. Over the last decade, post myocardial infarction depression deserve attention because of its increased mortality and morbidity among the MI survivor

1.1 Need for the Study

During the first 2 years of follow-up, patients with MI exhibited a significantly higher risk of anxiety disorders (adjusted hazard ratio [HR] = 5.06, 95% confidence interval [CI]: 4.61–5.54) and depressive disorders (adjusted HR = 7.23, 95% CI: 4.88–10.88) than those without MI did. Greater risk for anxiety and depressive disorders was observed among women and patients aged 45 to 64 years following an acute MI. Patients with post-MI anxiety had a 9.37-fold (95% CI: 4.45–19.70) higher risk of recurrent MI than those without MI did after adjustment for age, sex, socioeconomic status, and comorbidities. This nationwide population-based cohort study provides evidence that MI increases the risk of anxiety and depressive disorders during the first 2 years post-MI, and post-MI anxiety disorders are associated with a higher risk of recurrent MI. This nationwide population-based cohort study provides evidence that MI increases the risk of anxiety and depressive disorders during the first 2 years post-MI, and post-MI anxiety disorders are associated with a higher risk of recurrent MI. Nurses who stay with them play a vital role in taking to minimize anxiety and depression during their hospital stay there by enhancing their overall health related to quality of life.

1.2 Statement of the problem

A Descriptive Study to Assess the Level of Anxiety and depression Among Post Myocardial Infarction (MI) survivors at selected hospital, Coimbatore.

1.3 Objectives:

- To assess the level of depression among post MI survivors.
- To assess the level of anxiety among post MI survivors.
- To determine the correlation between anxiety and depression among post MI survivors.
- Education to post MI survivors on anxiety reduction techniques.

1.4 Operational Definition:

Anxiety: A mentally disturbed state which is created in reaction to myocardial infarction.

Depression: Altered mood with loss of interest in pleasurable activities, feeling of worthless, excessive guilt, self-reproach, and suicidal ideation.

Myocardial infarction: Myocardial infarction refers to the process by which areas of myocardial cells in the heart are permanently destroyed. Myocardial infarction usually caused by reduced blood flow in a coronary artery due to atherosclerosis and occlusion of an artery by a embolus or thrombus.

Survivor: A survivor is a person who copes with affliction and who manages to live through a situation that often causes death.

Post myocardial infarction survivors: A person who recovered after a myocardial infarction after two week upto 6 weeks.

Projected Outcome
There will be a reduction in the level of anxiety and depression among Post MI survivors

2. Research Design:

The approach chosen for the study was “Descriptive study”. The aim for the study was to improve the knowledge about anxiety reduction techniques of post MI survivors. The purpose of the
approach was to assess, describe, document and analyze the knowledge of anxiety reduction techniques among post MI survivors.

2.1 Setting:

The study was conducted in cardiology unit of Sri Ramakrishna Hospital at Coimbatore.

2.2 Population:

Accessible population: patient who are diagnosed to have MI.

Target population: patient who are diagnosed to have MI and got admitted in Sri Ramakrishna hospital.

2.3 Sample and Sampling Techniques:

The sample size consists of 30 patients from cardiology units, and those who fulfilled the inclusion criteria. The patient was selected by simple random sampling techniques.

2.4 SAMPLING CRITERIA:

Inclusion criteria:

- Patients who can understand the language both Tamil and English.
- Patients who were admitted the cardiology unit for the diagnosis of myocardial infarction.
- Patients who were willing to participate.

Exclusion criteria:

- Patients those who were admitted for other complaints and disease in other units except cardiology unit.

3. DATA COLLECTION INSTRUMENTS:

Hamilton anxiety and depression scale was used for the study. This is a standardized one to assess the level of anxiety and depression among post MI survivors. The data was collected by using the following instruments. The instrument includes:

- Part A: Demographic data.
- Part B: Hamilton Depression scale.
- Part C: Hamilton Anxiety scale.

The demographic data contains the age, sex, address, education, occupation, religion, smoking. The depression scale contains 24 questions. The questions have 5 options and its scoring of 0, 1, 2, 3, 4. The total score given was:

- 23 = Very Severe.
- 19 – 22 = Moderate Depression.
The anxiety scale contains 14 questions. The questions have 5 option and its scoring has 0, 1, 2, 3, 4. The total scoring given was

- $< 17$ = Mild Severity.
- $18 – 24$ = Mild To Moderate Severity.
- $25 – 30$ = Moderate To Severe Anxiety.

DATA COLLECTION PROCEDURE:-

The data was collected for the period of 1 week. After obtaining consent from authority the data was collected. The patients were instructed about the topic. And then the questionnaire was issued to the patients, and after that it was collected from the patients. Later, Education On Anxiety Reduction Techniques Was given through the flash cards, it contains definition of myocardial infarction, anxiety depression, causes of myocardial infarction, risk factors and signs and symptoms of MI, and also anxiety reduction techniques such as progressive muscle relaxation, meditation and yoga, slow abdomen and breathing exercise, relaxation, mental imaginary, supportive systems and have to avoid strenuous activities. After the session the patients were adopted some anxiety reduction techniques to handle the anxiety effectively.

TECHNIQUES OF DATA ANALYSIS:-

The response was compiled with the help of master code sheet. Descriptive statistical techniques were used to analyze the data, mean and median percentage for assessing the knowledge level of anxiety reduction techniques was calculated among post MI survivors.

<table>
<thead>
<tr>
<th>Level of depression</th>
<th>No. of respondent</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very severe</td>
<td>12</td>
<td>40</td>
</tr>
<tr>
<td>Moderate</td>
<td>10</td>
<td>33.33</td>
</tr>
<tr>
<td>Mild</td>
<td>8</td>
<td>26.66</td>
</tr>
</tbody>
</table>

The above table depicts 40% (12) respondents were having very severe depression and 33.33% (10) were having moderate depression and 26.66% (8) were having mild depression.
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### Distribution of Anxiety among post MI survivors

<table>
<thead>
<tr>
<th>Level of anxiety</th>
<th>No. of respondent</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild anxiety</td>
<td>8</td>
<td>26.66</td>
</tr>
<tr>
<td>Mild to moderate severity</td>
<td>20</td>
<td>66.66</td>
</tr>
<tr>
<td>Moderate to severe anxiety</td>
<td>2</td>
<td>6.66</td>
</tr>
</tbody>
</table>

The above table depicts 40% (12) respondents were having very severe depression and 33.33% (10) were having moderate depression and 26.66% (8) were having mild depression.
<table>
<thead>
<tr>
<th>Variation</th>
<th>‘r’ Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety</td>
<td>0.5</td>
</tr>
<tr>
<td>Depression</td>
<td></td>
</tr>
</tbody>
</table>

This table denotes that the anxiety and depression were having positive correlation

Results and discussion

Age: Distribution of the age group of among 30 samples, 2(7%) of people were in the age group of 30 – 40yrs, 9(30%) of the people were in the age group of 40-50yrs, 9(30%) of the people were in the age group of 50-60yrs, 6 (20%) of the people were in the age group of 60-70yrs, 4(13%) of the people were in the age group of 70 -80yrs.

Sex: Distribution of the sex among 22(73%) were in males and 8(27%) were in females.

Religion: Distribution of religion among 30 samples, 25(83%) of the people were belong to Hindu and 5(15%) of the people were belong to Muslim.

Educational status: Distribution of educational status among 30 samples, 12(40%) of the people were primary school, 8(27%) of the people were high school, 23 (10%) of the people were higher secondary school, and 7 (20%) of the people were in grades.

Occupation: Distribution of occupation among 30 samples, 12(40%) were secondary worker, 8(27%) of the people were moderate worker, and 10(33%) of the people were in heavy worker.

Smoking: Distribution of smoking among 30 samples, 10(33%) of the people were in 1-20yrs of smoker, 7(20%) of the people were in the age group of 11-20yrs of smoker, 4(13%) of the people were in the age group of 21-30yrs of smoker, 1(3%) of the people were in the age group of 31-40yrs of smoker, and 8(27%) of the people were non-smoker.

Alcoholism: Distribution of alcohol user among 30 samples, 6(15%) of the people were in 1-10yrs of alcoholism user, 6 (20%) of the people were in 11-20yrs of alcohol user, 5 (15%) of the people were in 21-30yrs of alcohol user, 4(5%) of the people were in 31-40yrs of alcohol user and 9(45%) of the people were non-alcohol user.
Assessment of anxiety:
The level of anxiety was conducted by Hamilton anxiety scale. The finding reveals that 8(20%) of the people were has mild anxiety, 20(75%) of the people has mild to moderate severity and 2(5%) of the people has moderate to severe anxiety.

Assessment of depression:
The level of depression was conducted by Hamilton depression scales. The findings reveals that 15(40%) of the people has very severe depression, 8(30%) of the people has moderate depression and 7(30%) of the people has mild depression.

Relationship between anxiety and depression:
The data collection was done for the period of 7 days. Data analyzed and interpreted by finding the mean percentage, standard deviation and correlation of anxiety and depression. The mean and standard deviation calculated for depression among post MI survivor were 21.15 and 4.568. The correlation of anxiety and depression reveals that there is a positive correlation between anxiety and depression with ‘r’- value of 0.5. Hence there was a positive correlation between anxiety and depression among post MI survivors.

Limitation:
The sample size of the present study was limited.

1. The study was conducted only in cardiology unit.
2. Due to time limitation the study conducted only for 7 days.

Recommendations:
1. A similar study can be conducted with large sample size.
2. A comparative study of anxiety and depression can be conducted among medical and cardiac patient.
3. The extensive use of mass media, propaganda will help them to improve their quality of life and also to gained adequate knowledge regarding anxiety reduction techniques.

4. Conclusion:
Due to the increasing awareness about the clinical and public health significance of depression and anxiety in MI patients, recognizing burden and severity of these psychiatric disorders will not only help in improving diagnostic practices but will also help to plan the management aimed to improve quality of life and other clinical outcomes in these high risk patients. Hence Nurses can formulate the protocol to manage anxiety, depression among post MI survivors through evidenced based practice.

References:


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