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Compliance and reasons for non-compliance to life style modification among myocardial patients

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Abstract
Back ground: Myocardial Infarction is the most complex disease of the heart and is one of the leading causes of death in the world. Life style Modification is one of the most important aspects of secondary prevention to cardio-vascular diseases.
Aim: The aim of the study to assess the compliance and reasons for Non-compliance to lifestyle Modification of post MI patients.
Objectives: 1.To assess the compliance to life style modification among Myocardial Infarction patients. 2. To assess the reasons for Non- compliance to life style Modification among Myocardial Infarction patients. 3. To associate the compliance of patients to Lifestyle Modification with the selected demographic variables.
Methods: A non-experimental exploratory research design was applied and 100 samples were selected using Non-probability purposive sampling technique. The data was collected after following ethical principles.
Results: The results showed that, 72% partial compliance and the major reason for non-compliance is dietary modification and there was a significant association between the gender & duration of illness with the selected demographic variables.
Conclusion: It was concluded that there was only a partial compliance to life style Modification among Myocardial Infarction patients.

Keywords: Myocardial infarction, life style modifications, diet, exercise, stress reduction, habits, medication & follow up

Introduction

Myocardial Infarction is one of the most common diseases affecting most of the people all around the world. Recent studies by Mozaffarian D, Benjamin EJ, Go AS, *et al* (2015) revealed that the incidence of Myocardial Infarction in India accounts to 64.37 per 1000 population and the mortality rate worldwide is about 17.5 million people. Life style Modification is the Secondary prevention to reduce the mortality of cardio-vascular diseases. Surviving a heart attack is often a life-changing event. In addition to recovering from any procedures that were performed to stop and treat the heart attack, most patients will also face making sometimes extensive lifestyle changes. These lifestyle changes are designed to target risk factors for heart disease and stop or slow the progress of disease. While making lifestyle changes is never easy, doing so after a heart attack is an important part of looking toward the future.

The life style modification that patients have to adhere for a healthy life style are smoking cessation, blood pressure management, healthy diet, exercise, medication, cholesterol and diabetes Management and avoidance of stress. Despite the efforts of the health team members in educating the post Myocardial Infarction patients on life style modification still there is a global burden in the mortality rates of cardio vascular diseases. So, there was a felt need to assess the compliance and reasons for Non-compliance to lifestyle modification among Myocardial Infarction patients.

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Need for the study
Myocardial Infarction is the most complex disease of the heart and is one of the leading causes of death in the world. Life style Modification is one of the most important aspects of secondary prevention to cardio-vascular diseases. Matthew J. Crowley *et al*; (2012) [4] conducted a study to identify demographic and patient characteristics, medical co-morbidities, psychosocial factors, and health belief-related factors associated with medication non-adherence among patients with known cardiovascular disease. It was found that worry about having a stroke, higher life chaos, and younger age were all significantly associated with self-reported medication non-adherence in patients with cardiovascular disease and a history of myocardial infarction.
Lee Hooper *et al*; (2011) conducted a study on the reduction and modification dietary fats to prevent coronary artery disease. The findings were suggestive of a small but potentially important reduction in cardiovascular risk on modification of dietary fat, but not reduction of total fat, in longer trials. Lifestyle advice to all those at risk of cardiovascular disease and to lower risk population groups, should continue to include permanent reduction of dietary saturated fat and partial replacement by unsaturated fats.

Problem statement
An Exploratory Study to Assess the Compliance and Reasons for Non-Compliance to Life Style Modification among Myocardial Infarction Patients at Selected Hospital in Chennai.

Objectives
1. To assess the compliance to life style modification among Myocardial Infarction patients.
2. 2. To assess the reasons for Non- compliance to life style Modification among Myocardial Infarction patients.
3. To associate the compliance of patients to Lifestyle Modification with the selected demographic variables.

Operational definitions
Compliance: It refers to the adherence of patients to the health Education provided by the health care personnel's in the hospital.

Reasons: It refers to the answers given by the patients for not adhering to life style changes.

Life style Modifications: It refers to the changes adopted by the patients in the way and quality of life in regard to diet, exercise, diabetes and hypertensive control, avoidance of stress and regular medications.

Myocardial Infarction: It is disease of the cardiac muscle where the heart losses its metabolic function due coronary artery obstruction by an atherosclerotic plaque resulting in lack of oxygen supply to Myocardium.

Delimitations
- MI patients attending OPD at selected hospitals, Chennai.
- The duration of the research study was 4 weeks.
- The sample size was 100.

Materials and Methods
Research Approach: Quantitative Approach.

Design: Exploratory design

Setting: The study was conducted in OPD at Dr. Cherian's Frontier Lifeline Hospital in Chennai.

Sample size: 100 Myocardial Infarction patients.

Sampling Technique: Non-probability purposive sampling technique sampling technique.

Sampling criteria: Inclusion criteria
1. Patient diagnosed with myocardial infarction earlier and received health information on lifestyle modification.
2. Patients who are willing to participate.
3. Post MI patients attending outpatient clinic.

Exclusion criteria
1. Patients who have associated illness like DM, HT etc.
2. Patients who do not know to read and write English or Tamil.

Description of the tool
Part-I: Socio demographic variables
It comprise of demographic characteristics of MI patients such as age, sex, education, occupation, religion, duration of illness, mode of treatment, monthly income, family history of cardio-vascular problems, habit of alcoholism and source of information.

Part- II: A self-structured Inventory scale was used to assess the compliance for life style Modifications. Minimum score-30 and maximum score-90.

Part-III: A self-structured checklist to assess the reasons of Non-compliance to life style Modifications. Minimum score-0 and maximum score-20.

Score interpretations

Criteria	Score
No compliance	0-33%
Partial compliance	34-66%
Full compliance	67-100%

Variables
Independent variables: Compliance and reason for non-compliance to life style modifications

Dependent variable: Post myocardial infarction patients.

Results & Discussion
Part-I: Demographic findings
Majority of samples (68%) were in the age group of 41-50 years, (82%) were males, and 78% were recently diagnosed with MI less than 3 months, (56%) of the samples had family history of cardio-vascular diseases and (65%) of the samples had the habit of alcoholism.

Part-II: Compliance to life style modifications among MI patients

Majority of the samples had partial compliance (72%) followed by (23%) had no compliance and (5%) had full compliance. Out of which 45% had partial compliance to diet, 32% had partial compliance to medication and follow up, 15% had full compliance to exercise, 10% had no compliance to avoidance of stress and 5% had full compliance to habit control.
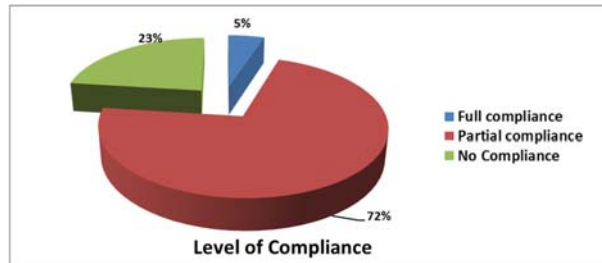

Fig 1: Percentage distribution of compliance to life style modifications among MI patients.

Part-III: Percentage Distribution of Reasons for Non-Compliance to Life Style Modifications

In reason for Non-compliance, there was an increased (66%) non-compliance to diet due to familial eating practices, (52%) non compliance to exercise program due to busy working schedule, (42%) non-compliance to stress avoidance due to multiple workload and hectic business, (38%) non-compliance to medication & Follow up due to forgetfulness and (25%) non-compliance to habit control was due to peer pressure and social gatherings.
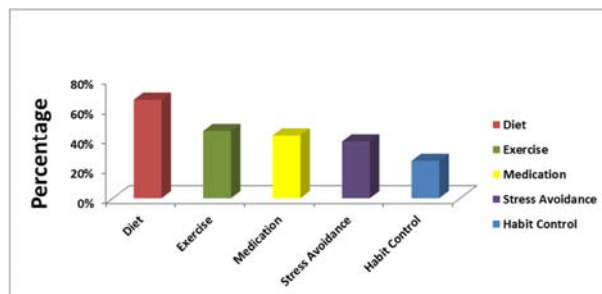

Fig 2: Percentage distribution of reasons for non-compliance to life style modifications.

Part-IV: Association between compliance and demographic variables

There was a significant association between compliance and the duration after diagnosis of MI and gender at *P*<0.05 level.

Major findings of the study

➢ Majority of the samples had partial compliance (72%) followed by (23%) had no compliance and (5%) had full compliance. Out of which 45% had partial compliance to diet, 32% had partial compliance to medication and follow up, 15% had full compliance to exercise, 10% had no compliance to avoidance of stress and 5% had full compliance to habit control.

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due to busy working schedule, (42%) non-compliance to stress avoidance due to multiple workload and hectic business, (38%) non-compliance to medication & Follow up due to forgetfulness and (25%) non-compliance to habit control was due to peer pressure and social gatherings.

➢ There was a significant association between compliance and the duration after diagnosis of MI and gender at *P*<0.05 level.

Conclusion

Many efforts have been taken by the hospital for health promotion strategies like educating the patients with pamphlets and mass media campaigns to decrease the disease burden and mortality, yet it was found that there was only partial compliance of post Myocardial Infarction patients to life style modification, majority of the samples had non compliance to diet and exercise, the reason behind that was the familial eating practices and busy working schedule. There was a significant association with gender and the duration of illness because samples that had a recent chest pain were able to adhere to the life style programs due to fear of the illness whereas patient who was diagnosed earlier did not have the fear concerning the chronic illness.

Recommendations

• The study can be done on a larger no of samples to aid generalization of the findings.
• A comparative study can be done on the compliance of patients diagnosed with recent and long term MI.
• The study can be replicated in different settings
• An experimental study can be done to assess the effectiveness if STP on life style modifications among MI patients.

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