# PSYCHOLOGICAL ALTERATIONS POST MYOCARDIAL INFARCTION

***Protocol***

***Submitted for Partial Fulfillment of the Requirements of Master Degree in Psychiatric Nursing***

***By***

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# Abstract

Coronary artery disease is the leading cause of death in the USA, Canada, and Egypt among both men and women. Myocardial infarction is an acute form of ischemic heart disease associated with pain similar to angina but longer and usually more severe. It is frequently associated with psychiatric disorders. Thus, this study aimed at assessing the psychological alterations of post myocardial infarction patients. A descriptive design was used for the conduction of the study. The sample consisted ٥٠ post-myocardial infarction patients at minimum ٦ months post first attacks (study group) and ٥٠ patients free from any cardiac disease (control group) and chosen randomly. The study was conducted at the outpatient clinics of Ain Shams University Hospitals and Nasr City Health Insurance Hospital. Four tools were used: (١) Socio-demographic data sheet, (٢) Beck Depression Inventory (٣) Taylor Manifest Anxiety Scale, and (٤) Tennesse Manifest Self-concept and self-esteem scale. Results of the study revealed that, numerous psychosocial stressors are experienced by persons with myocardial infarction, who have identified personal, occupational, economical, and family life events as commonly perceived stressors, as well as the recent myocardial infarction and related feelings of anxiety, depression, self-esteem and self-concept allerations are common among myocardial infarction survivors. The study recommends that, the psychosocial assessment should be an integral component of the care of patients with myocardial infarction. The psychiatric nurse should be involved in the care of patients suffering from myocardial infarction to counteract the psychological alteration affecting patients by manipulation of the environment and the delivery of care.

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Enteisar Mohamed Abou Salem

Dedicated to .....

My Father,

My husband and

My family

# List of Contents

# List of Tables

## List of Figures

# Abbreviations

| | |
|---|---|
| CHD: | Coronary heart disease |
| IHD: | Ischemic heart disease |
| HDL: | Hyper-density lipoproteins |
| CHF: | Congestive heart failure |
| S۳: | Third heart sound |
| CPK: | Creatinine phosphokinase |
| LDH: | Lactate dehydrogenase |
| CBC: | Complete blood count |
| ESR: | Erythrocyte sedimentation rate |
| CXR: | Chest X-ray |
| ECG: | Electrocardiogram |
| PTCA: | Percutaneous transluminal coronary angioplasty |
| CABG: | Coronary artery bypass graft |
| AMI: | Acute myocardial infarction |
| TCAs: | Tricyclic antidepressants |
| ECT: | Electroconvulsive treatment |

# INTRODUCTION

The mind, or psyche, is usually defined as the part of the person consisting of the thoughts, the feelings and the function of willing as a basis for understanding the abnormal. All nurses must know what constitutes mental as well as physical health *(Haddad & Gyal,* **١٩٨٣***).*

Physical illnesses are caused in part by psychological factors or, when present, are maintained by psychological factors. Examples of such conditions are many cases of bronchial asthma, colitis and myocardial infarction *(Walton,* **١٩٨٦***).* Although few would disclaim Harvey's sentiment, the precise nature of the link between the mind and heart disease remains to be defined. Substantial evidence exists to indicate associations between psychosocial stresses and coronary artery disease and sudden death. According to *Miller et al.* **(١٩٩٦),** daily life offer sample empirical evidence of an intimate relationship between the psyche and the heart. Moreover, in panic disorder, it is common for chest pain to be confused with the pain of angina pectoris *(Roll & Theorell,* **١٩٩٧***).*

Intense emotions such as anxiety, anger, elation and depression are accompanied by predictable increases in heart rate and blood pressure. The interaction of heart and psyche is bi-directional *(Kawachi, Colditz & Ascheria* **١٩٩٦***).* According to

*Scheier (١٩٩٩)* emotions and stressful experiences affect the heart directly through the autonomic nervous system, and indirectly through neuro-endocrine pathways. Clinicians dating back to Sir William Osier have observed that a surprising number of coronary heart disease (CHD) patients seem to be compulsive, driven, overachievers, and are unable to relax and quick to feel angry and frustrated when things do not proceed as planned. Such observations were revived in the ١٩٦٠s by Friedman and Rosenman, who advanced the concept of type A behavior, which was actually a cluster of psychological traits and behavioral patterns.

Patient with a perceived loss in professional of job status due to a previous myocardial infarction are feeling sad and discouraged, and become angry or anxious while performing an ordinary stressful task, such as income tax preparation triggering a fatal arrhythmia *(Engal, ١٩٨٤)*. Finally, the issues of progression of disease, recurrence of acute illness, and death are universally present for heart disease patients and may be met with reactions ranging from denial to attempts (adaptive or maladaptive) to alter one's life, to catastrophic anxiety or depression *(Hall, ١٩٩٧)*.

The nurse has an important role in evaluating patients with heart disease for psychiatric disorders. The nurse needs to have appropriate skills to do this. She/he must practice minimal intervention and allow the patient to be the more active *(Walton, ١٩٨٦)*.

The psychiatric nurse needs to bear in mind the overlapping of mental and physical symptoms. Patient with congestive heart failure frequently complain of problems with energy, appetite, interests, concentration, and sleep. Although these may be signs of major depressive disorder, they may also occur as a result of the pathophysiologic changes of heart failure *(Carney et al.,* ١٩٩٧*)*. The nurse in psychiatric work requires an orientation of self-securing, reflecting constantly on the impact exerted on the patient, and asking her/himself whether the patient is being influenced as intended *(Bancroft,* **١٩٨٣***)*. The psychiatric nurse needs to reduce the patient anxiety by mental rest and by relief of physical symptoms. In answering any questions, she/he should be honest and supportive *(Klein,* **١٩٩٨***)*.

The psychiatric nurse needs also to evaluate systems other than somatic systems of the patient to arrive at a proper nursing diagnosis. Problems in the doctor-patient or nurse-patient relationship or in the family or other social systems involving the patient, may present as depression or anxiety *(Norris and Grove,* **١٩٩٦***)*.

The psychiatric nurse must evaluate the patient in total, including attention to details of history, physical signs, and laboratory values to recognize somatic symptoms, and must look for corroborating features to establish psychiatric diagnosis. For example, the myocardial infarcted patient with life stress or poor

self-esteem or depression is more likely than the ischemic patient to express self-critical thoughts and hopelessness and absence of a desire to improve *(Hayward,* **١٩٩٥***).*

In general, cardiovascular disease is affected by psychiatric disorders in three ways. Firstly, it may be just a cooccurrence of two independent illnesses. Secondly, the development of cardiac disease could be a complication of emotional or psychiatric problems, as myocardial infarction. Thirdly, development of psychiatric disorders might be a complication of cardiovascular disease, as depression, and anxiety *(Rosenman et al.,* **١٩٩٥***).*

# AIM OF THE STUDY

The aim of this study is to answer the following questions:

In what way does myocardial infarction:

١. Lead to the psychological alteration

٢. Affect the patient's self-esteem and self-concept

٣. Affect the patient's lifestyle and alteration of his/her mood towards family, work and activities.

# LITERATURE REVIEW

## MYOCARDIAL INFARCTION

Myocardial infarction is an acute form of ischemic heart disease (IHD). It occurs when one or more of the coronary artery becomes blocked, and the myocardial area supplied by it suffers oxygen deficiency and necrosis *(Weinstein & stason, ٢٠٠٠).* It is associated with pain similar to angina but longer and usually more severe. It is not relived by rest or glyceryl trinitrate *(Braunwald, ١٩٨٦).* According to *Antman et al. (١٩٩٩)* this pain may start in the mid-chest and may radiate to the jaw, shoulders, arms, or fingers.

## EPIDEMIOLOGY

According to the *American Heart Association (١٩٨٧),* nearly ١,٥٠٠,٠٠٠ patients suffer from acute myocardial infarction (AMI) annually, and approximately one-fourth of all deaths in the United States are due to acute myocardial infarction. The mortality rates during hospitalization and a year following infarction are approximately ٦٠٠/١٠٠,٠٠٠ people *(Schaomig et al., ٢٠٠٠).* Almost all myocardial infarctions result from atherosclerosis of the coronary arteries, generally with superimposed coronary thrombosis *(Freifeld et al., ١٩٨٣).*

Concerning mortality rates, there are approximately ٥٠٠،٠٠٠-٧٠٠،٠٠٠ deaths due to ischemic