

**Psychiatric Morbidities, Personality Temperament
and Coping Style in a Sample of Egyptian Patients
with Ischemic Heart Disease**

Thesis

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in Neuropsychiatry

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قالوا

سبحانك لا علم لنا
إلا ما علمتنا إنك أنت
العليم العظيم

صدق الله العظيم

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List of Abbreviations

<i>Abbr.</i>	<i>Full term</i>
ACS	: Acute coronary syndrome
AHA	: American heart Association
APA	: American Psychiatric Association
BPD	: Bipolar disorder
C	: Cooperativeness
CBT	: Cognitive behavioral therapy
CRP	: C Reactive protein
CABG	: Coronary artery bypass graft
CCU	: Coronary care unit
CHD	: Coronary heart disease
COCAH	: Coaching patients on achieving cardiovascular health
CVD	: Cardiovascular disorders
DM	: Diabetes Mellitus
DMPs	: Disease Management program
FH	: Family history
GAD	: Generalized anxiety disorder
GHQ	: General health questionnaire
HA	: Harm avoidance
HDL	: High Density Lipoprotein
HPA	: Hypothalamic pituitary axis
HTN	: Hypertension
IL-1	: Interleukin 1
IL-6	: Interleukin 6

IHD	: Ischemic heart disease
IPT	: Interpersonal psychotherapy
MAO	: Monoamine Oxidase
MDD	: Major depressive disorder
MI	: Myocardial infraction
NGOs	: Non governmental organization
NS	: Novelty seeking
NSTEMI	: Non ST elevation myocardial infraction
OCD	: Obsessive compulsive disorder
PCI	: Percutaneous coronary intervention
PTSD	: Post traumatic stress disorder
PH	: Past history
RD	: Reward Dependence
SCID	: Structured clinical interview For Axis 1 disorder
SD	: Self-directedness
SMI	: Severe mental illness
SNRI	: Serotonin norepinephrine reuptake inhibitor
SNS	: Sympathetic Nervous system
SSRI	: Selective serotonin reuptake inhibitors
ST	: Self-transcendence
STEM	: ST elevation myocardial infraction
SWMA	: Segmental wall motion abnormalities
TCA	: Tricyclic antidepressant
TCI	: Temperament and character inventory
UA	: Unstable angina
WHO	: World Health Organization

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Introduction

Ischemic heart disease (IHD) is the leading cause of death worldwide (*Scarborough et al., 2011*). It is responsible for up to one third of deaths (*Roger et al., 2012*). Moreover it will be the most common reason of mortality in the world by the year 2030 (*Sniehotta et al., 2005*).

In Egypt, IHD is the leading cause of death according to world health organization (WHO) (*Nobwar et al., 2014*).

The causes for the association between psychiatric disorders and IHD are not fully understood. However multiple studies have attempted to provide a plausible mechanism to explain the relationship between psychiatric disorders and IHD. The explanations proposed so far include psychosocial factors, the role of ‘preservative cognition’, a phenomenon first proposed by *Larsen and Christenfeld in 2009* that refers to the tendency of psychiatric patients to dwell on events of a stressful nature potentially increasing the risk of IHD (*Collip et al., 2013*) and also psychosocial stress exacerbating atherosclerosis via excessive nervous system activation, proposed by *Rozanski et al (1999)*.

Beside traditional risk factors as hypertension, diabetes mellitus, obesity and smoking, personality can affect vulnerability to and prognosis of cardiovascular disorders

(CVD). Anxiety, hostility and type D personality among other psychosocial risk factors contribute to the development, clinical course and prognosis of CVD through unhealthy lifestyle, increased health care utilization and low adherence to behavior change recommendations or cardiac medications (*Perk et al., 2012*).

Personality differences are significant factors which lead to different reactions against emotions, stress and everyday problems of life. Also it can be the basis of human mortality as a result of coronary heart diseases. (*Abdolidehnavi et al., 2016*).

Temperament is regarded as the inherited part of personality and represents the biologically stable core of emotional reactivity (*Akiskal and Akiskal, 2005*).

In Addition it has been shown that people with heart attack had more characteristics such as emotional instability, anxiety, depression, introspection and sensitivity. They were anxious introverted. Examination of these studies shows that some personality factors play fundamental role in vulnerability to illness. One the aspects of personality which has been examined on chronic diseases is the biological model of personality (*Lee et al., 2014*).

It has been shown that the level of harm avoidance in CHD patients is more than of normal population. They usually experience more range of negative emotions as anger and anxiety. Also patients with low level of self-defectiveness more susceptible to CHD as they become more immersed in their thoughts and inner world and low self-esteem so the two factors of harm avoidance and self-defectiveness together in high levels can play a significant role in experiencing chronic negative emotions (*Abdolidhehnavi et al., 2016*).

Coping strategies as a part of a person's character assist them to react to different stressful life events. Individuals try to use problem or emotion-focused strategies to modify the situation, and to regulate their emotions respectively (*Roohafza et al., 2012*).

Coping strategies are generally divided into adaptive and maladaptive coping strategies. Reactions like rumination, aggression, and passive avoidance have been considered as maladaptive coping strategies, and adaptive coping strategies include learning new skills, seeking help, and venting anger (*Kristofferzon et al., 2005*).

Since IHD is a traumatic event, patients have to cope with this occurrence, so some researchers have evaluated the

outcomes of coping strategies after acute Coronary syndrome and showed patients with maladaptive behavior have more disability (*Chung et al., 2008*).

Aim of the Work

- a) To identify different sociodemographic factors that can be associated with IHD.
- b) To analyze psychiatric morbidities frequency and phenomenology in patients with IHD.
- c) To identify the personality temperament and character among patients with different groups of ischemic heart diseases.
- d) To study the coping style among patients with Coronary artery diseases.