Preface

Phychophysiological disorders are said to be among the important cause of different type of behavioural problem and contribute to over lakhs of untimely death in the world. For example psychophysiological disorders CHD accounts 40 % for death due to such problems. Previously known as psychosomatic disease, covers many types of disorders such as coronary heart disease, high blood pressure, gastrointestial problems etc. Such disorders cause various types of behavioural problem which makes adjustment of the person suffering form the disease, hypertension and gastrointestial problems on depression, death anxiety and quality of life among the patients suffering from the above disorders. The present study was, therefore conducted to answer the various moot question still existing in this area of research as there is a general lack of such studies in our context. Thought several studies have been conducted to see the causes and consequences of such psychophysiological disorder, yet there is good space for the studies like the present one.

As regards the structure of the work, it is divided into five chapters. Frist chapter deals with the introduction to the topic as well as clarification of the concepts covered in the present study,
While the second chapter deals with the survey of literature. The methodology has been stated in the third chapter. It consists of the description of the sample and the details of the tests used in the present study. The fourth chapter contains the results obtained after the statistical analyses of the data as well as the discussion and interpretation also. They summary of the study, suggestion for further research and limitations are given in the fifth chapter followed by references and appendices.

After finishing the work, when I look back I feel that this work would not have been possible had I not received the blessing and cooperation from some of my well wisher. It’s my moral duty to express my feelings about them. First of all, I would like to express my deep sences of gratitude and respect to my learned supervisor Dr. H.S. Tiwari, Reader and Head, Dept. of Psychology, G.B. Pant P.G. College, Pratapganj, Jaunpur who very kindly supervised this work. His kind guidance and cooperation enabled me to complete my work. I express my deep regards to him. I am also too much obliged to Dr. R.N. Singh, Co-supervisor, Hed, Dept. of Psychology, T.D. College, Jaunpur who always helped me to finish my work as splendidly as possible.

I would also like to express my obligations to Dr. Jagdish Pandey, Dr. R.B. Tripathi, Mr. L.K. Singh, Dr. Babban Singh (all Ex-members of the department), Dr. B.N. Tiwari, Dr. Jagdish
Singh, Sri Ambikeshwar Singh, Dr. Narendra Rai and Dr. A.K. Jaiswal for their affection and guidance.

I express my whol hearted obligation to my revered father late Shri Sahai Srivastava and mother. my father, an apostle of education, has always been curious about the progress of my work and reinforced me whenever I felt dejection. I actually dedicate this work to him. I also extend thanks to other members of my family for their cooperation during this work. They always rendered me all possible helps and did their best to motivate me to complete the work.

I should also express my gratitude to various scholars whose work have been consulted as well as quoted in this thesis. Such works served as the basis for me to plan this study. I also express my sincere thanks to the friends and well wishers for their cooperation during the work.

Jaunpur

Akancha Srivastava
Research Scholar
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Chapter-1

Introduction
In DSM-IV classification, the psychosomatic problems have been termed as psychophysiological disorders. Psychophysiological disorders refer to physical conditions in which psychologically meaningful events are closely related to bodily symptoms. Modern researchers state that such disorders might be thought of as end products of bio-psycho-social processes. A large number of physical problems have been studied from a psychophysiological standpoint, e.g., cardiovascular, respiratory, gastrointestinal, musculoskeletal and genitourinary system, as well as of the skin. The current state of knowledge suggests that psychological factors play some role in the causation of many of these disorders.

As the evidences suggest, such disorders are not directly attributable to the mental state of individual or that a person suffering from one of these disorders has a completely different person suffering from another disorder or none at all. What is becoming increasingly clear, however, is that people not just sense or organs have diseases and that diseases must be studied in the context of physical, psycholigical, social and cultural environments (Tayler et. Al. 2000). According to Solovey et.al. (1987), positive and negative emotional states are differently associated with psychophysiological disorders, though as yet the pathways are not well understood (Patankar et.al. 2003,.. Bharadwaj, 2002).
The psychophysiological disorders besides the outcomes of emotional feeling, may contribute to the psychological well-being of the individuals. People suffering from such disorders may differ from those free from such disorders to a considerable extent (Olff, 1999). There are a number of aspects of psychological well-being which need to be studied from the above standpoint. The proposed study is a step forward in this regard as it covers three important behavioural aspects which are thought of as the useful indicators of good psychophysical health and have generally not been evaluated in relation to psychophysiological disorders covered in the present study, specially in our context. These are depressions, death anxiety and quality of life in the patients suffering from psychophysiological disorders.

In view of the above the present study covers the following psycho-physiological disorders as the independent variables.

1. Coronary Heart Disease (CHD)
2. Hypertension (High Blood pressure)

Coronary heart disease (CHD) is a disorder in which one or more of three heart arteries is partially or totally obstructed by deposits called plaves. This results in a temporary or permanent cutoff of blood to portions of the heart muscles. According to an estimate, CHD accounts for 40% of all death. Several causes of CHD have been identified but its effect on the tapped dependent
variables needs to be thoroughly assessed (Shively et.al. 2000, Manuek et. Al. 1995), due to general lack of such studies especially in our context.

Hypertension is known as high blood pressure. A blood pressure level that is over 140, when the heart contracts (systolic pressure) and does not fall below 90, when the heart relaxes (diastolic pressure) is usually considered high. The genetic factor and emotional states may contribute to high blood pressure (Ergul et. al 1996, Jorgenson, 1996).

Gastrointestinal problems often refer to as irritable bowel syndrome (IBS), includes abdominal pain, gas, blotting or feeling of abdominal distension or altered bowel movements for which no clear physiological or psychological factor have been identified. The condition is often associated with stress, strong emotional reactions and maladaptive thoughts. According to Toner et. al. (2000), IBS are reported by 9% to 22% of medical patients.

The present study aimed to ascertain the effects of tapped psychophysiological disorders on the following behavioural status affecting psychological well-being

1. Depression
2. Death anxiety
3. Quality of life
Depression is a negative emotional state. It may be defined as the pervasive feeling of sadness that may begin after some stressful event, but continues long afterward. Inappropriate thought patterns that generalize every event as a calamity are characteristics. Thus it is obvious that depression is a mental state which leads to sadness, irritation, insecurity and the feeling of apprehension. In DSM IV, it is classified under mood disorders (Clinton 1993, Sarson & Sarson 2002). A person suffering from depression may feel relatively minor melancholy or deeply negative view of the world. He may suffer from psychophysiological disorders may show the sign of depression ranging from minor sad feeling to deep negative view about life. These problems induce pessimism and make the life of the person concerned a burden for him or her.

Death anxiety refer to an unpleasant emotional state that induces in the person concerned a feeling of hopelessness about life. Psychophysiological patients may suffer from death anxiety. They may feel that life is charmless and death is approaching to them. This sort of apprehension make the patients inactive, hopeless and pessimist. Thus their effectiveness is badly reduced.

Quality of life (QoL) is a good indicator of psychological well-being. It has a solid bearing on mental health and illness. It refers to the degree of excellence in one’s life at any given period of time that contributes to satisfaction and happiness of the person and
Benefits the society. It is a difficult area to be defined, interrelated mutually dependent sets of factor (Verma, 1986). Being some what polymorphous, it tends to cover a variety of areas such as physical, mental, psychological, social and spiritual well-being personal functioning and general limitations. The concept of quality of life has a solid bearing on good mental health and mental health can produce quality of life (Searo, 1984). The factors responsible for quality of life (Searo, 1984). The factore responsible for quality of life may be grouped in either of the two groups satisfactory conditions and satisfying conditions. Absence of conflict among members and absence of mental illness. The second group includes sense of belongingness, positive attitudes, good feeling about oneself etc.

Depression, death anxiety and quality of life are among the very important factores determining well-being of individulas. A person suffering from depression, and death anxiety and having poor qulaty of life can not be expected to enjoy life properly and deal with his environment effectively. The patients suffering from one or another type of psycho-physiological disorders
In view of this above, the present study was conducted to ascertain the effect of CHD, HBP, and GI on three aspects of psychological well-being. The following objectives were outlined:

**Objectives:**

1. To study the effects of CHD on depression
2. To ascertain the effect of CHD on death anxiety.
3. To assess the effect of CHD on quality of life.
4. To ascertain the effect of hypertension on depression.
5. To evaluate the effects of hypertension on death anxiety.
6. To measure the effects of hypertension on quality of life.
7. To investigate the effects of gastrointestinal problems on depression
8. To assess the effects of gastrointestinal disorder on death anxiety.
9. To measure the effect of gastrointestinal disorder on quality of life.

**CONCEPT OF THE STUDY**

This study tapped CHD, HBP and GI as the independent variables and the group of dependent variables covered depression, death anxiety and quality of life.

**INDEPENDENT VARIABLES**

This study tapped CHD, HBP and GI as the independent variables. These variable are explained here.
Coronary Heart Disease (CHD)

Coronary heart disease, also known as ischemic heart disease refers to atherosclerotic blockage of the coronary arteries. Though the cause of CHD remains unknown, evidence suggests that it develops as a function of multiple interacting factors including arterial wall factors, blood coagulations factors, genetic factors, and human behaviour, at both the individual and the society level. Although IHD related mortality has been decreasing IHD continues to be the leading cause of death in industrialised nations, accounting for 40% of death in the United States.

Heart disease gives rise of relatively limited range of symptoms. Differentiation of disease conditions therefore requires emphasis on factors which provoke the symptoms and subtle differences in the way in which they are described by the patient.

Symptomatic Factors:

**Angina:** This is a choking or constricting chest pain which comes on with exertion, is relieved by rest, and is due to myocardial ischemia. It is commonly felt retrosternally and may radiate to the left or more rarely the right arm, to the throat, faws and teeth, or through to the back. The pain may be described as squeezing, crushing burning or aching, but seldom stabbing patients may describe a choking sensation simulating breathlessness.
The pain may be brought on or exacerbated by emotion, and is frequently made worse by large meals or cold wind. It is relieved by nitrates. Unstable, angina describes a pattern of severe angina which may be precipitated by minimal exertion, or may occur spontaneously, and may culminate in infarction.

**Myocardial Infarction:** The pain is similar in nature and distribution to angina but is more severe, persists at rest and does not respond to nitrates. These are usually features of sympathetic nervous system activation and vomiting is common. There may be anxiety and a frightening feeling of impending death.

**Aortic Dissection:** The pain is severe, sharp and tearing, often feel in or penetrating through to the back and to abrupt in outset.

**Pericarditic Pain:** This is felt retrosternally to the left of the sternum, or in the left or right shoulder. It characteristically varies in intensity with movement and the phase of respiration. It is described as ‘sharp’ and may catch the patients during inspirator or caughing.

**Musculoskeletal Chest Pain:** It may vary with posture or movement, can be brought on by exertion but often does not cease rapidly on resting, and is very commonly accompanied by local tenderness over a rib or costal cartilage.

**Oesophageal Pain:** The pain can mimic that of angina very closely, is sometimes precipitated by exercises and may be relieved by nitrates. It is usually possible to elicit a history relating chest pain to eating, drinking or oesophageal reflex. It may co-exist with angina.
**Hypertension:** Sydtemic hypertension i.e. an elevated arterial blood pressure is a manjor health problem, particularly in the developed countries. Hypertension is associated with increased risk for a variety of cardiovascular disorders and is a manjor risk factor for atherosclerosis. Treatment of hypertension can prolong life. A persistent and sustained high blood pressure has damaging effects on the heart ( hypertensive heart disease), brain (stroke or cerebrovascular-accident), kidneys (benigh and malignant nephosclerosis) and eyes (hypertensive retinopathy).

There are important differences between coronary heart disease in me and woman. While most middle-aged heart attack victims are men, heart attack that occur in later life are a principal cause of death for both men and women. Heart disease is the leading cause of deth in women after the age of 66, in men it is the leading killer beginning at age 39. Women often have chest pains for a long time before a heart attack, in men, such pains more often mean a heart attack has already begum.

A significant factor in heart attack is stress. From the stone age to the present day, human beings have responded to environmental challenge and threats by releasing large amounts of adrenal and other stress hormones, followed by increases in heart rate and respiration, and dilation of the vessels that transport blood to the muscles.
Stress seems to contribute to coronary disease through the body’s general reaction to aversive stimulation. Under arousing conditions, hormonal substances called catecholamines are secreted. Two of the catecholamines, epinephrine and nor epinephrine, accelerate the rate of arterial damage and ultimately can lead to heart attacks. Table 1.1 lists factors that individually and in combination contribute to CHD risk, particularly in the context of stress.

<table>
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<td>Bodily characteristics</td>
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Death due to CHD has decreased more than 35% in the last 40 years, and recently this decrease has accelerated.

In the 1960s and 1970s a pair of cardiologists, Meger Friedman and Rag Rosenman (1974), were investigating the causes of coronary heart disease. Originally, Friedman and Rosenman were interested in the usual factors thought to produce a high risk of heart attack – smoking obesity, physical inactivity and so forth.
Many people who smoked constantly, got little exercises and were severely over-weight avoided the ravages of heart disease.

Friedman and Rosenman divided people into two basic types - Type A and Type B - who exhibit differing characteristics (Rosenman, 1993):

1. The type A personality includes three elements: (i) a strong competitive orientation (ii) impatience and time urgency and (iii) anger and hostility.

2. The Type B personality is marked by relatively relaxed, patient easy going, amicable behaviour.

Type A was initially used by Rosenman, Friedman and their colleagues to describe a behaviour pattern that appeared to be related to the incidence of heart disease. The behaviour characterising Type A includes high competitiveness, a sense to time urgency, excessive drive or involvement in work, hostility and aggressiveness. On the contrary, Type B people are more relaxed, philosophical and jovial. The general observation is that Type A individuals are perceived to be at greater risk of heart disease.

**Type A Behaviour Associated with CHD**

Type A behaviour is associated with CHD research on the Type A syndrome has uncovered a number of possible explanation.
Frist, Type A individuals appear to exhibit greater physiological reactivity than Type B’s (Lyness, 1993, Smith & Brown, 1991).

Second, Type A’s probably create more stress for themselves than other do.

Third, antagonistic ways of relating to others, Type A personalities tend to have less social support than other people do (Smith 7 Christensen, 1992).

Fourth, perhaps because of their cynicism and their tendency to push themselves to work hard, Type A’s tend to exhibit health habits that may contribute to the development of cardiovascular disease.

In sum, there are a variety of plausible explanations for the connection between the Type A syndrome and heart disease. With all these mechanism at work, is’s not surprising that Type A behaviour is associated with increased coronary risk.

**Depression and CHD:** Depression is not psychological by product of other risk factor for aCHD but an independent risk factor in its own right, environmentally rather than genetically based (Lett et. al., 2004). The risk that depression poses with respect to coronary artery disease is greater than that posed by second hand smoke but sufficiently strong to consider depression a manjor independent factor in the onset of coronary disease (Wulsin & Singal, 2003).
Other psychosocial Risk Factors and CHD

Vigilant coping that is chronically searching the environment for potential threats has also been associated with risk factors to heart disease (Gump & Matthews, 1998). Anxiety has been implicated in sudden cardiac death, perhaps because anxiety appears to reduce vagal control of heart rate (L.L. Watkins, Grossman, Krishnan, Sherwood, 1998).

Social dominance contributes to risk for coronary disease. Social dominance reflects a pattern of attempting to dominate social interactions through verbal competition, a fast speaking rate, and the tendency to jump on other people’s responses before they have had a chance to finish. Evidence suggests that social dominance may be related to all-cause mortality (Houston, Batyak, Chesney, Black, & Ragland, 1997), and it may be especially related to mortality due to coronary heart disease.

Investigators have relate vital exhaustion, a mental state characterized by extreme fatigue, a feeling of being defeated or defeated and enhanced irritability to cardiovascular disease (Wirtzet, al. 2003); vital exhaustion, in combination with other risk factors, predicts the likelihood of a heart attack (Bages, Appels, & Falger, 1999) and of a second heart attack after initial recovery (Kop, Appels, Mendas de Leon, de Swart & Bar, 1994).
Modification of CHD Risk-Related Behaviour

In keeping with the general shift toward prevention, interventions have increasingly focused on those at risk for heart disease. People with high cholesterol or poor lipid profit may be targeted or preventive dietary intervention. Programs to help people stop smoking have been heavily targeted toward those at risk for heart disease. Exercise has been recommended for the modification of coronary-prone behaviour, and it can achieve positive effects in both physiological and psychological

Modifying Hostility

Researchers have now established that the relationship between hostility and CHD is clear enough to have policy implication. That is, interventions designed to reduce anger and hostility may well reduce rates of coronary heart disease and related disease, such as hypertension.

Some such interventions have used principles of relaxation therapy, helping those with enhanced reactivity to stress learn to substitute relaxation and deep breathing instead. Relaxation training did not reduce cardiovascular responses during stress, but it did result in more rapid blood pressure reduction during the recovery period (English & Baker, 1983).
Management of Heart Disease

(i) Role of Delay: One of the reason for high rates of mortality and disability following heart attack is that patients often delay several hours or even days before seeking treatment. Some patients are simply unable to face the fact that they have had a heart attack.

Initial Treatment: During the acute phase of illness, the myocardial infarction (MI) patient is typically hospitalized in a coronary care unit in which cardiac functioning is continually monitored.

Most heart attack victims return home after hospitalization. Therefore, a number of long and short-term issues of rehabilitation arise. A number of heart attack patients experience cardiac arrest during their myocardial infarction and have to be resuscitated through artificial means.

Cardiac Rehabilitation: Once the acute phase of illness has passed, patients are encouraged to become more active. Heart patients, especially women, report receiving far less information about their disease and treatment than they want from health professionals.

Cardiac rehabilitation is defined as the active and progressive process by which individuals with heart disease attain their optimal physical, medical, psychological, social, emotional, vocational and economic status (Dracup, 1985). The goal of rehabilitation are to produce relief from symptoms, to educate, to reduce the severity of the disease, to limit further progression of disease, and to promote psychological and social adjustment.
**Treatment by Medication:** Treatment for coronary heart disease begins immediately after diagnosis. Much of the drop in death, for CHD can be attributed to the administration of clot-dissolving drugs and medical procedures such as angioplasty and coronary artery bypass surgery.

Once the acute phase of treatment is over, preparation for the rehabilitation regimen begins. Such a regimen often includes self-administration of beta-adrenergic blocking agents on a regular basis. Beta blocking agents are drugs that resist the effects of sympathetic nervous system stimulation.

Aspirin is commonly prescribed for people recovering from or at risk for heart attacks. Aspirin helps prevent blood clots by blocking one of the enzymes that cause platelets to aggregate.

**Diet and Activity Level:** Dietary restrictions may be imposed on the recovering the patient in an attempt to lower his or her cholesterol level. Instruction to reduce smoking, lose weight, and control alcohol consumption are also frequently given. Most patients are put on an exercises program involving medically supervised walking, jogging, bicycling or calisthenics at least three times a week for 30 to 45 minutes, (De Busk, Haskell, Miller, Berra, & Taylor, 1985).
**Stress management**: Stress management is an important ingredient in cardiac rehabilitation as well, because stress can trigger fatal cardiac events (Jaing et al., 1996). Younger patients, female patients and negative coping styles appear to be most at risk to high stress levels following a diagnosis of coronary artery heart disease, and therefore might be especially targeted for stress management interventions (Brummett et al., 2004).

**Targeting depression**: Depression is a significant problem during cardiac rehabilitation as it is throughout the management (T.W. Smith & Ruiz, 2002). Years after initial treatment, depression is associated with increased health care and increased need for treatment for coronary artery disease (Sullivan, La Croix Spertus, Hecth & Russo, 2003). When depressed coronary heart disease patients are treated with cognitive behavioural therapy to reduce depression, it can have beneficial effects on risk factor for advancing disease, including rate variability (Carney et al., 2000).

**Hypertension**

‘Hypertension’ is commonly known as ‘high blood pressure’. Its incidence rises rapidly with age, especially between 34 and 64. When a physiologically normal person is calm, his or her heart beat is regular, pulse is even, blood pressure is relatively low, and visceral
organs are well supplied with blood. With emotion-arousing stress, however the vessels of the visceral organs are constricted and blood is directed in greater quantity to the muscles of the trunk and limbs-maximum changes that help put the body on an emergency footing for maximum physical exeration. The tightening or restricting of the tiny vessels to visceral to visceral organs forces the heart to work harder. As it beats faster and with greater force, the pulse quickens and blood pressure mounts. Usually when the crisis passes, the body resumes normal functioning and the blood pressure return to normal. Under continuing emotional strain, however, high blood pressure may become chronic.

Blood pressure below 140/90 is considered ‘’not-motensive,’’ blood pressure above 160/100 is considered unambiguously ‘’high’’. According to Pickering (1972), he states that, ‘’There is a dividing line, the relationship between arterial pressure andmortality is quantitative., the higher the pressure, the worse the prognosis’’. These definition should consider not only the level of diastolic pressure but also systolic pressure, age, sex and rce.

**Forms of Hypertension:** It is usually encountered in the following forms:

1. Essential Hypertension
2. Renal Hypertension
3. Endocrine Hypertension
1. Essential Hypertension is by far the commonest type of high blood pressure. The term essential hypertension is used to indicate the absence of any discoverable extra vascular cause. It is mainly two types:

   (a) Benign essential Hypertension

   (b) Malignant essential Hypertension

In ‘bening essential hypertension’ clinical evidence of renal involvement is nearly always lacking. In ‘malignant essential hypertension’ secondary arterial damage leads to rapidly progressive renal destruction. Hypertensive encephalopathy and retinopathy develop as a result of vascular disturbance in the barin and retina.

2. Renal hypertension’ develops in the majority of patients with renal disease. The usual cause is acute or chronic glomerulonephritis, congenital cystic kidney, tumours of the kidney, hydronephrosis and amyloid disease. Unilateral renal disease may also produce high blood pressure the underlying lesion usually being pyelonephritis or obstruction to a main renal artery.

3. ‘Endocrine hypertension’ is sound in various endocrine disturbances. For example, in adrenal cortical hyper function (Cushing’s syndrome) and hyper thyrodism, the blood pressure is raised. High blood pressure is a frequent complication of diabetes and glomerular sclerosis may be an important contributory factor.
Classification of hypertension

Hypertension should be categorized on the basis of both severity and cause to facilitate diagnosis and therapy.

**Level of Blood Pressure:** In addition to the level of blood pressure, three other factors are considered the severity of hypertension -

1. Certain demographic feature (e.g., age, sex and race.)
2. The extent of vascular damage induced by the high blood pressure, as reflected in target organ involvement.
3. The presence of other risk factors for premature cardiovascular disease.

**Labile Hypertension:** Multiple ambulatory readings have been recorded over the full 24 hours and the marked variability in virtually everyone’s blood pressure has become obvious. In view of the usual variability of blood pressure, the term is neither useful nor meaningful.

**Borderline Hypertension:** The term “borderline may be used to describe hypertension in which the blood pressure only occasionally rise above 140/90 mm Hg. Persistently elevated blood pressure is more likely to develop in such people than in those consistently normal reading.
‘’White Coat’’ Hypertension: The acute pressure response to the measurement of the blood may persist indefinitely. Pressure as a conditioned reflex that increases sympathetic arousal each time the pressure is taken (Pickering, 1992). White – coat hypertension has been found in about 20% of people diagnosed as hypertensive in routine practice (Heghalm et.al., 1992). The ‘’white coat’’ hypertensive were more to be younger, non obese women with a shorter duration of hypertension remain in question. These patients need counseling to modify unhealthy life styles and must remain under observation, much like those with ‘’border line’’ hypertension. They should not, however, require antihypertensive therapy, so the need to identify them by out-of-the-office reading is essential.

Pathogenesis of Hypertension: No single factore has been found to explain essential hypertension, many are probably responsible. The blood pressure is determined by the product of cardiac output and peripheral vascular resistance.

Blood Pressure = Cardiac output X Peripheral resistance In the early stages of essential hypertension the increase of blood pressure is due to a small in cardiac output.
How is Hypertension Measured

Hypertension is assessed by the level of systolic and diastolic blood pressure as measured by a sphygmomanometer. Systolic blood pressure is the greatest force developed during contraction of the heart’s ventricles. It is sensitive both to the volume of blood leaving the heart and to the arteries ability to stretch to accommodate blood. Diastolic pressure I the pressure in the arteries when the heart is relaxed, it is related to resistance of the blood vessels to blood flow.

Mild hypertension is defined by a systolic pressure consistently between 140 and 159, Moderate hypertension involves a pressure consistently between 160 and 179, and severe hypertension means a systolic pressure consistently above 180.

Causes of Hypertension

Prior to age 50, males are at greater risk for hypertension than re females., above the age 55 however, both men and women living in the United States face a 90% chance of developing hypertension.

Genetic factors clearly also play a role (T.W. Smith et. al., 1987) : If one parent has high blood pressure, the offspring have a 45% chance of developing

Genetic factors clearly also play a role (T.W. Smith et. al., 1987) : If one parent has high blood pressure, the offspring have a 45% chance of developing it, if two parents have high blood pressure, the probability increases to 95%.
Emotional factors clearly also implicated in this constellation of risk. In particular, negative affect and frequent experience of intensive arousal predict increases in blood pressure over time (Johas & Lando, 2000, Pollard & Schwartz, 2003). A tendency toward anger (Harburs, Julius, Kacirotti, Gleiberman & Schork, 2003, E.H. Johnson, Schork & Speilberger, 1987), cynical distrust (R.B. Williams, 1984), and excessive striving in the of significant odds (S.A. James, Hartnett, & Kalsbeek, 1983) have all been implicated in the development of hypertension.

Stress and Hypertension: Stress has been suspected as a contributor to hypertension for many years (Henry & Cassel, 1996). Repeated exposure to stressful event during which heightened blood pressure reactions occur may contribute over the long term to development of chronically high blood pressure (D. Carroll et al., 2001). Crowded high stress, and noisy locates produce higher rate of hypertension.

Psychosocial Factors: Social support is a resource for combating most health problems. In the case of people with hypertension, however, those who are also high in hostility can compromise the social support that they receive. Thus the quality of personal relationship may influence whether social support has a beneficial effect on CVD (UMO, Uchino, & Smith, 2002). Hypertension who are high in hostility can often drive those who might otherwise be supportive way.
Treatment of Hypertension

Hypertension has been controlled in a variety of ways. Commonly, patients are put on low sodium diets, and reduction of alcohol intake is also recommended. Weight reduction in one overweight patients is strongly urged, and exercises is recommended for all hypertensive patients. Caffeine restriction in often include as part of the dietary treatment of hypertensive, because caffeine, in conjunction with stress, elevates blood pressure responses among these at risk for or already diagnosed with hypertension (Lovallo et. al., 2000)

Drug treatment

Hypertensive is treated pharmacologically. Diuretics reduce blood volume by promoting the excretion of sodium. Another common treatment is beta-adrenergic blockers, which exert their antihypertensive effects by decreasing plasma rennin activity. Central adrenergic inhibitors are also used to reduce blood pressure by decreasing the sympathetic outflow from the central nervous system.

Recently, drug treatment for hypertension have become controversial. Hypertension is only one of a cluster of factors that lead to the development of coronary heart disease. Certain of the drug treatments may have positive effects in reducing blood pressure but augment sympathetic nervous system activity overall, thereby aggravating rather than reducing the likelihood of coronary heart disease.
Cognitive- Behavioral Treatment

A variety of behavioral and cognitive-behavioral methods have been evaluated for their potential success in lowering blood pressure (M.S. Glasgow & Engel, 1987). Methods that draw on relaxation, hypnosis, and meditation, all of which reduce blood pressure via the induction of a state of low arousal. Deep breathing and imagery are often added to accomplish this task. Evaluations of these treatments suggest modestly to positive effects (Davison, Williams, Nezami, Bice, & De Quattro, 1991; Jacob, Chesney, Williams, Ding & Shapiro, 1991; Nakao et. al., 1991).

Gastrointestinal Disorder

Gastrointestinal problems referred to as irritable bowel syndrome (IBS). Irritable bowel syndrome, is a chronic functional gastrointestinal (GI) disorder that affects 10% to 15% of the United States population and is characterized by abdominal pain and alternated bowel functioning.

Classification of GI

(i) Peptic Ulcer: Gastrointestinal disease is related with one’s stomach and digestive process. An ulcer is an injury to the lining of the stomach or the small intestine. Estimates are that about 1.5 percent of the U.S. population suffers from ulcers at one time or another, and men are twice as likely as women to be victims of this painful disorder (Schwartz, 1997). Males in their late 30s are most likely to develop ulcers. An ulcer can
range in size form less than an eight of an inch to about one and a half inches in diameter. Ulcers are caused primarily by high lands of gastric acids secreted into the stomach when food is not present. The first symptom of an ulcer is a burning sensation in the gut. Once the ulcer grows, the burning sensation can turn into serve pain and can produce the vomiting of blood. The major cause of ulcers are psychological strees, physiological weakness and a tendency to produce abnormally high secretions of gastric acids.

**Obesity:** Obesity is a result of eating much more food them is normally necessary. Obesity finishes the normal smartness and it has to function more strenuously. Its effects on lungs is also very bad. Obesity obstructs the natural activities within a reasonable period of time. The person suffering from frustration

(ii) Unconsciously he tries to reduce his emotional tension by eating more.

(iii) **Colitis:** Colitis is characterized by frequent movements or constipation, accompanied by pain and a discharge of mucus and blood. If the condition continues long enough, ulcers appear in the colon (ulcerative colitis). Colitis may be caused by a variety of agents, such as infections or dietary indiscretions, all these factors must be excluded before a cause can be diaganosed as colitis attributable chiefly to emotional cause.
Gastroenteritis, Diarrhea and Dysentery

Gastroenteritis is an inflammation of the living of the stomach and small intestine. It may be caused by such factors as excessive amounts of food or drink, contaminated food or water, or food poisoning. Symptoms appear approximately 2 to 4 hours after the ingestion of food, they include vomiting, diarrhea, abdominal cramps, and nausea.

Diarrhea, characterized by watery and frequent bowel movements, occurs when the lining of the small and large intestines cannot properly absorb water or digested food. Chronic diarrhea may result in serious disturbances of fluid and electrolyte (Sodium, potassium, magnesium, calcium) balance.

Dysentery is similar to diarrhea except that mucus, pus and blood are also excreted. It may be caused by a protozoan that attack the large intestine (amoebic dysentery) or by a bacterial organism.

Gall Bladder

Gallstones are made up of combination of cholesterol, calcium bilirubin, and inorganic salts. When gallstones move into the duct of the gallbladder, they may cause painful spasms., such stones must often be removed surgically. Infection and inflammation of the gallbladder is called cholecystitis and may be a precondition for gallstones.
Appendicits

A common condition that occurs when wastes and bacteria accumulate in the appendix. If the small opening of the appendix becomes obstructed, bacteria can easily proliferate. Soon this condition gives rise to pain, increased peristalsis and nausea. If the appendix ruptures and the bacteria are released into the abdominal cavity or peritoneum, they can cause further infection or even death.

Hepatitis

A common, serious, contagious disease that attacks the liver is hepatitis. “Hepatitis” means inflammation of the liver, and the disease produces swelling, tenderness and sometimes permanent damage. When the liver is inflamed, bilirubin, a product of the breakdown of hemoglobin, cannot easily enter the bile ducts. Consequently, it remains in the blood, causing a yellowing of the skin known as jaundice. Other common symptoms are fatigue, fever, muscle or joint aches, nausea, vomiting, loss of appetite, abdominal pain and sometimes diarrhea.

DEPENDENT VARIABLES

This study covered depression, death anxiety and quality of life (QOL) as the dependent variables. These behavioral problems were ascertained in the subject in relation to CHB, HBP and GI.
**Depression:** Depression is an emotional illness with variable low moods that occasionally become more positive, and some times excited or cheerful. It is a common psychological problem and has given us this serious psychological problem. The cases of depression is increasing day to day in that context where the cultural and spiritual level is quite high. Depression is a serious mental illness with a wide variety of mood variations of melancholy sadness and disappointment. It is a combination of emotional, cognitive and behavioural symptoms.

According to Secunda et. al. (1973), “Depression may constitute the most prevalent form of psychopathology”. Woodruff et. al. (1974) summarized cross-cultural data that suggests at least five percent of men and nine percent of women will suffer from clinically significant episodes of primary depression. Depressive mood is also especially associated with syndromes, martial adjustment (Edeman & Millar, 1975). Bosse et. al. (1974) are of the view that depression is especially prevalent among college students.

Stein and Brodsky (2004) define depression as a ‘whole body illness’, involving body mood and thoughts. It affects the way you eat and sleep, the way you feel about yourself, and the way you think about things. A depressive disorder is not the same as a passing blue mood. It is not a sign of personal weakness or a condition that can be willed or wished away. People with depression cannot merely ‘pull themselves together and set better. Without treatment, symptoms can last for weeks, months or years. Appropriate treatment, however, can help most people who have depression.
Symptoms of Depression

Beck (1976), classified several symptoms of depression such as behavioural, motivational effective, cognitive and somatic.

Symptoms of depression can be divided into five general areas’, emotional cognitive, somatic behavioural and other symptoms.

1. Emotional Symptoms: Depressive or dysphoric (unpleased) mood is the most common and obvious symptoms of depression. A large number of people who are depressed describe themselves as feeling utterly goomy, defected or desportion. Kendall & Watson (1989) studied that anxiety is also common among depressed people.

2. Cognitive Symptoms: Depressed people have slow thinking, that they have thought in concentrating and are easily distracted. Guilt and worthlessness are common preoccupations. Depressed patients blame themselves for all wrong things, in fact about which they are not responsible. They focus considerable attention on the most negative features of themselves, their environment and the future. Hamilton (1989) found that interest in suicide usually develops gradually and may begin with the vague sense that life is not worth living.
3. **Somatic Symptoms:** The somatic symptoms of depression are related to basic physiological or bodily functions. Most of the patients of depression complain of physical symptom like heaviness of head, generalized weakness, poor appetite, heaviness or discomfort in the chest, palpitation, increased heart size, chronic fatigue, pain in legs etc. Some depressed patients complain of non-specific aches and pains in various parts of the body. Backache and pain in the neck are commonly experienced by depressed patients. Sleeping problems are also common in depressed patients.

4. **Behavioural Symptoms:** The term psychomotor retardation refers to several features of behaviour that may accompany the onset of serious depression. The most obvious behavioural symptoms of depression is slowed movement. Other become completely immobile and may stop speaking.

5. **Other symptoms:** The other symptoms of depression include loss of interest in interest in usual activities, loss of energy, fatigue, loss of sexual performance feeling or worthlessness, difficulty in concentration recurrent, suicidal thoughts and memory loss.

   Symptoms of depression may briefly be described as inder:
   
   i. Presistent sad, anxious, or “empty” mood.
   
   ii. Loss of interst or pleasure in your usual activities, including sex.
   
   iii. Restlessness, irritability or excessive crying.
   
   iv. Feelings of guilty, worthlessness, helplessness, hopelessness, pessimism.
   
   v. Sleeping too much or too little, early morning awaking.
   
   vi. Appetite and/or weight loss or overeating and weight gain.
   
   vii. Decreased energy, fatigue, feeling “slowed down”.
   
   viii. Thoughts of death or suicide, or suicide attempts.
xi. Difficulty concentrating, remembering or making decisions.
ix. Persistent physical symptoms that do not respond to treatment, such as headaches, digestive disorders or chronic pain.

Depressive reaction vary in severity and the type of behaviour. There are several types of depression which are described by learned psychologists but not classifications system has been universally accepted. However, some important classification of depression are discussed below:

I. Normal grief and Psychological Depression

This type of depression is concerned to depth, duration and extent of depression in which depressive creation is associated with guilt, feeling of worthlessness, delusion and hallucination.

II. Exogenous (Reactive) and Endogenous Depression

Exogenous depression is more common than endogenous variety. It is a reaction to stress. Exogenous depressive episodes are caused by factors from outside the body, including infection and psychological causes like some loss or stressful events, such as the death of a loved one or the loss of job. Endogenous depressive episodes and caused by factors from inside the body such as having biochemical or genetic etiology. Winokur and pitts (1964) studied the cause of seventy-five people who were admitted to a hospital for diagnosis of exogenous (reactive) depression. At the time of discharge, however, the diagnosis had been changed for all but twelve of the seventy-five cases studied and the diagnosis of forty-five cases was changed from exogenous to endogenous depression. So it is clear that the distinction between exogenous and endogenous depression is based on whether or not the depressive episodes appear to be a reactive to some life circumstances.
III. Neurotic and Psychotic Depression

Maerarano and Nthar (1972) stated that neurotic depression is diagnosed when the depressive episode seems to be a reaction to some environmental loss, such as nervousness and tension and psychotic depression is diagnosed when the depressive episode does not appear to be a reaction to some environmental loss.

IV. Primary and secondary Depression

Robins and Guze (1972) have proposed that depression should be classified versus secondary. Primary depression is diagnosed when depressive episodes occur in person with no previous history of psychopathology except previous episodes of mania or depression episodes occur in person with previous history of psychopathology except depression or mania.

V. Bipolar and Unipolar Depression

This variety is based on the presence or absence of recurrent manic episodes. Bipolar mood disorder are diagnosed when depressive episode occur (Perris, 1966, Woodruff et. al. 1974). Unipolar mood disorder is diagnosed when manic episodes do not occur. Schuyler (1974) and Winokur (1973) have suggested the bipolar and unipolar depression should be considered sub categories of primary depressions. There is evidence that bipolar depression runs in families to a great degree that does not unipolar depression (Akiskal & Mckinney, 1973) Mindelwiez (1974) found that physical illness was more prevalent in the live of bipolar patients who were studied it wasin the lives of unipolar patients.
In an observation it found that people with unipolar disorders experience emotional extremes at just one end of the mood continuum—depression. People with unipolar disorders experience emotional extremes at both ends of the mood continuum, going through periods of both depression and mania (excitement and elation). The mood swings in bipolars can be patterned in many ways.
Episodic Pattern in Mood Disorder

Episodes of emotional disturbance come and go unpredictably in mood disorders. People with unipolar disorders suffer from bowls of depression only, while people with bipolar disorders experience both manic and depressive episodes. The time between episodic of disturbance varies greatly (Weiten & Lloyd, 2003). This is obvious that bipolar mood disorder is marked by the experience of both depressed and manic period.

Theories of Depression

In recent years, several researches have shown that physical changes in the body can be associated with mental changes. Medical illnesses such as Parkinsonism, diabetes, leprosy, cancer, chronic renal failure, congestive cardiac failure, and chronic infection like tuberculosis, cancer and heart diseases are quite prone to develop depression. Very often, a combination of genetic, psychological and environmental factors are involved to develop depressive disorder. It is also known as the cause of depression. This cause may include genetic, familiar, biochemical, physical, social and psychological factors. These causes are described in form of theories.

I. Psychoanalytic Theory of Depression

Abraham (1911, 1916) who wrote the first psychoanalytic treatise on depression, introduced the concept of anger. Feus’s (1917) analytic followed Abraham’s account generally, except that Freud also proposed a hypothesis of object loss. Cameron (1963) and Fenichal (1945) focussed on the etiological importance of low self-esteem.
A fundamental hypothesis of psychoanalysis is that early childhood experiences lead to the development of personality factors that influence adult behaviour. An individual is hypothesized during the period of infancy and genital stages. These have their own separate important and characteristic to develop the personality. The experience of early childhood influence on the whole life and all patterns of behaviour are conducted by these early childhood experience.

According to the psychoanalysts, personality factors are associated with depression, dependency, anger and low self-esteem. Psychoanalytic theory suggests that excessive dependency needs are consequences of maladaptive adjustment during the oral stage of development and the excessive hostility towards others is consequence of either the oral or anal stage of development and low self-esteem can be a maladaptive consequence of childhood experience during any stage of development.

Psychoanalytic theory also proposes that hostility is associated with depression. According to Erickson (1950) low self-esteem and hostility also can occur as a consequence of maladjustment during the phallic stage development.
II. Reinforcement Theory of the Depression

Forster (1966, 1973) proposed that there are a number of ways in which people become depressed so that no single etiology exists. Under this view, depression can result from any of the following event –

1. A high level exposure to aversive event or to the need to avoid aversive events.
2. A low level of positive reinforcement.
3. A sudden change in the environment resulting from the loss of a discriminative stimulus that controls a large amount of behaviour e.g. retirement, death of a loved one.
4. Exposure to reinforcement schedules that require a large amount of work or effort to earn reinforcement.
5. The expression of anger that annoys other people and thus deprives one of a significant source of positive reinforcement. Lazarus (1968) has expressed a theoretical position similar to Forster (1966, 1973).

There are several evidences that support the reinforcement theory of depression. Lowinson and Libet (1972) found that depression tended to engage less in pleasant activities than non depressives, suggesting that low levels of reinforcement may be related to depression. Wener and Rehm (1975) proposed that college students who performed an experimental task for a low level of reinforcement reported lower mood, had lower self-confidence and performed more poorly than another group of college students who performed the same task for a high level reinforcement. These findings suggest that low level of positive reinforcement can induce temporary and mild signs of depression.
III. Imbalance Theory of Depression

Davis (1975) imbalance theory proposes that the critical factor in depression is the ratio of adrenergic to cholinergic substances at a critical site in the central nervous system. Basically, biogenic amines facilitate certain central nervous system function and cholinergic substances inhibit these same central nervous system function.

Winokur (1972) found that most of the research on genetic factors in depression is concerned with the manic depressive syndrome, but recently a member of studies have showed other types of depression. Perris (1966) reported that the relative of bipolar depressive were more likely to develop bipolar than unipolar depression.

Death Anxiety

The problems of death one central theme of the final stage in the life cycle (Butter 1968, Buhler 1968b.) The study of attitudes towards age has recently received attention (Kastenbaum 1966) How a person feels about death is most probably related to how his entire life span has been patterned (Erickson, 1963, Wolff, 1966) but may not have previously discussed death with
other (Christ, 1961) Barren et. al., (1963) found a reasonable adjustment to the concept of death in slightly over half of their healthy aged sample. About the third expressed fear and the remainder used denial differences.

Anxiety is a general character which is presented in every person of modern age. It is most central factore of human emotion. Anxiety may occur when an individual is threatened with the loss of her job. Anxiety is a sign of internal unconscious conflict. It serves the useful function of keeping us motivated to make the effort to overcome threatening situations. In evolutionary terms, anxiety can be viewed as a mechanism that has human beings to deal with danger and threat. It was Freud who first attempted to explicit the meaning of anxiety within the context of psychological theory. Anxiety was distinguishable from other unpleasant effective status such as anger, grief or sorrow by its unique combination of phenomenological and psychological qualities.

According to Freud believed that anxiety resulted from the discharge of repressed unrelived somatic sexual tension (libido). He held that when libidinal excitation produced as dangerous, these ideas were repressed.

“Death anxiety is a depressive state in which anxiety over dying and fear of death (Thanato phobia) are the alient symptoms”.

Death anxiety is the anxiety caused when one is faced by the thought, experience, and/or situation, reading mterial or mention of death in a conversation or in any other from in our daily life. In other
words, fear of death is an intense fear of something that poses no actual danger while adults with fear of death realise that these fears are irrational, they often find that facing, or even thinking about facing, the feared situation and persistent fear of death or dying is known as Thanatophobia or Thanatophobia while the fear of death or dead object is known as Necrophobia. Both have the same symptoms-

1. Breathlessness
2. Excessive sweating
3. Nausea or feeling sick
4. Dry mouth
5. Trembling or shaking
6. Palpitations
7. Inability to think clearly
8. A fear of dying (Death anxiety)
9. A sensation of detachment from reality or
10. A Full of blown anxiety attack

The awareness of death’s inevitability is the central threat to experiencing a meaningful life (Fisher and Fisher, 1993). Every person is preoccupied with death anxiety and is persistently defending against it with strategies such as simple denial, religious faith in immortality, exaggerated expectations of medical ‘’cure’’ and the acting out put of heroic ‘’Nothing can terminate me’’ fantasies (Becker, 1973, Zilboorg, 1943).
The fear of death is an emotional manifestation of the self-preservation instinct. Fear keeps us safe, it is adaptive in the sense that it signals the need for behavior to reduce any threats (Phszczynski, et. al., 1991).

Death anxiety is common in our society these days. Lots of people are afraid to die, and there can be endless reasons for this year. Death anxiety can happen because of some post traumatic event.

Many people fear dying more than death itself. Most people are afraid of dying a violent or painful death. They prefer to die in their sleep—without pain and without awareness. Dying can be a positive and rewarding experience; it can be a time of personal freedom and growth. Death is the only certainty in life. All living organisms die, there is no exception.

Theory of Death Anxiety
Two influential theories dominated concepts about death anxiety until the late twentieth century.

1. Sigmund Freud (1856-1939) had the first say. The founder of psychoanalysis recognized that people sometimes did express fear of death. According to Sigmund Freud it was not death the people feared because:

   Our own death is indeed quite unimaginable, and whenever we make the attempt to imagine it we ............... really survive as we make the attempt to imagine it we ............... really survive as spectators ........ At bottom nobody believes in his own death, or to put the same thing in a different way, in the unconscious every one of us is convinced of his own immortality
Freud’s reduction of death concern to a neurotic cover-up did not receive a strong challenge until Earnest Becker’s 1973 book, The Denial of Death. Becker’s existential view turned death anxiety theory on its head. These anxiety is so intensive that it generates many of the specific fears and phobias people experience in everyday life.

2. According to Becker, much of people daily behavior consists of attempt to deny death and thereby keep their basic anxiety under control. Becker suggested that this is where society convinced him that many beliefs and practices are in the service of death denial, that is, reducing the experience of anxiety. Ritualistic behavior on the part of both individuals and social institutions generally has the underlying purpose of channeling and finding employment for what otherwise would surface as disorganizing death anxiety.

3. Terror management theory is based who people felt better about themselves also reported having less death related anxiety. These data immediately suggested possibilities for preventing or reducing disturbingly high levels of death anxiety. Help people to develop strong self-esteem and they are less likely to be disabled by death anxiety.

4. Regret theory, it was proposed in 1996 by Adrian Tomer and Grafton Eliason. Regret theory focuses on the way in which people evaluate the quality or worth of their lives. The prospect of death is likely to make people more anxious if they feel that
5. They have not and cannot accomplish something over past failures and missed opportunities or with thoughts of future accomplishments and experiences that will not be possible. Regret theory also has implications for anxiety reduction.

**Quality of life**

It is said not only quantity of years but quality of life is also very important for a person to enjoy life. The quality of life has a solid bearing on mental health and illness and need a probing in a variety of research and applied settings. Quality of life refers to the degree of excellence in one’s life at any given period of time – that contributes to satisfaction and happiness of the person and benefits the society. It is a difficult area to be defined, as it is affected by a number of ill-defined, interrelated mutually dependent sets of factors (Verma, 1986). Being somewhat polymorphous it tends to cover a variety of areas such as physical, mental, psychological, and social and spiritual well-being, personal functioning and general limitations. The concept of quality of life has a solid bearing on mental health and mental health can give quality of life (Searo, 1984).

The various factors of quality of life are mainly of two types:
1. Satisfactory conditions and
2. Satisfying conditions

The satisfactory condition include factors like group cohesiveness, sharing of each other’s problems, absence of conflict among members, absence of mental illness, absence of any severe physical illness, etc.
The satisfying conditions include factors such as a sense of belongingness, presence of positive attitudes, subjective feelings of physical, psychological, mental, social and spiritual well being absence of unhealthy experiences, etc. (Verma, 1986).

The conceptualization of being, belonging and becoming as the domain of quality of life were developed from the insights of various writers.

The Being domain include the basic aspects of ‘‘who one is’’ and has three sub domains. Physical Being includes aspects of physical health, personal hygiene, nutrition, exercises, grooming, clothing and physical appearance. Psychological Being includes the person’s psychological health and adjustment, cognitions, feelings and evaluations concerning the self and self control. Spiritual Being reflects personal values, personal standard of conduct and spiritual beliefs which may or may not be associated with organized religions.

Belonging includes the person’s fit with his/her environments and also has three sub-domains. Physical Belonging is defined as the connections the person has with his/her physical environments such as home, workplace, neighbourhood, school and community. Social Belonging includes likes with social environments and includes the sense of acceptance by intimate others, family, friends, co-workers and neighbourhood and community. Community Belonging represents access to resources normally available to community members, such as adequate income, health and social services, employment, educational and recreational programs and community activities.
Becoming refer to the purposeful activities carried out to achieve personal goals, hopes and wishes. Practical Becoming describes day-to-day action such as domestic activities, paid work, school or volunteer activities and seeing to health or social needs. Leisure Becoming includes activities that promote relaxation and stress reduction. These include card games, neighbourhood walks and family visits or longer duration activities such as vacations or holiday. Growth Becoming activities promote the improvement or maintenance of knowledge and skills.

But these of factors directly or indirectly affect the quality of life of a person. Moreover, Maslow (1954) emphasized that the behaviour and quality of life a person depends upon a fulfillment of needs throughout his life. The quality of life is directly influenced by Maslow’s hierarchy of need i.e. the quality of life of a person is dependent on the needs of life being fulfilled (National Community Health Care Conference, 1982).

Thus for the purpose of construction and standardization of general quality of life scale, both these factors of quality of life and Maslow’s hierarchy of needs were given due consideration.

Components of Quality of Life
Quality of life has several components, specifically physical functioning, psychological status, social functioning and disease or treatment related symptomatology (Kahn & Juster, 2002, S.T. Kartz, Ford Muskowitz, Jackson & jaffe, 1983, Power, Bullinger, Harper & The world Health Organization Quality of life Group, 1999). Quality of life among the chronically ill is now assessed with emphasis.
especially with the activities of daily living, such as sleeping, eating, going to work and engaging in recreational activities. For patients with more advanced disease, such assessments include whether the patient is able to bathe, dress, use the toilet, be mobile, be continent, and etc without assistance.

**Measurment of Quality of life**

A board array of measures is now available for evaluating quality of life (for example, Hazuda, Geretz, Lee, Melrow & Lichtenstein, 2002, Logsdon, Gibbois, McCurry & Teri, 2002).

We should study of quality of life among the chronically ill. There are several reasons:

1. Documentation of exactly how illness affects vocational, social and personal activitie, as well as the general activities of daily living, provides an important basis for intervention designed to improve quality of life (Devins, et.al., 1990 Maes, Leventhal & DeRidder, 1996).

2. Quality of life measure can help pinpoint which problems are likely to emerge for patients with diseases. Information would be helpful in anticipating the interventions that are required (Schag 7 Heinrich, 1986).

3. Such measure asses the impact of treatments on quality of life. For example, if a cancer treatment has disappointing survival rates and produces adverse side effects, the treatment may be more harmful than the disease itself (Aarouson et.al., 1986). Quality of the measures have made it possible to assess the impact of unpleasant therapies and to indentify some of the determinants of poor adherence to those therapies.
4. Quality of life information can be used to compare therapies. For example, if two therapies produce approximately equivalent survival rates but one lower quality of life substantially, one would ne inclined to go with the treatment that keep quality of life at a higher level (S.E. Taylor & Aspinwall, 1990, for a review).

5. Quality of life information can inform decision makers about care that will maximize long term survivl with the highest quality of life possible.

The approach to the measurement of the quality of life derives from the position that there are a number of domains of living. Each domain contributes to one’s overall assessment of the quality of life. The domain include family and friends, work, neighbourhood (shelter), community, health, education and spiritual.
Review of the Literature
This chapter deals with the research conducted by previous scholars on the variables covered in the present study. As it would be clear from the review presented in this chapter, the variables covered in the present study have attracted the attention of scholars all over the globe. But the impact of psychophysiological disorders, especially on depression, death anxiety and quality of life have generally not been evaluated in our context. Some studies Schwartz et al. (1999) tried to determine whether subjective nighttime sleep complaints (trouble falling, sleeping, trouble sleeping staying asleep), exclusive of apnea, predicted myocardial infarction and other coronary events, a MEDLINE search was conducted for articles published between January 1976 through August 1997. 10 studies with explicit measure of association between an insomniac complaint and CHD were identified. Reported risk ratios for various sleep complaints and CHD events ranged from 1.0 for waking too early and CHD death in an elderly Hurth Carolina Community to 8.0 for the highest vs lowest quintile of a sleep scale in Finnish men. Higher quality studies showed risk ratios of 1.47-3.90 between trouble falling asleep and coronary events after adjusting for age and various coronary risk factors. While alternative explanations such as medications use still need to be ruled out, the authors theorize that a subjective insomniac complaint either may be part of a larger syndrome that includes poor health and depression, or it may be related to continual stressors, reduced slow wave sleep, and autonomic dysfunction, which increase the risk of heart problems.
Tennat (1999) has reviewed the relationship between life event stress support and coronary heart disease. A literature search from 1978 to early 1999 using Medline, Psyc INEO, and EMBAE database was performed. It focused largely on prospective studies. Results show that both life event stressors and inadequate social support assessed by a variety of indicators and inadequate social support assessed by a variety of indicators and risk factore for acute coronary heart disease events. Poor social support does not particularly appear to moderate the relationship of life stress to coronary heart disease but rather both appear to be independent risk factore, the exact mechanism by which they impact on heart disease is not as yet, wekk elecited, although disturbance in mood would appear apper to be the most likely interviewing variable.

Porcelli et. al. (1999) examined the relationship between alexithymia and functional gastrointestinal disorder (FGIDs) in a group of 116 inflammatory bowel disease (IBD) patient and a group of 112 healthy Ss. The Ss completed the 20-item Toronto Alexithymic Sxale and the Hospital Anxiety and Depression Scale. The FGID group was significntly more alexithymic than the IBD group, and the 2 gastrointestinal groups were more alexithymic than the normal healthy group. These differences remained even after controlling for the influences of education, gender, anxiety, depression and gastrointestinal sysmtoms. The finding of a high rate of alexithymia (66%) in the group of FGID patients is consistent with the propensity of these patients to somatization and to high levels of poorly differentiated psychologicl distress.
Pao (1999) reports the case of an adolescent female with lactose intolerance treated with setraline for generalized anxiety disorder. With the addition of buspirone for persistent anxiety, the adolescent’s nausea and vomiting worsened. When buspirone was discontinued, her gastrointestinal abated. Acquired lactose deficiency is common, with prevalence rates of 0% in Dutch populations to 100% in Asian populations, with White Americans reported at 24%, since lactose intolerance is quite variable, buspirone use in no a contraindication in these patients, but clinicians should be aware of this possible side effect.

Kilbourn, et. al. (2000) have reviewed the literature on depression & negative affect in post-myocardial infarction (MI) patients and on the interaction between depression and other psychosocial risk factors. Also discussed are the possible psychological mechanism by which depression may affect post-MI prognosis and then present a selected review of psychosocial interventions for depressions in post-MI patients. Depression and negative affect in post-MI patient is associated with increased morbidity affect in mortality. This is of particular importance because it is estimated that up to 50% of post-MI patients suffer from some degree of clinical depression. It is hypothesized that a cognitive-based, psychosocial intervention aimed at high-risk post-MI patients will impact morbidity and mortality variables.
Kleinschmidt et. al. (2000) Explored the incidence of depression and anxiety and measured the quality of life in women with idiopathic intracranial hypertension (IIH). 28 women with IIH were compared with 300 weight and aged matched women not diagnosed with IIH. And with 30 aged matched women of normal weight. Ss completed a questionnaire on health information and questionnaires measuring depression, anxiety and quality of life. Ss with IIH repoted a greater number of adverse health problems than either of the control groups. Non-health psychosocial concerns were equally prevalence among the 3 groups, but IIH patients were significantly more affected by hardships associated with health problems than the other two groups. The patients group also had higher levels of depression and anxiety than the control groups. These adverse health condition were reflected in decreased quality of life measure the IIH groups.

According to Clarke et. al (2000) Chronic heart failures patients of ten experience significant functional impairments. A better understanding of the bio-psychosocial correlated of functional status may lead to interventions that improve quality of life in this population. Social isolation, mood disturbance, low socio-economic status and non-white ethnicity were evaluated as possible correlates of impaired functional status in 2, 992 vs. patients with left ventricular ejection fraction < 35%. Even after controlling for age and clinical characteristics, all the psychosocial variables examined were significant predictore of risk for experiencing severe limitations in intermediate and social activites of daily living at yr. with
adjusted odds ratios in the 1.5 – 2.0 range. The ability of psychosocial characteristic to predict future functional status also was independent of baseline functional status, co-morbid medical conditions, and deterioration in heart failure sign and symptoms over the intervening year. These results suggest that psychosocial factors influence patient functional status even in the later phase of cardiac disease.

Knardanl (2000) has reviewed studies on enviromental and predispositional factore in the pathogenesis of cardiovascular disease (CVD). In humans, it is difficult to characterize the pathogenic environmental factore due to the long time-span of pathogenesis. Perceived effort, control, social isolation, and absence of reward seem to increase the risk of CVD. There are several reported of associations between personality traits or behaviour patterns and CVD. Recent psychophysiologival research has focused on hypereactivity to challenge, which seems to be common the offspring of hypertensive’s and may be psychophysiologival rather than physiological studies in animals have shown that social interactions produce pronounced psychophysiologival reponses. Differentiated response patterns may explain the contradictory findings of studies that measure low physiological parameters. Predisposition to behaviour and reactivity of physiological system may be accentuated by do minance subordinate interactions. The availability of control and the perception of mastery is seen as crucial in terminaty response to stressors. It is suggested that the focuse in cardiovascular psychophysiologival should shift studies of behavioural and somatic responses during social interactions.
Steptoe (2000) has reviewed the role of psychosocial factors in human hypertension in studies with 3 research strategies: (1) epidemiological studies of blood pressure samples characteristics and life experience in population samples (2) naturalistic studies of the conversation between blood pressure, psychological state and everyday life events and (3) experimental studies of cardiovascular and neuro-endocrine responses to behavioural stimuli. Research is summarized on hypertension and psychological traits, job characteristics and social support, emphasizing the convergent knowledge deriving from complementary research strategies. The roles of stress-induced cardiovascular responses and prejudicial life styles as mediating influences on risk of hypertension are discussed.

Lawton (2000) examines relations among physical illness, depression and end of life attitudes and behaviours. The author’s review of the literature reveals that depression is neither inevitable in the terminal of life nor a necessary motivation for avoiding life sustaining treatment or ending one’s life. Although quality of life often erodes with declining health, the author proposes that may positive, non health-related aspects of life strongly influence the judgement of seriously ill elder, depression or otherwise, when thinking about life prolong treatment,. The author introduces a promising intervening variables, valuation of life (VOL), describes its measurement and illustrates its utility in research demonstrating the VOL mediates the impact of both positive and negative aspects of
one’s life (including illness and depression) on end-of-life attitudes. The chapter concludes with an insightful list of unanswered question to guide future research on end-of-life issues.

Lyness et. al. (2000) reviewed the literature regarding cardiovascular risk factors (CVRFs) and depression in later life. The author critically examines 2 patho-biological models in which CVRFs contribute to depression. The theories considered were a structural models in which CVRFs lead to brain parenchymal damage via small vessel ischemic disease and a cytokine model in which atherosclerosis leads to functional alterations in neurotransmitter systems underlying depressive pathogenesis. The authors also reviewed evidence for the role of depression in contributing to the pathogenesis of atherosclerotic heart disease. They also noted the potential roles of psychological and psychosocial routes in the interface between CVRFs and depression.

Mayou et. al (2000) investigated emotional distress immediately after myocardial infraction (MI) as a predictor of physical, psychological and social outcomes resources use. Demographic and cardiological data were obtained for 347-3079 Yr. later. 15% of patient sored proble cases of anxiety and depression. They were more likely than noncase to report pre-MI distress and poor adjustment (as indicated on the 36-item medical outcome study short from). There was an improvement at 3 mo, but little overall or individual change after that time. Anxiety and depression (measured with the hospital anxiety and depression scale) did not predict subsequent mortality but did predict
poor outcome at 1 yr. on specific measures of everyday activity and reports of chest pain, use of primary care resources and secondary prevention life style change. Ss who are distressed in the hospital are at high risk of adverse psychological and quality of life outcomes.

Sher (2000) comments on the report by C. Tennant regarding the relationship between stressful life events, social support and coronary heart disease. The author notes that chronic stress in humans does not lead to immunological adaptation to the level of healthy controls, and that either is evidence that inflammation in the atherosclerotic plaque may be a causative mechanism for coronary heart disease. Tennant’s own previous research is noted, suggesting, that the development of infection and inflammation in the atherosclerotic plaque could be related to the psychological disorders that suppress the immune system. Also, it is noted that immune system may be involved in the effects of psychological factors on the cardiovascular system. It is argued that psychotherapeutic treatments such as cognitive behaviour therapy for stress reduction and anger control, muscle relaxation therapy and others may improve the state of the immune system, decrease the inflammation in the atherosclerotic plaques, and improve the condition of patients with coronary heart disease.

Drossman et. al. (2000) examined the effect of different coping strategies on the health outcome of women with gastrointestinal (GI) disorders and how these coping strategies may modify the effect of education, GI disease type, neuroticism, and abuse severity on health
outcome. 174-18-70 yr. old patients from a referred GI clinic were followed for 12 mo to assess their health status as a derived variable of daily pain, bed disability days, psychological distress, daily dysfunction, number of surgeries and procedures. GI diagnosis (functional vs. organic) neuroticism score (NEO personality inventory), sexual and/or physical abuse history, and scores on 2 coping questionnaires were obtained at baseline. Results show that a higher score on the catastrophizing scale and a lower score on the self-perceived ability to decrease symptoms scale predicted poor health outcome. Less education, a functional GI diagnosis, a higher neuroticism score, and greater abuse severity also contributed to poor health status. The effect of GI disease type and neuroticism on health outcome was significantly reduced by the coping measures.

Kubzansky et. al. (2000), considers the nature and function of emotions, reviews epidemiological evidence for an association between 3 negative emotions (anger, anxiety, depression) and coronary heart disease (CHD), discusses the mechanism by which emotions may be linked to CHD, and considers this evidence in light of theoretical insights provided by mainstream psychological research. The authors collected articles published between 1980-1998 on the relationship between each negative emotion and CHD. Review articles or chapters published during the same time period that considered mechanism by which emotions may increase CHD risk were also collected. The result show that anxiety is involved in the onset of CHD, whereas evidence for an association between anger and
CHD is limited but suggestive. Although depression has considerably been linked no mortality following a myocardial infarction, evidence for its role in the onset of coronary disease is quite mixed. It is concluded that numerous unsolved issues leave the current understanding of the emotion-health relationship incomplete. Psychological theories of emotion are considered to help address gaps in knowledge. Growing evidence indicates that negative emotions may influence the development of CHD.

Stein et. al. (2000) investigated the relationship between depression and heart rate variability in cardiac patients. Heart rate variability was measured during 24 hr. ambulatory electrocardiographic monitoring in 40 medically stable out-patients with documented coronary heart disease meeting current diagnostic criteria for major depression, and 32 non-depressed (mean age 60.4 yrs.), but otherwise comparable, patients. Patients discontinued P-blockers and antidepressent medications at the time of study. Depressed patients were classified as mildly (21 Ss, mean age 60.2 yrs.) or moderately-to-severely depressed (19Ss, mean age 60.5 yrs.) on the basis of Beck Depression Inventory scores. The results show that there were no significant differences among the groups in age, gender, blood pressure, history of myocardial infarction, diabetes, or smoking. Heart rates were higher and nearly all indices of heart rate variability were significantly reduced in the moderately – severely vs. the non-depressed group. Heart rates were also higher and mean values for heart rate variability lower in the mildly depressed-group compared
with the non-depressed group, compared with the non-depressed group, but these differences did not attain statistical significance.

Swenson et. al (2000) focus on definition and general concept underlying quality of life in patients with cardiac disease, the ways in which it is measured, and the uses and limitations of quality-of-life measurement. The relevance of psychosomatic medicine to quality of life research is also discussed. A Medline Search, from 1988-1998, was undertaken using the search terms “Cardiovascular disease and quality of life and “Cardiovascular disease and health status.” Results of clinical trials of cardiovascular therapies using quality of life instruments were not reviewed. The finding show that quality of life can be defined as “the functional effect of an illness and its consequent therapy upon a patient, as perceived by the patient.”

“Domains of quality of life include physical, mental, social and occupational function, health perceptions, and symptoms of disease. It is concluded that psychosomatics medicine contribution to understanding patient’s reaction to physical illness and injury may offer enhanced insight into assessment of health perceptions and that generic health profiles and cardiac-disease specific quality-of-life measures would also be useful in psychosomatic investigations of personality, hostility depression, and social isolation in patients with cardiac disease.

According to Porcelli et. al. (2000), psychiatric assessment of somatization (the tendency to experience and communicate
psychological distress in the form of physical symptoms and to seek medical help for them) currently rests on DSM criteria. An alternative diagnostic and conceptual framework has been proposed by an intentional group of psychosomatic investigators. The aim of this study was to compare these new criteria (Diagnostic Criteria for psychosomatic Research, DCPR) with DSM-IV in a population where a high prevalence of psychosocial problem to expected (functional gastrointestinal disorders, FGID) 190 Ss (mean age 37.5 yrs) with FGID in a tertiary care center were assessed according to DSM-IV and DCPR diagnosis was almost double that of DSM diagnosis only 9% of the patients were not identified by DCPR criteria, whereas this occurred in 25% of patients using DSM criteria. While patients who were given a DSM diagnosis, many patients with DCPR syndromes did not fulfill any criteria. Four DCPR syndromes appeared to be particularly frequent and accounted for almost 75% of the total diagnoses (alexithymia, persistent somatozation, functional symptoms secondary to a psychiatric disorder, demoralization).

Winters et. al (2000) have clarified the role of anxiety in the etiology of coronary heart disease (CHD) and post myocardial infarction (MI) morbidity and mortality. Accomplishing this goal depends on anxiety. Anxiety will be viewed from a bio-behavioural control system designed to maintain physical and emotional health. The authors contend that anxiety becomes a risk factor in the pathogenesis of CHD when the subjective affective component of the emotional response to threat is suppressed. Anxiety is also a risk factors in CHD when coping resources are constrained by life
circumstances. Implications for the function of anxiety in CHD with respect to health care services are discussed.

Jordaan et. al. (2000) present the diagnostics dilemma of a case of a 13 yr. old girl with both superior mesentric artery syndrome (SMAS) and anorexia nervosa. Although these disorders seldom occur together, they share both clinical features and etiological factors. The authors note based on the etiological interplay of psychodynamic factors and physical symptoms on a number of observations. Multiple referrals and investigations-reinforced the idea of the S’s being physically ill. Furthermore, the onset of illness was only a few months after a Sibling’ birth, suggetinng that non conscious memories of attention gained from bouts of gastrointesteritis and hospitalizations were operative. The authors speculate that pin, representing both physical and psychological discomfort, was relived through food refusal and emotional support, which in return reinforced the S’s symptoms.

According to Falyer et. al. (2000) may be severely afflicted by patient’s and partners depressed mood. In this study, 170 cardiac patients (76% acute myocardial infarction, 24% coronary artery by pass-graft operation, 86% male, mean age 55 yrs.) and their partners were assessed with respect to mutual QoL at 1,3 and 12 mo after hospital discharge. Self-reported depressed mood (Beck Depression Inventory > 10) was also assessed at these time points. Throughtout follow-up, 17 to 21 % of patients and 16 to 25% of partners reported depressed mood. In those patient and partners, at all timepoints, QoL was significantly poorer that in non depressed Ss. In stepwise multiple

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regression, both cross-sectional and longitudinal patients and partners depressed mood and QoL were independent strong predictors of mutul poorer QoL in both cardiac patients and partners should be carefully monitored and treated, as an integral part of standard care after a coronary event.

Levine et. al. (2000) tried to determine the effects of the Serotonin (5-hydroxytratamine₃) [5-HT₃]) receptor-ondansetron and granisetron on the development of gastric tachyarrhythmia, nausea and other symptoms of motion sickness. In a double-blind, counter balanced, repeated measure desing, 12 motion sickness susceptible college students participated in 3 serious with an intersession interval of 1 wk. participated received either 8. Mg. of ondansetron, 2 mg. of granisetron or placebo 1hr. before exposure to a rotating optokinetic drum. Electrogastrograms (EGGs) were recorded during a 6-min baseline period and a subsequent 16-min drum rotation period. Subjective symptoms of motion sickness (SSMS) were obtained every 3 min during drum rotation. During drum rotation, gastric tachyarrhythmia increased significantly more during the placebo condition than during either of the serotonin (5-HT₃) receptor antagonist conditions. However maximum SSMS scores were not different among conditions. Thus, the serotonin (5-HT3) receptors antagonists inhibited the development of tachyarrhythmia, but did not prevent the development of nausea and other symptoms of motion sickness.
Friedman et al. (2001) investigated the association between mild hypertension as defined by both ambulatory and causal (clinical) BP measurements and various measures of personality and psychological characteristics in 283 men (aged 30-60 yrs). Using an ambulatory BP monitor and controlling for age, race/ethnicity and body mass index. Results show no consistent difference between Ss with mild hypertension and those with normal BP on any of the psychological variables assessed, including Type A behaviour pattern, state and trait anger, anger expression, anxiety, symptoms of psychological distress, locus of control or attributional style. Results were not due to the use of anti-hypertensive medication by some of the Ss with hypertension nor to the dichotomization of BP into those with and without mild hypertension. This contrasts with previous findings from this study showing a sizeable association of ambulatory BP and hypertension with Job strain (situational measure), age and body mass index. These null results suggest that situational, biological and perhaps behavioural factors are the primary determinants of mild hypertension and that the predictive significance of psychological or dispositional factors is low or negligible in those without overt cardiovascular disease.

Shnek et al. (2001) tried to determine whether learned helplessness, cognitive distortions, self efficacy and dispositional optimism assessed at time 1 (T₁, questionnaires mailed at 1 month postdischarge) would predict depressive symptoms at time 2 (T₂, questionnaires mailed at 1 year follow-up) in a sample of 86 patients hospitalized with ischemic heart disease. Multiple regression result indicated that optimism and
cognitive distortions at $T_1$ were significantly associated with $T_1$ depressive symptoms after controlling for confounding variables. When the $T_1$ psychological factors were analyzed with $T_2$ depressive symptoms, only optimism continued to predict depressive symptoms after controlling for confounds and $T_1$ depressive symptoms. The global expectancies that beliefs of cognitive distortions and may have accounted for why optimism predict $T_2$ depressive symptoms. Smith (2001) is of the view that negative emotion have been claimed to be a cause of coronary heart disease (CHD) as well as a consequence of cardiovascular disorders. Early case studies of cardiac disorders of soldiers in battle drew attention to the possibility that strong negative emotional states could cause CHD. Subsequent reports of reactions to natural disasters supported the notion that intense negative emotions could precipitate somatic disorders such as CHD. Since then, numerous studies have investigated relations between negative emotions and CHD. Over the years, retrospective studies have found, for example, that negative emotion are often present before the occurrence of CHD. Cross-sectional studies have indicated that symptoms of depression and anxiety are often present in CHD patients. Prospective studies have shown that the likelihood of CHD tends to be higher for people with negative emotions than for those without them. Although the finding appears to support the notion of causal connections between negative emotions and CHD, they fail to provide conclusive proof of such relations. An alternative explanation that could also account for the findings is simply that negative
emotions and CHD often co-exist.
Cohen et. al. (2001) examined the relationship between a self-reported history of treatment for depression and subsequent myocardial infarction among treated hypertensive patients. 5,564 adults Ss in a union sponsored hypertension control program who entered the program without a history of cardiovascular disease and were asked whether they had been treated for depressions were followed in prospective cohort study. The primary outcome of interest was hospitalization or death due to myocardial infarction. At entry, 3.5% of men and 6.4% of women reported a history of treatment for depression. During 4.9 yrs (average) of follow-up, 112 fatal and non-fatal myocardial infarctions were recorded. Controlling for known cardiovascular risk factors with multivariate proportional hazards models, history of treatment for depression was significantly associated with subsequent myocardial infarction. It is concluded that a self-reported history of treatment for depression in independently associated with subsequent myocardial infarction in treated hypertensive patients without prior cardiovascular disease. Whether additional or different treatment for depression will be cardioprotective is known and merits further study.

Lane et. al. (2001) attempted to determine the impact of symptoms of depression and anxiety on mortality and quality of life in 288 Ss (aged 31-89 yrs.) hospitalized for acute myocardial infarction (MI). The Beck Depression Inventory and the State-Trait Anxiety Inventory were completed by all of the Ss. 12 mo survival status was ascertained, and quality of life among survivors was assessed using the Dartmouth Coop charts. 31 Ss dies, 27 of cardiac causes, during the follow-up,
Severity of infraction and evidence of health failure predicted both cardiac and all cause mortality. The same findings emerged from supplementary analyses of data from patients who died after discharge from the hospital. Symptoms of depression and anxiety, measured at entry, predicted 12 mo quality of life among survivors, as did gender, partner status, employment status, living alone, previous frequency of exercise and indices of disease severity. In a multiple regression model in which all of these variables were entered, initial depression scores provided the best independent prediction of quality of life. It is concluded that symptoms of depression and anxiety did not predict either cardiac or all-cause mortality after MI, but they did predict quality of life among those who lived to 12 mo.

Krishnan et al. (2001) evaluated the safety and efficacy of sertraline in the treatment of moderate to severe major depression in 220 elderly outpatients (aged 60+ years) with comorbid vascular disease. An analysis of the pooled results for the sertraline treatment group drawn from 2 prospective, randomized, double blind studies (sertraline vs. fluoxetine, and sertraline vs. nortriptyline) was done. Patients were retrospectively categorized into one of 3 clinical groups: (1) patients with a current diagnosis of hypertension but no other past present cardiovascular illness, (2) patients reporting a current or past history of cardiovascular illness, but excluding hypertension, and (3) patients with no hypertension, and no other comorbid vascular illness. Patients received 12 wks. Of double blind treatment with sertraline in flexible daily doses. Sertraline treatment yielded comparable levels of
response in all 3 groups at treatment end point on both a completer analysis and significantly higher response rates on a 12 wk. end point analysis Sertraline was found to be a safe, well-tolerated and effective as an antidepressant in elderly suffering from hypertension and other forms of vascular comorbidity.,

Flaherty et. al. (2001) reports on a case of factitious hypertension caused by the use of pseudoephedrine. The subject was a 36-year-old male who presented with an extensive regimen of cardiovascular medications, suggesting his hypertension was extremely resistant to treatment. While hospitalized, the subject was non-compliant with medications. Although detected during urinalysis, the subject could offer no credible explanation for the pseudoephedrine in his system. At discharge, the subject continued to deny any conscious role in his illness, although he did vaguely acknowledge that unconscious factors might be contributing to his problem. The subject's psychiatric history is presented, and the characteristics of factitious disorders are discussed.

Porcelli & Decarne (2001) investigated the criterion-related validity of the Diagnostic Criteria for Psychosomatic Syndrome Research (DCPR) for alexithymia syndrome (DCPRA). A secondary aim was to explore the relationship between alexithymia and depressed mood. The study included 190 consecutive outpatients with functional gastrointestinal disorders. Alexithymia Scale (TAS-20). Depressed mood was assessed on the basis of the depression sub-scale of the Hospital anxiety and Depression Scale (HDS) and the DSM-IV.
criteria. The sensitivity of the DCPR-A together with the TAS-20 was 70.2%, specificity was 81.6% positive predictive power 88.9%, negative predictive power 66.0% DCPR-A positives scored significantly higher than DCPR-A negatives on the TAS-20 scores. The TAS-20 scores. The TAS-20 was not associated with any measure of depression, while the DCPR-A was significantly associated with the HDS and DCM-IV criteria.

Strik et. al. (2001) discuss the possible relationship between depression and myocardial infarction (MI) and the epidemiology, clinical profile, risk factors, and treatment of post-MI depression. Higher are associated with higher morbidity and mortality due to cardiac events caused mainly by arrhythmia, although severity of MI is not related to the development of depression. Post-MI depression often goes unrecognized as only 10% of depressed MI patients are diagnosed. This underestimation is attributed to it’s a typical profile, tendency of physicians to interpret depressive symptoms as transient or natural reactions to a life threatening event and the scarce knowledge of risk factors associated with Post-MI depression. The prevalence rate for depression during the first 18 mo following MI is 15-30%. Risk factors for developing post-MI depression include complication during hospitalization, prescription of benzodiazepines during hospitalization, previous history of depression and not being able to stop smoking selective serotonin reuptake inhibitors appear to be the first choice treatment in post-MI depression. As yet there is no information on the efficacy and safety of combined serotonin and noradrenergic reuptake inhibitors.
Tanum & Mal (2001) investigated the relationship between personality and reported pain and somatic distress in patients with functional gastrointestinal disorder (FGD) without psychopathology. 56 patients and 55 controls completed Buss-Durkee Hostility Inventory, Personality Inventory, Eysenck, Eysenck NEO Personality Inventory, Eysenck Personality Questionnaire and Geissener physical complaints checklist. Ss also completed McGill pain and target symptom (abdominal distress). Ss displayed significantly higher levels of neuroticism and covert aggression than controls. Number of words chosen to describe pain and sensory pain index (MPQ), but not pain intensity on VAS, were predicted by indirect aggression and less so by neuroticism in females and covert aggression in males (stepwise regression models.). Ss reported for more extraintentional somatic complaints than controls.

Ballenger et. al (2001) present the author’s views on the detection of depression and anxiety in gastroenterology as well as management issues in the light of the evolving disease model and identifies further areas for research. Topics discussed include impact of anxiety and depression on prognosis, recognition of anxiety and depression, management issues, and treatment options.

Ballenger et. al (2001) present the author’s views on the management of comorbid depression and anxiety in the cardiovascular patient on the basis of the current state of knowledge and identifies areas of further research. Topic discussed included depression and anxiety as risk factor for cardiovascular
In a study Ames et. al (2001) the role that major and monor life events play in the quality of life in low-income hypertensives was examined. Participants were randomly recruited from primary care scclinics at a public centar. The study utilized a prospective desing. Participants were determined to have hypertension and were bring treted with anti-hypertensive medication prior to and throughout the duration of study. Ss were administered the life experiences the survey and the weekly stress inventory repeatedely during year 1 to assess major and minor stress, respectively Ss, were repeatedly administered the RAND 36 item Health obtained from 183 patients. Analyses revealed that major and moror stress were significant predictors of all measured domains of quality of life, even after age and number of chronic illness were statistically controlled. Minor stress contributed uniquely to the prediction of each dimension of quality of life even when age, number of chronic illness and major life event were accounted for. Findings suggest that stress has a significant, persistent impact on the quality of life of low-impact patients with established hypertesion.

According to Mayer et. (2001) functional disorders of the digestive system, such as irritable bowel syndrome are often
associated with affective disorders, such as depression, anxiety, panic and posttraumatic stress disorder (PTSC). Some of these associations are observed not only in clinical populations, but also in population based samples, suggesting a relationship with pathophysiologic mechanism underlying both gastrointestinal (GI) dysfunction and certain affective disorders. Sustained and acute like threatening stressors play an important role in the onset and modulation of GI symptoms as well as in the development of affective disorders and PTSD. A neurobiological model is purposed that attempts to explain the development of visceral hypersensitivity, the neuroendocrine and autonomic dysfunction characteristic of functional Gi disorders, as well as the overlap with affective disorders.

Lydiard (2001) examined the observed high prevalence of psychiatric disorder in patient with irritable bowel syndrome (IBS). The published literature indicates that fewer than half of individuals with IBS seek treatment for it. Of those who do, 50% to 90% have psychiatric disorders, including panic disorder, generalized anxiety disorder, social phobia, posttraumatic stress disorder and major depression, while those who do not seek treatment tend to be psychologically normal. Both psychologic and psychosocial variables appear to play important roles in the development and maintenance of IBS. Recent information suggests that the association of IBS and psychiatric disorders may be more fundamental than was previously believed. A brain-gut model for IBS is presented, and the role of traumatic stress and corticotrophin – releasing factor as modulators of
the brain-gut loop is discussed. Finally, the rationale for the use of psychotropic agents in the treatment of IBS with or without psychiatric symptoms is presented.

Roose (2001) states that depression in patients with cardiovascular disease is a significant risk factor for developing symptomatic and fatal ischemic heart disease. Moreover, depressed patients have a higher than expected rate of sudden cardiovascular death. Therefore, appropriate treatment of patients with depression or cardiovascular disease cannot be restricted to considerations of either depression or cardiovascular disease to considerations of either depression have various effects on the cardiovascular system, including Type 1A anti-arrhythmic activity that has been associated with an increased risk of mortality in post-myocardial infarction patients. The selective serotonin reuptake inhibitor (SSRIs) are not associated with adverse cardiac effects. On the basis of this favourable cardiovascular profile, the SSRIs should therefore be the preferred choice for the treatment of most patients with comorbid depression and cardiovascular disease. Investing of putative pathophysiologic mechanisms linking depression and cardiovascular mortality, such as the role of platelet activation, will form the basis for further investigation of anti-depressant treatment in order to establish if the anti-depressants have a beneficial effect on the prognosis of cardiovascular disease.

Sheps and Sheffield (2001) reported that up to one fifth of patients with cardiovascular disease, including those who have experienced a myocardial, may have concomitant major depression. Studies have suggested that relative risk of major depression with cardiovascular
disease ranges from 1.5 – 4.5. Further information is required to establish a dose response relationship between depression and coronary artery disease (CAD); however, such a relationship has been shown between anxiety and CAD. Development of a conceptual model of the pathophysiologic actions of stress in CAD will assist in the understanding of this relationship. In patients with angiographic evidence of CAD, the presence of major depressive disorder was the best single predictor of cardiac events during the 12 mo following diagnosis. Significantly, 6 mo cumulative mortality following diagnosis of myocardial infarction has been shown to be higher in depressed patients than in non-depressed patients. A decrease in heart rate variability may mediate the detrimental effect of depression on post-myocardial infarction prognosis. Other factors such as mental stress and altered platelet function may also predispose depressed patients to a heightened risk of cardiac events.

Brug and Abrams (2001) opine that depression is an important predictor of morbidity in patients with coronary heart disease (CHD), particularly after myocardial infarction (MI), independent of previous cardiac history or CHD severity. Depression also is associated with poor long-term psychosocial outcomes. The prevalence of major depression among post-MI patients is 15 to 20% with an additional 27% reporting symptoms of minor depression. This article briefly review the literature on depression in patients with coronary disease, including previously published efforts to treat the disorder in this group. A case review then in provided, highlighting important aspects of treatment.
Weidner et. al. (2001) evaluated the ability of mental stress testing to discriminate between women with and without different disease manifestation, taking into account history of hypertension and B blocker use. Analyses were based on data from a community based case control study of woman aged (aged30-65 years). The study group consisted of 292 women who were hospitalized for an acute event of CHD, either acute myocardial infarction (AMI) or unstable angina pectoris (AP) in Stockholm between 1991 and 1994. Controls were matched to cases by age and catchment area. Cardiovascular reactivity and emotional response to an anagram task solved under time pressure were measured 3 to 6 months after hospitalization. Results: Patients reacted with smaller increases in heart rate (4 bpm) than controls (7 bpm). Results for the rate-pressure product were similar. Cardiovascular reactions did not distinguish patients with AP from those with AMI. History of hypertension (present in 50% of patients and 11% of controls) was related to enhanced diastolic blood pressure reactivity. Patients on B-Blockers (66%) had lower heart-rate levels throughout testing, but not differing in their cardiovascular stress reactions when compared with the remaining participants.

Li et. al. (2001) examined various dimensions of quality of life (QoL) for patients following their first stroke and to identify variables that predict subsequent QoL. 121 Ss with a first stroke and 121 matched healthy controls from the same community were assessed at baseline and 1 year after discharge from hospital using a self-
administered General Quality of life Inventory. One year after discharge, the clinical condition of 84% of Ss following a stroke has improved or they had fully recovered. However, their QoL had not reached the level of the healthy controls. One year after discharge, family and social support had significantly with baseline, particularly for Ss experiencing deterioration of their condition. Multiple stepwise regression analysis showed that QoL was best predicted by the severity of the stroke, Ss outcome expectancy, their values of need level for life, and potential for neuroticism. Stroke was found to impair most aspects of Ss’ QoL. During rehabilitation Ss’ outcomes expectancy and their values of need level for life to a more realistic level and ensuring sufficient psychosocial support as well as active drug and physical therapy.

Lave et. al. (2002) conducted a study to assess the prevalence and persistence of symptoms of depression and anxiety during the first 12 months following acute myocardial infarction (MI). In a prospective study, 288 MI patients were assessed for symptoms of depression and anxiety using the Beck Depression Inventory (BDI) and the State-Trait Anxiety Inventory (STAI) in hospital, 2-15 days following MI, and 4 and 12 month subsequently. Depression and anxiety were highly co-morbid, with 51% of patients expression significant levels of depressive and anxious symptoms of baseline more than half the patients with complete BDI and state anxiety data experienced either elevated symptoms of anxiety or depression throughout the frist year.
Following MI. Symptoms of depression and anxiety are prevalent, persistent problems during the first year following MI. This study highlights the importance of routine psychological assessment for MI patients both in hospital and after discharge.

Nothwehr and Perkins (2002) examined the relationship between comorbidity and health behaviors related to hypertension. Ss comprised 3,617 adults (mean age 60.0-67.09 years) diagnosed with hypertension, hypertension and type 2 diabetes, or hypertension along with type 2 diabetes and a previous myocardial infarction (MI). Ss completed questionnaires concerning demographic characteristics, exercise, diet, smoking behavior, recent weight loss, body index, general health and attitudes toward their current body weight. Results show that Ss with hypertension along with type 2 diabetes and previous MI were more likely to be older and less educated and less likely to be employed. No significant differences were observed concerning sodium intake and percent who quit smoking due to a health problem.

Strik et. al. (2001) investigated possible correlates from post myocardial infarction (MI) depression on an a priori basis. Based on the literature, 4 clinically easily attainable variables were selected as possible correlates for post MI depression. These were prescription of benzodiazepines during acute hospitalization, cardiac complication during acute hospitalization, history of depression, and not being able to stop smoking within 6 mo after MI. A consecutive cohort of 173 1st MI patients was screened with the 90-item symptoms check list depression scale and DSM-III-R criteria for major depression. Of this
cohort 35 depressed patients were compared with 35 non-depressed post MI patients, matched for gender, age and severity of MI. In univariate analyses, complications during hospitalization, prescription of benzodiazepines, history of depression and not being able to stop smoking were clinical correlates for post MI depression. Multivariate analyses showed that none of these variables were independent of the others in predicting depression. It is concluded that a number of measurable patient characteristics identify those MI patients at risk of post MI depression.

Bankier and Littman (2002) report that psychosocial factors represent significant risk factors for developing coronary heart disease (CHD), as well as having a worse outcome with established CHD. To summarize knowledge in this interdisciplinary field, the authors conducted a review of CHD in women taking into account psychosocial aspects, in particular psychiatric disorders. Medline searches using the key words ‘Psychiatric disorder’ and ‘coronary heart disease’ and women and psychiatric disorder’ and cardiac disease and ‘women’ were performed, covering the time span from the beginning of the Medline database until January 1, 2001. Quoted items included depression, panic disorder, generalized anxiety disorder, mitral valve prolapse, chest pain, anorexia nervosa, menopause, alcohol abuse, cocaine use, sleep disorder, sexual dysfunction, hostility and type A behaviour, as well as other psychosocial aspects. Results show there is accumulating evidence of disorders and psychiatric symptoms and the development and recurrence of CHD in
women. However, in summary, the topic still seems to be neglected. Future research into psychiatric disorders and psychiatric symptoms and CHD in women is strongly suggested.

Vitaliano et. al. (2002) tested a theoretical stress model cross-sectionally and prospectively that examined whether relationship of chronic stress, psychophysiological and coronary heart disease (CHD) varied in older adult men (N = 47), older adult women not using hormone replacement therapy (HRT) (N = 64) and older adult women using HRT. Structural equation examined relationship of CHD with 1. Chronic stress (caring for a spouse with Alzheimer’s disease and patients functioning), 2. Vulnerability (anger and hostility), 3. Social resources (supports), 4. Psychological distress (burden, sleep problems and low uplifts), 5. Poor health habits (high-caloric, high fat diet and limited exercise), and 6. The metabolic syndrome (MS) (blood pressure, obesity, insulin, glucose and lipids) care giver men had a greater prevalence of CHD (13/24) than did non care-giver men 27 to 30 months after study entry. This was influenced by pathways from care giving to distress to the MS and the MS to CHD. In men, poor health habits predicted the MS 15 to 18 months later, and the MS predicted new CHD cases over 27 to 30 months.

Treat-Jacobson et. al (2002) evaluated the effects of peripheral artery disease (PAD) on health related – quality of life (HR-QoL) from the patient’s perspective establish a foundation for systematic PAD-specific HRQoL assessment in this population Open-ended
interviews were conducted with 38 patients (24 men, 14 women), 44-83 yrs. Old, to report patient experience of PAD and its perceived effects on HRQoL. Tapes were transcribed and analyzed to identify themes and conceptual domains pertinent to the experience of PAD in this population. Seven major themes were identified: 1. delay in diagnosis and frustration with management of disease; 2. Pain; 3. Limitation in physical functioning; 4. Limitation in social and role functioning; 5. Compromise of self; 6. uncertainty and fear; 7. adaption to the effects of the disease and demonstration of resilience. These findings indicate important psychosocial and emotional consequences of PAD that existing HRQoL questionnaires do not explore. More complete data might lead to greater understanding of the effects of PAD, which could serve as the foundation for a more sensitive instrument to assess HRQoL and the basis for more effective interventions.

Lesperance and Fresure (2003) review the various studies that link depression with coronary artery disease (CAD). Over the past decade, evidence has accumulated to suggest that depression may be a risk factor for cardiac mortality in patients CAD. In contrast to earlier evidence, 3 recent studies including the one by Clande Lanzon and colleagues have not found an association between depression and mortality. The results, presented at the 2001 American Heart Association Annual Meeting showed that cognitive-behavioural psycho-therapy was effective in reducing mortality from all causes and recurrence of non-fatal myocardial infarctions. The independent
risk associated with depression in patients with CAD appears to be at least as important as smoking, hypertension or diabetes and, for this reason, may be of enough clinical significance to constitute a target for improving prognosis, particularly given the number of patients with CAD affected by depression. We can safely say about 1 in 3 patients admitted to hospital for CAD shows some degree of depression and that this is true for patients after myocardial infarction heart failure and after catheterization or coronary artery by pass surgery. In a study by Crane & Martin (2004), the association between the use of passive coping strategies to deal with pain and reported levels of anxiety, depression and parental reinforcement of illness behaviour was examined in individuals with Irritable Bowel Syndrome (IBS) and Inflammatory Bowel Disease (IBD). Individuals with IBS and IBD recruited primarily from outpatient clinics completed questionnaire measures of pain-coping (the vanderbilt pain management inventory, VPMI) as well as measures of anxiety and depressions, parental reinforcement of illness behaviour and physical symptoms. Factor analysis of the passive coping subscale of the VPMI indicated that it was comprised of two components corresponding to emotional and behavioural facts of passive coping. Higher levels of behavioural passive coping were associated with higher levels of depression, but only among individuals with IBS. In contrast emotional passive coping was only associated in both groups with higher levels of anxiety and depression. The degree to which the
emotional component of passive coping, associated with psychological distress in both groups, can be considered in terms of coping strategies rather than markness of illness related distress, is discussed.

Bosworth et. al. (2004) opine that congestive heart failure (CHF) lowers survival and worsens the Quality of Life (QoL) of over four million older Americans. Both clinicians and standardized instruments used to assess the QoL of patients with CHF focus primarily on physical symptoms rather than capturing the full range of psychosocial concerns. The purpose of this study was to gather descriptions of the components of QoL as understood by patients living with CHF. Focus groups were conducted with patients with known CHF, New York Heart Association (NYHA) Class I-IV and left ventricular fraction of < 40%. Focus groups were audio taped, transcribed, and reviewed for common and recurrent themes using the methods of constant comparisons. We conducted three focus groups (n = 15) stratified by NYHA stage with male patient ranging in age from 47-82 years of age. Five patients were classified with NYHA stage III/IV and ten with NYHA stage I/II. Thirty attributes of QoL were identified which fell into five broad domains: symptoms, role loss, affective response, coping and social support, expectedly patients reported the importance of physical symptoms; however, participants also identified concern for family, the uncertainty of prognosis and cognitive function as dimension of QoL.

In a study by Abdel-Khalek and Ahmed (2004) Kuwait undergraduate students (N = 215) completed the 60 individual items of the somatic
symptoms Inventory (Abdel-Khalek, 2003) and 3 scales of depression
the symptoms checklist – 90 Depression sub scale (SCL-90, D, Derogatis, 1994) the center for epidemiologic studies – Deression
Scale (CESD : Radloff, 1977) and the Hopkins symptoms check list.
Depression on Scale (HCS-D : Derogatis, Lipman, Rickels, Unlenuth & Covi, 1974) to determine the correlation between the 60
individual items of the SSI and 3 scales of depression. It was
concluded that the following somatic symptoms can predict
depression in a non-clinical sample : tension, heart pains, sleep
disorder, anorexia, weight gain, migraine and sexual disorders
respectively.
According to you (2004) health failure (HF) has a profound impact on
patients health-related quality of life (HRQoL). Little is known about
factors relating to HRQoL, in elderly Chinese HF patients. The
objective of this cross-sectional correlational study was to identify the
demographic, psychosocial and clinical factors associated with
HRQoL in this group of patient. Cross-sectional date were obtained
from a consecutive sample of hospitalized HF patients (N = 227) with
measures of HRQoL, psychological distress, perceived social support
and health perception. Functional status was measured with the New
York Heart Association Classification (NYHA). In stepwise
regression analysis, four variables, including psychological distress,
health perception, NYHA Classification and educational level
explained 51.8% (P = .01) of the variance in HRQoL. These finding
suggest that improving HRQoL of HF patients entails improving their
Emery et al. (2004) evaluated gender differences in quality of life and examined the degree to which social support was associated with quality of life. In the Methodology, a sample of 536 patients (35% women) was recruited during a 14 month period from the inpatient cardiology service of a university-based hospital. Participants completed assessments at baseline and at 3 month intervals over the subsequent 12 months for a total of 5 assessment measures at each assessment included quality of life [mental component score (MCS) and physical component score (PCS) from the medical outcomes study-short Form 36] and social support [Interpersonal support Evaluation List – Short Form]. In the results, a total of 410 patients completed the baseline assessment and at least one follow-up and were included in the data analysis. Linear mixed effects modeling of the MCS score revealed a significant effect of gender and time as well as a significant interaction of gender by social support. Modeling of the PCS revealed a significant a significant effect of gender and time. It was concluded that women with cardiac disease indicated significantly lower quality of life than men with cardiac disease over the course of a 12 month longitudinal follow-up.

In a study of Wulsin (2004) the objective was examine systematically the status of the current evidence for and against depression as an independent major risk factor for coronary disease. From English-language reports on depression and coronary disease MEDLINE and psycINFO, and from informal searchers, I selected all studies that
addressed the specific anestions related to the established criteria for risk factor status: (1) strength of association, (2) prediction, (3) specificity, (4) consistency, (5) close-response effect, (6) biological plausibility and (7) response to treatment. I find that the evidence for depression as a coronary disease risk factor is good for four criteria: strength of association, prediction, consistency and close response effect. My conclusion is that the evidence for depression’s role as an independent major risk factor for coronary disease is good in four area, but not yet conclusive in three, pointing to the need for three types of studies: (1) Prospective, observational studies that address specificity questions, (2) Studies of biological mechanisms linking depression and coronary disease and (3) clinical trials of treatments for depression in people with coronary disease or at high risk for developing coronary disease.

According to Lalonde et. al. (2001) hypertension associated with lower health quality of life (HRQoL). Similar association may be found for dyslipidemia. We evaluated the HRQoL of cardiac patients with and without dyslipidemia and hypertension. In a cross sectional study, 284 cardiac patients rate their HRQoL using SF 36 Health Survey (SF-36) and three performance based measures (Rating scale, Time Trade – off and Sandrd Gamble). In the results: compared to those without dyslipidemia reported better than HRQoL on all preference based measures and most SF-36 scales particularly on the physical health scales. Adjusted mean differences and 95% confidence interval were equal to 4.5, 10.8 and 2.2 on the physical functioning, exactly the
opposite trends were observed among patients with hypertension. The adjusted mean differences were equal to -2.7, -10.9 and -2.9 on the physical functioning, the role physical and the physical component summary scales, respectively. It was concluded that cardiac patients with hypertension reported lower physical health than those without hypertension while cardiac patients with dyslipidemia reported better physical health than those without dyslipidemia.

Isyanon (2004) and Vivker et. al (2004) opine that depression in old age is associated with an increased mortality risk of cardiovascular disease but the mortality risk from non-cardiovascular causes is disputed. Objective: To investigate the effect of depression on cardiovascular and non-cardiovascular mortality in old age. Methods: We prospectively followed 500 subjects from 85 years onwards within the population-based Leiden 85-plus study.

Depressive symptoms were assessed annually with the 15-item Geriatric Depression Scale (GD-15). Mortality risk were estimated in a cox proportional hazard. Model with the annual assessment of depression (GDC-15) 4 points as a time–dependent covariate. Results: During 1654 person years of follow-up (mean per person, 3.2 years), depression was associated with a two-fold increase of all cause mortality [Relative Risk (RR), 1.83, 95% Confidence Interval (CI), 1.24-2.69] that was not explained by comorbid conditions. Both cardiovascular mortality and non-cardiovascular mortality contributed equally to the excess mortality (RR 1.95 and 1.75 respectively).

Conclusion: Depression in old age contributes to an increase of both
cardiovascular and non-cardiovascular mortality. Motivational depletion may play an important role in the increased mortality in elderly with depression.

Suzuki and Kasannki (2004) investigated the future of the psychosocial aspects of patients with atrial fibrillation and to explore the influences of the subjective symptoms of attack, perceived psychosocial inducers of attack and anxiety on the quality of life (QoL). The participants were 240 patients with paroxysmal atrial fibrillation (27.89± 13.78 years old.), who were requested to complete questionnaires on the subjective symptoms of attack, perceived psychosocial inducers of attack, anxiety symptoms, and QoL. The results of this study showed that 29.5% patients met the criteria of agoraphobic, of Diagnostic a statistical manual of Meantal Disorders (4th ed.[DSM-IV], American Psychiatric Association, 1994). This percentage of prevalence was higher than the general prevalence of DSM-IV data. The subjective symptoms of attack (frequency, duration, and distress of attack) intensify their fear of attack and agoraphobia symptoms, which worsen their QoL. Psychological stress is the main perceived inducer in daily life, and a attack induced by psychological stress affects their anxiety symptoms and QoL.

Carney et. al. (2004) say that research on the relationship between depression and heart disease has evolved along parallel path over the past 15 years. One has examined whether depression a risk factor for incident coronary heart disease (CHD) must of these studies have had large, multi center epidemiologic catchment Area Study (1). INTERHEART, one of the largest studies to data to
investigate whether depression and other psychosocial factors are associated with incident myocardial infarction. The other path has examined whether depression is a risk factor for cardiovascular morbidity and mortality in the context of established CHD. The criteria for the analysis by Barth et. al., were relatively broad in the sense that studies of patients an odds ratio of 2.24 (1.37-3.60) for mortality in patients with symptoms of depression compared with patients without depression symptoms. Van Melle et. al., in context, limited their analysis to studies of past-MI patients. They reported odds ratio for all-cause and for cardiac-related mortality of 2.38 (1.76-3.22) and 2.59 (1.77-3.77), respectively.

Duschek and Schandry (2004) assessed cerebral blood flow in 40 subjects with chronically low blood pressure and 40 normotensive control at resting conditions and during the execution of a cued reaction time task. Blood flow velocities were recorded by means of transcranial doppler sonography in both middle cerebral arteries. In hypotensives flow velocity at rest was reduced bilaterally. During the anticipation of the stimuli, which the subjects had to respond to, a predominantly right hemispheric increase of flow velocity was observed in both groups. Hypertensives showed longer reaction times, and there was a negative correlation between the extent of the flow velocity increase and the reaction times. This study is the first to demonstrate a reduced cerebral perfusion and maladaptation of blood flow to cognitive demands due to essential hypotension.

Dammen et. al. (2004) conducted a cross sectional psychiatric and cardiological study to compare patients with and without
coronary artery disease (CAD) with respect to psychiatric morbidity, psychological factors, pain characteristics, medical morbidity and the prevalence of coronary risk factors. The 199 participants had been referred to cardiological outpatient clinics for the investigations of chest pain and had no history of heart disease. Current panic disorder occurred significantly more often in non CAD patients (41% Vs. 22%). No significant differences were found for other psychiatric disorders and psychological variables. Non CAD patients reported significantly longer histories of pain and a higher prevalence of a typical chest pain. In other respects, there were surprisingly few differences between the group. High morbidity of both 19% , any current psychiatric disorder, 72% and somatic conditions (musculoskeletal disease, 33%, dyspepsia, 23%) was found with no significant differences between the groups. In both patient groups. The physicians should attend to psychiatric disorders in non-CAD as well as in CAD patients.

Srinivasan and Joseph (2004) studied the prevalence of anxiety and depressive disorders in patient with chest pain presenting to an emergency department, Majority of the patient had coronary artery disease (CAD). Twenty three percent of patients with chest pain has a diagnosable psychiatric disorder according to ICD – 10 research criteria. Anxiety and depressive disorder were equally distributed among patients with co-comitant psychiatric syndrome. The level of psychological distress as measured on hospital anxiety and depression scale in patients of CAD with comorbid psychiatric syndrome was
significantly more than patients with CAD alone and similar to non-CAD patients with psychiatric disorder. This finding is in agreement with an earlier study suggesting that the psychological distress seen in patients with CAD is related to the comorbid psychiatric condition and not to CAD.

According to Tan et. al (2005) irritable bowel syndrome (IBS) is a functional gastrointestinal disorder characterized by abdominal pain, distension, and an altered bowel habit for which no cause can be found. Despite its prevalence, there remains a significant lack of efficacious medical treatments for IBS to date. In this paper we reviewed a total of 14 published studies (N = 644) on the efficacy of hypnosis in treating IBS (8 with no control group and 6 with a control group). We concluded that hypnosis consistently produces significant results and improves the cardinal symptoms of IBS in the majority of patients, as well as positively affecting non-colonic symptoms. When evaluated according to the efficacy guideline of the clinical psychology Division of American Psychological Association, the use of hypnosis with IBS qualities for the highest level of acceptance as being both efficacious and specific. In reviewing the research on the mechanism of action as to how hypnosis works to reduce symptoms of IBS, some physiological and psychological mechanism of action.

Day et. al. (2005) opine that cardiac patients beliefs about the cause of their illness may influence their receptivity to psychosocial interventions. The purpose of this study was to determine whether, depression or anxiety influences patients attributions about the cause
of their disease. The primary hypothesis was that depressed or anxious patients are more likely to endorse negative emotions as among the causes of their heart disease than are patients who are not depressed or anxious. Sixty-nine patients with documented ischemic heart disease recruited from an exercise stress testing laboratory completed the Beck Depression and Anxiety Inventories and a heart disease attribution checklist. Univariate analyses confirmed that patients who are depressed or anxious are more likely than other patients to endorse negative emotions as cause of their heart disease. Anxiety but not depression was retained as an independent predictor of negative emotion attributions in a logistic regression analysis. We conclude that mood state influences cardiac patients beliefs about the causes of their heart disease.

According to Creed & Olden (2005) the detection and treatment of psychiatric disorders in patients presenting to gastroenterologists is an important aspect of clinical practice. Where anxiety and depression have a more prominent role in functional, outcome and quality of life in patients with “organic gastrointestinal disorders as well.” Chronic hepatitis C infection is of particular concern, both because of its frequency in patients with serious mental illness and substance abuse and because of the psychiatric side effect associated with its treatment.

Kop and Gottdiener (2005) opine that relationship between depressive symptoms and coronary artery disease (CAD) is mediated
in part by immune system parameters. This review describes research on the psychoneuroimmunological path-ways accounting for the association between depression and CAD, and address conepntual and methodological imbues. Relationship between central nervous system correlates of depression and immue system parameter a age bidirectional and are mediated via neurohormonal and parasypathetic pathways. Evidence suggest e.g., typical depression versus atypical depression and exhaustion e.g., typical depression verses atypical and exhaustion, b) the duration and severity of depressive symptoms , and c) the stage of underlying CAD. Depressive symptoms are hypothesized to effect primarily the transition from stable CAD to acute coronary syndrome viaplaque activation and prothrombotic processes and may play an injury at early stages of coronary atherosclerosis.

Carney et. al. (2005) conclude that depression is a risk factor for medical morbidity and mortality in patients with coronary heart disease (CHD). Dysregulation of the autonomic nervous system (ANS) may explain why depressed patients are at increased risk. Studies of medically well, depressed psychiatric patients have found elevated levels of plasma catecholamines and other marker of altered ANS function compared with controls. Studies of depressed patients with CHD hae also uncovered evidence of ANS dysfunction, including elevated heart rate, low heart rate responses to physical stressors high varibility in ventricular repolarization and low-receptor sensitivity. All of these indicators of ANS dysfunction have been
associated with increased risk of mortality vs. cardiac morbidity in patients with CHD. Further research needed to determine whether ANS dysfunction mediates the effects of depression on the course and outcome of CHD and to develop clinical intervention that improve cardiovascular autonomic regulation while relieving depression in patients with CHD.

Kurshid & Wearer (2005) presents a case report of a 44-yr old Caucasian man, Mr. A, with Conn’s syndrome. The authors state this is only the second case reported. Mr. A has a 3-year old history of decreased energy, easy fatigability, a sad mood, body aches, decreased concentration, decreased interest in previously pleasurable activities, insomnia and anxiousness. He was diagnosed with hypertension and major depressive disorder. This case highlights the importance of vigilantly considering secondary causes of depression more so in the setting of other medical conditions such as hypertension of electrolyte disturbances.

Clarke % Black (2005) state that residual physical and cognitive impairments following a stroke can pose a significant threat to a survivor’s quality of life. Yet, there is not always a direct one to one correlation between functional disability and subjective quality of life. Quality of life after stroke, using qualitative interviews. Results indicate that a stroke has a significant impact on the quality of life survivors, but some individuals find ways to adopt to their functional disabilities and report a high quality of life. Common elements of this
process consist of reordering priorities to focus on those activities considered most salient to an individual’s identity; than drawing on existing resources, inducing health services and social supports, to maintain a customary individual’s identity and maintaining a sense of continuity in his or her life.

In a study by Fauerbach et. al. (2005) relationship between baseline depression and health related quality of life were examined in a cohort of patients after hospitalization due to acute myocardial infarction (N = 196). Patients were assessed for presence of mood disturbance, anxiety and quality of life at the time of hospitalization and again 4 month later. Baseline assessment was used to assign subjects to a depressed or a non-depressed group- adjusting for preinfarction quality of life, in hospital anxiety and demographics variable, depression was prospectively and independently related too reduced global health at 4 months as well as reduced one all mental health – including vitality, psychological health, and social function and increased role interference from psychological problem.

According to Stewart et. al (2005) evidence supporting a link between clinical depression and cardiovascular disease has expanded rapidly over the last 20 years. Depression has been found to be an independent risk factor for the occurrence of cardiac disease in multiple studies. There is increasing evidence that the presence of depression worsens the course of heart disease. Multiple physiological processes have been hypothesized to underline this oxide, platelet activation and reduced heart rate variance. Each one of these is a
reaction that may be helpful following tissue injury. This article surveys new research regarding these mechanisms. Recent studies also suggest that treatment of depression may activate biological adaptations that are helpful in crisis but harmful to health in the long term.

In a study by Creed et al. (2005) it was found that at baseline, depressive disorder (29% of patients), panic (12%) and neurasthenia, (35%) were associated with impairment, number of psychiatric disorders was associated in a close-response fashion (P = 0.005). At follow-up, depressive disorder and neurasthenia were associated with role limitation score. Improved depression was associated with improved role functioning. Conclusion: Depressive, panic and neurasthenic disorders contribute to poor outcomes in severe irritable bowel syndrome, and appropriate treatment should be available to these patients.

Salminen et al. (2005) describe the effect of a health advocacy, counseling and activation programme on depressive symptoms among older coronary health disease (CHD) patients. Depressive symptoms tended to decrease in IG and to increase in CG among scoring 45 ZSDs sum or more at baseline. The differences of the changes between IG an CG were significant in favour of IG. No similar changes were found among women. Conclusion: A health advocacy, counseling and activation programme aimed to increase knowledge about CHD, social activities, contacts, roles support and exercising was effective in reducing depressive symptoms among male CHD patients suffering from a moderate or high amount of depressive symptoms.
Bjerkeset et. al. (2005) conducted a study with an aim to examine the impact of the first myocardial infarction (MI) and the relative influence of pre-existing odds. A total of 23,693 participants, aged 35-79 years, attended two population-based prospective studies in 1984-1986 and in 1995-1997. Results: Five hundred twelve participants suffered their first MI in the last 5 years before follow-up. Women showed an increased risk for both anxiety and depression in the first 2 years post MI, followed by a significant symptoms reduction. In contrast, the risk for depression in men increased after 2 years post MI. Anxiety and depression, low educational level, obesity, and poor psychiatric outcome at follow-up. Conclusion: Five-year follow-up after MI revealed gender-specific outcomes of anxiety and depression not previously described.

According to Carels (2004) congestive heart failure significantly compromises quality of life by contributing to severe physical role, and social functioning impairment as well as increased psychological distress. Previous research examining quality of life in CHF patients has typically been conducted using global self-report instruments that may exceed a patient's ability to accurately recall their experiences. This investigation examines the impact of disease severity, functional status, and level of depression in daily quality of life (i.e., mean level and variability) in CHF patients during a 2-week monitoring period. Indices of quality of life included emotional and physical quality of life, social support and conflict, positive and negative mood, and coping responses. Fifty-eight patients with CHF participated in the
investigation. Depressive symptoms were positively associated with a number of quality of life indices (i.e., physical and emotional quality of life, social support and conflict, mood and coping behaviour). Left ventricular ejection fraction and functional impairment has a much weaker association with quality of life. These findinga suggest that depressive symptoms may have a greater impact on quality of life in CHF patients than severity of cardiac dysfunction on or functional.

The hypothesis that increased blood pressure reactivity to stress is an early risk maker of hypertension was tested in a 1994 follow-up of the 1974 to 1978 (Ming et. al 2004). Air Traffic Controller Health Change sample. Methods : Assessments in 1974 to 1978 included physical examinations and recording (every 20 minutes for 5 hours) of both workload (Planes within controller airspace) and blood pressure reactivity were used to predict 1994 self report of ever having been told by a physician to take antihypertensive medication, assessed in a telephone survey of 218 respondents who were normotensive or stage 1 hypertensive in 1974 to 1978. Results : Each SD increase in baseline systolic and diastolic blood pressure at clinical examination, with effects comparable for baseline normotensives and stage 1 hypertensives. Conclusion : A 20-year follow-up of orginally normotensive and stage 1 hypertensive workers suggests that increased systolic blood pressure reactivity to work stress is associated. With long-term rosk of hypertension.

Chin & Balon (2004) presents a clical case of an adult male who experienced depression follwing a recent acute myocardial infaraction
Post MI depression is very common and is an independent risk factor associated with increased cardiac mortality. The complex interplay of depression and cardiovascular disease following the onset of acute coronary event can often prevent patients from complying with treatment regimens and disease-modifying behaviour. Furthermore, despite the availability of affective treatments, major depression remains underdiagnosed and undertreated. Thus, appropriate and acceptable treatments need to be built on a foundation of good therapeutic alliance with patients, so that they may feel heard and understood. Physician should be responsive and look for signs of depression in patients with recent myocardial infarction, as successful treatment of major depression can improve prognosis of cardiovascular disease and enhance the overall quality of life.

According to Delgado (2004), increasing evidence suggest that in some patients with depressive disorders a neurodegenerative process may occur, highlighting the importance of early and aggressive intervention. Serotonin (5-HT) and norepinephrine (NE) neurotransmitter systems influence neuroplasticity in the brain and both are involved in mediating the therapeutic effects of most currently available antidepressants. Some duloxetine antidepressants here been shown to be effective in managing the pain symptoms associated with depression. These agents may have advantages over others by treating a wider array of physical symptoms. Additionally, these agents may also have a role in modulating neurogenesis and other neuroplastic changes, thereby leading to more complete symptoms of chronic depression.
According to Sayers (2004) the co-occurrence of two highly common disorders, depression and coronary heart disease (CHD), has been the focus of research for several decades. Their relationship to highly complex, with depression implicated in the initial development of heart disease as well as a likely results of the burden of this chronic illness. The causal pathways is not one-way, with certain critical incidents, such as myocardial infarction (MI), leaving patients more vulnerable to depression. Thus, depression and heart disease are highly interviewed, rewuiring a careful conceptualization when comorbid. The implications of depression for heart disease in older adults is especially important, given that older adults have an ever-increasing risk of heart disease and cardiac death. This article addresses and cardiovascular diseases, with an emphasis on CHD and congestive heart failure (CHF). Also addressed is the role of depression in hypertension, which is associated is with the development of CHF. Even without soild evidence the treatment of depression contributes to lowered risk of cardiac death, continued research into the detection and treatment of depression in this population is important.

Tomas-Sabado & Gome-z-Benito (2004) examined the dimensional structure of Templer’s Death Anxiety Scale and Abdel Khalek’s Deth Obsession Scale. The responses by 289 Spanish students to the Spanish form of both scales were evaluated by means of a principal components analysis with varimax rotation. Three significant factor were identified. Death obsession, cognitive affective
and death anxiety. The distribution of the factor loading for the items of both scale on Factor 1 and 3 supported the discriminate validity of the constructs specific to each of the scales, while Factor 2 showed a common component in both scales characterized by cognitive and affective aspects in relations to the idea of death.

Thus, it becomes obvious that depression, death anxiety and quality of life have not attracted the attention of researchers to the extent, these actually deserve in our context in relation to CHD, hypertension and gastrointestinal disorders. This state of knowledge justifies the planning and execution of the present study.
Chapter – 3

Research Methodology
The research methodology used in this study is described in the present chapter. While selecting the methodology, a researcher is expected to pay due attention to all the aspects of research methodology, such as size and representativeness of the sample, selection, of variables, choice of research tools, approach to data collection, analysis of data and so on. This chapter contains the details about the above aspects.

No doubt, methodology happens to be the backbone of any research, hence due attention was paid to various aspects of methodology in order to obtain reliable results. The present study covered three types of patients suffering from psychophysiological disorders. These are H.B.P., CHD and Gastrointestinal patients. It was very difficult to identify such cases in large numbers and administered the tools for the collection of data, yet all possible efforts were made to approach as many patients as possible for the larger sample and greater generalizability of the findings and vice versa. So keeping in view the above attention size of the sample was finalized.

Besides, due attention was also paid into selection of the psychological tools for the measurement of variables. The three tools used in the present study are highly reliable and valid also.
Hypothesis

Eery empirical studies is planned to examine some hypotheses. As regard the present study, follwing hypotheses were tested in this study –

1. The H.B.P. patients and control (normal) subjects would differ significantly in depression.
2. The CHD patients and control subjects would differ significantly in depression.
3. The Gastrointestinal patients and control subjects would differ significantly in depression.
4. The H.B.P. patients and control subjects would differ significantly in death anxiety.
5. The CHD patients and control subjects would differ significantly in death anxiety.
6. The Gastrointestinal patients and control subject would differ significantly in death anxiety.
7. The H.B.P. patients and control subjects would differ significantly in quality of life
8. The CHD patients and control subject would differ significantly in quality of life
9. The Gastrointestinal patients and control subject would differ significantly in quality of life
Sample

The sample of the present study was constituted with three types of patients—namely (Coronary heart disease) CHD, H.B.P. (Hypertension) and GI (Gastrointestinal problems) patients. Each group consisted of 100 patients. The patients were selected with co-operation from medical practitioner attached with Government hospital and private Nursing Home situated in Jaunpur city and its neighbouring areas. The stratified random sampling technique was used in collection of data. The patients who were properly diagnosed by medical practitioners and were suffering from the covered disorders for at least one year but having no otherwise symptoms served as the subject in the present study. Their age ranged from 30 years to 50+……. years and the sample consisted of both, male and female patients.

Since it is a comparative study, a control (normal) group of subject (N = 100) was, therefore, also administered the selected scales, so that behavioural problems associated with patients groups could be compared with the normal subject. Both groups were properly matched from the point of view of other variables. The internal structure of the sample is presented in Fig. 3.1.
Design

The three disorders were tapped as the causal (independent) variable and the group of dependent variables covered depression, death anxiety, and quality of life. Plan of the study may be observed from the figure given here. (Fig. 3.2).

Fig. 3.2 : Plan of this study
Identification of Patients

The patients were identified with the co-operation of some medical practitioner of Jaunpur city and neighbouring area and also by personal contacts. In all 300 patient cases were scrutinised for the purpose of the present study.

Measurement of Dependent Variables

The following psychological tools were administered on patients as well as the normal or control group. The tests used in present study possess required psychometric properties (i.e., reliability and validity.)

Depression Scale

Depression in the subject was measured with T.S. Depression Scale developed by Thakur and Singh (1994). This scale consists of 60 items and each item is accompanied by five alternative responses namely always, often, generally, sometime and never. It contains positive as well as negative items. The positive items are scored on the patterns of 4321 and 0 respectively. While the negative items are scored in reverse order (0 to 4). The items numbered 3, 9, 18, 20, 22, 25, 27, 29, 35, 40, 42, 45, 46, 48, 51, 54, and 56 are negatively worded. This scale provides global score for the respondents. However scores for seven different areas may also be obtained by area-wise scoring. The following table present the areas covered in the scale, items, related to different and the descriptive statistics for the sub-scales as well as for the total scale.
## Area wise items of T-s Depression Scale and the norms

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Dimension</th>
<th>Items</th>
<th>Mean</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Apathy</td>
<td>2, 7, 13, 18, 19, 24, 40, 42, 46, 47, 56</td>
<td>18.26</td>
<td>4.66</td>
</tr>
<tr>
<td>2.</td>
<td>Sleep Disturbance</td>
<td>3, 26, 35, 37, 39</td>
<td>7.26</td>
<td>2.05</td>
</tr>
<tr>
<td>3.</td>
<td>Pessimism</td>
<td>8, 17, 20, 22, 25, 27, 41, 49, 54, 55, 58, 60</td>
<td>15.39</td>
<td>3.56</td>
</tr>
<tr>
<td>4.</td>
<td>Physical Exhaustion</td>
<td>4, 21, 32, 36, 45, 51</td>
<td>8.14</td>
<td>3.06</td>
</tr>
<tr>
<td>5.</td>
<td>Indecisiveness</td>
<td>9, 10, 29, 48, 59</td>
<td>6.22</td>
<td>2.65</td>
</tr>
<tr>
<td>6.</td>
<td>Dejection</td>
<td>1, 5, 11, 12, 15, 23, 28, 30, 34, 38, 43, 44, 50, 52</td>
<td>17.10</td>
<td>4.85</td>
</tr>
<tr>
<td>7.</td>
<td>Social</td>
<td>6, 14, 16, 33, 53, 57</td>
<td>8.06</td>
<td>2.16</td>
</tr>
<tr>
<td></td>
<td><strong>Total Depression</strong></td>
<td>All items</td>
<td><strong>79.38</strong></td>
<td><strong>11.66</strong></td>
</tr>
</tbody>
</table>
Reliability and Validity –

The reliability and validity of T-S depression scale are reported to be quite high. Its reliability co-efficient has been calculated by implying split-half and test-retest methods. The obtained co-efficient of correlations for reliability are given here in the following table. Its validity co-efficient has been found to be 0.78. Thus it is obvious that T-s Depression Scales possessed good psychometric characteristics, and can be comfortably used to ascertain the level of depression in the respondents.

Co-efficient of reliability for T-S Depression Scale

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Method of reliability</th>
<th>Co-efficient of correlation</th>
<th>T.S. Depression Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Test Retest Method</td>
<td>.87</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Split Half Method</td>
<td>.84</td>
<td></td>
</tr>
</tbody>
</table>

Norms –

As regards the norms to interpret the raw scores of a subject on T.S. Depression Scale, its author’s have provided mean and SD values as the norms for different sub-scales as well as the amount of depression and vice-versa. A comparison the score of a subject with the mean score will indicate what may be the the level of depression (High or Low) in him or her. If the subject’s score is higher than the group’s mean, it would indicate the he or she suffers relatively less from depression. A researcher may develop his or her own norm keeping in view his or her requirements and the nature of sample. It
would be more useful if larger sample is employed for developing the norms. Percentile norm may also be prepared to classify the subject into either of the categories such as low moderate or high depression category.

**Deth Anxiety Scale**

The feeling of death anxiety in the patients was assessed with Thakur Deat Anxiety Scale developed by G.P. Thakur and M. Thakur (1984). It consists of sixteen items. The sixteen items which had highest t value and were finally retained for the scale on the sixteen items eleven were positively worded and five were negatively worded.

**Scoring**

The final score had sixteen statements. Statement numbers 1, 2, 4, 5, 7, 9, 10, 12, 13, 15, and 16 were positively worded and number 3, 6, 8, 11 and 14 were negatively worded. Responses on the positively worded statements would get 5, 4, 3, 2 and 1 for the “Quite true”, “true”, undecided” “false” and” “quite false” response categories. Further, responses on the negatively worded statements would get 1, 2, 3, 4 and 5 for “quite true” “true” “undecided”, “false” quite false” response categories. The maximum score, one could get on the scale, would be 80 and the minimum would be 16.
Table No. 1

‘’ Reliability Co-efficients’’

<table>
<thead>
<tr>
<th>Types</th>
<th>N</th>
<th>Co-Efficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal consistency</td>
<td>206</td>
<td>0.78</td>
</tr>
<tr>
<td>Test retest reliability</td>
<td>65</td>
<td>0.86</td>
</tr>
</tbody>
</table>

Internal consistency reliability co-efficients using Kuder Richardson formula was found to be 0.78 and a test retest reliability co-efficients with a gap of about twelve weeks on 65 Ss was 0.86. The reliability co-efficients, therefore, were considered satisfactory.

Validity

With a view to ascertaining validity coefficients of the death anxiety scale, the scale along with the Templer’s scale and McMordie scale was administered on a sample of 174 Indian subject. The product moment correlation co-efficients are reported in table 2.
It would be evident from Table 2 that scale was a valid measure of death anxiety, the value of correlation were significant at or beyond 1 level of confidence.

**Norms**

With a view to obtaining norms for the present scale, the scale was administered on a random sample of 1,530 males and females of India of the Hindi speaking area. Quartile range was determined and score obtained upto Q₁ was put under the low death anxiety group, on and beyond Q₃ under the high death anxiety group and remaining in the middle death anxiety group. The details would be available in Table 3.

### Table 2

**Correlations of Thakur Death Anxiety Scale with other scales of Death Anxiety**

<table>
<thead>
<tr>
<th>Scales of Death Anxiety</th>
<th>Correlation with Thakur Scale of Death Anxiety</th>
</tr>
</thead>
<tbody>
<tr>
<td>Templer’s Death Anxiety Scale</td>
<td>0.75</td>
</tr>
<tr>
<td>McMordie Scale</td>
<td>0.78</td>
</tr>
</tbody>
</table>
### Table 3: Norms

<table>
<thead>
<tr>
<th>Scores on the TDAS</th>
<th>Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-38</td>
<td>Low death anxiety group</td>
</tr>
<tr>
<td>39-55</td>
<td>Middle death anxiety group</td>
</tr>
<tr>
<td>56 and above</td>
<td>High death anxiety group</td>
</tr>
</tbody>
</table>

It would be evident from Table 3 that a person obtaining scores in between 16 and 38 would belong to the low death anxiety group, between 39 and 55 to the middle death anxiety group and above 55 would be in the high death anxiety group.

**Quality of life**

The quality of life of the subject was measured using P.G.I. Quality of life scale. It has been developed by Maudgil et. al. (1998). It consists of 26 items. Each item has 5 levels of responses (ranging from low to high degree). In addition, P.G.I. Health Questionnaire N-2 (Verma, 1978), P.G.I. Achievement value index (Menon et. al., 1975a), P.G.I. Locus of Control Scale (Menon 1975b), Kuppuswamy’s (1962) S.E.S. Scale-modified and PGI well-being scale (Verma & Verma, 1989) were also administered for validity studies. As this is a general scale for assessing quality of life, attempt was to have only the most general areas covered and not any disease specific disability items (there already exist quality of life scales for cancer patients, cardiac patients, epileptics, mental retardates, which may still be needed if disease specific study is undertaken for limited purpose).
Norms

Norms are given is the from of Mean and S.D.

<table>
<thead>
<tr>
<th>Stat</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>93.60</td>
</tr>
<tr>
<td>S.D.</td>
<td>14.98</td>
</tr>
</tbody>
</table>

**Scoring Patterns:**

Number of tickets in First Column $X_1$, 
Number of tickets in Second Column $X_2$, 
Number of tickets in Third Column $X_3$, 
Number of tickets in Fourth Column $X_4$, 
Number of tickets in Fifth Column $X_5$.

All are added for the total score: Range of scores 26-130.

Higher the score, greater the quality of life perceived by the subject/group and vice versa.
Reliability:

Inter–rater reliability $= \rho_{.89}$

- Inter–scorer reliability $= .99$
- Test–retest reliability $= .79$
  (a week’s interval)
- Split–half reliability $= .72$
  (correlated for length)
- Self–other rating $= .81$

All these correlations are significant at .01 level. Thus the scale has satisfactory reliability.

Validity

Face validity was established using expert clinical psychologists, who unanimously recognized it as a test of quality of life. For concurrent validity the P.G.I. quality of life scale was administered to 15 subjects, along scales mentioned earlier. Results are given below:

**Divergent validities were established against the following questionnaires:**

1. P.G.I. health questionnaire $N - 2$
   a) Neuroticism $= -.26$ n.s.
   b) Lie $= -.2$ n.s.
2. P.G.I. locus of control scale $= .24$ n.s.
3. Socio-economic status scale $= .31$ n.s.
Convergent validities were obtained against the criterion measure of:

4. P.G.I. Achievement value Index = .57 $P < .05$

5. P.G.I. Well being scale = .54 $P < .05$

The achievement results were obtained. The concept of quality of life is independent of degree of neuroticism, and locus of control (internal/external). It is also unaffected of socio-economic status of person. It is also unaffected by the social desirability type of person. It is also unaffected by the social desirability type of response bias (tendency to lie). On the other hand, as expected, it overlaps (but is not identical) with achievement value and subjective feelings of well-being. Both divergent and convergent validities are thus established.

In addition, the scale scores were unrelated to the subject age ($r = .46, \text{n.s.}$) and education ($r = .46, \text{n.s.}$). In other words, it can be used with all education groups and all age levels (20 to 60 years age group at least as used in this study).
Chapter

Result

&

Discussion
This chapter deals with the results obtained in this study as a result of administering the psychological tools on the patients of Coronary Heart Disease (CHD), High Blood Pressure (HBP) and Gastrointestinal (GI) disorders. In all 300 patients (100 in each category) were sampled and administered depression, death anxiety and quality of life scales. Thus the data obtained were subjected to suitable statistical techniques including graphic representation etc. The results are presented and discussed in separate parts.

**Coronary Heart Disease and depression**

Keeping in view the objectives of the present studies CHD patients were compared with the normal subject on depression scale. The mean score etc. on the three tools are presented in table 4.1. It may be observed this table that the mean of CHD patients on depression scale is 111.54 and its S.D. value is 30.98, while these values for normal subject are 69.99 and 24.99 respectively. This makes it clear that CHD patients suffer much more from the problem of depression as compared to their normal counterparts. There appears to be a stronger tendency of sadness, apprehension, anxiety, sleep disturbance, pessimism and loss of interest in interpersonal or social activities among CHD patients. These feelings hamper the adjustment, mental health as well as behavioural efficacy of the affected person. Performance of
Coronary Heart Disease and Depression

Keeping in view the objectives of the present studies CHD patients were compared with the normal subjects on depression scale. The mean score etc. on the three tools are presented in table 4.1. It may be observed this table that the mean of CHD patients on depression scales is 111.54 and its S.D. value is 30.98, while these values for normal subjects are 69.99 and 24.99 respectively. This makes it clear that CHD patients suffer much more from the problem of depression as compared to their normal counterparts. There appears to be a stronger tendency of sadness, apprehension, anxiety, sleep disturbance, pessimism and loss of interest in interpersonal or social activities among CHD patients. These behaviour problems may make the life of the person concerned as a hell. Such negative feelings hamper the adjustment, mental health as well as behavioural efficacy of the affected person. Performance of such person in day-to-day life decreases badly and it becomes difficult for the person concerned to enjoy a healthy life. On the other hand normal (control) subjects have reported lower feelings of the depression which indicates that they may be much more effective in their personal and social life because of low level of depression. These assumptions are based the face value of the mean scores of the two groups on the scale of depression. So, in order to check significance of difference between means the C.R. was calculated and it was found to be 10.44, being significant at .01 level. This clearly suggests that the CHD and normal subjects really differ in depression. In other words, the difference between means on depression scale is real, not the function of chance variable.
It means that the CHD disease induces greater tendency of worries in the patients, which makes their life charmless, boring and to some extent hopeless also. Since the differences between the means is significant, hence the proposed hypotheses is accepted.

Similar findings had also been reported in several earlier studies (Chesney, 1996, Sheier & Bridges, 1995, Shapiro, 1996, Kilbourn et al, 2000, Lynes et al., 2000, Roose, 2001 Carney et al., 2004). The proposed hypothesis is therefore approved.

**CHD and Death Anxiety**

The CHD and the control groups were also compared on death anxiety scale. Table 4.1 consists of mean etc. obtained for the two groups. It is observable from this table that the mean of CHD patients on death anxiety scale is 51.37 and its S.D. value is 10.65, while these values for normal subjects are 18.60 and 8.44 respectively. Thus it is obvious that the CHD patients are highly ridden with the feeling of death anxiety as compared to their normal counterparts. In other words, the CHD patients appear to be relatively more hopeless, insecure, and pessimist towards their life in comparison to non-CHD subjects.

Since CHD was tapped as an independent variable to see its effects on death anxiety, so an attempt was made to examine significance of difference between the two means, i.e. CHD vs normal groups on the death anxiety scale. Table 4.1 shows that the C.R. value obtained in
this case is 10.44, being significant at .01 level. This clearly suggests that the difference between two means is real and not the function of chance variable. In other words, the CHD patients feel more death anxiety than the normal subjects. The proposed hypothesis is therefore approved.

This clearly suggests that the difference between two means is real and not the function of chance variable. In other words, the CHD patients feel more death anxiety than the normal subjects. It appears as if CHD induces the greater feeling of death anxiety in the patients. This is not good for enjoying a happy life. This needs to be controlled or changed in order to get rid of various psychological health problems.

It appears as if CHD induces the greater feeling of death anxiety in the patients. This is not good for enjoying a happy life. This needs to be controlled or changed in order to get rid of various psychological health problems. (Day et al. (2005), Winters et al. 2000).

Table 4.1
Mean etc. of control and CHD (N=100) groups on different scales

<table>
<thead>
<tr>
<th>Factor</th>
<th>Control</th>
<th></th>
<th>CHD</th>
<th></th>
<th>CR</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td>69.99</td>
<td>24.99</td>
<td>111.54</td>
<td>30.98</td>
<td>10.44</td>
<td>.01</td>
</tr>
<tr>
<td>Death Anxiety</td>
<td>18.60</td>
<td>8.44</td>
<td>51.37</td>
<td>10.65</td>
<td>24.09</td>
<td>.01</td>
</tr>
<tr>
<td>QoL</td>
<td>71.12</td>
<td>12.66</td>
<td>90.71</td>
<td>9.89</td>
<td>5.82</td>
<td>.01</td>
</tr>
</tbody>
</table>
CHD and Quality of Life

A comparison of CHD and the control group on quality of life scale also shows that CHD patients report poor quality of life. The mean of CHD patients on quality of life scale are 90.71 and S.D. value is 9.89, while these values for normal subjects are 71.12 and 12.66 respectively. This makes it clear that CHD patients do not feel so well in quality of life as compared to their normal subjects.

So, in order to check the significance between two means, C.R. was calculated and it was found to be 5.82, being significant at .01 level. This clearly suggests that CHD patients report low level of quality of life as compared to their normal counterparts. The proposed hypotheses is, therefore, approved.

![Bar diagram showing the mean values of CHD & Normal (Control) Group](image)

on depression scale is 98.09 and its S.D. value is 31.75, while these values for normal subjects are 69.99 and 24.99 respectively. This
clearly suggests that the HBP patients relatively suffer more from the problem of depression as compared to their normal counterparts. This makes it clear that hypertension patients suffer much more from the problem of depression as compared to their normal counterparts. There appears to be a stronger tendency of sadness, apprehension anxiety, sleep disturbance, passimism and loss of interest in interpersonal or social activities among CHD patients. These behaviour problems may make the life of person concerned as a hell. So, in order to check the significance of difference C.R. was calculated and it has been found to be 6.95, being significant at .01 level. This clearly suggest that the HBP and normal subjects really differ in the feeling of depression. In other words, the difference between means on depression scale is real not the function of chance variable. It means that HBP is responsible for the greater feeling of depression in the patients . The proposed hypothesis is, therefore, approved.

Table 4.2
Mean etc. control and Hypertension groups on difference

<table>
<thead>
<tr>
<th>Factor</th>
<th>Control M</th>
<th>Control SD</th>
<th>HBP M</th>
<th>HBP SD</th>
<th>CR</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>69.99</td>
<td>24.99</td>
<td>98.09</td>
<td>31.75</td>
<td>6.95</td>
<td>.01</td>
</tr>
<tr>
<td>Death Anxiety</td>
<td>18.60</td>
<td>8.44</td>
<td>44.80</td>
<td>10.18</td>
<td>5.66</td>
<td>.01</td>
</tr>
<tr>
<td>QoL</td>
<td>71.12</td>
<td>12.66</td>
<td>91.61</td>
<td>15.95</td>
<td>22.27</td>
<td>.01</td>
</tr>
</tbody>
</table>
**HBP and Death Anxiety**

The HBP and the control groups were also compared on death anxiety scale. The mean etc. on the above scale are presented in table 4.2. It is observable from this table that the mean of HBP patients on death anxiety scale is 44.80 and its S.D. value is 10.18, while these value for normal subjects are 18.60 and 8.44 respectively. The observation makes it clear that HBP patients are highly ridden with the feeling on death anxiety as compared to their normal counterparts. In other words the HBP patients appear to be hopeless, insecure and have negative feelings towards their life in comparison to their normal counterparts.

Since HBP was tapped as an independent variable to see its effect on death anxiety. So, in order to examine significance of difference between the two means HBP and normal subjects on the death anxiety scale, C.R. was calculated. Table 4.2 shows that C.R. value is 5.66, being significant at .01 level. The C.R. is highly significant which suggests that HBP induces greater tendency of death anxiety in the patients as compared to their normal counterparts. So, attempts should be made to manage the above negative feelings in the HBP patients. Since the C.R. is significant, the proposed hypotheses is, therefore, approved.
HBP and Quality of Life

The HBP patients and control groups were also compared on quality of life scale. The results obtained are presented in table 4.2. Results clearly show the difference between HBP and control groups. It may be observed from this table that the mean of HBP patients on quality of life scale is 91.61 and its S.D. value is 15.95, while these values for normal subjects are 71.12 and 12.66 respectively. The C.R. obtained in this case is 22.27, being significant at .01 level. It suggests that the difference between the two means is real, not attributable to chance variable. The proposed hypothesis is therefore approved.

![Bar diagram showing the mean value of HBP and Normal (Control) Group](image-url)
Gastrointestinal Disorder and Depression

Keeping in view the objectives of this study, gastrointestinal patients were compared with their normal counterparts on depression scale. The mean score etc. on this tools are presented table 4.3. It may be observed from this table that the mean of GI patients on depression scale is 105.14 and its S.D. value is 35.82, while these value for normal subjects are 69.99 and 24.99 respectively. These values make it clear that GI patients suffer much more from depressive problems as compared to non GI subjects.

The C.R. obtained in this case is 8.04, being significant at .01 level. It suggests that the difference between the two means is real, not attributable to chance variable. Thus, it is clear that GI patients are much more depressive in comparison to their normal counterparts. The proposed hypothesis is, therefore, approved.
Gastrointestinal Disorder and Death Anxiety

In this study gastrointestinal patients were compared with the normal subjects on death anxiety scale also. The results obtained are presented in result table 4.3. It is observable from this table that the mean of GI patients on death anxiety scale is 51.54 and its S.D. value is 10.98, while these values for normal subjects are 18.60 and 8.44 respectively. This clearly suggests that GI patients are much more death anxiety ridden as compared to their normal counterparts.

But the C.R. obtained has been found to be negligible. It is 0.48 which is not significant. So, the hypotheses is rejected. It is clear that the difference between the two mean is not real. This clearly suggests that GI patients suffer more from the feelings of death anxiety in comparison to control subjects. The higher the feeling of death anxiety greater the problem of adjustment and well-being and vice-versa. The proposed hypothesis is therefore rejected.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Control M</th>
<th>Control SD</th>
<th>GI M</th>
<th>GI SD</th>
<th>CR</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>69.99</td>
<td>24.99</td>
<td>105.14</td>
<td>35.82</td>
<td>8.04</td>
<td>.01</td>
</tr>
<tr>
<td>Death Anxiety</td>
<td>18.60</td>
<td>8.44</td>
<td>51.54</td>
<td>10.98</td>
<td>0.48</td>
<td>.05</td>
</tr>
<tr>
<td>QoL</td>
<td>71.12</td>
<td>12.66</td>
<td>93.28</td>
<td>15.38</td>
<td>10.97</td>
<td>.01</td>
</tr>
</tbody>
</table>

Gastrointestinal Disorder and Death Anxiety

In this study gastrointestinal patients were compared with the normal subjects on death anxiety scale also. The results obtained are presented in result table 4.3. It is observable from this table that the mean of GI patients on death anxiety scale is 51.54 and its S.D. value is 10.98, while these values for normal subjects are 18.60 and 8.44 respectively. This clearly suggests that GI patients are much more death anxiety ridden as compared to their normal counterparts.

But the C.R. obtained has been found to be negligible. It is 0.48 which is not significant. So, the hypotheses is rejected. It is clear that the difference between the two mean is not real. This clearly suggests that GI patients suffer more from the feelings of death anxiety in comparison to control subjects. The higher the feeling of death anxiety greater the problem of adjustment and well-being and vice-versa. The proposed hypothesis is therefore rejected.
Gastrointestinal Disorder and QoL

In view of the objectives of the present study gastrointestinal patients were compare with the normal subject on quality of life scale also. The mean score etc. are presented in table 4.3. It may be observed from this table that the mean of GI patients on quality of life scale is 93.28 and S.D. value is 15.38, while these values for normal subjects are 71.12 and 12.66 respectively. This makes absolutely clear that GI patient’s life is not well adjusted in comparison to their normal counterparts. They feel poor life satisfaction. In order to see the significance of difference between two means, C.R. was calculated and it has been found to be 10.97, being significant at .01 level. Thus it becomes fully obvious that the two groups differ significantly on quality of life scale. The proposed hypothesis, is, therefore, accepted.
The finding of the present study make it obvious that GI patients exhibit higher level of depression, and also higher level of death anxiety and low level of quality of life. These thing taken together make their lives like a burden. Thus, there appears great need of programmes aiming at improving the life conditions of GI patients. These findings extend empirical support to some of the previous studies such as Crane & Martin 2004, Kubzansky et. al. 2000.

Comparison of CHD, HBP and GI patients on Different Scales

Besides comparing the three patients groups with control group on the scales used in this study, attempts were also made to compare the three different groups with one another on the scales of depression, deaths, anxiety and quality of life. The results obtained from these points of views are presented in different tables.
Whether the above patient groups differ significantly with another, or not in depressive problem? In order to answer this question, the three patient groups were compared on the depression scale and the results obtained from this point of view are presented in Table 4.4.

It may be observed from Table 4.4 that the CHD group has scored a mean value of 111.54 and its S.D. is 30.98. These values for HBP groups are 98.09 and 31.75, while for GI group.

**Table 4.4**

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Groups</th>
<th>M</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>CHD</td>
<td>111.54</td>
<td>30.98</td>
</tr>
<tr>
<td>2.</td>
<td>HBP</td>
<td>98.09</td>
<td>31.75</td>
</tr>
<tr>
<td>3.</td>
<td>GI</td>
<td>105.14</td>
<td>35.82</td>
</tr>
</tbody>
</table>

**Comparison of CHD, HBP and GI patients on Depression Scale**

Whether the above patient groups differ significantly with another, or not in depressive problem? In order to answer this question, the three patient groups were compared on the depression scale and the results obtained from this point of view are presented in Table 4.4.

It may be observed from Table 4.4 that the CHD group has scored a mean value of 111.54 and its S.D. is 30.98. These values for HBP groups are 98.09 and 31.75, while for GI group.

![Bar diagram showing the mean values of three patient groups on Depression Scale](image-url)
are 105.14 and 35.82 respectively. This table shows that the highest mean on the depression scale has been scored by CHD group followed by GI and HBP group respectively. It suggests that CHD patients relatively suffer more from depression related problem in comparison to the other two disease groups. The lowest mean score on this scale has been obtained by HBP. It clearly suggests that HBP patients experience relatively less depressive problems in comparison to other two groups. The HBP patients stood between the two.

Table 4.5
Summary of ANOVA between three Disease groups on Depression Scale

<table>
<thead>
<tr>
<th>Sources of Variation</th>
<th>Sum of square (SS)</th>
<th>d.f</th>
<th>Mean square</th>
<th>f</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>600152385.93</td>
<td>2</td>
<td>30076192.96</td>
<td>3.74</td>
<td>N.S</td>
</tr>
<tr>
<td>Within groups</td>
<td>2385458992.93</td>
<td>297</td>
<td>8031848.12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>36260643</td>
<td>299</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In order to see the significance of difference between the three groups, the score of the subjects of three groups on depression scale were subjected to ANOVA and the F-ratio obtained in this case is 3.74. It is not significant. This clearly suggests that the three patient groups do not differ significantly in feeling depressive problems. In other words, depression is generally equally felt by the patients groups. The proposed hypothesis is, therefore, rejected.
In addition to it, t ratio were also computed and these value are presented in table 4.6. It may be observed from this table that the t ratio obtained between CHD and GI is 1.34. It is not significant. The t ratio obtained between CHD and H.BP is 3.02. It is significant at .01 level, and the t-ratio obtained between GI and H.BP is 1.46. It is also not significant. This suggests that these diseases groups differ only marginally on Depression Scale, while CHD and HBP groups have been found to differ significantly in the feeling of depressive problems. These results in general are according to the expectations of the present researchers. It was assumed that three patient groups would score more or less equally on depression scale. And it has been found to be the case as well. The proposed hypothesis is, therefore, rejected.

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Groups Compound</th>
<th>t-ratio</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>CHD-GI</td>
<td>1.34</td>
<td>NS</td>
</tr>
<tr>
<td>2.</td>
<td>CHD- H.BP</td>
<td>3.02</td>
<td>.01</td>
</tr>
<tr>
<td>3.</td>
<td>GI – H.BP</td>
<td>1.46</td>
<td>NS</td>
</tr>
</tbody>
</table>
Comparison of CHD, HBP and GI patients on Death Anxiety Scale

The scores obtained by the three patients groups were subjected to ANOVA to compared on the death anxiety scale.

Table 4.7
Mean & S.D. of three patients groups on Death Anxiety Scale

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Groups Compared</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>CHD</td>
<td>51.37</td>
<td>10.65</td>
</tr>
<tr>
<td>2.</td>
<td>H.BP</td>
<td>44.80</td>
<td>10.18</td>
</tr>
<tr>
<td>3.</td>
<td>GI</td>
<td>93.28</td>
<td>15.38</td>
</tr>
</tbody>
</table>

It may be observed from table 4.7 that CHD group’s mean value is 51.37 and its S.D. is 10.65. These values for H.B.P. group are 44.80 and 10.18, while for GI groups are 93.28 and S.D. 15.38 respectively. This table shows that the highest mean on the death anxiety scale has been scored by GI group followed by GI and CHD groups respectively. It suggest that GI patients relatively suffer more from death related problem in comparison to the other two disease groups. The lowest score on this scale has been obtained by H.B.P. It clearly suggests that H.B.P. patients experience relatively less death anxiety problem in comparison to other groups.
To examine whether the differences among scores of three groups are significant or not, ANOVA technique was applied. The results obtained are presented in table 4.8. It may be observed from above table that the f-ratio obtained in this case is 241.59. The difference between the scores are significant at .05 level of confidence. The clearly suggests that the three patients groups differ significantly in the feeling of death anxiety

Table 4.8
Summary of ANOVA between three Disorder Groups
On Death Anxiety scale

<table>
<thead>
<tr>
<th>Sources of Variation</th>
<th>Sum of Square (Ss)</th>
<th>d.f</th>
<th>Mean Square</th>
<th>F-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Group</td>
<td>348823.78</td>
<td>2</td>
<td>174411.89</td>
<td>241.59</td>
</tr>
<tr>
<td>Within Group</td>
<td>214408.75</td>
<td>297</td>
<td>721.91498</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>563232.53</td>
<td>299</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Table 4.9

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Groups Compared</th>
<th>t-ratio</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>CHD - GI</td>
<td>0.05</td>
<td>NS</td>
</tr>
<tr>
<td>2.</td>
<td>CHD - H.B.P.</td>
<td>4.45</td>
<td>.01</td>
</tr>
<tr>
<td>3.</td>
<td>GI - H.B.P.</td>
<td>4.46</td>
<td>.01</td>
</tr>
</tbody>
</table>

In addition to ANOVA, t-ratio were also computed and these values are presented in table 4.9. It may be observed that the t-ratio obtained between CHD and GI groups is 0.05. It is not significant. The ratio obtained between CHD and H.B.P. groups is 4.45, being significant at .01 level and the t-ratio obtained between GI and H.B.P. groups is 4.45, being significant at .01 level. This suggests that there does not exist significant difference between the means of three disorder groups on death anxiety scale, but CHD vs. H.B.P. groups have been found to differ significantly in the feeling of death anxiety. It was assumed that three patients groups will score more or less equally on death anxiety scale. But this has not actually happened in this study. The results are not in conformity with the expectations. The proposed hypothesis is therefore, rejected.

**Comparison of CHD, H.B.P. and GI patients on Quality of Life**

The three patients groups were compared on the Qol scale and the result obtained from this point of view are presented in table 4.10.
Table 4.10
Mean & S.D. of three patient groups on quality of life scale

<table>
<thead>
<tr>
<th>S.NO</th>
<th>Groups Compared</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>CHD</td>
<td>90.71</td>
<td>9.89</td>
</tr>
<tr>
<td>2.</td>
<td>H.BP</td>
<td>91.61</td>
<td>15.95</td>
</tr>
<tr>
<td>3.</td>
<td>GI</td>
<td>93.28</td>
<td>15.38</td>
</tr>
</tbody>
</table>

This table shows that the CHD group mean value is 90.71 and its SD value is 9.89. These values for H.BP groups are 91.61 and 15.95 while for GI group are 93.28 and 15.38 respectively.

![Bar diagram showing the mean value of three patient groups on Quality of Life scale](image)

Table 4.10 reveals that the highest mean on the Quality of Life scale has been scored by GI group followed by H.B.P. and CHD groups respectively. It is clear that GI patients relatively feel more quality of life related problems in comparison to the other two disease groups. The lowest mean score on this scale has been
obtained by CHD, which clearly suggest poorer quality of life among CHD patients in comparison to other two groups. The GI and HBP patients appears to have better level of quality of life.

In order to examine the significance difference between the scores of three patient groups, the ANOVA technique was used and results obtained are presented in table 4.11.

Table 4.11
Summary of ANOVA between three disease groups on quality of life scale.

<table>
<thead>
<tr>
<th>Sources of Variation</th>
<th>Sum of Square (Ss)</th>
<th>df</th>
<th>Mean Square</th>
<th>F-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Group</td>
<td>2279000.96</td>
<td>2</td>
<td>1139500.45</td>
<td></td>
</tr>
<tr>
<td>Within Group</td>
<td>58756.6</td>
<td>297</td>
<td>197.83367</td>
<td>5759.89</td>
</tr>
<tr>
<td>Total</td>
<td>2337757.5</td>
<td>299</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The f-ratio obtained may be observed from table 4.11. This table shows that f-ratio obtained in this case is 5759.89. The difference among the scores is significant at .01 level of confidence. In other words, there exists significant difference between the scores of three groups in quality of life.
Table 4.12

t-ratio between three disease groups on QoL

<table>
<thead>
<tr>
<th>S.NO.</th>
<th>Groups Compared</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>CHD - GI</td>
<td>1.39</td>
<td>NS</td>
</tr>
<tr>
<td>2.</td>
<td>CHD - HBP</td>
<td>0.98</td>
<td>NS</td>
</tr>
<tr>
<td>3.</td>
<td>GI - HBP</td>
<td>0.74</td>
<td>NS</td>
</tr>
</tbody>
</table>

Table 4.12 shows that the t-ratio obtained between CHD and GI groups 1.39, is significant at .05 level of confidence. The t-ratio obtained between CHD and HBP group is 0.48 not being significant. While the t-ratio between Gi and H.B.P is 0.74, not being significant. This suggests that there are not significant differences between the scores of three disease groups on quality of life scale. Although, F-ratio is significant, but t-ratio are not significant. It suggests that the status of three groups on QoL is relatively vague.

**Normal rural subjects vs Normal Urban subjects on different scores**

A comparison has been made of normal urban subjects also on the scales of depression, death anxiety and quality of life. The results relating to it are presented in table 4.13.

It is observable from table 4.13 that mean and S.D. value of normals rural are 58.75 and 26.88 while these values of normal urbans are 73.28 and 34.04 respectively. The obtained C.R. (3. 13) is significant at .01 level. This suggests that difference between the two means is real, i.e., not attributable to chance factor.
Table 4.13 Mean etc. of normal rural and normal urban Ss on different scales

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Scales</th>
<th>Rural (N=20)</th>
<th>Urban (N=20)</th>
<th>C.R.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M</td>
<td>S.D.</td>
<td>M</td>
</tr>
<tr>
<td>1.</td>
<td>Depression</td>
<td>58.75</td>
<td>26.88</td>
<td>73.28</td>
</tr>
<tr>
<td>2.</td>
<td>D. Anxiety</td>
<td>49.95</td>
<td>10.98</td>
<td>43.65</td>
</tr>
<tr>
<td>3.</td>
<td>QoL</td>
<td>96.95</td>
<td>71.84</td>
<td>97.9</td>
</tr>
</tbody>
</table>

The relative position of normal rural subjects and normal urban subjects on death anxiety scale may be observed from table 4.13. It shows that normal rural group has scored a mean value of 49.95 and S.D. value of 10.98 while the normal urban group has scored a mean value of 43.65 and a S.D. value of 9.64 respectively. The obtained C.R. (C.R. = 2.85) is significant at .01 level. This suggests the
difference between the two means is real, i.e., not attributable to chance factor. The proposed hypothesis is, therefore, accepted. The comparative position of two group may be observed from fig. 4.8.

![Bar diagram showing mean scores of normal rural and normal urban Ss on death anxiety scale](image)

An observation of table 4.13 shows that normal rural group has scored a mean value of 96.95 and S.D. value of 71.84 while the normal urban subjects have scored mean value of 97.90 and a S.D. value of 35.95 respectively on quality of life scale. The obtained (CR = 0.06) is not significant. This suggest that the two groups do not differ significantly in quality of life, hence, the difference between the two means is attributable to chance factor. The proposed hypothesis is, therefore, rejected. Figure 4.9 and table 4.13 show the comparative position of two groups on the quality of life scale.
Normal Male subjects vs Normal female subjects on different scale

The male subjects have been compared with female normal subjects on the four scales, viz., depression, death anxiety and quality of life scales. The results concerning to it are presented in table 4.14. An observation of table 4.14 shows that the mean and S.D. value of male normal subjects on depression are 65.31 and 29.44 while the value of female normal subjects are 75.02 and 27.59 respectively. The obtained C.R. (C.R. = 10.78) is significant at .01 level. It may be clearly observed from table 4.14 that the obtained C.R. is strongly significant. This suggest that the difference between the two means is real not attributable to chance factor. The proposed hypothesis is, therefore, accepted.
The normal male group has scored a mean value of 40.52, while the mean and S.D. values of female normal group and 44.11 and 23.62 respectively. The obtained C.R. is (0.35) not significant. This suggests that the two groups do not differ significantly in death anxiety, hence the difference between the two means is attributable to chance factor. The proposed hypothesis is, therefore, rejected. Figure 4.11 shows the comparative position of two groups on the death anxiety scale.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Scales</th>
<th>Male</th>
<th>Female</th>
<th>C.R.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M</td>
<td>S.D.</td>
<td>M</td>
</tr>
<tr>
<td>1.</td>
<td>Depression</td>
<td>65.31</td>
<td>29.44</td>
<td>75.02</td>
</tr>
<tr>
<td>2.</td>
<td>D. Anxiety</td>
<td>40.52</td>
<td>8.92</td>
<td>44.11</td>
</tr>
<tr>
<td>3.</td>
<td>QoL</td>
<td>95.25</td>
<td>21.36</td>
<td>100.06</td>
</tr>
</tbody>
</table>

Fig. 4.10: Bar diagram showing mean scores of normal male and normal female on depression scale.

The normal male group has scored a mean value of 40.52, while the mean and S.D. values of female normal group and 44.11 and 23.62 respectively. The obtained C.R. is (0.35) not significant.

This suggests that the two groups do not differ significantly in death anxiety, hence the difference between the two means is attributable to chance factor. The proposed hypothesis is, therefore, rejected. Figure 4.11 shows the comparative position of two groups on the death anxiety scale.
The comparative position of normal male and normal female subjects on quality of life scale may be observed from the same table. It is observable from table that the normal male group has scored a mean value of 95.25 and a S.D. value of 21.36, while the mean and S.D. value of female 100.06 and 9.35 respectively. The obtained C.R. (C.R. = 1.82) is not significant, the proposed hypothesis is, therefore rejected. Figure 4.12 shows the comparative position of two groups on the quality of life scale.
Rural CHD subjects and Urban CHD subjects on different scale

A comparison has been made of rural CHD and urban CHD subjects also on the scales of depression, death anxiety and quality of life. The results relating to it are presented in table 4.15. An observation of table 4.15 shows that the rural group has scored a mean value of 117.16 and a S.D. value of 24.63 on the depression scale while the mean and S.D. values of 108.47 and 39.66 respectively. The obtained C.R. (C.R. = 1.06) is not significant. This suggests that the two groups do not differ significantly. The depression, hence the difference between the two means is attributable to chance factor. The proposed hypothesis is, therefore, rejected. The comparative position of two groups may be observed from Fig. 4.13.

![Bar diagram showing mean scores of Normal male and female subjects on quality of life scale](image-url)
The relative position of rural CHD subjects and urban CHD subjects on death anxiety scale may be observed from 4.14. It shows that CHD rural group has scored a mean value of 53.50 and a S.D. value of 4.98 while the CHD urban group has scored a mean value of 48.30 and a S.D. value of 9.87 respectively. The obtained C.R. (C.R. = 2.75) is significant at .01 level. It may be clearly observed from table 4.15 that the C.R. is strongly significant. This suggest that the
difference between the two means is real not attributable to chance factor. The proposed hypothesis is, therefore, accepted. Fig. 4.14 focuses the comparative position of rural CHD and urban CHD subjects.

![Bar diagram showing mean scores of CHD rural and CHD urban subjects on death anxiety scale](image)

The quality of life is the third and also the last dependent variable in this study. The comparative position of CHD rural group and CHD urban group on quality of life scale may be observed from table 4.15. It shows that CHD rural group has acquired a mean value of 91.87 and a S.D. value of 11.63 while the CHD urban group has acquired a mean value of 90.60 and a S.D. value of 86.01 respectively. The obtained C.R. (C.R. = 0.06) is not significant. This suggest that the two group do not differ significantly in quality of life. Hence, the difference between the two means is attributed to chance variable. The proposed hypothesis is, therefore, rejected. Figure 4.15 also shows the comparative position of two groups on the quality of life scale.
Male CHD subjects Vs. Female CHD subjects on different scales

The male CHD subjects have been compared with female CHD subjects on the three scales, viz. depression, death anxiety and quality of life. The results concerning to it are presented in table 4.16. It is clearly observable from this table that male CHD subjects and female CHD subjects don’t differ significantly on any of the scales used in the presented study.

An observation of table 4.16 shows that the mean and S.D. value of male CHD subjects on depression are 101.98 and 23.15 while the value of female CHD subjects are 127.52 and 23.82 respectively. The obtained C.R. (C.R. = 5.41) is significant at .01 level. This suggest that the difference between the two means is real, not attributable to chance factor. The proposed hypothesis is, therefore, accepted.
The comparative position of male CHD and female CHD is shown in Table 4.16 on death anxiety scale. It is clearly observable from Table 4.16 that the male CHD group has scored a mean value of 46.69 and a S.D. value of 10.33 while the men ans S.D> value of female CHD group are 57.32 and 7.82 respectively. The obtained C.R. (C.R. = 5.84) is significant at .01 level. This suggests that the difference between the two means is real, not attributable to chance factor. The proposed hypothesis is, therefore accepted.
The comparative position of male CHD and female CHD group on quality of quality of life scale may be observed from table 4.16. It shows that the male CHD group has acquired a mean value of 91.89 and a S.D. value of 5.86 while the female group has obtained a mean value of 87.07 and 6.97 respectively. The obtained C.R. (C.R. = 0.61) is not significant. This suggests that the two group do not differ significantly in quality of life, hence the difference between the two means is attributed to chance factor. The proposed hypothesis, therefore, rejected. Fig. 4.18 depicts the comparative position of two group on the quality of life scale.
Rural Gastrointestinal subjects vs Urban Gastrointestinal subjects on different scales

Rural gastrointestinal patients have been compared with gastrointestinal urban patients on the three scales, viz., depression, death anxiety and quality of life scales. It may be observed from table 4.17 that the trend of results in this case also is similar to rural gastrointestinal patients vs urban gastrointestinal patients.

An observation of table 4.17 shows that rural gastric group has scored a mean value of 107.37 and a S.D. value of 29.37 on the depression scale while the mean and S.D. value of gastric urban patients are 101.13 and 44.89 respectively. The obtained C.R. (0.75) is not significant. This suggests that the two groups do not differ
significantly in depression, hence the difference between the two means is attributed to chance factor. The proposed hypothesis is, therefore, rejected. Figure 4.19 depicts the comparative position of two group on the depression scale.

![Figure 4.19: Mean & S.D. of rural gastrointestinal and urban gastrointestinal and urban gastrointestinal subjects on different scales.]

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Scales</th>
<th>Male</th>
<th>Female</th>
<th>C.R.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M</td>
<td>S.D.</td>
<td>M</td>
</tr>
<tr>
<td>1.</td>
<td>Depression</td>
<td>101.37</td>
<td>29.37</td>
<td>101.16</td>
</tr>
<tr>
<td>2.</td>
<td>Death Anxiety</td>
<td>94.53</td>
<td>21.23</td>
<td>93.75</td>
</tr>
<tr>
<td>3.</td>
<td>QoL</td>
<td>91.32</td>
<td>9.41</td>
<td>96.27</td>
</tr>
</tbody>
</table>
As regards the position of rural gastric and urban gastric subjects on death anxiety scale it may be observed from table 4.17. It shows that rural gastric group has scored a mean value of 94.53 and a S.D. value of 21.23 on death anxiety scale while the urban gastric subjects have scored a mean value of 93.75 and 9.57 respectively. The obtained C.R. (C.R. = 0.25) is not significant. This suggest that the two group do not differ significantly in death anxiety scale, hence the difference between the two means is attributable to chance factor. The proposed hypothesis is, therefore rejected Fig. 4.20 shows the comparative position of two group on the death anxiety scale.

Fig. 4.19 : Bar diagram showing mean scores of rural gastric and urban gastric subjects on depression scale
An observation of table 4.17 shows that rural gastric group has scored a mean value of 91.32 and a S.D. value of 9.41 while the urban gastric subjects have scored a mean value of 96.27 and 23.89 respectively on quality of life scale. The obtained C.R. (C.R. = 1.19) is not significantly in quality of life, hence the difference between the two means is attributed to chance factor. The proposed hypothesis is, therefore, rejected.
Gastrointestinal male subjects vs. Gastrointestinal female subjects on different scale

A comparison has been made of gastric male and gastric female subjects also on the scales of depression, death anxiety and quality of life. The results relating to it are presented in table 4.18.

It is observable from table 4.18 that mean and S.D. value of gastric males are 107.58 and a S.D. value of 39.42 while these values of gastric females are 104.04 and 35.73 respectively. The obtained C.R. (0.43) is not significant. This suggests that the two groups do not differ significantly in depression, hence factor. The proposed hypothesis is, therefore, rejected.
The relative position of gastric male subjects and gastric female subjects on death anxiety scale may be observed from table 4.18. It shows that gastric male group has scored a mean value of 45.83 and a S.D. value of 12.74 while the gastric female group has scored a mean value of 54.04 and 8.57 respectively. The obtained C.R. (C.R. = 3.06) is significant at .01 level. This suggest that the difference the two means is real, not attributable to chance factor. The difference the two means is real, not attributable to chance factor. The proposed hypothesis is, therefore, accepted. The comparative position of two groups may be observed from Fig 4.24.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Scales</th>
<th>Male</th>
<th>Female</th>
<th>C.R.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M</td>
<td>S.D.</td>
<td>M</td>
</tr>
<tr>
<td>1.</td>
<td>Depression</td>
<td>107.58</td>
<td>39.42</td>
<td>104.04</td>
</tr>
<tr>
<td>2.</td>
<td>D. Anxiety</td>
<td>45.83</td>
<td>12.74</td>
<td>54.04</td>
</tr>
<tr>
<td>3.</td>
<td>QoL</td>
<td>7.73</td>
<td>26.57</td>
<td>97.06</td>
</tr>
</tbody>
</table>

Fig. 4.23 : Bar diagram showing mean scores of gastrointestinal male and gastrointestinal female subjects on depression scale.
An observation of table 4.18 shows that gastric male group has scored a mean value of 82.73 and a S.D. value of 26.57 while the gastric female subjects have scored a mean value of 97.06 and 5.11 respectively. The obtained (C.R. = .37) is not significant. This suggests that the two groups do not differ significantly in quality of life, hence the difference between the two means is attributed to chance factor. He proposed hypothesis is, therefore, rejected. Fig. 4.25 shows the comparative position of two group on the quality of life scale.
HBP rural subjected vs. HBP urban subjects on different scale

A comparison has been made of HBP rural and HBP urban subjects also on the scales of depression, death anxiety and quality of life.

It is observable from table 4.19 that mean and S.D. value of HBP rural are 120.25 and a S.D. value of 119.75 while these values of HBP urban are 88.36 and 25.45 respectively. The obtained C.R. (74.16) is significant at .01 level. This suggest that the difference between the two mean is real, not attributable to chance factor. The proposed hypothesis, is, therefore, accepted. Figure 4.26 also shows the comparative position of two groups on the depression scale.
The relative positive of HBP rural subjects and HBP urban subjects on death anxiety scale may be observed from table 4.19. It shows that HBP rural group has scored a mean value of 46.63 and a S.D. value of 15.17, while the HBP urban group has scored a mean value of 42.76 and 10.51 respectively. The obtained C.R. (C.R. = 1.41) is not significant. This suggests that the two groups do not differ significantly in death anxiety, hence the difference between the two means is attributed to chance Factor. The

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Scales</th>
<th>Male</th>
<th>Female</th>
<th>C.R.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Depression</td>
<td>120.25</td>
<td>119.75</td>
<td>88.36</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15.17</td>
<td>25.45</td>
<td>74.16</td>
</tr>
<tr>
<td>2.</td>
<td>Death Anxiety</td>
<td>46.63</td>
<td>42.76</td>
<td>10.51</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15.17</td>
<td>10.51</td>
<td>1.41</td>
</tr>
<tr>
<td>3.</td>
<td>QoL</td>
<td>95.45</td>
<td>89.15</td>
<td>19.92</td>
</tr>
<tr>
<td></td>
<td></td>
<td>18.54</td>
<td>19.92</td>
<td>1.55</td>
</tr>
</tbody>
</table>

Fig. 4.26: Bar diagram showing mean scores of HBP rural and HBP urban subjects on depression scale.
proposed hypothesis is, therefore, rejected Figure. 4.27 depicts the comparative position of two groups on the death anxiety scale.

An observation of table 4.19 shows that HBP rural group has scored a mean value of 95.45 and a S.D. value of 18.54 while the HBP urban subjects have scored a mean value of 89.15 and 19.92 respectively. The obtained C.R. (C.R. = 1.55) is not significantly in quality of life, hence the difference between the two means is attributable to factor. The proposed hypothesis is, therefore, rejected.

Figure 4.28 and table 4.19 shows the comparative position of two group on the quality on the quality of life scale.
Male HBP subjects Vs Female HBP subjects on different scales

The male HBP subjects have been compared with female HBP subjects on the three scales, viz., depression, death anxiety and quality of life scales. The results concerning to it are presented in table 4.20. It is clearly observable from this table that male HBP subjects and female HBP subjects don’t differ significantly on any of the scales used in the present study.

A perusal of table 4.20 shows that the mean and S.D. value of male HBP subjects on depression are 88.66 and 9.58 while the value of female HBP subjects are 117.31 and 23.03 respectively. The obtained C.R. (C.R. = 7.11) is significant at .01 level. This suggests that the difference between the two means is real, i.e., not attributable to chance factor. The proposed hypothesis is, therefore, accepted.
The comparative position of male HBP and female HBP is shown in table 4.20 on death anxiety scale. It is clearly observable from table 4.20 that the male HBP group has scored a mean value of 41.83 and a S.D. value of 8.56 while the mean and S.D. value of female HBP group are 51.03 and 12.83 respectively. The obtained
C.R. (C.R. = 3.85) is significant at .01 level. This suggests that the difference between the two means is real not attributable to chance factor. The proposed hypothesis is, therefore accepted.

The quality of life is the third and also last dependent variable in this study. The comparative position of HBP male group and HBP female group on quality of life scale may be observed from 4.20. It shows that HBP male group has acquired a mean value of 111.54 and a S.D. value of 55.31 while the HBP female group has acquired a mean value of 96.61 and 48.61 respectively. The obtained C.R. (C.R. = 1.36) is not significant in quality of life. Hence, the difference between the two means is attributed to chance variable. The proposed hypothesis is, therefore, rejected.
Figure 4.30 projects the comparative position of two groups on death anxiety scale.

Fig. 4.30: Bar diagram showing mean scores of male HBP and female HBP subjects on death anxiety scale.
Summary
&
Conclusion
This chapter deals with the summary and conclusion obtained in the present study. It is already clarified that this study tapped CHD, H.B.P. and gastrointestinal disorders as the independent variable while the group dependent variable covered depression, death anxiety and quality of life. This study was conducted to realize the following objectives.

1. To ascertain the effects of CHD on the feeling of depression
2. To study the effects of CHD on the feeling of death anxiety
3. To evaluate the effects of CHD on the feeling of quality of life.
4. To investigate the effects of H.B.P. on the feeling of depression.
5. To ascertain the effects of H.B.P. on the feeling of death anxiety.
6. To assess the effects of H.B.P. on the feeling of quality of life.
7. To evaluate the effects of gastrointestinal problems on the feeling of depression.
8. To measure the effects of gastrointestinal problems on the feeling of death anxiety.
9. To investigate the effects of gastrointestinal problems on the feeling of quality of life.
Hypotheses

The following hypotheses were examined in the proposed study:

(1) The CHD patients and normal subjects would differ significantly in depression.

(2) The CHD patient and normal subjects would differ significantly in death anxiety.

(3) The CHD patients and normal subjects would differ significantly in quality of life.

(4) The H.B.P. patients and normal subjects would differ significantly in depression.

(5) The H.B.P. patients and normal subjects would differ significantly in death anxiety.

(6) The H.B.P. patients and normal subjects would differ significantly in quality of life.

(7) The gastrointestinal patients and normal subjects would differ significantly in depression.

(8) The gastrointestinal patients and normal subjects would differ significantly in death anxiety.

(9) The gastrointestinal patients and normal subjects would differ significantly in quality of life.
Methodology

Sample

Patients with three types of psychophysiological problems were selected for the present study. The civil hospital and the private nursing homes located in Jaunpur city were visited for this purpose. In all 300 patients suffering from three (CHD, H.B.P. and GI) psychophysiological disorders were indentified for testing. Each group consisted of 100 patients. A sample of normal Ss of 100 was also selected for comparison. Age of the patient and normal subjected ranged from 30 years to 70 years. The mean age being 52.46 yrs.

Design

There types of patients (viz., HBD, CHD & GI) having psychophysiological disorders served as the subjected in the present study. A control (normal) groups.

Tools

The following tools were used :

(1) Depression Scale

It has been developed by Singh (1994). It consist of 42 items accompanied by 5 category of responses. Higher score on it indicate higher depression and vice-versa.
(2) **Death Anxiety Scale**

   It has been constructed by G.P. Thakur and Manju Thakur (1984). It contains 16 items accompanied by five alternative responses. Lower scores on it indicate lower death anxiety and vice-versa.

(3) **PGI Quality of Life Scale**

   This scale has been developed by Mudgil et.al. (1998). It consist of 26 item has level of responses.

   The above scales are reliable and valid also.

**Main Findings**

The results obtained in this study are briefly stated as under:

(1) The CHD group scored higher mean value on depression scale in comparison to normal group. One thing clearly evident that three patient group scores significantly higher on all the scales in comparison to the normal group. The difference between two means is significant (CR = 10.44) at .01 level of confidence which suggests that the CHD patients suffer more from depressive problem in comparison to control subjects. It is felt that CHD patients should be offered psychological assistance to enjoy healthy life and to improve their psychological well-being.
(2) The CHD group scored higher mean value on death anxiety scale in comparison to normal group. The difference between two mean is significant (CR = 24.09) at .01 level of confidence which suggest that the CHD patient are more anxious about death in comparison to control group.

(3) The CHD group scored higher mean value on quality of life scale in comparison to normal group. The difference between two mean is significant (CR = 5.82) at .01 level of confidence, which suggest that.

(4) The H.B.P group scored higher mean value on depression Scale in comparison to normal group. The difference between Two mean is significant (CR=6.95) at .01 level of confidence, which suggest that the H.B.P. patient suffer more from depressive problem in comparison to their counterparts.

(5) H.B.P. patient group scored higher mean value death anxiety scale in comparison to normal group. The difference between two mean is significant (CR=5.66) at .01 level of confidence, which suggest that the H.B.P. patient are more anxious about death in comparison to their normal counterparts.
(6) H.B.P. group scored higher mean value on quality of life scale in comparison to normal group.

(7) Gastrointestinal group score higher mean value on depression scale in comparison to normal group. The difference between two mean is significant (\(CR = 8.04\)) at .01 level of confidence which suggest that the gastrointestinal patient suffer more from depressive problem in comparison to the normal groups.

(8) Gastrointestinal group scored higher mean value on death anxiety scale in comparison group. The difference between two mean is significant (\(CR = 0.48\)) at .05 level of confidence which suggest that the GI patients are more anxious about life in comparison to normal group.

(9) Gastrointestinal group scored higher mean value on quality of life scale in comparison to normal group. The difference between two mean is significant (\(CR = 10.97\)) at .01 level of confidence, which suggest that the GI group is not as satisfied with life as the normal groups appears to be.

(10) When the three patient group were compared on the depression scale. It was found that the CHD group suffers more from depression in comparison to the other groups. The next to CHD gastrointestinal group scored group while not found to be significant which suggest that the three patients suffer more or less equally from depression.
(11) The comparison of three patients groups on death anxiety scale revealed that gastrointestinal patients scored the highest followed by the CHD group and f-ratio was found to be significant which suggest that gastrintestinal patients are more anxious about the death as compared to the other two group.

(12) The comparison of the three patients groups on the quality of life scales shows that GI patients relatively feel well-being in comparison to the other two disease groups.
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