Chapter 1

Introduction
In DSM-IV classification, the psychosomatic problem has been termed as psychophysiological disorders. Psychophysiological disorders refer to physical conditions in which psychologically meaningful events are closely related to bodily symptoms. Modern researchers sat 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, psychologigical, 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 psycho-physical 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 (systinic 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 referred 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 though 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 refers 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 makes 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 somewhat 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 factors 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 factors determining well-being of individuals. A person suffering from depression, and death anxiety and having poor quality 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 objective 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, 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 inspiraitor 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.

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**Hypertension:** Systemic hypertension i.e. an elevated arterial blood pressure is a major health problem, particularly in the developed countries. Hypertension is associated with increased risk for a variety of cardiovascular disorders and is a major 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 (benign and malignant nephrosclerosis) and eyes (hypertensive retinopathy).

There are important differences between coronary heart disease in men 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 death 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 begun.

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.

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<th>Four types of Coronary Heart Disease Risk Factors</th>
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<td>Risk factors</td>
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<td>Health habits</td>
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<td>Community, lifestyle and cultural factors</td>
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Death due to CHD has decreased more than 35% in the last
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.

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, amiable 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 & 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 mechanisms at work, it’s not surprising that Type A behavior 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 major 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 related 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 profile 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 patient in an attempt to lower his or her cholesterol level. Instruction to reduce smoking, loss 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 clam, 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 encephaloptathy 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, tomours of the kidney, hydronephrosis nd amyloid disease. Unilateral renal disease my 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 factor for premature cardiovascular disease.

**Labile Hypertension:** Multiple ambulatory reading 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 indentify themby 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 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 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 intense 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 locales 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 patient is strongly urged, and exercises is recommended for all hypertensive patients. Caffeine restriction is often included as part of the dietary treatment of hypertensive, because caffeine, in conjunction with stress, elevates blood pressure responses among those 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 effect 10% to 15% of the United States population and is characterized by abdominal pain and altered 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 living 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 **Gastroenter**

(ii) s and emotional tensions usually eats more than necessary. 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 diagnosed as colitis attributable chiefly to emotional cause.

Gastroenteritis, Diarrhea and Dysentery

Gastroenteritis is an inflammation of the lining 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 protozon that attack the large intestine (amoebic dysentery) or by a bacterial organism.

**Gall Bladder**

Gallstones are made up of combination of cholesterol, calcium billirubin, 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.

**Appendicitis**

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 attack 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 into the bile ducts. Consequently, it remains in the blood, causing a yellowing of he 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 behavioural 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 sence 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 symptoms 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 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. Persistently sad, anxious, or ‘empty’ mood.
ii. Loss of interest 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 are 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 диаганose 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 considerd sub categoeries 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
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, pyhsical, social an psychological factors.These causes are described in form of theories.

**I. Psychoanalytic Theroy of Depression**

Abrahan (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 a 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 maladaptive adjustment 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 events:

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. Lowinsohn 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 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 factor 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 factor 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 alien symptoms’’.

Death anxiety is the anxiety caused when one is faced by the thought, experience, and/or situation, reading material 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 behaviour 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 personal freedom and growth. Death is the only certainty in life. All living organism die’, there is no exception.

Theory of Death Anxiety

Two influential theories dominated concept about death anxiety until the late twentieth century.

1. Sigmund Freud (1856-1939) had the first say. The founder of psychoanalyis recognized that people some times 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
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 if not all of the specific fears and phobias people experience in everyday life.

2. According to Becker, much of people daily behaviour 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 behaviour 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
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 factor 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 and 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 enviroments 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 activies that promote relaxation and stress reduction. These include card games, neighbourhood walks and family vistity or longer duration activies such as vacations or holiday. Growth Becoming activies promote the improvement or maintenance of knowledge and skills.
But these of factore directly or indirectly affect the quality of life of a person. Moreover, Maslow (1954) emphasized that the behaviour ad 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 factore 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 et without assistance.
Measuement 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 activities, 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 be 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 survival 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.