Chapter 1

Introduction

1.0 Introduction

1.1 What is stress?

1.1.1 Background of stress

1.1.2 Causes of stress

1.1.3 Signs of stress

1.1.4 How stress affects the health?

1.2 Health consciousness

1.2.1 What is Health?

1.2.2 What is Health Consciousness?

1.3 Eating attitude

1.4 Diabetes

1.4.1 Causes of Diabetes

1.5 Coronary Heart Disease (CHD)

1.5.1 Stress and Heart disease

1.6 The importance of the study

1.7 Definition of some important words
1.0 Introduction:

Today life has become full of challenges. In order to survive, one has to face lots of challenges. Right from getting up till one sleep, he comes across challenges in different forms and of different degrees. Right from getting a house to stay till satisfying our hunger, we need to struggle. This has become a key phenomenon of the so called "MODERN SOCIETY". Everybody is in the rat race to succeed in the current world. Also the parameters of success are different for different people. A student would like to succeed in his studies, a businessman would like to excel in his own business, a housewife would like to succeed in her daily chores. Everybody is willing to go ahead of the other person whom he/she come across. The so called modernization has made our life so hectic. Nobody has time to enjoy the fruits of his/her hard work instead he/she wants to get even more than what he/she has. In this era of discontentment and Materialistic world, one of the essential psychological disorders that we often come across is Stress which affects one's psychological and physiological health.

Anything that poses a challenge or a threat to our well-being is what we call stress in lay man's term. We often come across different people using this term "stress". There is no person in this world who does not suffer from stress. Stress is automatically affecting one's health. Also stress is a relative term. The level and degree of stress differ from person to person. A situation may be stressful to some but might not be stressful for other. Stress can also be beneficial up to a certain extent. But once it rises above the level of tolerance, stress becomes dangerous. It brings with it lots of physical and psychological disorders. So, first of all here tried to know what stress is.
1.1 What is stress?

In so many situations person feels stress. A state of stress exists when unusual or excessive demands threaten a person's well-being or integrity. Extraordinary efforts are needed to master the situation and there is the danger that coping capacities will be overwhelmed with the consequence of disturbed functioning, pain or anxiety, illness or even death. Stress defined neither by the conditioning acting of the person, nor by the state of person, nor by his reactions, but rather by the inter-play of the three.

Hens Selye (1979) stated, "Stress refers to non-specific response of body to any demand made upon it". Morgan and his associates (1992) refer to stress as "Stress is much faceted process that occurs in us in response to events that disrupt or threaten to disrupt our physical or psychological functioning".

To understand these definitions first get information about its background.

1.1.1 Background of Stress:

In 1925 a second year medical student named Hans Selye observed that people suffering from a wide variety of somatic (physical) disorders all seemed to have the same or similar symptoms. For example, many of these people reported:

Decreased appetite, decreased muscular strength and endurance, and lowered levels of ambition or drive. Selye, unable to find a common disease or disorder to explain these behaviours, called this group of symptoms, the SYNDROME OF JUST BEING SICK.
In addition, he found that these symptoms occurred whenever: the human organism needed to adapt to a changing internal or external environment.

This was the first observation and identification that eventually led to the term STRESS. At first, Selye defined STRESS as, a nonspecific response of the body to any demand made upon it. Even this initial definition implies that not all stress is a result of "bad" things happening to us.

Later, his JUST BEING SICK syndrome evolved into the GENERAL ADAPTATION SYNDROME which he defined as, the physiological processes and results of stress.

From this, we get a modern, more comprehensive definition of STRESS:

“A psychological and physical response of the body that occurs whenever we must adapt to changing conditions, whether those conditions be real or perceived.”

Thus, stress can originate in physical, psychological and social conditions and threaten the integrity of the body, the personality or the social system. Threat can disturb psychological well being and psychological functioning. Stress depends on person's life situations and his psychological state. When it is beyond his daily life or daily mental condition, it creates stress to him. Stress is the emotional and physical strain caused by our response to pressure from the outside world. Common stress reactions include tension, irritability, inability to concentrate, and a variety of physical symptoms that include headache and a fast heartbeat.

It's almost impossible to live without some stress. And most of us wouldn't want to, because it gives life some spice and excitement. But if
stress gets out of control, it may harm your health, your relationships, and your enjoyment of life.

1.1.2 Causes of stress:

The situations and pressures that cause stress are known as stressors. People usually think of stressors as being negative, such as an exhausting work schedule or relationship. However, anything that puts high demands on you or forces you to adjust can be stressful. This includes positive events such as getting married, buying a house, going to college, or receiving a promotion.

What causes stress depends, at least in part, on your perception of it. Something that's stressful to you may not faze someone else; they may even enjoy it.

Common external causes of stress:

Not all stress is caused by external factors. Stress can also be self-generated:

- Major life changes
- Work
- Relationship difficulties
- Being too busy
- Children and family
- Financial problems

Common internal causes of stress:

Not all stress is caused by external factors. Stress can also be self-generated:

- Inability to accept uncertainty
- Pessimism
- Negative self-talk
Perfectionism
• Lack of assertiveness
• Unrealistic expectations

1.1.3 Signs of Stress:
Stress can cause both mental and physical symptoms. The effects of stress are different for different people.

Cognitive Symptoms
- Memory problems
- Inability to concentrate
- Poor judgment
- Seeing only the negative
- Anxious or racing thoughts
- Constant worrying

Emotional Symptoms
- Moodiness
- Irritability or short temper
- Agitation, inability to relax
- Feeling overwhelmed
- Sense of loneliness and isolation
- Depression or general unhappiness

Physical Symptoms
- Aches and pains
- Diarrhea or constipation
- Nausea, dizziness
- Chest pain, rapid heartbeat
- Loss of sex drive
- Frequent colds

Behavioral Symptoms
- Eating more or less
- Sleeping too much or too little
- Isolating yourself from others
- Procrastinating or neglecting responsibilities
- Using alcohol, cigarettes, or drugs to relax
- Nervous habits (e.g. nail biting, pacing)
1.1.4 How stress affects the health:

The body doesn’t distinguish between physical and psychological threats. When a person is stressed over a busy schedule, an argument with a friend, a traffic jam, or a mountain of bills, his body reacts just as strongly as if he was facing a life-or-death situation. If person has a lot of responsibilities and worries, his emergency stress response may be “on” most of the time. The more your body’s stress system is activated, the easier it is to trip and the harder it is to shut off.

Long-term exposure to stress can lead to serious health problems. Chronic stress disrupts nearly every system in your body. It can raise blood pressure, suppress the immune system, increase the risk of heart attack and stroke, contribute to infertility, and speed up the aging process. Long-term stress can even rewire the brain, leaving you more vulnerable to anxiety and depression.

Many health problems are caused or exacerbated by stress, including:

- Pain of any kind
- Heart disease
- Digestive problems
- Sleep problems
- Obesity
- Skin conditions, such as eczema
- Depression

Therefore stress affects to the every area of the body. One’s mental stress strongly related to his health.
Headaches
Frequent infections
Taut muscles
Muscular twitches
Fatigue
Skin irritations
Breathlessness
Loss of confidence
More fussy
Irritability
Depression
Apathy
Alienation
Apprehension
Worrying
Muddled thinking
Impaired judgement
Nightmares
Indecisions
Negativity
Hasty decisions
Accident prone
Loss of appetite
Loss of sex drive
Drinking more
Insomnia
Restlessness
Smoking more
Behavior
Emotions
Mind
Body
Stress
1.2 Health Consciousness:

Self-consciousness has been an important trait in the personality research and it becomes logical to investigate whether health consciousness which involves similar self focusing might operate in parallel manner. This section deals with the relationship between the consciousness for good health and consciousness levels among the general population. Health consciousness is related to the level of an individual’s attention to health, every individual wants to maintain their health in a good manner. These days health is a very important factor for human beings because of lack of nutritious food, increasing stress levels, lack of physical work and highly polluted atmosphere. So it is important to know about health.

1.2.1 What is health?

Historically, the word health appeared approximately in the year 1000 A. D. Dolfman (1973) and Balog (1978) studied the roots of the concept of health. The word originally came from Old English and it meant the state and the condition of being sound or whole. More precisely, health was associated not only with the physiological functioning, but with mental and moral soundness, and spiritual salvation, as well. Though the word health has often been preceded by both positive and negative qualifiers such as good, bad or poor, it has always been regarded as a positive entity.

As suggested by Balog (1978), three major views of health have emerged in more recent time: (a) the traditional medical concept, (b) the World Health Organization concept, and (c) the ecological concept. A description of these views, as well as their major assumptions and problems will be presented next.
The Traditional Health Concept

The earliest notion of health as a disease-free state represents the traditional medical concept. This view of health was largely accepted during the first half of the twentieth century, mainly between physicians and medical personnel. As described by Balog (1978), such a traditional medical concept of health was based on the assumption that health and disease were objective and observable phenomena. But according to Hinkle (1961) to be healthy, individuals do not necessary need to be in an absolute disease-free state, but they probably will have less disease than unhealthy people. Thus, the absence of disease, symptoms or problems may not be strong enough delimiters of a healthy state.

The World Health Organization Concept of Health

In the late 1940’s, the World Health Organization developed a more holistic concept of health as “a state of complete physical, mental and social well-being and not merely as the absence of disease or infirmity” (p. 1-2, 1947). Rather than restricting health to an absence of illness, health was conceptualized more in terms of the presence of absolute and positive qualities.

This holistic and more utopian view of health extends the traditional medical view by conceiving health as a positive state of well-being in which physical health is only one of the aspects involved. Along with that, social, psychological, physical, economic and political aspects were incorporated in the definition of health, and regarded as components of paramount importance for health and well-being. They are important in strategic terms but do little to specify how such wellbeing be operationalised and achieved.
The Ecological Concept of Health

More ecological and relative notions of health emerged in the 1960s and 1970s. Such perspectives differed from the previous medical and holistic approaches mainly in two aspects: first, by conceiving health as a more relative sort of concept and, second, by placing a greater emphasis on the interrelationships between the environment and the individual’s quality of life. These ecological and relative definitions of health tended to be heavily based on an evaluation of the person’s level of functioning and adaptation to the environment. But, as mentioned by Lewis (1953), there are no clear distinctions between what constitutes a healthy and an unhealthy adaptation.

However, health psychology research focuses on the question of the explanation of health as well as risk behaviour (Matarazzo, 1980; Schmidt, Schwenkmezger, Weinman & Maes, 1990; Stone, 1990; Stroebe & Stroebe, 1995). Previous research gives answers to these questions. A dominant self-centred perspective can be found in these studies which focuses on the target behaviour as well as the selection of motives that should explain these behaviours has nearly exclusive implications for one’s own health. Numbers of theories and models have been explained about the health behaviour. These are personal risk beliefs about the severity of the disease self-efficacy beliefs various personal cost-benefit balances that take subjective barriers health protective behaviour into account (Seydel, Taal, Wiegman, 1990).

1.2.2 What is Health Consciousness?

There are so many views about the meaning of health. Because it is very difficult to know a perfect answer of one’s healthy condition. From all
these discussion it’s decided to get a view from a people for their health. And it develops a concept of Health Consciousness.

Health consciousness is a particularly important psychographic variable in further developing to health issues because previous studies have shown that health consciousness predicts a variety of health attitudes and behaviours (Furnham & Forey, 1994; Gould, 1988, 1990; Iversen & Kraft, 2006; Jayanti & Burns, 1998; Michaelidou & Hassan, 2008; Schafer, Schafer, Bultena, & Hoiberg, 1993). It is also believed that an individual’s level of health consciousness is closely related to how he or she seeks and responds to health information (Basu & Dutta, 2008; Dutta-Bergman, 2004b, 2005, 2006; Dutta, 2007; Dutta & Feng, 2007; Iversen & Kraft, 2006; Kaskutas & Greenfield, 1997; Shim, Kelly, & Hornik, 2006).

Specifically, Forthofer and Bryant (2000) explained why identifying individuals with high health consciousness is important in several ways. First, and most fundamentally, different approaches to groups with different levels of health consciousness are feasible, which in turn increases the effectiveness of health intervention. Second, according to Forthofer and Bryant (2000) individuals with high health consciousness are regarded as “targets of greatest opportunity” (p. 37) because they are more likely to be ready to undertake health preventive behaviours. By targeting health conscious individuals, health interventions have a better chance to achieve desirable outcomes (Forthofer & Bryant, 2000). Third, the attitudes or behaviours of health conscious individuals could be diffused among other people who are less likely to change their attitudes or behaviours (Forthofer & Bryant, 2000).
Meaning of Health Consciousness:

Definition of health consciousness: used for describing someone who is keen to eat healthy and nutritious food and to look after his or her health in other ways e.g. by exercising.

Health consciousness is the tendency to focus attention on one's health, where individual lives with more health consciousness have better quality of life. Every individual wants to maintain his or her health in a good manner. These days health is very important factor for human beings because of lack of nutritious food, increasing stress levels, lack of physical work and highly polluted atmosphere. The Health Consciousness Scale was developed to cover all aspects of health such as health awareness, health habits, health care, and health monitoring and health beliefs.

A concept of health consciousness has been used by Gould SJ (1990). He developed the Health Consciousness Scale (HCS), primarily by modifying items of the Self-Consciousness Scale. This HCS to contain four first-order factors: (1) Health Self-Consciousness, (2) Health Alertness, (3) Health Self-Monitoring, and (4) Health Involvement. Later another scale named Health habits scale developed by Williams R.L, et al., (2007), contributed to give an understanding about the physical and psychological well-being. In these scales, individual belief towards the importance given to health and also the extent of awareness towards health has not been taken into consideration, which is supposed to be conceptually important to assess the individual how he is conscious towards their health in terms of the actions and practices adopted for being more consciousness towards health. Taking into these aspects into consideration the present study initiated to develop a measure that covers various parameters of health,
which contributes to develop one’s belief system towards the importance given to health. Therefore, the present study is in the direction to develop a measure of health consciousness, which covers various aspects of health. Therefore it has contributed in five factors which are as below:

**Self & Practice** factor indicates one’s general healthy behaviours such as having enough sleep, living in healthy atmosphere and maintaining good social relations and ability to feel responsibility for his or her health conditions.

**Monitoring** factor indicates one’s efforts to meet the medical needs, such as consulting doctors, having regular checkups and bringing in other resources to meet these needs.

**Nutrition & Satisfaction** indicates one’s preference for healthy and nutritious food and his or her satisfaction with regard to health and physical fitness.

**Energy** indicates one’s awareness of the importance of physical fitness and his or her behaviours to maintain energy levels.

**Cautiousness** indicates one’s preparedness to meet potential health threats.

1.3 Eating Attitude:

Eating is vital in life and major determinants of health; it is thus important to study this subject from its different perspective. Most studies in eating have focused on physiological aspects, but if disassociated from their pertinent social environment is believed to produce only limited knowledge; for that reason, a cultural, psychological and social approach is necessary.
To learn the social and psychological aspect of eating a new topic was developed called ‘Eating Attitude’. Eating is not only physical activity but person also attached with his cultural, psychological beliefs, which affects his health and health behaviours. In general sense, attitude is a long lasting cluster of feelings, beliefs and cognitions in general, which may be positive or negative, towards a specific object that lead to actions that are coherent to the cognitions and feelings towards the specific objects. Alvarenga et. al. defined Eating Attitudes as one’s beliefs, thoughts, feelings, behaviours and relationships with food and many studies in this area of knowledge also use the term attitude to describe thoughts, feelings and beliefs regarding eating. Because what one eat is also decided by their thinking, feelings to eat, their culture.

Eating attitude gives an idea of person’s mental aspect for his eating. As one thinks or feels at a time, he chooses that type of food because first one thinks what to eat, how much eat than he select a food. Among this aspect, more specific definition of eating attitudes, based on statements of Garcia (1999) and Johnson (1985) “what, how, with what, with whom, where and when situation we eat, what we think and feel towards food, it is also important to ask in what are food choices based on, and where there is difficulty, lack of control, aversion and what are the feelings related to food.”

Eating attitudes are observed in one’s behaviour. And in that way, always seen that person choose to do dieting or try to gain weight. Here in this study, taken four behavioural factors to understand the effect of attitudes on eating.

Dieting is well known factor which is a part of earing attitude. Dieting can be associated both with healthy changes of life style and with
unhealthy behaviours. A diet is defined as a purposeful effort to lose weight by significantly changing one’s eating habits for the amount of time necessary to achieve the desired weight loss. Most people are aware that a healthy diet is important to reduce the risk of heart disease, diabetes, obesity and other physical health problems. Recent evidences also suggest that good nutrition may be just as important for one’s mental health and that a number of mental health conditions may be influenced by dietary factors.

**Oral control** is refers to the tendency towards self control with regard to food and perceived social pressure to control one’s weight.

**Food preoccupation** is refers to the tendency to be constantly thinking about food and to exhibit behaviour associated with bingeing. A preoccupation with food and weight loss means that person spends excessive amounts of time ruminating on food, his dietary habits, dieting techniques and how his diet affects his body weight. One may find it difficult to partake in usual activities or focus on matters unrelated to food and weight loss. One may or may not make marked efforts to alter his eating habits and lose weight.

**Bulimia** is an eating disorder characterized by episodes of secretive excessive eating followed by inappropriate methods of weight control. Such as self induced vomiting, abuse of laxatives and diuretics or excessive exercise. The insatiable appetite of bulimia is often interrupted by periods of anorexia. Bulimia is generally thought to be a psychological eating disorder. It is another condition that goes beyond out of control dieting. The cycle of overeating and purging can quickly become an obsession similar to an addiction to drugs or other substances.
Self Perception

1. Am terrified about being overweight
11. Desire to be thinner
14. Preoccupied about fat on my body

Dieting

10. Feel extremely guilty after eating
12. Think about burning calories during exercise
22. Feel uncomfortable after eating sweets
23. Engage in dieting behavior
24. Like my stomach to be empty

Preoccupation

3. Find myself preoccupied with food
4. Have gone on eating binges
18. Feel that food controls my life
21. Give too much time and thought to food

Food Control

6. Aware of the calorie content of foods
7. Avoid foods with high carbohydrate content
16. Avoid foods with sugar in them
17. Eat diet foods
1.4 Diabetes:

Diabetes, often referred to by doctors as diabetes mellitus, describes a group of metabolic diseases in which the person has high blood glucose (blood sugar), either because insulin production is inadequate, or because the body's cells do not respond properly to insulin, or both. Patients with high blood sugar will typically experience polyuria (frequent urination), they will become increasingly thirsty (polydipsia) and hungry (polyphagia).

There are three types of diabetes:

1) Type 1 Diabetes:

The body does not produce insulin. Some people may refer to this type as insulin-dependent diabetes, juvenile diabetes, or early-onset diabetes. People usually develop type 1 diabetes before their 40th year, often in early adulthood or teenage years.

Type 1 diabetes is nowhere near as common as type 2 diabetes. Approximately 10% of all diabetes cases are type 1.

Patients with type 1 diabetes will need to take insulin injections for the rest of their life. They must also ensure proper blood-glucose levels by carrying out regular blood tests and following a special diet.

Between 2001 and 2009, the prevalence of type 1 diabetes among the under 20s in the USA rose 23%, according to SEARCH for Diabetes in Youth data issued by the CDC (Centres for Disease Control and Prevention).
2) Type 2 Diabetes:

The body does not produce enough insulin for proper function, or the cells in the body do not react to insulin (insulin resistance).

Approximately 90% of all cases of diabetes worldwide are of this type. Some people may be able to control their type 2 diabetes symptoms by losing weight, following a healthy diet, doing plenty of exercise, and monitoring their blood glucose levels. However, type 2 diabetes is typically a progressive disease - it gradually gets worse - and the patient will probably end up have to take insulin, usually in tablet form. Overweight and obese people have a much higher risk of developing type 2 diabetes compared to those with a healthy body weight. People with a lot of visceral fat, also known as central obesity, belly fat, or abdominal obesity, are especially at risk. Being overweight/obese causes the body to release chemicals that can destabilize the body's cardiovascular and metabolic systems.

The risk of developing type 2 diabetes is also greater as we get older. Experts are not completely sure why, but say that as we age we tend to put on weight and become less physically active. Those with a close relative who had/had type 2 diabetes, people of Middle Eastern, African, or South Asian descent also have a higher risk of developing the disease.

Men whose testosterone levels are low have been found to have a higher risk of developing type 2 diabetes. Researchers from the University of Edinburgh, Scotland, say that low testosterone levels are linked to insulin resistance.
3) Gestational Diabetes:

This type affects females during pregnancy. Some women have very high levels of glucose in their blood, and their bodies are unable to produce enough insulin to transport all of the glucose into their cells, resulting in progressively rising levels of glucose.

Diagnosis of gestational diabetes is made during pregnancy.

The majority of gestational diabetes patients can control their diabetes with exercise and diet. Between 10% to 20% of them will need to take some kind of blood-glucose-controlling medications. Undiagnosed or uncontrolled gestational diabetes can raise the risk of complications during childbirth. The baby may be bigger than he/she should be.

Scientists from the National Institutes of Health and Harvard University found that women whose diets before becoming pregnant were high in animal fat and cholesterol had a higher risk for gestational diabetes, compared to their counterparts whose diets were low in cholesterol and animal fats.

1.4.1 Causes of Diabetes:

Diabetes causes vary depending on your genetic makeup, family history, ethnicity, health and environmental factors.

There is no common diabetes because that fits every type of diabetes.

The reason there is no defined diabetes cause is because the causes of diabetes vary depending on the individual and the type.
For instance; the causes of type 1 diabetes vary considerably from the causes of gestational diabetes.

Similarly, the causes of type 2 diabetes are distinct from the causes of type 1 diabetes.

**Type 1 Diabetes Causes:**

Type 1 diabetes is caused by the immune system destroying the cells in the pancreas that make insulin.

This causes diabetes by leaving the body without enough insulin to function normally.

This is called an autoimmune reaction, or autoimmune cause, because the body is attacking itself.

There is no specific diabetes causes, but the following triggers may be involved:

- Viral or bacterial infection
- Chemical toxins within food
- Unidentified component causing autoimmune reaction

Underlying genetic disposition may also be a type 1 diabetes cause.

Type 1 diabetes is an auto-immune disease, meaning that the body’s immune system attacks its body’s own cells. In type 1 diabetes, the insulin producing cells are steadily killed off by the immune system. Genetic factors are known to play a part with type 1 diabetes often running in families.
Another factor that seems to be at play is that type 1 diabetes is more common in countries further from the equator, suggesting that vitamin D may play a part.

With the prevalence of type 2 diabetes increasing so quickly, there has been much discussion around the causes of this metabolic condition. Genetics is one area of focus with specific genes appearing to increase the likelihood of type 2 diabetes developing.

There are clear links to ethnicity as well with people of South Asian, Middle Eastern and African-Caribbean descent at a higher risk of type 2 diabetes. Diet is widely believed to be a factor in type 2 diabetes; however, there is some disagreement as to which parts of our diet could be responsible.

Saturated and Trans fats, processed foods and excessive carbohydrate having all been mooted as possible causal factors.

Gestational diabetes is a form of diabetes that specifically comes on during pregnancy. During the second and third trimesters of pregnancy, with requirements for insulin already growing, hormones released by the placenta can lead to insulin being less effective.

If the mother's body struggles to produce enough insulin, blood sugar levels can rise resulting in gestational diabetes.

Type 2 Diabetes Causes:

Type 2 diabetes causes are usually multifactorial - more than one diabetes cause is involved. Often, the most overwhelming factor is a family history of type 2 diabetes.
This is the most likely type 2 diabetes cause.

There are a variety of risk factors for type 2 diabetes, any or all of which increase the chances of developing the condition.

These include:

- Obesity
- living a sedentary lifestyle
- increasing age
- bad diet

1.5 Coronary Heart Disease:

Person’s cardiovascular system, the network that connects your heart and blood vessels, is your highway of life. Unfortunately, there are accidents along this highway in the form of cardiovascular disease (CVD, or heart and artery disease). CVD is leading cause of death, most often as the result of heart attacks or strokes. Coronary heart disease (CHD) is the major form of cardiovascular disease, accounting for about 700,000 deaths annually, mostly from heart attacks. CVD is the leading cause of death for both men and women, claiming even more women’s lives than breast cancer.

In coronary heart disease, the flow of blood to the heart is insufficient to meet the heart’s needs. The underlying disease process in CHD is called arteriosclerosis, or “hardening of the arteries,” a condition in which artery walls become thicker, harder,

And less elastic, which makes it more difficult for blood to flow freely. The major
Underlying cause of arteriosclerosis is atherosclerosis, a process involving the build-up of fatty deposits along artery walls that leads to the formation of artery-clogging plaque. If a blood clot should form in an artery narrowed by plaque, it may nearly or completely block the flow of blood to the heart. The result is a heart attack. A life-threatening event in which heart tissue dies due to a lack of oxygen-rich blood. When a blood clot blocks the supply of blood in an artery serving the brain, a stroke can occur, leading to death of brain tissue that can result in loss of function controlled by that part of the brain, coma, or even death.

In CHD risk factors play very important role. In which, some risk factors we can't control, such as age and family history. But a number of risk factors can be controlled through medical treatment or lifestyle changes—factors such as high blood cholesterol, hypertension (high blood pressure), smoking, overeating, heavy drinking, consuming a high-fat diet, and leading a sedentary lifestyle (e.g., Mendelsohn & Karas, 2005; Panagiotakos et al., 2005; Pickering, 2003).

Frequent emotional distress in the form of anger, anxiety, and Depression can have damaging effects on the cardiovascular system (Frasure-Smith Lespérand, 2005; Geipert, 2007; Orth-Gomér et al., 2000). Researchers highlight the toxic effects of chronic anger on the heart. Occasional feelings of anger may not damage the heart in healthy people, but chronic anger—the type you see in people who seem angry all of the time—is linked to increased risk of CHD (Kiecolt-Glaser et al., 2002; Pressman, & Cohen, 2005; Rutledge & Hogan, 2002; Steptoe, Wardle, & Marmot, 2005). Moreover, earlier research had linked a Type A pattern to a higher risk of CHD. Anger and other negative emotions might be contributed to heart disease. Investigators says that the stress hormones
epinephrine and nor epinephrine play significant roles (Januzzi & DeSanctis, 1999; Melani, 2001). Anxiety and anger trigger the release of these stress hormones by the adrenal glands. These hormones increase heart rate, breathing rate, and blood pressure, which results in pumping more oxygen-rich blood to the muscles to enable them to prepare for defensive action—to either fight or flee—in the face of a threatening stressor. In people who frequently experience strong negative emotions such as anger or anxiety, the body may repeatedly pump out these stress hormones, eventually damaging the heart and blood vessels.

Other forms of stress are also linked to increased cardiovascular risk. Researchers in Sweden, for example, find that among women, marital stress triples the risk of recurrent cardiac events, including heart attacks and cardiac death (Foxhall, 2001; Orth - Gomér et al., 2000).

1.6.1 Stress and Heart Disease:

Since the late 1950s, stress has been scientifically linked to heart disease. It makes logical sense that stress, which causes the heart rate and blood pressure to rise, would in large quantities and over a period of many years put strain on the heart. A 1958 study by Ray H. Rosenman and Meyer Friedman showed a link between stress and coronary heart disease, and many studies since have corroborated that evidence. While stress causes many conditions that contribute to heart disease, the direct link between stress and heart disease hasn't been medically identified. The proof right now lies in that people who have abundant stress more frequently have heart disease, and those who have less stress have less chance of heart disease. What has not been determined is if the stress itself leads to the disease or if the stress-related conditions lead to the disease.
There are many repercussions in the body from the presence of abundant stress that may lead to heart attacks. Chronic stress leads to very elevated levels of the hormones adrenaline and cortisol which may put extra strain on the body. Cortisol has been connected with excess weight gain, which is often connected with the development of cardiovascular disease. Stress often causes people to attempt to fight this condition with a cover-up effect of smoking, alcohol and overeating. All three of these "band-aid" methods contribute to heart disease. In some cases, stress has been known to cause chest pain and irregular heartbeats. It has also been linked to changing the blood's ability to clot, which can lead to a possible heart attack. A strange but true fact is that more heart attacks occur on Monday than on any other day of the week, the day that is most often association with an end to relaxation and the beginning of a stressful five days in a row.
Narrowed Plaque artery

A Normal artery

Artery wall

Artery cross-section

B Narrowing of artery

Normal blood flow

Abnormal blood flow

Plaque

Narrowed artery

Plaque
Left coronary artery
Circumflex branch of left coronary artery
Right coronary artery

Plaque build up in the coronary artery blocking blood flow and oxygen to the heart

Damage and death to heart tissue shown in purple
1.6 Importance of the study:

After getting explanation about the topics of this study, it is important to know the relation between the topics and why this study has to be done.

The brain and the body are intimately linked and long term stress can put a profound pressure on our body. Therefore, there is a two-way relationship between physical health and stress. People know that when individual is under long term stress, his physical health can begin to suffer. However, it can be pretty difficult to avoid stress at certain times in our lives. What one can do is these challenging times is learn to take good care of his body so that he is more resilient to stress. So person becomes more conscious about his health and try to understand his health problems and attitudes and mindset towards eating style. And it is a good sign that the more one take care of his physical health, the more he is able to cope with stresses and strains of his life and works. But every time and in long term health problems person can’t take care of himself. There comes disturbance with their health behaviours.

Therefore here in this study, tried to know how stress affect to the health behaviour among the people who are suffering from diabetes and CHD and who are not suffering from any disease.

1.8 Definition of some the important words:

1) Stress:

“Stress is the body’s reaction to a change that requires a physical, mental and emotional adjustment or response.”
“Stress can come from any situation or thought that makes you feel frustrated, angry, nervous or anxious.”

2) Health Consciousness:

“Health Consciousness is a new concept. It is the tendency to focus attention on one’s health. Where individual with more health conscious have better quality of life. It is related to self consciousness, monitoring, nutrition, satisfaction, energy and cautiousness.”

3) Eating Attitude:

“Alvarenga et. al. defined Eating Attitudes as one’s beliefs, thoughts, feelings, behaviours and relationships with food and many studies in this area of knowledge also use the term attitude to describe thoughts, feelings and beliefs regarding eating.”

4) Diabetes:

“Diabetes is a group of metabolic diseases in which a person has high blood sugar, either because the pancreas does not produce enough insulin, or because cells do not respond to the insulin that is produced.”

5) Coronary Heart Disease (CHD):

“CHD is caused by atherosclerosis of the coronary arteries, plaques in the coronary arteries can abstract blood flow to the heart muscle which can produce angina. If a coronary artery plaque rapture a heart attack can occur.”

6) Male:

Means who are relating to or characteristics of man.
7) Female:

   Means who are relating to or characteristics of woman.

8) Diabetic patients:

   Means the people who are suffering from disease called diabetes (for definition of diabetes please refers definition no. 4)

9) CHD patients:

   Means the people who are suffering from disease called CHD (Coronary Heart Disease) (for definition of CHD please refers definition no. 5)

10) Normal people:

    In this study, normal people mean who are not suffering from CHD & diabetes and normal in health.

11) Rural people:

    In this study, rural people mean who are living in rural area.

12) Urban people:

    In this study, urban people mean who are living in city area.

13) Factors of Health Consciousness:

   - **Self & Practice** factor indicates one’s general healthy behaviours such as having enough sleep, living in healthy atmosphere and marinating good social relations and ability to feel responsibility for his or her health conditions.
• **Monitoring** factor indicates one’s efforts to meet the medical needs, such as consulting doctors, having regular checkups and bring in other resources to meet these needs.

• **Nutrition & Satisfaction** indicates one’s preference for healthy and nutritious food and his or her satisfaction with regard to health and physical fitness.

• **Energy** indicates one’s awareness of the importance of physical fitness and his or her behaviours to maintain energy levels.

• **Cautiousness** indicates one’s preparedness to meet potential health threats.