CHAPTER 1

An Introduction to Stress
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- Meaning of Stress
- Background of Stress
- Nature of Job Stress
- Sources of Job Stress
- Consequences of Job Stress
- Individual Differences & Stress
- Coping strategies for Stress

What is Stress?

Stress is perhaps the most common problem of everyday life. Pressures, demands and changes are the factors that result in a condition called ‘stress’. Stress is omnipresent in people’s lives both on and off the job. It can’t be removed completely from the lives of human beings. Most of the human beings at one time or another experience sleepless nights, anxiety, nervousness, headache or stomachaches.

Stress is the experience of opportunities or threats that people perceive as important and fear that they might not be able to handle or deal with them effectively. Opportunities such as learning new skills or getting a new job can prove stressful if the worker lacks self-efficacy due to the fear that he or she will not be able to perform to the expected level. Employees also feel stressed when the organization decides to downsize the workforce due to financial insecurity or career development.
Background

Stress is essentially a global problem. Although the stress causing factors may differ, but virtually everyone has some stress. The stressors like the increasing population, pollution, traffic, dual incomes, delayed child-bearing, retirement and the quality of life for aging population differ from country to country. Downsizing and increased competition, transfers and relocations, adapting to new cultures and countries are the common stressors at global level.

In fact stress is not always harmful rather it is necessary to survive. Some stress is important but too much can prove harmful. Generally when we speak of stress, we refer to harmful or disease producing stress - it is called distress. The stress that is beneficial or necessary for us is called eustress. There are two variations of distress and eustress - physical and mental. There can be physical and mental distress as well as eustress. To differentiate between distress and eustress it is essential to know the context. For example being chased as a part of sport or game is physical eustress whereas being chased by a mugger is physical stress. To illustrate more, reading a magazine is mental eustress but reading five chapters in an hour to prepare for examination is mental distress.

Basic Responses to Stress

People respond to stress basically in two ways - fight or flight. With the fight response one try to defend oneself fully. The pulse, blood pressure and breathing increase markedly and adrenaline is released. The digestive system shuts down as blood is diverted from internal organs to skeletal muscles. This happens in the case of stress due to physical threat only. But the world is going through the mental distress now a days and the reaction to mental distress is same as the physical stress.

Another response is flight response. It prepares people to escape distress rather than to face it. This response does not affect the pulse rate, blood pressure, breathing and digestive system adversely. Less strain is placed on the nervous
system. The response depends a lot on the nature and behaviour of the individual concerned. Choosing the right kind of response can be the key to coping with distress and living healthier. Choosing to respond to distress with a fight response is called catastrophic reaction while choosing a flight response is syntactic response. Except in life threatening stress, it is advisable to choose syntactic response as most of the stress is mental rather than physical in today’s modern times. Choosing the catastrophic response to fight emotional distress results in increased blood pressure, heart rate, hormonal release, gastric secretions, headache, ulcers, irritable bowel syndrome and even heart attack. Syntactic response to distress reduces these effects, though it requires a great deal of practice at physical, psychological and spiritual levels.

Nature of Job Stress

Stress is a concept that has interested psychologists for many years, early studies of stress were done within the field of medicine. In the first decade of this century, physicians described the relationship between certain personality patterns and subsequent diseases.

Certain models of stress were developed and described to explain the conditions and situations which generated stress and adverse impact on performance health and quality of life. They were of the opinion that exposure to a constantly changing work environment might manifest in form of poor performance, productivity and ill health. Stress models were developed with the following objectives:

1. To recognize the response to stress in behavioural, emotional and physical terms;

2. To understand the differences between adaptive and maladaptive stress coping strategies.

3. To define and clarify what we mean by the word, 'stress'.

4. Identify potential sources of stress in our environment.
For the past six to seven decades research is going on in the field of medical, social and behavioural sciences to understand the complex nature of stress and its response. Each discipline investigated and attempted to explain stress from its own unique perspective. Three models of stress were developed on different perspectives:

1. Response based model of stress,

2. Stimulus based model of stress and

3. Interactive model of stress.

These models help to explain the ways in which stress is perceived and operationalized. These models help to understand the origins and the evolution of stress as well as suggest ways and means to manage stress in the workplace.

If people are asked to write down the words or phrases which immediately come across in their minds when he or she thinks about “Stress”, it will be found that most of the words are negative in terms. Everybody perceive stress as a bad and unwanted conditions commonly known and termed as 'depression', 'feeling out of control', 'overworked', 'migraine or headaches', 'time pressures'. 'panic attacks', 'anxiety', 'cannot sleep', by individuals. So, mostly, stress is regarded as a negative experience for the individual.

A response-based model of stress

As is explained above the response to the stress is regarded as strain, tension or pressure by lay person. People generally use the expressions like 'he or she is under stress' or 'I feel very stressed', which are the manifestations of the stress response. In response-based model of stress these expressions are called as an 'outcome' described as the 'dependant variable' in research terminology.
The response-based model (figure 1.1) is viewed with physiological perspective. The origins of response-based definitions of stress are found in medicine. The logical stances of this model are used to diagnose and treat symptoms to know the cause of the condition. For example, John Locke, the seventeenth century physician and philosopher proposed that intellectual functioning, emotion, muscle movement and the behaviour of internal organs was the product of sensory experiences processed by the brain. Links were established between life experiences, emotions and the importance of hormonal and chemical actions in the body through such findings.

By the early medical practitioners and research scientists, emotional stress was considered as a cause for ischaemic heart disease (IHD) (Claude Bernard 1860). Ischaemic heart disease occurs due to cardiac disability arising from imbalance between the supply and demand of oxygenated blood to heart muscles. It develops due to the narrowing or obstruction of coronary arteries which supply blood to the heart. Ischaemic heart disease is the leading cause of death in most industrialized countries. Chronic stress with sedentary lifestyle leads to development of IHD.

Ischaemic heart disease is wear and tear of the heart muscles. Due to high level of anxiety, the heart have to function more which results into rapid muscle damage and increased heart beat. The person feels pain in chest after regular intervals.
Angina pectoris is a clinical syndrome of IHD. It is characterized by attacks of pain in the chest region following physical exertion or emotional excitement and is relieved by rest. Often the pain radiates to the left arm, neck, jaw or right arm. As per Osler (1910) high incidence of angina pectoris were due to the hectic pace of life among Jewish businessmen. As per Franz Alexander, a psycho-analyst and Frances Dunhar, a physician personality patterns and constitutional tendencies were outcome of certain organic disorder. It was described as the psychosomatic theory of disease.

The systematic study Wolf and Wolf (1943) was based on changes in stomach activity in response to stressful situations. They also documented the changes in blood flow, motility and secretions of the stomach, with feelings of frustration and conflict produced during their experiments on various patients. As per their findings, sadness, self-reproach and discouragement were responsible for hypo-secretion of acid and ulcers. Hostility and resentment were associated with a high increase in gastric secretion and acidity. These studies helped in scientific study of psychosomatic medicine.

In 1936, Hans Selye introduced the concept of 'general adaptation syndrome' (GAS) for stress-related illnesses. As per his observations and findings all patients, whatever the disease, look and feel sick. The general symptoms of this 'general adaptation syndrome' were reflected in the form of lack of motivation, appetite, weight and strength. Most of Selye's experiments were with animals and he was able to demonstrate internal physical degeneration and deterioration as a result of exposure to stress. According to Selye, the reasons for diseases occurring due to adaptation problems were due to genetic predisposition, gender, learning experiences and diet, etc. He was of the view that the response to stress depends on the nature of stressor. He described three stages of response or reactions of stress under GAS – the alarm, resistance and collapse. The alarm reaction is the immediate psycho-physiological response and at this time of initial shock, our resistance to the stressor is lowered. After the initial shock phase, the counter shock phase can be observed and resistance levels begin to increase. At this time our
defence mechanisms are activated, forming the reaction known as the 'fight or flight response' (Cannon, 1935).

![Figure 1.2: General Adaptation Syndrome (the 'GAS')](image)

The above graph describes the process of 'GAS'. During the 'fight or flight' response, our body prepares itself to take action. Increased sympathetic activity results in the secretion of catecholamines that make the body ready to act. The internal physiological changes initiated by hormones provides us with energy from the metabolism of fat and glucose. This causes increased delivery of oxygen to muscles through an increased number of red blood cells in the circulation, increased blood flow to the muscles, with reduced blood flow through the skin and the gut. So, our breathing becomes more rapid, the heart beats faster and our blood pressure increases. The spleen contracts and blood supplies are redirected from the skin and viscera to provide an improved blood supply to the brain and skeletal muscle. Glucose stored as glycogen in the liver is released to provide energy for muscular action; blood coagulation processes become enhanced, and the supply of blood lymphocytes is increased to combat the impact of injury and infection from wounds.

The following table illustrates the physiological changes experienced when people are in the alarm stage of the stress response.
<table>
<thead>
<tr>
<th>Organs or Tissue involved</th>
<th>Reaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lungs</td>
<td>Airways dilate and breathing becomes more rapid and deeper</td>
</tr>
<tr>
<td>Heart</td>
<td>Increased rate - the heart beats faster and harder; we can experience palpitations and chest pains</td>
</tr>
<tr>
<td>Legs / arms</td>
<td>An experience of muscle tension or tingling in the arms and legs as the electrical balance of the cells in the muscles undergoes change</td>
</tr>
<tr>
<td>Liver and fat tissue</td>
<td>Mobilization of glucose and fats for energy to fuel muscles</td>
</tr>
<tr>
<td>Brain</td>
<td>Increased mental activity to be alert for quick decision making</td>
</tr>
<tr>
<td>Skin and sweat glands</td>
<td>Increased sweating; hands and feet (extremities) often feel cold as blood supplies are diverted to the brain and the muscles; hairs stand erect and we experience 'goose-pimples'.</td>
</tr>
<tr>
<td>Salivary glands</td>
<td>Decreased flow of saliva; the mouth feels dry</td>
</tr>
<tr>
<td>Gut muscles</td>
<td>Gut activity is slowed; blood supply is reduced and we might experience indigestion or the feeling of a 'knotted' stomach because digestive processes stop or slow down</td>
</tr>
<tr>
<td>Spleen</td>
<td>Contracts and empties red blood cells into the circulation</td>
</tr>
<tr>
<td>Kidneys</td>
<td>Reduced urine formation</td>
</tr>
<tr>
<td>Ears</td>
<td>Hearing becomes more acute; people under extreme stress often report feeling very sensitive to noise</td>
</tr>
<tr>
<td>Eyes</td>
<td>Pupils dilate as an aid to keen vision; vision can become blurred if oxygenated blood is impeded in getting to the brain as blood vessels in the neck constrict.</td>
</tr>
<tr>
<td>Blood</td>
<td>The action of cortisol produces and increased ability for blood clotting; the immune system is activated to prevent infection.</td>
</tr>
</tbody>
</table>

It can be said that stress and the stress responses are good for evolutionary process and contribute towards development of society. The response to stress is both adaptive and vital for survival. In the early stages of civilization, man had simple choices to make. Either to stand and fight an enemy, or run away from a threatening and potentially dangerous situation. But in contemporary society people face a dilemma because neither of these options is considered to be
appropriate behaviour in the workplace. In the work environment there is no opportunity to indulge in physical action and thereby dissipate the physiological effects that then become dominant and can cause distress. Workers cannot physically fight to escape workplace stress, but neither can we turn and run away from the situations that they must continue to meet, without losing face, every day at work.

Since many individuals also lead increasingly sedentary lives at work and at home, they are denied both the aggression release and the physical activity necessary to quickly remove the build-up of hormone and chemical secretions. Fats released to fuel muscle actions are not used and so people have elevated blood lipids. The fat deposits that are not used are likely to be stored on the lining of the arteries. This means that the blood pressure increases as the heart works harder to pump blood around the body through these smaller capillary openings. If one of the clots breaks away from the lining of an artery and finds its way to the heart or the brain, it will cause a stroke, or heart attack (thrombosis).

Coronary heart disease can, therefore, be caused by indirect effects, namely the stress-physiological consequences of sustained active distress on increase of blood pressure, on elevation of blood lipids and blood platelet, and on impaired glucose tolerance and related metabolic processes (Siegrist, 1997).

There is a direct link between high level of psychosocial stress and the hypertension due to high levels of blood lipids not attributable to diet and high fibrinogen (a soluble protein in blood plasma, converted to fibrin by the action of the enzyme thrombin when the blood clots). In addition to diseases of the heart individuals are also likely to suffer from ulcers, troubles with the gastrointestinal tract, asthma, colds and flu, and various skin conditions such as psoriasis, caused by exposure to mismanaged stress. These problems are likely to be aggravated as people do not adopt suitable, adaptable and positive techniques to manage stress.
Due to the continued resistance to a stressors and lack of proper management to stress the body is not able to relax or come to an equilibrium state. When the alarm reaction becomes frequent and intense over the period of time, the energy stored in body gets depleted and this results in exhaustion, collapse or death. As per the findings of Selye, resistance cannot continue indefinitely despite sufficient energy as every biological activity causes wear and tear and leaves some irreversible chemical scars which accumulate to constitute signs of ageing.

Later researchers challenged the GAS model as it does not include the issue of psychological response to events. It is acknowledged that this model is too simplistic. It includes physical effects due to physical reasons and not the psychological effects due to psychosocial stress.

A stimulus-based model of stress

This model was envisaged in fifth century by Hippocratic physicians. According to this model, certain conditions in the external environment are linked with health and disease. They were of the view that some external force impinges upon the organism in a disruptive manner. This concept says that the word stress derives from the Latin word, 'stringere', which means to bind tight. The stimulus-based psychological model of stress has its roots in physics and engineering. The analogy of this model defines stress as a force exerted, which results in a demand or load reaction that causes distortion.

The scholars were of the view that both organic and inorganic substances have tolerance levels, which if exceeded, result in temporary or permanent damage. The adage, 'it is the straw that breaks the camel's back', goes with the stimulus-based model of stress. Every individual has got capacity to bear the stress from external environment. It is observed that though an individual is bombarded with many factors of stress in the environment, but beyond that limit even one minor or innocuous event, can distort the mental and physical balance.
This model became popular due to emerging industrialization and stress amongst the blue-collar workers. The model tries to identify sources of stress in the blue-collar work environment. Considerable attention was paid to actual physical working conditions and task circumstances, such as exposure to heat, cold, light levels and social density. Workload conditions, either overload and under-load were explored and understood within this framework. But it was realized by the other research scholars that purely environmental conditions were not responsible for stress. The other stress factors were individual differences, variability in tolerance levels, personality traits, past experiences (learning and training), needs, wants and expectations. According to this theory, if two individuals are exposed to exactly the same situation they will react in completely different ways. A stimulus-response model of stress is based of physical conditions only and does not take into consideration the other environmental factors and it is a major weakness of this model.

Figure 1.3: A stimulus based model of stress

Although this model have certain limitations, but it can be useful in identifying common themes or patterns of stress which affect the majority of work force.
Different organizations use different models to prepare guidelines for their stress management programme. The response based model of stress considers stress as something inherent to the person and this allows them to transfer responsibility to the individual. The programmes so organized only help the employee to cope with stressor or stressing situations but do not remove or eliminate the origin of stress. The organizations which favour a stimulus-based model of stress try to manage the stress situation but do not take into account the needs of the individual concerned. Both of these models have limitations and weaknesses.

Industrialization brought many problems associated with physical and task-related sources of strain and pressure. Poor working conditions caused diseases such as tuberculosis and pneumonia that often led to early death. Legislation regarding health and safety requirements in the workplace resolved many of these unsatisfactory conditions. However, contemporary industrialization and new technology brought different problems which caused new forms of illness, for example, upper body limb disorder, often known as repetitive strain injury (RSI), and psychological ill-health (for example, the problems of sick building syndrome), or increased accidents at work. The concept of quality of life has brought a new meaning to the concept of health. It not only means an absence of disease or infirmity, but a satisfactory state of physical, mental and social well-being (WHO, 1984). Well-being is a dynamic state of mind, characterized by reasonable harmony between a worker's ability, needs, expectations, environmental demands and opportunities.

Keeping in view the above an interactive or transactional model of stress was developed which considers the stressor source, a perception of the situation or event, and the response. It was considered to be the most useful approach for providing a guideline for the study and management of stress.
An interactive model of stress

An interactive model of stress incorporates both the response-based and the stimulus-based models of stress. There are five features of this model:

1. Subjective Appraisal: Stress is regarded as a subjective experience depending upon the perception of a situation or event by an individual. That is, 'stress is not simply out there in the environment' (Lazarus, 1996). As is quoted in 'Hamlet' by Shakespeare, 'There is nothing good or bad, but thinking makes it so'.

2. Experience: The coping strategy of any individual depends upon his/her perception about a particular condition or situation. The perception is formed by his familiarity with the circumstances, previous exposure to the event, learning, education and training or his actual ability. All this forms the base for his success or failure in coping with the demand.

3. Demand: Pressure or demand is the product of actual demands, perceived demands, actual ability and perceived ability to meet that demand. Needs, desires and the immediate level of arousal all influence the way in which a demand is perceived.

4. Interpersonal influence: A potential source of stress is not perceived in a social vacuum. The presence or absence of other people or work colleagues will influence our perception of stress. Thus, background and situational factors influence the subjective experience of stress, response and coping strategy. The presence or absence of other people can have positive as well as negative influence. Sometimes the presence of other people can result into distraction, irritation or unwanted arousal. But on the other hand the colleagues can provide a support network that can help to boost confidence, self-esteem, providing confirmation of values and sense of recognition.
A state of Stress: As per this model, stress is acknowledged as an imbalance between the perceived demand and perception of one's ability to meet the demand. This imbalance is resolved by the coping processes and the strategy applied to cope up with the situation. Successful coping strategy restores balance and unsuccessful may result into more stress. This either results into short term maladaptive strategies like need for alcohol, lighting cigarette or taking sleeping pills or might have long term effects in due course of time like heart disease, ulcers or cancer. For example an accident at work can have short term as well as long-term affects of stress on different individuals depending upon their perception. Sometimes one can resort to short term escape or solutions if the demand can't be altered. For example if one is forced to work in night shifts he might start smoking more or use sedatives as a coping strategy.

<table>
<thead>
<tr>
<th>Environment</th>
<th>Individual</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential source of stress = Actual demand + background and situation factors</td>
<td>Attitudes, wants, needs, desires, personality etc. + age, gender, education level = actual ability</td>
<td>Imbalance = strain or distress</td>
</tr>
<tr>
<td>judgment of threat (subjective appraisal) = perceived demands and perceived ability to cope with demand</td>
<td></td>
<td>coping successful unable to cope</td>
</tr>
<tr>
<td>Feedback</td>
<td>Feedback</td>
<td>Feedback</td>
</tr>
</tbody>
</table>

Figure 1.4: Stress Perception - an Interactive Model of Stress

So the interactive model of stress acknowledges that situations are not inherently stressful, but are potentially stressful, and it is necessary to take account of:

- the source of stress
- the mediators or moderators of the stress response
- the manifestation of stress.
This model too has certain limitations as it infers to some static situation but the response to stress is a dynamic process. However, the model is useful where certain personality traits are relatively stable. For example, it is observed that introverts under stress from role conflict will tend to reduce contact with other people and will further irritate work colleagues by appearing to be too independent. Extroverts, attempting to define the role will increase their efforts thereby adding to the strain. This means that the introvert's coping strategy of defensive withdrawal is ultimately maladaptive. An understanding of such differences between introverts and extroverts can help to avoid potentially stressful interpersonal conflict situations. It has also been noted that 'rigid' personality types tend to avoid conflict. They rely on compulsive work habits and show increased dependence on authority figures when under threat. 'Flexible' people, however, are more likely to respond to a conflict situation by complying with work demands and seeking support from peers and subordinates. This compliance strategy can lead to work overload problems. Also, reliance on those of equal or lower status does not help to resolve the stressor situation because it is often the boss or superior who sets out the work expectation that is the source of stress. Thus, the 'rigid' and the 'flexible' personality types create very different problems in the workplace in response to stress and may ultimately be more suited to some work environment more than others.

The above-mentioned models increase the understanding of the nature of stress. The most recent 'transactional' models of stress are indicative of the complexity of the concept. In reality, however, models still tend to oversimplify the problem to the extent that the issue of stress can seem to become trivialized. As Schuler (1980) says, 'it is too all encompassing a phenomenon, too large to investigate'. Yet this has not deterred interest into the topic. However, this high level of interest and popularity is not always positive. Indeed, incorrect usage of the word 'stress' is common and it is now used interchangeably to refer to a state or condition, a symptom, or the cause of a state or a symptom. There are problems of definition and about the meaning of the word, 'stress'. The words, 'stress', 'pressure' and
'strain' are readily used in an interchangeable way to describe feelings, emotions or situations. The layperson seems quite able to identify with the concept of stress and has an appetite to know more. This need is served too eagerly by the press and media. Without a doubt, certain individuals hope to make a quick profit from 'being stressed' at work.

This situation creates problems for the effective management of stress because stress is often wrongly blamed for all the ills. It is now seen as the cause of all problems. It has become a 'whipping boy' and it is certainly misunderstood. Many individuals continue to view stress only in negative terms or even prefer to deny that any problem exists. Prevalence of this view is likely to be detrimental to the effective management of stress in the work environment because it is synonymous with not coping. Generally people tend to hide their work problems and health condition until they become victims of exposure to stress. What they really need is encouragement to try to actively and positively manage the strains and pressures that are an inevitable part of their professional and personal lives.

So, it is vital to acknowledge that not all stress is bad. Hans Selye, the acknowledged 'father' of stress research said that the only person without stress was a dead person. By this Selye meant that stress is an inevitable part of being alive, and should be viewed as 'stimulation to, growth and development...it is challenge and variety, it is the spice of life'.

Sources of Stress

Though there are many sources of stress in our internal and external environment, Marshall and Cooper suggested six categories of stressors (sources of stress) which are described in figure 1.5.

i. Stress in the job itself – work conditions, physical work environment, hours of working, decision making latitude etc.

ii. Role-based stress : role conflict, role ambiguity and job responsibility

iii. Stress due to changing nature of relationships with other people at work – subordinates, managers, supervisors and co-workers.
iv. Career stress: lack of opportunity for career development, promotion and job insecurity.

v. Organisational structure and climate: stressful culture and politics, restriction on work behaviour and lack of sense of belonging.

vi. Stress with home and work interface: loyalty, demand at office and at home, life events and crisis.

<table>
<thead>
<tr>
<th>Stressor factors</th>
<th>Individual differences</th>
<th>Symptoms of stress (outcomes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The job</td>
<td></td>
<td>The individual</td>
</tr>
<tr>
<td>Job Role</td>
<td></td>
<td>The organisations</td>
</tr>
<tr>
<td>Career</td>
<td></td>
<td>Society</td>
</tr>
<tr>
<td>Relationships</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Being in the organisations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The job</td>
<td></td>
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</tr>
</tbody>
</table>

Figure 1.5: Six categories of sources of stress (stressors)

Stress in Job
The work overload, the need to work long hours, changing patterns of employment and changing technologies are the sources of pressure which exist in work environment. These factors exert physical demands and potential for distress caused by noise, vibrations, extreme temperature, inappropriate lighting and poor hygiene.

Workload
Both overload and under-load are potential sources of stress in the workplace. Certain level of arousal (stimuli) is needed for optimal performance. In optimal state one feels creative, calm and highly motivated to do the job well. When the
arousal exceeds the ability to meet the demand placed upon one, this results into burnout, exhaustion and collapse. This phenomenon is explained in the figure 1.6.

If one does not feel challenged or stimulated by the job, or does not feel that his/her contribution is valued, the feelings of apathy, boredom, poor morale and lack of self-esteem crop up. The individual stays away from work complaining that they are sick of their job. There is additional distinction between quantitative and qualitative over-load and under-load. Quantitative overload occurs when the employee is given too many tasks or responsibilities to complete within specified period of time. Qualitative overload or under-load when the employee does feel capable of doing the prescribed job or the job does not utilize his full potential, skill or ability. The overload and under-load result from irregular flow of work beyond the control of the employee. Such condition is faced not only in manufacturing organizations but also in service sectors like air traffic, fire fighters, traffic controller, pilots etc. They sometimes feel low during the period of inactivity but spring to action when the demand arises.
It has been proved by various research studies that physical and mental overloads prove to be potent sources of stress. Working under pressure to meet deadlines is an independent sources of stress and the stress level begin to rise when the deadlines draw nearer. Quantitative overload has a direct link with cigarette smoking, heart diseases and even certain cancers. Both quantitative and qualitative overloads give rise to depression and anxiety. Even the blue collared workers feel overloaded when they are not able to meet the pace of work. This results into poor motivation, escapism, addiction and low self-esteem.

The quantitative under-load is known as rust out. It results in boredom and apathy. The boredom and apathy results in inattentiveness. Lack of challenge is the major source of job dissatisfaction.

Qualitative overload manifest itself as a low self-esteem amongst white-collar workers. It can be experienced amongst blue collared workers when they are promoted to supervisory positions and due to lack of past experience they are not able to cope up with the situation. Though rewarded with promotion such employees face considerable stress due to lack of knowledge and fear of being punished.

Qualitative under-load proves to be damaging, as the individual does not get any opportunity to use acquired skills and abilities to develop potential. Such dissatisfaction arises as the needs and expectations of the individual from the job are not fulfilled. For example when the new graduates or newly pass out professionals join their first jobs, they might feel qualitative under-load due to their high expectations from the job. Unrealistic job previews are major source of this type of stress.

New technology like inception of computers lead to the increasing automation of industry and simplification of work. The repetitive, simple and short cycle jobs due to automation can cause qualitative under-load at work.
From the above it is evident that overload and under-load both are the sources of strain. Aided by rapid technological developments, many organizations have downsized or right-sized to continue meet increasing competition at domestic and foreign markets. Thus there are fewer employees in more work with high level of demand.

The down or right-sizing, adoption of new technologies and global market pressures have resulted into a new pattern of employment which is again a potential source of stress – increased workload with increased hours of working. Simply having too much to do in the normal working day can result in a need to work overtime. This can be either paid or non-paid work. Also the employee who struggles to do a job that is too difficult (qualitative load) is likely to end up working long hours because he or she will take more time to complete the task to desired standard.

The need to work long hours has been associated with poor lifestyle habits like heavy smoking, inadequate diet and lack of exercise problems. This leads to health problems. Following are some findings related to workload:

i. A study on light industry workers under 48 years of age in USA found that people working more than 48 hours per week had twice the risk of Coronary Heart Disease as compared to similar individuals working 40 hours or less in a week. (Study by Breslow and Buell 1960)

ii. A study conducted on 100 coronary patients, showed that 25% of coronary patients out of 100 had been working at two jobs and 40% had worked for more than sixty hours a week. (Russek and Zohman 1958)

iii. Another study was conducted on long working hours and occupational stress related cardiovascular attacks among middle-aged workers in Japan between the age of 21 to 67 years. The subjects were from the families of 203 Japanese Karoshi who had fatal attacks due to work overload. Out of these 196 were men and 7 women. The causes of death comprised 123 strokes, 50 acute cardiac failures, 27 myocardial infarctions and four aortic ruptures. It was
found that two third of the subjects worked for long hours. The white collar subjects need to take excessive business trips and changes of workplace. 88 of these subjects had experienced work-related emotional anxiety or excitement, rapid increase in workload, unexpected work troubles or environmental changes 24 hours before the fatal attack. (Uehata 1991)

iv. As per a psychosomatic study on 46 young men with coronary artery disease it was found 50% of the patients were working long hours with few holidays and were under considerable strain. Both questionnaire and interview method was adopted to conduct the study. (Waldfogel and Cobb 1954)

v. Another research was conducted on relationship between creative climate and perceived stress among 202 male respondents working at all levels of management in an organization. It was found that the stress level increased with the decrease in creative climate. (Talbot, Cooper and Barrow 1992)

vi. A study on the 561 managers of a UK construction company also revealed adverse impact of long working hours on health. Due to the work and peer demands the managers were pressurized to come early and stay late. It was a common belief amongst the managers that for promotion and lucrative pay scales they have to demonstrate a strong commitment by giving long hours to the company. On a stress audit screening most of the managers were significantly worse in terms of psychological health and were suffering from depression and job dissatisfaction. They reported the cause to be role ambiguity, work overload, manpower problems, imbalance between work and home.

vii. Other studies conducted on senior and top executives reflect the similar scenario. Their top sources of stress were work overload, time pressures and deadlines, frequent travels and long working hours. This was affecting their home and social lives. Significant physiological and psychological health symptoms were found due to long hours of work and stress. Adverse health problems depend on the nature of job. It was observed that impact of long
hours of work is greater in jobs that require more attention (like driving) or repetitive in nature. It was observed that certain amount of physical activity at work can protect the individual from heart disease and other psychological ailments.

Keeping the increasing adverse affects on health many organizations have introduced less working hours, increased leave days and have promoted other recreational activities to lessen the boredom at work.

Physical Work Environment
Apart from the work demands of the job, there are physical aspects of the job stress. These include distress caused by noise and vibration, extreme temperature, lighting and hygiene factors. Many researchers have established links between physical conditions of the workplace and productivity level. The significance of relationship between physical conditions and work performance were reflected in Hawthorne Studies based on subjective reactivity. More recent researchers found that unpleasant work conditions, necessity to work at fast pace, expend a lot of physical effort and work excessive and inconvenient hours were associated with poor mental health. They stressed to consider poor physical environment a source of strain in the workplace. The European Foundation for the Improvement of Living and Working Conditions survey of 1996 found that stressful physical environment, characterized by noise, polluted air, heat cold and vibrations, carrying heavy loads and working in painful or tiring positions were still prevalent.

While language and sounds are complementary to each other and enrich human culture, ‘acoustic sound’ is considered to be a source of stress. Loud and consistent noise can result into occupational deafness. It also increases a person’s level of arousal and psychological imbalance. Exposure to noise impedes hearing ability and can result into dangerous situation if a ‘wanted’ sound is not heard. For example an accident can occur if warning sounds are not heard. Research is going on about the level of noise, which results in arousal and stress. Some research
suggests that excessive noise of approximately 80 decibels if occurring on prolonged basis can cause stress. (Ivancevich and Matteson 1980). The pain threshold is 140 decibels and the normal conversational speech is 70 decibels. Unexpected noise creates stress. Reaction to noise is a subjective experience. Exposure to noise may result into fatigue, headache, irritation and poor concentration. The behavioural consequences can be poor performance, low productivity and occurrence of accidents. It has also been noticed that it can increase levels of hostility and aggression. As per a research conducted by Jones in 1983 individuals exhibit a more extreme or negative attitude towards other people when exposed to noise.

Exposure to noise at work for three to five years at 85 decibels or more can cause non-auditory disease, cardiovascular disorder, gastrointestinal complaints and infectious diseases.

**Temperature, ventilation and lighting**

Good lightning system facilitate performance on the job and the work can be carried out safely in pleasant environment. Poor lighting, flicker of fluorescent light or glare leads to eyestrain, damaged vision, visual fatigue, headache, tension and frustration. Hawthorne Studies indicate that creating a pleasant environment facilitates performance. For better decision-making and performance, the work environment should be provided with proper natural lights, cross ventilation and temperature.

**Hygiene**

A clean and orderly place of work is important for personal hygiene and safety. Good housekeeping standards at the workplace improve performance. Grievances of neglected working conditions resulting into poor health are generally reported in the blue-collared jobs as the factories are full of noise without windows and air conditioning. The workshops are not maintained properly. In dirty work environment the employees are exposed to the inhalation of dust and vapours from
inefficiently stored chemical-based products. There should be provision of masks, protective clothing and apparatus. Not only the factories even the offices are neglected in terms of proper sanitation and cleanliness.

**Job Role**

As companies continually re-invent themselves, changes in job role structure are common. Such changes can be stressful if employees try to resist them. Sometimes the impact of changes in workplace alters the nature of one’s job role, which causes role ambiguity or role conflict.

Role conflict occurs when an employee feels confused by opposing demands or incompatible goals connected with the job. The pressure to do the tasks which are not the part of the job role leads to stress. For example meeting the demand of high and unrealistic production targets without compromising on quality or safety. Or a lecturer is given the additional charge of coordination of a particular course as well as contacting the corporate houses and training centers in metro cities to ensure training and placement of the students. Apart from this he is entrusted with the task of NSS activities, membership of disciplinary committee etc. With all these responsibilities he is supposed to adhere to the timetable and complete the syllabus in time, which results in stress.

Role conflict results in absenteeism, job dissatisfaction, abnormal blood chemistry and elevated blood pressure. As per Miles and Perreault (1976) there are four type of role conflict:

Person Role Conflict : The worker wants to do the task differently but the job description does not conform with his methodology.

Intra-sender conflict: Such conflict occurs when the expectations of the supervisor are not compatible as the employee is given the assignment without sufficient resources. E.g. lack of internet, library facilities, relevant books and journals, equipment to prepare lessons or study material for conducting the classes as well as upgrading the subject knowledge by the teaching faculty.
Inter-sender conflict: When the worker is asked to behave in such a manner that it pleases one official but cause displeasure for the other. Making the two persons happy at a time becomes a cause for stress.

Role Overload: When the employee is assigned more work than his capacity.

Role conflict is a potential problem for personnel working in different organizational boundaries. Sometimes due to the job demands the individual come into contact with external people or people across their functional areas. Like the trade union Secretary who have to ensure coordination between the management and the workers on the rights and responsibilities of both of them.

Role ambiguity is the lack of clarity about his/her role or task demand at work. The employee does not understand the expectations or the scope of the role due to lack of training or information. This results in tension, fatigue, absenteeism, anxiety, physical as well as psychological strain and other negative behaviour. There are number of situations resulting into role ambiguity: being in first job, promotion to a new position, transfer to different location, new boss, changes in the organisation structure and work structure and so on. Moving to a new type of industry also exposes the individual to unique terminology, technical language, jargao and work culture.

In the absence of support from supervisors, colleagues and subordinates, the role ambiguity and role conflict gets aggravated. The downsizing in the organization also increase the job responsibility and workload.

Changes in the Nature of Relationship at Work
Cordial and harmonious relationship between colleagues are considered to be the important factors for individual and organizational health. Good team spirit generates sense of belonging, feeling of security and confidence. But human beings differ in behaviour due to their different values, cultural background, perceptions, experience and beliefs. Sometimes one have to work with abrasive and difficult
people who are more concerned with individual achievements due to so-called professionalism and narrow attitude. One finds them to be stubborn, cold, dominating, self-opinionated, confrontational and indifferent to other's needs. They regard others as rivals and not teammates.

The environment of mistrust produces inadequate interpersonal communication, psychological strain resulting into low job satisfaction and decreased well-being.

With the advent of computerization and automation, many jobs have been taken over by the computer and social mobility has decreased. People prefer to work from their work stations and do not feel any need to get information from colleagues as they get it on their desk top via internet, e-mail or LAN. The channels of communication have been restricted and the social support and bonding is vanishing, resulting in isolation. Some organizations are trying to enhance the social interaction and support by giving work breaks during lunch and tea. Inter and intra organizational cultural and recreational activities are being arranged frequently.

The leadership style is also a potential source of stress. A boss with technical or scientific background is more oriented towards 'things' rather than 'people'. He might consider the working relationships as trivial and time consuming. The autocratic leaders are told only the things they want to hear. The subordinate repress their feelings and such repression can be harmful in long term and manifest in high blood pressure.

Sometimes the prolonged repression and depression explodes in the form of violence at the work place. There have been incidences of violence between the staff members as well as between the workers and outsiders. The fear of occupational violence and exposure to crime have serious and widespread impact which produces anxiety and worry.
Career

People are living in a professional age where career is the priority of every employee. The pressures associated with it are starting, developing and maintaining a career, mismatch in expectations, frustration due to lack of achievement are personal career factors. Job dissatisfaction, burnout, poor work performance and unsatisfactory interpersonal relationship at work are organizational factors of career stress.

The ability to use and develop the skills are significant predictors of self esteem. Lack of promotion is a potential source of stress for the individual who has mastered a job but does not gain recognition such as advancement or chance to develop his or her skills. Lack of motivation and challenge also create stress amongst career oriented ambitious workers.

With the demand of the globalization organizational structure has changed to a considerable limit. The ‘pyramid’ shape of the organization is getting flatter day by day as layers and steps have been removed from the career ladder. Opportunities for promotion are restricted and job insecurity is cropping up as a stressor due to the fear of down sizing. The career is more based on proof of performance, efficiency and visible commitment. Stress is experienced by some individuals because their expectations of ‘career’ are not kept up with the pace of change in industry. Helesoy et all (1985) have identified ‘limited career opportunity’ as a source of stress amongst employees.

Organisation structure and Climate

The structure and climate of the organization is a potential source of stress at work. The customs and culture of the organization create the sense of belonging as well as apathy amongst the workers. The freedom to take decision, recognition, transparency of communication about the policy decisions enhance motivation and sense of pride amongst the workers apart from enhanced self-esteem.
The structure and climate of the organization determine the way it treats its people and exposure to these sources of stress is associated with negative psychological mood, escapism, drinking and heavy smoking.

As per Levine (1990) participative work climate can only be successful when the organizational climate is characterized by presence of profit sharing, job security and participative management. The organization needs to develop group cohesiveness and guarantee individual rights in other words empower the employees.

The stress of job insecurity has emerged due to increasing layoffs due to downsizing, acquisitions and merging of organizations. Job dissatisfaction, alternative job search and non-compliant job behaviour are the outcome of job insecurity. Following are the effects of the organization change in policy, procedures and structure:

Centralization: decisions are passed upward, participation decreases as control is emphasized.

Absence of long range planning: Crisis and short term needs drive out strategic planning.

Decrease in innovation: No experimentation, risk aversion and skepticism about non-core activities.

Scapegoating: leaders are blamed for the pain and uncertainty.

Resistance to change: conservatism and ‘turf protection’ lead to the rejection of new alternatives.

Increased labour turnover: the most competent leave first, causing leadership anaemia.

Lowered morale: decreased effort and commitment: few needs are met and infighting is predominant.

No slack: uncommitted resources are used to cover operating expenses.

Fragmented pluralism: emergence of special interest groups of a political nature. Loss of credibility of senior management.
Conflict: interpersonal conflict and infighting, competition for control predominates when resources are scarce.

As per Cameron, Kim and Whetten (1987) above conditions give rise to job insecurity and stress amongst workers which reflect in tardiness, absenteeism, job theft, leaving early, ‘look busy do nothing’ tendency, going slow and other counter productive behaviours.

Interface between Work and Home

The stress profile not only includes workplace it has other aspects also. The interface between work, home and social life plays a pivotal role in increasing and decreasing stress and tensions of life. The personal life events also have an effect upon performance, efficiency, well-being and adjustment at work. Concerns within the family, life crises, financial difficulties, conflicting personal and company beliefs and the conflict between organisational, family and social demands are examples of potential stressors which affect the work life of an individual. Job and life satisfaction is influenced by the demands and conflicts of home and family life. Negative life changes result into lower level of satisfaction while positive life changes result into satisfaction and promotional opportunities.

Changes in economy and labour market have forced the employees to relocate in order to find a job or stay away from home for the sake of employment. It is common in both blue and white collar jobs.

Life and career stage influence the outcome of exposure to these potential sources of stress. For example young, single employees have the pressures of starting a new job and being alone in a strange town or city. They have to build a new life structure without the support of a partner, family or friends. The young newly married couple can cope up easily with new working environment in new location but dual career couple with kids face problems when one partner is forced to relocate. Children tend to experience relocation stressful because they need to make new friends and cope with a different school environment.
Various factors affect the work and family relationship. The job demands and reinforce certain style of behaviour. For example type A behaviour or the need for power of position can cause conflict in the home domain. The aggressive, controlling behaviour which can get promotion at work may not be welcomed at home. The impact of long working hours and overload conditions proves to be detrimental for family life.

Other psychological sources of stress are:

Attaching importance to a specific opportunity is a cause of stress in itself. Only those matters result into stress to which people add importance or consider them to be important for our well being, security, status, health and prosperity. For example, even the routine problems like heavy traffic while commuting to the office create stress if one has to attend an important meeting or receive somebody at the station. At that time the heavy traffic produces feeling of threat as being late will affect the image negatively.

Uncertainty is also one of the reasons for stress. When people are confident that they can handle an opportunity or threat effectively, they do not feel stressed. An experienced lecturer can handle the chaotic situation in the class more effectively than a new lecturer. An experienced surgeon may feel comfortable while conducting a routine knee operation, but he might feel stressed while replacing an elderly patients’ hip as he is uncertain about the outcome of the operation.

Perceptions and attitudes are also the sources of stress. A person with positive attitude might feel accomplishment while performing a challenging job while the person with negative attitude may feel stressed. The people with positive attitude perceive the change of job and promotion as an opportunity for learning and career advancement but the people with negative attitude perceive the job change as a threat.

Anything and everything can prove to be a potential source of stress. The management of stress can be successful only when people understand the source of

\[ I - 30 \]
unwanted strain or pressure. Therefore identification of the factors that have a negative impact on performance and well-being is an essential part of a stress management strategy.

Consequences of Stress

The reaction to a stressful situation is manifested in a number of ways at physiological as well as psychological level. When the situations are predictable stress can be controlled but if the situations are unpredictable and beyond control, stress remains for long and causes various disturbances in an individual’s functioning as the coping efforts fail or it takes too much of efforts to cope with the stress. The above stress results into emotional, behavioural and physical consequences which reflect in an individual’s actions.

Stress affects the senses and attention

Every human being receives the information through the senses, interpret it, store it in the memory and recall it when required. Due to acute stress this mechanism does not work properly. It has been observed that while driving under stress people are not able to see the traffic signals or hear the horns from behind. Students often complain that they missed reading or misread examiner’s instructions and therefore did not do well in their examination, as for most of them examinations are high stress situations.

Stress and low self-esteem

When a person attributes the experience of success to himself, it enhances his self-image but when he attributes himself for failures it lowers his self-image. When a candidate despite his high qualifications, brilliant career and satisfactory performance in the interview, fails to find his name in the selected candidates’ list, he attributes his failure on some of his shortcomings, lack of good contacts or biased behaviour of interviewers.
Stress and decision making capacity

Stress affects the decision-making capacity adversely. It is seen that under the stress people take incorrect decisions in stressful situations or during illness. Studies have revealed that during stress and sickness people fail to solve the reasoning problems which at times are very simple and even the children can solve them.

Stress and Performance

Stress affects the motivation, style of working and efforts of an individual adversely. This effect reflect on lowered performance and decreased quality of work. For example under stressful condition a lecturer might know the subject well but he is not able to deliver the lecture effectively. It is also seen that while giving examination though the candidates are able to maintain the speed but they are not able to write effectively as the vocabulary becomes narrow.

Stress due to unnecessary noise around the workplace affects the concentration and quality of output. As per the studies conducted by Frankenhouser, though an individual may maintain the performance level despite environmental factors and noise, it costs at psychological and physiological level. The individual tries to make more efforts while working with high or low intensity noise of a desert cooler, a noisy ceiling fan, the increased effort result into high secretion of adrenaline, noradrenaline and cortisol. The heart rate increases sometimes to the extent of 120% which has adverse effects on cardio vascular system.

Internal factors like emotional states of worry, anger or agitation also produce stress which reflect in sinking heart, tense muscles and drying of mouth. Prolonged negative emotions change the behaviour and personality traits. If the emotions are repressed due to social or other reasons, the individual suffers from prolonged depression. If an individual have to work for long time in stressful conditions with nonsupportive subordinates or colleagues, top management’s negative and partial attitude and monotonous jobs, the individual becomes detached, indifferent and cold. All this have detrimental effect on social behaviour. They withdraw
themselves from social gatherings, avoid eye contact and conversation with others. Some times the repressed emotions reflect in aggressive behaviour also like hostile attitude, fights and verbal attacks.

**Stress and Health**
Generally all popular writings on stress start with the assertion that stress is a signal to danger. Though stress is a must for life and is a part and parcel of life, after certain limit it cause damage to the health and well being. The negative consequences of stress may range from mild psychological distress to serious illness depending upon the severity of stress experienced. When stress continues unabated it results in ill health. The affect depends on the biological vulnerability of the individual. Every individual has certain capacity to cope with the stress depending upon his physical and emotional health. Due to biological susceptibility cardio vascular, cancer and ulcers develop in certain individuals due to high degree of stress. The process and effect of stress has been described in figure 1.7 below:

![Diagram](image_url)

**Figure 1.7 - (GAS - General Adaptability Syndrome)**
Psychological Distress

Most severe stress is caused by situations in which a person does not have freedom. Such situations deprive a person of developing a sense of control. Due to the after effects of stress like narrowing of attention and fall in decision making capacity, performance suffers. Gradually the situation becomes so complex that the individual starts wondering ‘what is wrong with me?’ As a result self-blame and self-condemnation makes a person feel stupid and he starts withdrawing and avoid social contacts.

People with psychological distress react in different ways - either they become hyper-active to avoid thinking about themselves or closing themselves inside room watching TV or other things. Sometimes the negative emotions are expressed in antisocial and aggressive acts like stealing, picking up fights, assault, homicide and suicide.

Tension anxiety and workplace stresses tend to increase smoking, addiction to alcohol, drugs, tranquilizers and sometimes excess eating.

As stress is a state of high physiological arousal, there are wide-spread changes in the internal state during stress. When the stress is short-lived, the body and mind states come back to normal state after some time, but if stress persists for long the altered body states demand attention and the individual under stress becomes painfully aware of them. Following are some symptoms of stress on various body parts:

<table>
<thead>
<tr>
<th>Muscular symptoms</th>
<th>Tension and pain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gastrointestinal symptoms</td>
<td>Dyspepsia, indigestion, vomiting, heart burn, constipation and irritable colon</td>
</tr>
<tr>
<td>Cardiac symptoms</td>
<td>Palpitation, arrhythmias and chest pain</td>
</tr>
<tr>
<td>Respiratory symptoms</td>
<td>Dyspnoea and hyperventilation</td>
</tr>
<tr>
<td>Central nervous system symptoms</td>
<td>Neurotic reactions, insomnia, weakness, faintness and some headaches</td>
</tr>
<tr>
<td>Genital symptoms</td>
<td>Dysmenorrhoea, frigidity and impotence</td>
</tr>
</tbody>
</table>
There are certain situations in any individuals work life which demand an all-out effort to cope with these demands. Mis-happenings, unemployment, demotion, migration, transfer etc. fall in this category. It takes much time to cope up with such situations or resolve them. Such prolonged efforts result in chronic physical and psychological disorders and sickness.

Due to hectic work schedule and stressed working conditions one tends to ignore the nutrition, rest, physical activity and recreation which are the basic rules for general health. Due to work demand one ignores proper sleep and food timings, eat junk food and become hyper active or inactive for months together resulting into diseases within the body.

Besides ignoring the physical needs, to cope with the stress, people adopt certain modes which are more damaging to health. Addiction to smoking and alcohol, seductive drugs, and even reckless driving to relieve the stress which proves to be more suicidal.

Other reactions to stress are also described as under:

**Frustration**: Frustration results from obstruction in motivation which prevents one from achieving the goal. For example one is trying to finish a report by afternoon, the frequent visits of subordinates or colleagues do not allow to finish the work by the deadline. Due to this one feels irritable or develops an uneasy feeling in stomach or head. These reactions to frustration are known as defense mechanism as one tries to defend oneself from the psychological effects of blocked goal. The effect of such frustration can be short term or long term. The example of long term frustration are lack of promotion opportunity, job insecurity, partial attitude of top management or unsupportive colleagues. The long term frustration can cause emotional disorders which adversely effect the functional ability.

The type of reactions of frustration depend upon the basic nature and attitude of the individual. Aggressive people reflect or express their frustration. In other
people it may reflect in the form of apathy, withdrawal, regression, fixation, physical or psychological disorders. To illustrate more one might ask for a transfer, or look out for another job. People develop lamenting and blaming attitude for the supervisors or colleagues. It also results into physical disorder like migraine, hyperacidity, ulcers etc. The feeling of insecurity and dissatisfaction arising out of unresolved problems and unsatisfied needs results into frustration. There are many instances at work place, which are beyond one’s control like being bypassed for a particular job promotion for which one may be longing for.

Emotional reaction is reflected into hostility, aggression and fear. It is expressed through yelling, fighting, depression and physical abuse. These negative feelings are exploded in the form of misbehaving with clients, customers, students, colleagues, subordinates and friends.

The Behavioural reactions are active and passive both. Active behavioural reactions result into decline in quantity of work. Slow down, avoidance, absenteeism etc. are the examples of escaping work. Seeking transfers or resigning from the organization are the extreme examples of active behavioural reactions. Passive behavioural reactions affect the quality of work. The motivation declines and people become uninterested and indifferent to work. Apathy, lethargy and lack of enthusiasm towards job are the outcome of passive behavioural reactions to stress.

Physical reactions to stress are reflected into anatomical and physiological changes. These reactions are manifested in the gastro-intestinal system, the circulatory system and other systems. Increase in gastric acids, indigestion, ulcers of stomach or chronic ulcers are the affects of stress. The stomach, small intestine and large intestine are susceptible to stress. The disturbances in blood circulatory system and temporary increase in heart rates, blood pressure are some of the major physical reactions to stress at global level.
Burnout is the response of high achievers. Rather it is a disease. It is a complete exhaustion of an individual’s physical and intellectual resources caused by excessive efforts to attain certain unrealistic job related goals. Burnout candidates are people with extremely high aspirations. They are typically idealistic and self-motivated high achievers. They start projects with high degree of enthusiasm and feel difficulty in saying no to new opportunities and tasks that come their way. They do more than their share of jobs. As a result such individuals become frustrated and lose the earlier enthusiasm. They lose their interest in job later and get into flight syndrome. They frequently feel that they are working harder and harder and tend to feel tired much of the time. They develop aches and pains, try to pull away from friends and loved ones and lose the sense of humour.

Variables of Stress & Individual Perceptions

All individuals are different in their approaches, attitude and coping strategies of stress. Some can handle the stressful situations easily but others get overwhelmed by them. Generally there are six variables which differ from individual to individual in experiencing and coping the stress:

- Perception
- Job experience
- Social Support
- Belief in locus of control
- Self-efficacy
- Hostility

It is a basic fact that individual reaction or response to any stressful event or situation is based on their perception rather than reality. For example while meeting with deadline of a certain project or assignment given by the organization, one person might fear that he will lose his job if he is not able to meet the deadline, but the other might take it as an opportunity to prove his potential. So the stress doesn’t lie in conditions but in the minds of people.
Job experience plays an important role in coping with stress. People who are not able to cope with job stress; they prefer to quit the job. Such people are less resistant to stress. But people with more resistance cope with the stress amicably and stay with the organization. Later on they develop coping strategies and mechanism to deal with the stress. So it helps them to be more adaptable to the stress and stressing situations.

People who have cordial relationships with the colleagues tend to face less stress as they are able to get social support. But who are not able to develop such relations feel more stressed.

People who think that they have full control over destiny tend to be less stressed as they believe in themselves. Others with external locus of control believe that their lives are controlled by outside forces are passive in their approach and feel more stressed. If individual with different approaches face a similar stressed situation, the person with internal locus of control will try to resolve the situation with least stress.

Self-efficacy also influences stress outcomes. Self-efficacy is an individual's belief that he or she is capable to do a particular job. People with strong self-efficacy are more positive and tend to feel less stressed as they believe in themselves. They do not get strained by role overload or long working hours, as the confidence in one’s own abilities decreases stress. But individual with low self-efficacy feel more stressed.

People with hostile attitude or hostility and high degree of anger face more stress, as they are chronically suspicious and mistrustful of others. The anger significantly increases the stress level and risk for heart disease because of raised blood pressure.

**Stress Management strategies**

We cannot weed out stress from the personal as well as professional life but can reduce its adverse affects by managing it positively. Both individuals and
organizations can adopt certain strategies to reduce the stress. At the individual level, generally there are three broad options for coping with stressful situations:

- Prevent or control it
- escape from it
- learn to adapt to the situation.

At organizational level the following measures can be adopted:

- Improve managerial communication skills
- Empower the employees by participative management
- Redesigning jobs to make them more fulfilling
- Implement Organisation Development Programs

**Individual Coping Strategies**

At individual level there are certain proactive strategies to resolve the issues leading to stress as well as curb the adverse effects of stress. The positive approaches like *self-help* and *do-it-yourself* can reduce the stress emanating from psychological and behavioural reasons. The physical exercise, weight-loss techniques, diet control, balanced food and meditation reduce the after effects and impact of stress on our psychology and physiology.

I. Exercise

The physical exercise in the form of walking, jogging, swimming, riding bicycle, playing table tennis, badminton, squash not only keep the individual in good shape but also combat the stress to considerable level. The physical exercise and sports give relaxation from the monotonous routine as well as enhance the self-esteem and confidence level.
II. Relaxation

After knowing the functioning and processes of one's physiology and psychology, it becomes easy to adopt certain relaxation techniques. Reading books of interest, listening to music, curling up in bed, watching favourite programmes on TV are some relaxation techniques to control stress.

III. Self-Control

Controlling the emotions causing stress and avoiding the negative situations and people can reduce the stress and its effects. If the work involves public dealing and complaints, one should take necessary breaks in between by indulging in other creative activities. One cannot have control on the happenings and behaviour of other people, but can manage oneself by becoming aware of own limitations.

IV. Meditation

Meditation is a tested therapy since ages to curb tension and stress of any type. It involves quite, concentrated inner thought in order to rest the body physically and emotionally. It temporarily removes the person from the stressful world and reduces symptoms of stress.

Its regular practice improves memory, concentration and focus. It trains the person to use his inner resources to tune himself to be relaxed. With regular meditation one can go through high stress without having any adverse effect. The reason being that meditation enhances the performance of brain.

V. Bio-feedback

With the advent of medical science and technological advances certain devices are used to measure blood pressure, heart and pulse rate. Medical practitioners advise these tools to the people with complaint of stress, hypertension, headache and blood disorders. Till sixties and early seventies there was no cure or control for internal processes like heartbeat, oxygen consumption, stomach acid flow and brainwaves, but by the bio-feedback devices people can exercise control over these processes to some extent and it can prevent undesirable effects of stress.
Each individual should be well aware of his or her biological as well as psychological constitution like brain-wave patterns, gastric secretions and fluctuations in blood-pressure etc. It helps in controlling the disorders and knowing the rhythm of the body.

VI. Personal Wellness

It is a common saying that prevention is better than cure. Now a days preventive maintenance programs based on research in behavioural medicine are quite in practice. In case of complaints of stress or tension, the health care specialists recommend changes in lifestyle and food habits like breathing regulation, muscle relaxation, positive imagery, nutrition management and exercises to enable employees to use their full potential.

So stress is the second nature of human life. It motivates and demotivates the individuals as per their attitudes and perceptions. Many studies have been conducted in the past on stress and certain models were developed by the scientists and psychologists to understand its origin, reasons and solutions to cope with the stress and stressful situations. The earlier studies were basically on physiological aspect of stress conducted by medical practitioners but later the behavioural scientists also conducted a lot of research to understand the origin and impact of stress on work behaviour as well as its implications.

Organizational Coping Strategies

The organization at its level can adopt certain strategies to reduce the causes of work and role stress by modification and changes in them. The strategies which organization can consider are: improved personnel selection and placement, training, use of realistic goal setting, redesigning of jobs, participative management, improve communication, offering incentives and establishing employee wellness programs.
I. Supportive Organizational Climate
Most of the organizations especially the central and state government offices and undertakings adopt highly formalized bureaucratic structure with rigid rules and regulations resulting into inflexible impersonal climate. This leads to considerable job stress. To reduce the job stress amongst the workers, the organization should be made more decentralized and organic to creative supportive climate of faith and delegation.

II. Job redesign and job-enrichment
If the job is monotonous and dull, it may be redesigned with more responsibility and more meaningful work with autonomy. The job content should enhance with core job characteristics like recognition, achievement, growth and advancement. The feedback may be enhanced so that people could discuss their performance problems easily.

III. Reduce conflict and clarify organizational roles
Role conflict and ambiguity is a major individual stressor. The management can reduce this stress by clarifying the organizational roles of each employee. The job should have clear expectations with necessary information and infrastructural support so that the worker is able to know the demands and expectations of the job.

IV. Social Support
In today's world when ambition and self-centred professional approach is in vogue, people lack warm interpersonal relationships. The young generation has a driving ambition for independence and they fail to develop close attachment with friends and colleagues. To achieve success they often sacrifice fulfillment of social needs, which results in anger, anxiety and loneliness. But a powerful cure of stress problem lies in the social support at work. Social support is the network of activities, interactions and relationships that satisfy many important needs of an individual. The cordial relations provide four type of support:

I - 42
a. Instrumental (task assistance)
b. Informational
c. Evaluative
d. Emotional

The social support comes from supervisors, colleagues, family and friends. People exchange ideas, share jokes, play games or either tease the colleagues and subordinates while interacting with them. This creates a warm and friendly environment at workplace. The workers face less stress in such environment. Researches in psychology are evident that people with social and emotional support from atleast one person will experience lower stress.

V. Employee Counseling

The need for counseling arises from a variety of employee problems including stress. When these problems arise, the employees benefit from the understanding and guidance that counseling provides them. The problems vary from person to person. One person might be feeling insecure due to nearing retirement; another person may be feeling uncomfortable due to new promotion with unexpected transfer. Counseling is discussion of a problem that has emotional content with an employee in order to help the employee cope with stressful situations and working conditions in better way. Counseling improves employee's mental health and they gain self confidence, better understanding, self-control and ability to work effectively. Good mental health means that people feel comfortable about themselves, about other people and are able to meet the demands of life. As the employee is able to cope with work and demanding situations easily, it improves organizational performance. The employee become more cooperative and worry less about personal problems. Counseling helps the organization become more human and considerate with its people and their problems. The supervisor, the line manager, the HR manager or the company Physician can counsel employees. Counseling is usually
confidential so that employee can feel free to talk openly about their problems related to job or personal life.

Counseling provides employees with reassurance that they are on the right track or are pursuing a right course of action.

It also enhances communication both upward and downward. Generally the top managers do not know the feelings of people in bottom line. The counseling initiates an upward signal and the communication channels get open.

Counseling helps releasing emotional tensions like frustration in open environment. When the people begin to explain their problems to a sympathetic listener, their tensions begin to subside. They become relaxed and rational. Though the counseling may not solve their problem but it removes mental blocks and enable them to face their problems again and think constructively.

Counseling helps clarify thinking. The human mind tend to magnify minor incidents due to emotional weakness. Counseling helps straight and rational thinking by releasing emotional blocks. By clarified thinking the counseling helps in reorienting the employees towards their goals and values. It helps in recognizing their potential as well as limitations.

VI. The organization may ensure right fit into a job. A job demanding more stress and challenge should be provided to a person with internal locus of control as these people are confident and adapt themselves with every situation and resolve the problems easily.

VII. Training provides self-efficacy by providing and upgrading required skills to fulfill the job effectively. It enhances skills and lessens the stress of non-performance.
VIII. In transferable jobs the organization may help in relocating the employee like finding a suitable job for the spouse, providing special allowance to meet with the additional expenditure of admission of children in local schools, housing allowance or leased accommodation near the office.

IX. The open communication practice also reduces the stress at work. The top management may ensure open door policy. Proper information may be provided to the employees about the aims, objectives, strengths of the organization. The management may try to shape the perceptions of the employees about the organizations opportunities, threats and strengths by effective communication.

X. The organization need to arrange recreational activities frequently to give a break from routine and monotonous life. Out of the long working hours proper breaks for tea and lunch may be given to interact with each other. The provision of sabbaticals or voluntary leave for travel, relax or pursue some training or study may be there to enhance the motivation as well as the performance of the employees. These sabbaticals rejuvenate and revive the employees from the burnout condition.

XI. Arrangement of wellness program also proves very effective for employee’s total physical and mental condition. The workshops on wellness help workers to lose weight, eat better, develop a regular exercise program, quit smoking and alcohol. This enhance quality of work life.

As per the father of stress, Hans Selye, the complete freedom from stress is death. Some level of stress leads to performance improvement. It is an adaptive response to an external situation which results in physical, psychological and behavioral deviation for organizational participation. Though the stress manifests itself into individual physiological and psychological ailments and lowered organizational performance and conflicts, a number of individual and organizational strategies can
be adopted to cope with these stress-induced problems. Exercise, relaxation, behavioral self-control techniques, cognitive therapy techniques help in reducing the individual stress. Creating a supportive climate, enriching tasks, reducing conflict and clarity of roles, setting up a systematic career planning, providing training and development opportunities, recreational activities at organizational level prevents and reduces job stress to considerable level.