CHAPTER II

STRESS-A THEORETICAL FRAMEWORK

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CHAPTER -II

STRESS-A THEORETICAL FRAMEWORK

2.1 INTRODUCTION

A theoretical discussion on job stress is presented in this chapter. The definition of stress, the different approaches to the definition of stress, the evolution of stress, and the different sources of stress in the job environment and the consequence of stress both for the individual and the organization are discussed in detail.

2.2 DEFINITIONS OF STRESS

The term stress is derived from the Latin word “Stringer” which means to clutch, compress or blind. In the seventeenth century the term was used to mean hardship, strain, adversity or affliction. In the eighteenth and nineteenth centuries it was used to mean force, pressure, strain or strong effort with reference to an object or person. The term was first introduced in life science by Hans Selye in 1936.

There is no generally accepted definition to define the term “stress”. Hans Selye, the father of stress management, wrote that stress suffers from the mixed blessing of being too well-known and too little understood. However the term has commonly been defined in one of three ways: (i) as an environmental stimulus, (ii)
as an individual’s psychological or physiological response to such an environment force and (iii) as the interaction between one and two. In the first approach, stress is viewed as a 'stimulus' as a characteristic of the environment. Stress is here to means those environmental factors that stimulate unhealthy individual reactions or characteristics of the job environment that pose a threat to the individual.

Cooper and Marshall state that organizational stress includes environmental factors or stressors such as work load, role conflict or ambiguity and poor working conditions associated with a particular job. Caplan et.al refer stress to any characteristics of the environment which pose a threat to the individuals.

In the second approach, stress is conceptualized as a bodily response to some externally imposed demand. Stress is conceived as a pattern of Psychological changes or as a stress-related disease which may be behavioral, affective or somatic disturbances. Selye defined stress as a non-specific response of the body to any demand. According to him, stress is the adaptive response to an external situation that results in physical, psychological and behavioral, deviations for organizational participants.

In this approach the interest is on the response. Stimulation is seen as a stressor only if it evokes a stress response. This approach gives more insight into the physiological process.

The third approach presents a view that an event can be stress full only if the individual perceived it as such adopting a transactional view. In this stress refers to the entire phenomenon of stimuli response and interviewing variables.
According to Beehr and Nerman, Stress is a condition where job-related factors interact with the worker to change his or her psychological or physiological condition so that the person’s mind and body is forced to deviate from its normal way of functioning.\(^4\)

This approach to stress is relation and process-oriented. The relational characteristic is evident in the definition of stress as a relationship between the person and the environment that is appraised by the person as taxing or exceeding his resources and as endangering his well-being. This relational definition distinguishes this theory from those approaches in which stress is defined as a stimulus or as a response.

Process-oriented stress has two meanings in relation to this approach. First that the person and the environment are in a dynamic relationship that is constantly changing, and second that this relationship is bi-directional with the person and the environment each acting on the other.

In spite of such mixed conceptualizations of stress, a good number of researchers have agreed upon the following. The word stress is not used to refer to any one of the above specific elements. It is reserved as a general terms referring to an area of work or study that includes stressors and strains.

The term ‘stressors’ is used to refer to environmental situation or events potentially capable of producing states of stress. The term a strain refers to the individual response is the symptoms or indices of stress, which can be physical, psychological or behavioral. They are indicators of ill health and or well-being of
the individual. The outcomes refer to the consequences or strains that have implications for the work and non-work domains.

2.3 EVOLUTION OF THE CONCEPT OF STRESS

The term has been derived from technical science, where it indicates an excessive and detrimental overloading of objects. Scientific enquiry in stress has developed from several disciplines. However there are two basic traditions in which research has flourished. One is a biological perspective and the other is a psychosocial tradition. Each has made important contributions to the understanding of stress and both complement each other.

2.3.1. Biological Tradition

The modern work in stress is traced back to Claude Bernard. He pointed out that the internal medium of the living organism is the fixity of the `milieu interior`. It is the condition of free and independent life. To maintain a healthy life, nothing within the body must be allowed to deviate far from the norm. If something does, the individual will become sick. His work formed the basis for the work of Walter Cannon and Hans Selye. Walter Cannon in his work on homeostasis had used the term stress to describe emotional states that had possible detrimental physical results on organisms. Cannon’s contribution to the understanding of stress lay almost dormant for decades, until Selye began working in this area. Work by Selye reflects the primary popular view of stress research in the biological community. Hans Selye (1936) found in his laboratory studies that a few common physiological effects accompanied a wide range of different noxious agents that
were administered to animals. That is, the response was non-specific; all aversive
stimuli caused the same response. Selye labeled the phenomenon as the general
adaptation syndrome-a three-stage process that described how stress affected
organisms.

The first stage of the process is alarm, in which the organism is mobilized
to combat the physical demands of the stressor. The second stage is resistance, in
which the organism appears to hold its own against the still present threat. The
third stage is exhaustion. This occurs when the threat persists or repeats often
enough to overwhelm the organism’s ability to resist. His theory has several
implications.

The first is that the effects of stress are cumulative. Second, these effects
are involved in serious pathology when they overwhelm one’s ability to cope.
Third, stress may be additive, because responses to different threats are the same.\textsuperscript{7}

Contributions have also been made by others through their research on the
physiological aspects of stress. Mason in 1950 characterized stress as a catabolic
process adding several dimensions to the model described by Cannon.\textsuperscript{8} Henry and
Stephen in 1970 tried to combine the work of Cannon and Selye\textsuperscript{9}. Though researchers in this traditional occasionally referred to occupational or
work-related stress, the actual research did not focus on it. Much of their ground-
breaking work was done with animals.
2.3.2. Psychosocial Tradition

The psychosocial perspective to the study of stress has generated a stream of research. It is usually independent of physiological studies. The key focus in this perspective is upon healthy, usually normal, human and non-physical stressors. The effects of psychological stressors which influence psychological strains are of importance here.

Theoretical work on coping and defense mechanisms is traced to very early psycho–analytic formulations and it formed a major part of the neo-analytic thought of the 1930s and 1940s in the works of Sigmund Freud. However, it was only after World War II that the concept of stress was granted a place in psychological studies. Considerable interest in emotional breakdown in response to stresses of combat paved the way for research in this area. Grinker and Spiegel wrote “Men Under Stress” and published a number of studies about battle fatigue, war neurosis and demoralizations in the army. After World War II, it became evident that many conditions of ordinary life could produce effects comparable to those of combat. This led to a growing interest in stress as a cause of human distress and dysfunction.

A major source of current interest in job stress is traced in a book which reports research results from studies done with the American workers in the early sixties by Kahn and his team of researchers using of survey method. They estimated that one-third or more of the employees in their national sample were experiencing some occupational stress.
This was closely followed by the work of Rahe who reported that individuals with severe illness had experienced more stressful events in the months preceding their illnesses than individuals with fewer severe illnesses. This study brought to light two important concepts of stress, the first being the additive concept of stress over time. The second was that both positive and negative events could be associated with stress.\textsuperscript{14} Making both the positive and negative events stressful is the uncertainty, the importance and the desire for resolution associated with them.\textsuperscript{15} Building on the work of Roche many studies in this area attempted to show that individuals who had experienced a disproportionate number of major life changes were particularly susceptible to the development of illness.\textsuperscript{16}

As methodological refinements were progressively introduced the magnitude of the observed correlation between life changes and illness diminished and researchers began to look for variables that might moderate the stress illness relationship. The emphasis turned to the interaction of stressful agents and the human system of appraisal and evaluation. This view suggests that nothing is stressful unless the individuals define it as such. A research example of this conception of appraisal is provided by the classic work of Lasarus and his colleagues. The notion of appraisal is a central component of most psychosocial research on stress\textsuperscript{17}

At the Institute for Social Research, University of Michigan, Caplan and his colleagues studied stress from the point of person environment fit. When there was a mismatch between the person and the environment it resulted in stress for the
individual. From then on the study of stress assumed significance and many researchers started doing studies in this area.

In India also stress has been recognized long ago. References can be found in ancient Indian Scriptures and Ayurved (Indian system of Medicine). In the modern day research in the area of stress, Uday Pareck has made noteworthy contributions regarding stress in general and role stress in particular.

2.4 SOURCES OF STRESS

There are many sources of stress. The primary source of stress is the organization itself. A major portion of variety of stressors and strains is attributed to organizations and departments. The work and non-work areas of one’s life are closely interlinked. The stressors and strains experienced in one area are carried to the other area. This study focuses on job stress and the sources connected with job have been discussed below.

2.4.1 Work Load

Work overload is defined in simple terms. “It is a situation where one is pushed to do more than what time or ability permits”. The nature of workload may be quantitative or qualitative.

Qualitative work overload is a condition where people have too many job demands. Quantitative work under load is a condition when individuals are required to do considerably less than they are able, given the time available. Qualitative work overload is a condition wherein job duties appear to exceed an individual’s abilities. Qualitative work underload is a condition in which each
separate work is far below the individual’s ability and that the tasks are completed with boring ease.

In quantitative work overload, the work is within the individual’s capability whereas in qualitative work load, the work is beyond one’s ability. With both overload conditions, it becomes doubtful whether or not an individual can meet all the responsibilities the job demands. In both cases of work under load, the individuals may desire that more needs are satisfied, and the individual is unable to experience personal meaning emotionally and intellectually in what one is doing in his work process. A job that consists of a high volume of repetitive and or under demanding work is one of the most stressful.21

The relationship between workload and stress is best explained by the demand–discretion model of work stress. Job demands refer to workload, time pressures, and conflicting demands. Job discretion refers to the extent to which workers can apply control over work. The central hypothesis which is the basis of this model is that demand and discretion join to act reciprocally rather than additively to predict the out-come.

Thus jobs which are both high in demand and low in discretion give rise to a higher incidence of mental and physical health problems, which cannot be explained by the independent effect of demand. In contrast, active jobs are seen allowing a worker to develop coping skills and mastery and they are conductive to well-being. In this way, a low level of control over one’s job and an excessive work load seem to be important combinations for intensifying job-relation stress.
2.4.2 Work Pace

Pacing is a work condition in which the speed of operation and production are controlled. It refers to an activity which requires a worker to perform a response or series of responses at a rate other than that which would be self-selected. The work place contributes substantially to the turbulence of the work environment. Machine-paced assembly workers with low level of control overwork pacing tend to report high levels of anxiety, depression, irritation as well as more frequent somatic complaints. Further technological developments including automation substantially alter the work pace in the work environment. Technology often becomes a controlling element in work. It makes the work environment more demanding and anxiety provoking. It gives rise to what is called “techno stress”.22

2.4.3 Role in the Organization

The main source of job stress is a person’s role in the organization. Supervisors, co-workers, clients, customers and suppliers expect a person to behave in certain predictable ways. Often the expectations that others have of an employee are unclear, in conflict or too high for the employee to meet within the time allotted and he experiences stress. The different dimensions of role stress are discussed below.

2.4.3.1 Role Ambiguity

Role ambiguity can be defined as the degree to which clear information concerning job expectation is lacking in one’s job. To perform their jobs well in an
organization, people need to know their job objectives, what they are expected to do and not to do, and what the scope and responsibilities of their jobs are. When there is a lot of uncertainty surrounding job definitions or job expectations people experience role ambiguity.

Two major types of role ambiguity are defined. The first type is task ambiguity which results from lack of information concerning the proper definition of the job, its goals and permissible means for implementing them. Three specific forms of this type are.

(i) Ambiguity about what is required that is uncertainty about one’s scope of responsibilities.
(ii) Ambiguity about how responsibilities are to be met that is, uncertainty about the role behaviour necessary to fulfill one’s responsibilities.
(iii) Ambiguity about role senders. There is an uncertainty about whose expectations the role behaviour must meet.

The second type of role ambiguity is related to the socio-emotional aspects of one’s role performance. It is ambiguity regarding the consequences of role behaviour. It is uncertainty about the effects of one’s actions on the well being of oneself, the role set, or the organization as a whole.

2.4.3.2 Role Conflict

The degree of incongruity of expectations regarding one’s work responsibilities may be defined as role conflict. Very often employees have
different groups of people in the organization. They have diverse expectations of them, and they cannot meet all these expectations. Role conflict is the inconsistency of expectations associated with a role. Two types of role conflict may be defined. The first one is 'Sent-role conflict', known as 'the simultaneous occurrences of two or more sets of pressures such that compliance with one would make more difficult compliance with the other'.

Three specific forms of sent-role conflict are;

(i) Intra sender conflict that is incongruent expectation form a single member of role set.

(ii) Inter sender conflict that is incongruent expectations from two or more members of a role set.

(iii) Inter role conflict that is incongruent expectations from members of two or more different role sets.

Another role conflict is the 'person– role conflict' which derives from a clash between “sent pressures and internal forces”. This is because of incongruently between expectations of one or more members of a role set expectations within the person’s subjective role.

2.4.3.3 Role Erosion

Role erosion indicates a role becoming less important than it used to be, or somebody else getting the credit for doing what needs to be done in one’s own role. It is experienced when a role occupant feels that some functions, which one would like to perform, are being performed by some other role. In a dynamic
organization new appointments or some restructuring results in one person losing his/her importance in the organization. Such a loss of self or ego results in stress to the individual.

2.4.3.4 Role Isolation

‘Role isolation’ is characterized by the feeling that others do not reach out easily. It indicates the absence of a strong linkages of one’s role with other roles. The main theme of role isolation is that of linkages with roles. the main criterion is frequency and ease of interaction in the absence of which inadequate relations at work are the consequence.

2.4.4 Interpersonal Relations

An important source of stress is the poor relationship with colleagues, supervisors and subordinates at work. Factors such as conflict, poor communication, unpleasant relationship and fear of being ostracized from the group as a valued member create stress. Working with supervisors, peers, subordinates with whom one does not get along can be a constant source of stress and they are included in the interpersonal and group related stressors. Three types of relationships namely; superior-subordinate relations, peer group relations, and customer relations are basically involved in interpersonal relationships.

2.4.4.1 Superior- subordinates Relation

Relations between the superior and the subordinates are complex in hierarchical organizations. There is the natural desire to relate to one another as
human beings concerned showing consideration, support, even affection or as team-mates harmonizing efforts towards a common goal.

Although superiors and subordinates are involved in a struggle for survival, they are within the organization system. The ‘consideration-support–teamwork–job satisfaction systems in most organizations are dominated by career progression anxieties. Office politics, power struggles, fulfilled or disappointed ambitions shape the superior-subordinate relations more deeply than human welfare or supportive elements do. Distress is created with the absence of a positive interpersonal bond between an employee and his superior due to lack of predictability and trust. Superiors who are unable and unwilling to provide enough support and approval try to create stress in their subordinates.

2.4.4.2 Peer Relations

All the people tend to place value upon human companionship and opportunities for obtaining personal reassurance from others. Their need for affiliation tends to motivate people to seek out personal approval to agree to the wishes and expectations of the coworkers and to demonstrate a strong and sincere interest in the feelings of others. However, rarely two people at the same level in the hierarchy get along well. This is because of reason like task ambiguity–as to who should perform the particular task or due to differences in work orientation. There is also a dynamic competition-for resources of all kinds including financial and material with superiors and personal. Poor relations among peers lead to low trust, low supportiveness and low interest in listening to and trying to deal with
problems. They disagree with the organizational members and that results in stress for the individual.

### 2.4.4.3 Relationship with Clients

Another source of stress in service organizations is relationship with clients. In many kinds of job, the ability of the profession to respond to clients needs is limited by bureaucratic regulations and uncooperative clients. The recognition that success vis-a-vis the client is only partially under one’s control leads to a feeling of helplessness. This coupled with strong feelings of personal responsibility for failures and infrequent feedback makes service provider easy targets of stress. A relationship with the customer also often becomes forcible because a customer’s disappointment. Customer complaints require the employee to devote time to dissolve to the problems created for the organization by the customer.

### 2.4.5 Job Related Factors

Several stress conditions are associated with career development and job features like lack of job security, under or over promotion, fear of redundancy and obsolescence owing to changing technology and early retirement.

### 2.4.6 Job content

The nature of the work that is performed has critical implications for psychological well being. Some jobs can be hazardous or morally conflicting to the individual who interfaces with it such as working in an explosive–
manufacturing factory. The individual is a strong believer and advocate of peace. For lack of job opportunity the individual may be compelled to work in this environment and this might a constant source of server stress and anguish to the person. Such jobs have filled-in stress like the bomb diffusing squads. Further transfer as part of the job could induce stress.

2.4.6.1 Transfers

Some jobs that require frequent transfer tend to be more stressful as they not only involve the organization’s participants but also others in their family as well. By transfer is meant here both lateral transfer and promotion. At times geographical moves also create stress because they interrupt the routines of life. Geographical moves are undertaken as a part of job transfer and the moves can be more stressful. The transferred employee is likely to feel out of control at work too, and experiences his new work environment as unpredictable.

In a negative circle, for employees who have just moved, it is very common for the stress at work and the stress at home to start feeding off each other. The more the changes take place in a person’s social relationships, financial affairs or family life, the greater the person’s stress. In addition, transfers involve reconciliation to the new position. It is not easy as it might appear. The problems also contain increased demand for high performance, less training for the new job, need to unlearn old behavior and attitudes and less social support.
2.4.6.2 Travelling

Jobs requiring too frequent or long travel can be stressful. Travel imposes a different life pattern. This pattern requires the strain of transport whether it is by road, rail or air and the strain of living in hotels with only food and drink for relaxation as possible time change. This pattern involves greater strain of negotiating away from familiar surroundings, and of feeling tired, lost and lonely. It imposes considerable strain on the individual, when this takes place.

In travel, there is not only an unavoidable tendency to leave earlier and get home late, but also the problem of coping with the ordinary work which would have otherwise been done. A day or week spent away or in travel is more tiring than an average day or a week spent at the office. Travel also has biological limitation especially when it requires travel by air; the circadian rhythm is disturbed and the individual has what is known as “jet lag”. There is a measurable and considerable deterioration in the intellectual performance following shift of time.

2.5 CONSEQUENCES OF STRESS

When properly monitored and managed, stress response contributes to a state of optimal health and well-being by fostering productivity and supporting performance. But when stress response is elicited too intensely or very often, the worker is unable to rapidly dispel the effects of stress responses, and the result is individual distress.
The negative impact of work stress on the mental and physical health of workers has been found to be a strong support by several researchers. The distress resulting from mismanaged stress may be seen clearly in the physiological, psychological and behavioral problems of the individual. The outcomes of stress on the individual are reflected in organizational consequences in the form of low productivity, accidents, absenteeism, low turnover and so on. With regard to the individual organizational interface, the consequences of stress also affect job satisfaction, job performance, organizational commitments and so forth.

2.5.1 Individual Outcomes

2.5.1.1. Physiological Outcomes

According to Fresh.\textsuperscript{24} Brief et al.\textsuperscript{25}, Ganster et al.,\textsuperscript{26} Specter et al.\textsuperscript{27} headache, heartburn, backache, musculoskeletal conditions and generalized fatigue are the symptoms associated with stress. Stress plays an important role in accelerating the onset of disease or in worsening the impact of diseases. There is a particular weakness in the structure of the organism. Stressors disrupt homeostasis in two ways: first by being beyond the power of adoptability and second by causing disease. In typical diseases of adaptation, insufficient, excessive or faulty reactions to stressors are at the root of the disturbance. Stress lowers bodily resistance or increases sensitivity to the existing symptoms and the presence of symptoms in turn may affect the appraisal of the innocuous environmental demands.
Cooper and Marshall,\textsuperscript{28} Matteson and Ivancevich \textsuperscript{29} have demonstrated that many types of working conditions are associated with coronary heart diseases. According to Friedman, \textsuperscript{30} Kaufmann and Beehr, \textsuperscript{31} Quick et al., \textsuperscript{32} Hendry, \textsuperscript{33} Karasek et al., \textsuperscript{34} and Smith et al., \textsuperscript{35} there is evidence to suggest that the following risk factors which contribute to coronary heart diseases are related to at least some types of job stressors namely electrocardiogram abnormalities, pulse rate, cholesterol level and blood pressure. The onset or worsening of high blood pressure or hypertension has been associated with psychological stress. Hendrix et al., \textsuperscript{36} Ellested \textsuperscript{37} and Malaspine et al., \textsuperscript{38} have emphasize the role of cholesterol level in the development of heart diseases and those levels are related to stress.

According to Eysenck, \textsuperscript{39} Cooper, \textsuperscript{40} Leshan \textsuperscript{41} and Muslin et al., \textsuperscript{42} stress has also been linked to cancer. There are two cancer causing mechanism: the first, carcinogens, is the production of cancer by an agent or mechanism by over coming the existing resistance of the body, and the second is lowered resistance to cancer, which permits a potential carcinogen normally insufficient to produce cancer to do so, as in weakened emotional state.

According to Eysenck, \textsuperscript{43} and Funch and Marshall, \textsuperscript{44} people experiencing stress direct their psychic energy inward, against their own natural body defenses, thus paving the way for increased chance of cancer. Meyer and Haggart, \textsuperscript{45} Parens et al, \textsuperscript{46} Spilken and Jacobs, \textsuperscript{47} Garham et al, \textsuperscript{48} Cohen and Williamsom \textsuperscript{49} found that evidences from very early studies have associated stress with the increased incidence of respiratory illnesses. According to Slote \textsuperscript{50}
Musculo Skeletal conditions including arthritis, low back pain, and displaced inter Vertebral disc are also associated with stress. According to Susser and Fried, et al, ulceration of the stomach and the small intestine represents the classic psychosomatic illness. During stress, the stomach lining becomes engorged with bold, acid production is increased, and eventually bleeding erosions are developed. Stress also had been found to exacerbate the onset of infectious diseases.

According to Baum and Wesselhof and Kiecott-Glaser and Glaser, evidence reveals that psychological factors influence immune function and there is an increased recognition of the importance of understanding the role of stress and psychological factors in the onset and progression of the Acquired Immune Defiance Syndrome (AIDS).

2.5.1.2 Behavioural Outcomes

According to Margolis et al, Schilling et al, and Mc Auliffew et al, behavioral changes are among the earliest and most overt signs of rising levels of stress. The changes that are associated with stress are increased smoking, too much alcohol consumption, accident proneness and violence. Individuals prone to stress have been found to be less sensitive to others and they reveal a decrease in helping, a decrease in recognition of individual differences and an increase in aggression. These consequences on interpersonal sensitivity are consistent with results of studies on aggression and altruism. They indicate that negative emotions
associated with stress incline people towards more aggressive and less altruistic behavior.

The people who are under stress also tend to be involved in poor health practices. According to Russek,\textsuperscript{60} Plant\textsuperscript{61}, Hillier\textsuperscript{62}, Ojessjo\textsuperscript{63}, Conway et al.,\textsuperscript{64} and Cohen and Williamson,\textsuperscript{65} they smoke more drink alcohol, take to drugs, eat poorly and sleep less. Alcoholism has its effects on work performance and on professional and personal relationship. Performance stress and alcohol consumption form a vicious circle with each one contributing to the other with markedly increased appetite or decreased appetite, either of which leads to unhealthy consequences. Individuals also respond to stress.

Elkin and Rosch found that between 60 and 80 percent of all job-related accidents are in some way stress-related. A very potentially lethal effect of stress is to predispose the individual to accidents. A person under stress is an “accident about happen.”\textsuperscript{66} According to Hirschfeld and Behan,\textsuperscript{67} Levenson et al.,\textsuperscript{68} Sheehan et al.,\textsuperscript{69} and Cartwright et al.,\textsuperscript{70} research has repeatedly demonstrated that individuals make mistake, \textbf{under perform} and are careless in their routine behavior when they are experiencing stress.

Rule and Nasdale studied that violence is one of the most extreme but less common manifestations of stress.\textsuperscript{71} Consequently, the public are afraid of becoming victims of violence. The US Public Health service has expanded its health promotion and disease prevention objectives of the nation to include the control of stress and violent behaviour.\textsuperscript{72}
2.5.1.3 Psychological Outcomes

Depression, sleep disturbance, irritability, psychogenic disability, anxiety and cognitive disabilities are some of the psychological outcomes of stress for the individual.

Spector, Spector et al, Jex and Beehr, Tetrick and La Rocco, Bhagat et al, Motowidlo, Billings et al, and Billing and Moos studied and established that there was a positive correlation between stress and anxiety, frustration reported symptoms and job dissatisfaction. O’Connor et al, Peters et al, Philips and Freedman, Jex and Beehr, Steel and Mento researched and produced evidences to show that organizational constrains-conditions of work that prevented employees from performing their job or achieving their goals – could lead to adverse affective reactions.

The effects of stress on the individual environment fit directly alters the person’s subjective perception of abilities. Depressed person for example have how self-esteem. Anxiety hostility and depression are generated by stress. They in turn affect components of job performance such as tolerance for frustration, clerical accuracy and interpersonal sensitivity.

When difficulties arise at work (or) when there are insufficient signs of success, burnout sets in. Burnout is a reactive depression. It is a “milder from of the concept of nervous breakdown”. It is a pattern of physical emotional exhaustion, performance changes and behavioral symptoms. Burnouts occur in
professions characterized by a high degree of personal investment in work and such performance expectations.

Another outcome of stress is insomnia, worries, over promotion, conflict at work and project deadlines frequently cause difficulty in falling asleep. As sleep deprivation has a negative impact on mood and performance, it can worsen the work situation which causes sleep disturbances in the first instance. Lasarus et al., \(^{87}\) and Willkinson \(^{88}\) have reported that, the cognitive abilities of the individual are affected by stress. Studies have shown harmful effects of a wide variety of stresses on speed and accuracy in tracking, clerical accuracy, tolerance for frustration, ability to avoid perceptual distractions, verbal reasoning, sentence formation and other kinds of verbal performance. Further, stressors create conditions of information overloads because they force people to pay special attention to these stressors. This results in cognitive tiredness and it exhausts the energy needed for task performance.

### 2.5.2. Organizational Outcomes

The job environment negatively affects the health of the individuals to a degree and it is also affects the organization in which the individuals are employed. Employees in an attempt to cope with stress withdraw from work absenteeism, turnover and psychological withdraw; like lower job involvement and less identification with the organization, are included in the withdrawal of employee. Apart from this, low performance and productivity, high rates of turnover, loss of customers because of poor worker attitudes, increased alienation
of workers from the job and even destructive and aggressive behavior resulting in strikes and sabotages are included in the adverse consequences.

2.5.2.1. Job performance

One can view job performance as an activity in which an individual is able to accomplish successfully the task or goals assigned to him. It is subject to the normal constraint of reasonable utilization of available resources. The popular model connecting the stress with performance is based on the Yerkes Dodson Law. It suggests an inverted U-shaped relationship between them. When low stress is experienced by an individual at the job, he is most probably not activated and thus would not exhibit any improved performance. On the other hand, if the individual experiences a very high level of job stress, he may spend more time in coping with stress and his efforts at performance may be reduced, resulting in low performance. The performance is high when the individual is not only activated but also able to expend his energies towards job performance at moderate levels of stress. Singh, Anderson, Dhillion, Motowidlo et al, Jamal and Blau have established by their many studies that there is negative relationship between high job stress and performance. Besides, the negative relationship between performance and specific stressor like role demands informational overload and work overload have also been established.
2.5.2.2 Organizational Commitment

According to Mowday, et al\textsuperscript{95} organisational commitments refer to the nature of an individual’s relationship to an organization, with the result that a highly committed person will indicate a strong desire to remain a member of a particular organization, a willingness to exert high levels of effort on behalf of the organization, a definite belief in and acceptance of the values and the goals of the organization. Organisational commitment represents something more than the passive loyalty to an organization. Instead, it involves an active loyalty to an organization in which the individual is willing to give something of them in order to help the organization succeed and prosper. In turn individuals also expect reciprocity from the organization. Since organization factors play an important role in creating job stress, they have an impact on organisational commitment also. Jamal\textsuperscript{96} Spector et al\textsuperscript{97} Perrewe et al\textsuperscript{98}., Fisher and Gitelson,\textsuperscript{99} Jackson and Schuler\textsuperscript{100} and Eriekson , et al\textsuperscript{101} state that the negative relationship between stress and organizational commitment is well documented.

2.5.2.3. Absenteeism.

Stress and Rhodes\textsuperscript{102} and Jackson\textsuperscript{103} are of the opinion that one way people react to job stress is to withdraw from the stressful environment which is the workplace. Physical and mental ill-health are two significant reason for absenteeism, which costs the American business between $10 and $20 billion a year. According to Dalton and Todor, \textsuperscript{104} the Research Institute of America has estimated that a one-day absence by a clerical worker can cost a company up to
$100 in reduced efficiency and increased supervisory workload. Stress and Rhodes,\textsuperscript{105} Rhodes and Steers\textsuperscript{106} have supported the view that for every 0.5 per cent of change in national absence rates in the U.S. the gross national product goes down $ 10 billion. Gupta and Beehr,\textsuperscript{107} Margolis et al,\textsuperscript{108} Micaels and Suipector\textsuperscript{109} and Jackson\textsuperscript{110} state in unison that the relationship between stress and absenteeism is well established.

2.5.2.4 Other Organisational Outcomes

In addition to the above, social interactions within in a organization can set in motion a destructive process that adversely affects the individuals, who under normal conditions would not be so affected in times of stress. The outcome of this destruction process on a group level is referred to as organisational burnout syndrome. Signs of organisational burnout due to the stress are lowered mental state, morale and dissatisfaction expressed through group interactions such as frequent scape-goating, hostility within the groups of individuals working together, lack of co-operation, progressive lack of initiative, maintenance of critical attitudes towards co-workers, increase in expression of negativism concerning role or function of the unit. Stress also costs organizations in terms of lost profit, declining assets, bad image projection, loss of future profits and poor reputation.

Khan and Cooper have supported the view on the macro level that the consequences of stress are enormous. In the U.S. the cost involving stress alone is estimated to be approximately $ 100 billion annually which is ten times more
than all the labour strikes combined.\textsuperscript{111} Hatfield said that a study by the National Council on Compensation Insurance revealed that claims for gradual mental stress alone accounted for eleven per cent of all the claims for occupational diseases in the U.S. The costs for psychological disorder in terms of medical services, employment and productivity are far more elusive.\textsuperscript{112} In the U.S. several sources have concluded that such costs run in of tens of billions of dollars annually.\textsuperscript{113}

2.6. MODERATORS OF STRESS

Not every individual experiences stress in the same way, not every individual reacts to stress in the same way. Stress responds to strong differences in the ways individual experience. The relationship between the causes and consequences of stress is moderated by individual differences. They influence whether people experience their job as stressful or how negatively people react to the stress they do feel. Important moderators in the stress process are discussed below.

2.6.1. Individual Difference

2.6.1.1. Type A Behaviour Pattern

Two cardiologists, Rosenman and Fridman,\textsuperscript{114} have identified that type A Behaviour Pattern is a personality type. They observed that their coronary heart diseases patients shared a characteristic pattern of behaviors and emotional described the character by the presence of restlessness, impatience, aggressiveness, explosiveness of speech, hyper alertness, feeling of being under pressure of time and under challenge of responsibility, tenseness of facial muscle,
competitiveness and sense of time urgency. The contracts type B Behaviour Pattern is originally defined as the relative absence of the behaviour described above. It is increasingly perceived as an alternative style of responding to or coping with environmental challenges. Type B personalities are more likely to try and extend deadlines or accept a lower standard of work from them in the short run. Type B personalities feel less pressure, keep a steadier pace rather than working against the clock. However this does not mean that they are necessarily apathetic, lazy or lacking ambition.

The Western Collaborative Group study found that 77 per cent of those who suffered heart attacks were closely identified as Type A Personalities in the earlier test scores. The clearest finding of research on type A personalities is that they are much prone to heart diseases. Further, Type A’s had twice the rate of coronary diseases, were five times as likely to die from heart disease, as compared to those classified as Type B. Burke and Dessca\textsuperscript{115} and Orpen\textsuperscript{116} are of the opinion that Type A people are much more likely to put themselves in highly stressful; situation and to push al., Caplan and Jones\textsuperscript{117} Ivancevich et al,\textsuperscript{118} Ivancevich and Matteson\textsuperscript{119} and Sales,\textsuperscript{120} they are also more likely to suffer the consequences of such high stress.

\textbf{2.6.1.2. Hot Reactors}

Eliot and Breo have suggested that another way to distinguish individual’s responses to stressors is to focus on physiological processes rather than behaviour pattern. Hot reacting is extreme cardiovascular reaction to standardized stress tests
and it indicates how people handle stress physiologically in everyday life. Alarm and vigilance are experienced by some people so strongly that when they are under stress their bodies produce large amounts of stress chemicals, which in turn causes great changes in the cardiovascular system including remarkable rises in blood pressure.\textsuperscript{121}

2.6.1.3. Hardiness

According to Kobasa,\textsuperscript{122} Kobasaet et al.,\textsuperscript{123} hardiness is another psychological characteristic that moderates the reaction of people to potentially stressful condition or events. Three dimensions constitute the general concept of hardiness merely commitment, challenge and control. The commitment dimension reflects a sense of meaningfulness about one’s life both in term of having distinguishable people life goals with a feeling of self involvement had having a sense of community. Control represents the belief that one can influence or be responsible for one’s manipulating or counteracting adverse circumstances that exists. The challenge dimension consists of the idea that change in the form of events is a positive phenomenon with the potential for personal growth for the individual possesses a strong sense of all three dimensions, which act together to help buffer the debilitating effects of stress.

According to Schmid and Lawler, hardiness exerts a direct effect on illness and interacts with stress to affect illness. In the study involving Illinois Bell executives during the break-up of AT & T, it was found that those who rated high on hardiness remained healthier than other did. All the employees experience
essentially the distressing and the pleasant events during the changeover. Those who rated high in hardiness seemed to take the break-up in stride, even felt cheered by the opportunities. They reported half as many physical or emotional difficulties as those who rated low in hardiness did.\textsuperscript{124} Kashani and Sheppered found that commitment and control components of hardiness moderated the reporting of somatic complaints and psychological symptoms.

2.6.1.4. Locus of Control

One can define locus of control as internal when individuals tend to attribute environmental events to them and as external when individuals attribute such events to things outside their power. Internals believe reward depending upon their own actions, whereas externals believe reward depend up on factors beyond their personal control.

Externals on the one hand resign themselves to such situations and eliminate the sense of personal responsibility for dealing with that as a source of stress: however, they remain exposed to whatever other unpleasant or noxious consequences the situation may produce. Internals believing themselves to be capable of influencing their circumstances actively search for and thereby raise the probability of discovering means of reducing or eliminating threatening events and circumstances or otherwise escape from the effects of that situations.

According to Keenan and Mc. Bain,\textsuperscript{125} Broussseau and Mallinger,\textsuperscript{126} Krause and Stryker\textsuperscript{127} Mackay and Cooper\textsuperscript{128} the relations between stress and health outturns are influenced by locus of control. Studies have shown that the internal
locus of control as compared with the external locus improves health and it is associated with preventive behaviour efforts to improve functioning and greater resistance to psychological dysfunctions.

2.6.1.5. Cognitive Complexity

Cognitive complexity is about the amount and kinds of information people use in making decision. Cognitive complex individuals are multidimensional. They are able to keep several variables in mind, cope with conflicting information and discern complex relationships. They see situations from different views simultaneously. They think in terms of system and contingencies, while remaining flexible and sensitive to changing conditions. These characteristics are often used to describe highly effective Executives. Unfortunately these very attributes may be dangerous to their health.

Streufert\textsuperscript{129} says that there is a growing amount of evidence that an executive with this style of decision-making faces greater risk then others, of heart attacks and other circulatory diseases. They also showed elevation in blood pressure, heart rate and physiological arousal that were at times 83 per cent higher than the increase for other executives. When compared with less multidimensional executives, the more multidimensional showed higher levels of physiological strain when challenged in work situations.

2.6.1.6. Self–Esteem

Self–esteemed individuals have a positive image of themselves and their abilities are less likely to experience work as stressful. Moreover people with high
self-esteem have more confidence in themselves that they can deal successfully with stress. Two research findings confirm the moderating effect of self-esteem. According to Kasl and Gobb, the critical difference between those who survived being prisoners of war and those who did not survive was self-esteem, as suggested by recent studies. Those who had high levels of self-esteem were better able to cope with the strain and deprivation of being held captive. Secondly, physicians doing research on coronary heart disease risk factors have discovered that the higher a person’s self-esteem, the less likely he is to be heart attack prone. Studies have also found that the relationship between stress and strain was strongest for those with low self esteem in accordance with Witmer et al., Ganster and Schaubroech, Pierce et al.

2.6.1.7. Self-Efficacy

A person’s belief about whether one can successfully perform a task may be defined as self-efficacy. It involves both effort and ability. Self-efficacy concept can also be applied to groups. Employees in Organizations have explicit beliefs and expectations about their performance. Collective efficacy is defined as each individual’s assessment of their group’s collective ability to perform job-related tasks.

Studies by Beehr and Newman, Sarason, Bandura, Jex and Gudanowski have provided support for the moderating effect of self-efficacy. Individuals who do not believe that they will be able to carry out their job responsibilities (low levels of self-efficacy) would view organizational stereotypes as
being more threatening. They show more negative reactions a those who are more
confident (high levels of self-efficacy). Collective efficacy would provide the
same moderating effect as individual efficacy, despite that the jobs of the
employees require considerable interaction with the work group.

2.6.1.8. Optimism

Optimism relates to a tendency to take a hopeful view of things. It is one’s
overall expectancy judgment and is the subjective probability that desired
outcomes will occur. Optimists generally expect things to go their way and believe
that good rather than bad things will happen to them. Optimism moderates the
stress-strain relationship in the following way. When an individual becomes aware
of a discrepancy between a behavioral goal or standard and his present position, an
assessment process is initiated. If the individual perceived that discrepancy
between the goal and the situation ought be reduced and brought to desirable
outcomes, the individual will exert effort to attain those desirable outcomes. If, on
the other hand, the individual perceived that desirable outcomes are unattainable,
reduced effort or cessation of additional attempts follows. From this perspective, it
is expected that optimists would continue to work hard and cope actively with
problems they encounter, whereas pessimists would give up and turn away.

According to Schier and Carver, and Reker and Wong Optimists are more
likely to deal with stressful encounters by using problem focused coping strategies
such as formulating action plans keeping their mind on tasks at hand, and not
thinking about the negative emotions with which stress is associated. Pessimism is
associated with emotional, focused coping strategies of denial and distancing, focusing on stressful feeling and avoidance or distancing from goal with which the stress is interfering. The optimists do better in part because they use coping strategies that are more instrumental and problem focused. Schier et al., 139 and Lee et al., 140 provide evidence for the moderating effect of optimism.

2.6.1.9. Extraversion.

Parkes says at under conditions of low social support, extroverts report greater distress than introverts do. Extroverts show a heightened sensitivity to variations in social support. Under conditions of high social support, they experience less distress than do introversion acts as a moderator of stress acts in combination with social support. Need for affiliation, which is a measure conceptually linked to extroversion, intersects with social support to predict mood disturbance in response to stress. Individuals low in extroversion show poor adaptation top severe life stress.141

2.6.1.10. Neuroticism

According to Costa and MC Crae, 142 Waston and Clark 143 and DeLongis et al., 144 neuroticism, also called negative affectivity, is a stable and pervasive personality dimension and is a state characterized by anxiety, emotional instability and low self-respect in individuals. High negative affective individuals report more stress and physical complaints, even in the absence of objective stressors or health problems. According to Watson et al, 145 individuals with high neuroticism scores respond less adaptively to demanding circumstances and are more
vulnerable to emotional distress than those with low scores. They also are capable of experiencing a great deal of stress and discomfort even in relatively being contexts. Their high levels of distress may persist in the face of dramatically altered working conditions.

2.6.1.11. Age and Experience

Experience and age are important factors that are negatively related to stress. There are at least two explanations for this relation. One is selective withdrawal—the idea that voluntary turnover is more probable among people who experience more stress, that certain characteristics dispose people to experience more stress and that people are differentially likely to quit according to those characteristics. It assumes that people eventually develop coping mechanism to deal with stress. Past experience in the form of familiarity with the situation, past exposure to the stressor conditions, and practice or training in response the situations can operate to affect the levels of subjectively experienced stress from a given situation or to modify reactions to that stressor. Consequently, people who remain with the organization longer are those with more stress resistant traits. The other explanation is adaptation. Since this takes time, senior organizational members should be more fully adapted and therefore should experience less stress. The study by Maslach\textsuperscript{146} indicated that older and more experienced service professionals were better able to deal with strains of clients and co-worker interactions than were their younger and less experienced counterparts.

2.6.1.12. Gender
According to Billings and Moos, Davidson and Cooper, men and women experience stress differently with respect to threat appraisal and symptoms. Women tend to report higher rates of psychological distress and men are more prone to physical illnesses as evident in the higher incidences of coronary heart diseases in males. Further women experience stressors unique to their gender such as sex discrimination, harassment and considerable worth problems that result in pay inequality. The moderating effect of gender in the stress-strain process differs in the coping mechanism also.

Two major hypotheses seek to explain these differences. The socialization hypothesis holds that men and women are socialized to deal with stressful events in different ways. Because of widely held sex role stereotypes and gender role expectations, men and women are socialized in ways that encourage women to seek emotional support but discourage it in men who are socialized to a greater extent to deal instrumentally with stress. The structural hypothesis focuses on the structural aspects of the situation and suggests that gender differences in the coping may be attributed to differences in kinds of stressful situations that men and women typically encounter. Specific classes of situations demand particular methods of coping. Dissimilar types of events and difference in coping mechanism used are experienced by both men and women.
2.6.2. Interpersonal Factors

Apart from the individual differences, an important interpersonal factor that is supposed to be a moderator in the stress process is social support.

2.6.2.1. Social Support

Social support is defined as the flow of emotional concern instrumental aid, information and appraisal of information relevant to self-evaluation between people. Social support may be classified as emotional support and instrumental support. Emotional support is offered when people let others know that they love and care about them. Instrumental support, on the other hand, is considered direct assistance given to another person which could involve giving money, doing another’s work or giving the recipient custodial care.

Supportive social relationships operate in three possible ways to ease work stress. First, they reduce interpersonal tensions and anxiety. Support may directly reduce the level of stress and improve health. Second, support can directly enhance health by supplying the human needs for affection, approval, social contact and security. Third, it buffers the impact of stress upon the manifestation of strain. Social support moderates the effect of work, and of work demands upon outcomes. The relationship between stress and strain is strongest in those with low levels of social support. Although there are conflicting conclusions regarding the moderating effect of social support with some studies finding no moderating effect, enough evidence exists to confirm the moderating effect of social support.
and hence it is considered an important moderator in the stress process according with Jeyaratne et al.\textsuperscript{149}

\textbf{2.7. COPING WITH STRESS}

The way in which individuals react to stress is called coping. It is defined as a person’s constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the person’s resources according with Lasarus and Folkman\textsuperscript{150}. There are two general ways in which individual cope with stressful situations. The first, problem-focused-coping is action that has the goal of removing or circumventing the sources of stress. The second strategy, emotion-focused-coping, is an attempt to reduce or eliminate the emotional distress associated with stressful situation. Although problem-focused and emotional-focused coping can occur together in the same coping context, problem-focused coping is generally more likely in situations where people believe that something constructive can be done about the stressor. Emotion-focused coping is more likely when people believe that the situation is one that must be endured. Attempts to secure social support are involved by the third class strategies. People enact seeking social support as a method of coping. Emotional or instrumental reason is involved by third class strategies. People enact seeking social support as a method of coping for either emotional or instrumental reason.

The utility of coping strategy differs with the type of personality stressed, the type of stressful encounter and the outcome of modality studied. Appraisal of
one’s coping resources and of the situations plays a central role in the selection of subsequent coping strategies. Different coping strategies may be applied in threatening situations than these is appraised as challengers or losses. Likewise appraisal concerning controllability of the stressor also affects the choice of coping strategies.

Finally, coping with stress is highly dependent on the individual’s perception of the environment and involves a transaction with the environment. In this transaction between the person and the environment, both may change perceptually if not objectively. Coping thus requires an analysis of one’s own needs and values as much as the analysis of the situation.

2.8. SUMMARY

In this chapter the researcher has presented a theoretical discussion of job stress. The definition of job stress from three perspectives has been presented. Stress is viewed as a stimulus, as a response and as an interaction of both. Definitions from all the three perspectives are discussed. Further, the basic terms like stressor, strain and outcome have been clarified. The study of stress has evolved through two traditions namely the biological tradition and the psychological tradition. Evolution from both the complementary traditions is presented.

Job stress arises from different sources, which include the workload, interpersonal relations, role in the organization, and work pace, career development, intrinsic characteristics of the job, and reorganization and change.
The consequences of stress are presented in two sections namely individual outcomes and organizational outcomes. Individual outcomes take the form of physiological consequences, behavioural consequences and psychological consequences. Stress negatively affects the mental and physical health of the workers. To the extent stress negatively affects the workers, it also affects the organization in which the workers are employed. Here the organizational outcomes of stress are considered. The organizational consequences discussed are job performance, organizational commitment, absenteeism and the like.

There is a significant difference among individuals in the way they perceive stress, and in the way stress affects them. Everybody does not experience stress the same way and not everybody responds to stress in the same way. Various individual differences and an interpersonal measure namely social support are discussed in relation to their role as moderators in the stress process.

Apart from the factors which determine the choice of coping behaviour, the ways in which an individual cope with the stress are discussed. In the last part, coping- the way in which an individual responds to stress is studied in detail.
FOOTNOTES


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