My heart is pounding. I stand unable to speak

My thoughts rushing, yet my mind feels weak.

Anxiety twisting the knife in my intestine;

All I want is a favorable impression.

Why do I feel this way; wishing to disappear

And be away from this horrible fear;

In a crowded room, no where am I so alone

For what sins must god, in this way, make me alone?

Someone addresses me and I clutch in desperation,

At old phrases, my palms wet with perspiration

Soon they leave and, with fears of rage,

I exit the party, my social life still an empty page.

Are the words of a character in *shyness* by Gibson, this truly resembles the characters of today’s younger generations of India.

Tension & stress have become the part & parcel of everyday life. In the modern world, which is said to be a world of achievements, one finds stress everywhere in life. Right from the time of birth till the last breath drawn, an individual is invariably exposed to various stressful situations. Stress is a word which is hard to avoid. If one asks people about their stress and in particular how they know it exists, two general kinds of things
are described. Firstly, there are experiences of mental discomfort, often accompanied by feelings of not being able to cope, that things are falling apart, that one is not in control of oneself and one’s situation (or) just a general unease that all is not well without any particular cause being apparent. Secondly, the physiological manifestations of loss of appetite, sleeplessness, sweating, ulcers and other physical illness of various degrees. Different people have different views about it, as stress can be experienced from a variety of sources.

The concept of stress was borrowed from the natural sciences, derived from the Latin word ‘stingere’ meaning to draw tight. Stress was popularly used in the seventeenth century to mean hardship, strain, adversity (or) affliction. It was used in the eighteenth and nineteenth centuries to denote force, pressure, strain (or) strong effort with reference to an object (or) person (Hinkle, 1973). Originating in the physical sciences, the term has the meaning of a force which, acting on a body, produces strain (or) deformation. Later stress has come to represent the bodily condition under strain. Both in the physical & biological sciences and behavioral study, the concept of stress meant an extreme condition, involving tension, perhaps damage and some form of resistance to the straining force.

1.1 STRESS-DEFINITION-CLASSIFICATION

The terms “stressors” as they relate to this research, will also be defined. Once again, these definitions are a mixture of mental health and organizational behavioral science.
Stress defined

Stress is defined by Bruno (1991)\(^2\) as the rate of wear and tear on an organism. Selye (1976)\(^3\) a Canadian physician, was an early explorer of the effects of stress on health. He defined stress as the sum of all nonspecific changes caused by function or damage. From his medical perspective, Selye suggested that the body responds to psychological changes related to “fight or flight” syndrome. Herbert (1997)\(^4\) defines stress as a general term that refers to any demand psychological or physical that is outside the norm. Herbert states that stress usually signals a disparity between what is optimal in a given situation and what actually exists. (Bruno, 1991)\(^2\) Beehr and Newman (1978)\(^5\) define occupational stress as “A condition arising from the interaction of people and their jobs and characterized by changes within people that force them to deviate from their normal functioning.”

Mason (2001)\(^6\) defines stress as “reactions of the body to negative influences”. Mason further explains that “external stress maybe positive or negative (pleasure, challenge, divorce, work responsibilities)”. French (1971)\(^7\) defines stress as “it is the consequence that an individual’s ability or skills fail to coordinate with the job or the job environment cannot satisfy the individual demand”.

Miller and Simerglia (1998)\(^8\) defined stress as “the individual’s general feeling or unease or upset in response to a traumatic life event and the accumulation of others, concomitant problems or change”. They divide stress into two constructs; event stress and added stress. Event (or primary) stress is defined as “reaction that is directly related to a stressful life event”. Added (or coincidental contextual) stress is differentiated as the result of additional problems and changes that are occurring about the same time as the
primary event stress. Robbins (2001)\(^9\) defines stress as “a dynamic condition in which the individual is confronted with an opportunity, constraint or demand related to what he or she desires and for which the outcome is perceived to be both uncertain and important”.

**“Stressor” Defined**

Anisman and Merali (1999)\(^10\) define the term stressor as “a situation or event appraised as being aversive, in that it elicits a stress response”. This then taxes a person’s physiological or psychological resources, as well as potentially provoking a subjective state of mental or physical tension. Stressors can be divided into two classifications: psychogenic and physical tension. Stressors of a purely psychological origin are called psychogenic stressors. Neurogenic stressors usually involve a physical stimulus. In addition, Anisman and Merali (1999)\(^10\) have segregated environmental stressors as either systemic or possessive. Possessive stressors require appraisal of a situation involving high-level cognitive processing of incoming sensory information. In contrast, systemic stressors are of physiological origin.

Simply defined, a stressor is “an event that causes stress to the individual when he or she appraises the demands as exceeding the resources” (Lazarus and Folkman 1984)\(^11\). Herbert (1997)\(^4\) utilizes the definition of stressor as an environmental event. “Stress is an adaptive response to a situation that is perceived as challenging or threatening to the person’s well-being”. The stress response is a complex emotion that produces physiological changes to prepare us for ‘fight or flight’ – to defend that threat or surrender to it.

**Acute stress and Chronic stress:** Stress is a physical and emotional reaction that everyone experiences as he or she encounters changes in life. These reactions can be
positive or negative. Many scientists see stress as a reaction of our body to sudden changes in the environment. Just like animals, people need extra energy to stay and fight or run away when faced with danger. The body’s normal reaction to a somewhat dangerous situation is an increase in heart rate and muscle tension and a higher blood pressure. Having such physical and emotional reaction help us by increasing our concentration and other bodily functions in order to prepare to face a challenge. After meeting the challenge the body relaxes as the heart rate, muscle tension and blood pressure return to normal. This gives the body a chance to recover physically and for the person to feel emotionally rewarded for overcoming the challenge. This is called good stress or acute stress.

Under the situation that causes physical and emotional stress reaction as continuous or perceived as non-stopping, the body never gets a chance to relax. This causes constant tense muscle and a “knotted” stomach. This type of situation is called a bad stress or chronic stress. Stress is an inevitable feature of work and personal life. It is neither inherently bad nor destructive.

1.2 MODELS AND THEORIES OF STRESS

Over the past 50 years, valuable research has been undertaken in the field of occupational stress. Some of the more popular and widely used models are discussed below and an attempt is made to highlight the commonalities in the research. Selected models of work stress are described in this chapter. They are Person-environment fit model, Stress cycle model, Transactional model, Interactive transactional process model and Role episode model.
Person - Environment fit model

French, Rogers, and Cobb, (1974), introduced this model in stress research. The fit between the person and the work environment is projected in this model. Two types of fit are explained. The first type discusses the ways a work occupant with his/her abilities and skills match work related demands. The second type projects the extent of work environment providing facilities to match the demands of the work occupant. Thus, the person- environment fit model establishes stress as a condition resulting from the mismatch between the work occupant and the work environment.

Stress cycle model

Mc Grath proposed the stress cycle model in 1976. The author conceptualizes five types of stress namely task based stress, role based stress, stress intrinsic to behavior, stress arising from social environment in the form of inter- personal relations, and stress within the person system. Mc Grath developed model based on the perception that stress behavior in an organization is a product of interaction among three sets of variables: (i) Physical and technological environment in which behavior take place (ii) Interpersonal relationships with in which the behavior takes place and (iii) The Self-system of the focal person.

Transactional model of stress

Cox (1978) regards stress as a personal phenomenon. It emerges from the transaction between the person and his or her situation. Transactional models based on four components such as personal resources, internal needs and personal values, environmental facilities and support, and external environmental demands and constraints. Transactional model of stress is similar to person-environment fit model.
Continuous appraisals of demands confronting one's abilities to meet those demands occur in this stress model. The essential part of the model is the presence of transaction at different situations. The unit of transaction rests on feedback mechanism that attempts to maintain person's state of balance or equilibrium condition.

**Integrative - Transactional process model**

The model propounded by Schuler (1982)\(^1\)\(^5\) emphasizes the reciprocity of transactions. It clearly states that transactions are not unidirectional, but are essentially reciprocal. This model is an integrative one as it is developed for research in the multidisciplinary areas. The components of this model include environmental stressors, personal traits, and personal responses.

**Role - Episode model**

Kahn (1964)\(^1\)\(^6\) postulated that urge for identity is a major concern for people. This leads to seek satisfaction at work situation but usually persons are confronted with conditions of conflict and ambiguity. This model identifies role stress, role conflict and role ambiguity. The model stresses the interaction between role-senders and the focal-person. Thus, the model incorporates organizational, personal, and interpersonal factors that affect role episodes.

The above discussed models provide a theoretical understanding of role system at work, match between personal and work related factors, interaction among the various components in generating stress conditions and influence of coping factors in the management of work stress.
1.3 DIMENSIONS OF STRESS

Stress has several dimensions. The various dimensions of stress are explained by Yerkes-Dodson Law\(^\text{17}\), by forming relationship between level of stress and arousal in the individual and performance parameters. According to them, stress can be viewed as an arousal continuum ranging from extremely low arousal to extremely high arousal. Situations which are characteristically low on arousal are the ones which produce complete boredom and monotony. Employees with very less work or with monotonous job feel low stress, as they do not have much work to perform the stress/arousal level will be less. Once arousal level increases, performance of the employees/workers will also increases. The performance and arousal are related in an inverted U shaped curvilinear fashion (fig.1), with maximum performance occurring at some moderate level of arousal. In other words, while stress is not always deleterious, too much stress is definitely harmful for the individual, physiologically, emotionally or even in cognitive terms. At the same time, not being under stress at all is equally detrimental. Too little or too much stress is bad. An optimal level of stress, varying from individual to individual is good and necessary.

**Low Stress**: Situations which are characteristically low on arousal through which one feels complete boredom and monotony.

**Moderate Stress**: optimum level of stress where an individual can comfortably utilize his/her energies/resources to complete the job assigned to him/her.

**High Stress**: Situations which are characteristically high on arousal through which one feel completely drained and where he/she feels demands placed on them are higher than their abilities.
1.4 OCCUPATIONAL STRESS AND ITS CAUSES

Ever since the hoary past, one of the important goals of mankind has been in the pursuit of happiness, peace and stress free life. The process has led us from stage-to-stage till we find ourselves caught in a dynamic technological whirlpool which has ‘spawned mega-bureaucracies’ ‘micro task specialization and greater urbanization’. Phenomenon like these are closely linked with work settings which have numerous systems such as production, finance, marketing administration as well as macro-organizational levels of goals, strategies, climates, cultures, structures, management styles and performance. These are considered to be essential for the growth of the organization and its role incumbents on the one hand and society at large on the other. Very often the human in the
system is reduced to a mere insignificant cog in the wheel of the total technological set up. This tends to generate feelings of powerlessness, meaningfulness, and consequent cause for the stress.

When we consider work stress in particular, research indicates six major sources of pressures (Cartwright and Cooper, 1997). These are as follows:

1. Factors intrinsic to the job: These are related to poor working conditions, shift work, long hours, travel, risk and danger, poor technology, work under load and work overload.

2. Role in the organization: When a person’s role in the organization is clearly defined, stress can be kept to a minimum. An individual will undergo stress when his role in the organization is not clearly defined. Cartwright and Cooper mentioned only three types of this stress, whereas Pareek (1993) has provided a fairly comprehensive list of stresses commonly encountered with reference to one’s role in the organization.

3. Relationships at work: As early as in 1946 Selye had pointed out that ‘good relationships between members of a group are a key factor in individual and organizational health’. There are three critical interpersonal relationships at work, i.e., relationships with one’s boss, those with one’s subordinates, and those with one’s colleagues.

4. Career development factor: This includes the degree of job security, fear of job loss, obsolescence of one’s skills and capabilities and approachment of retirement. For many workers, career progression is of overriding importance. Performance
appraisals (actual or even the fear of potential appraisal) can be an extremely stressful experience.

5. Organizational structure and climate: Non-participation at work and a general lack of control in the organization will generate a variety of stress related symptoms.

6. Non-work pressures: This includes pressures on the home front due to job stress. Another commonly seen effect is manifested due to dual careers, especially for women. The dual career family model may be a source of stress for men as well. The amount of time they are able to devote to their jobs, the degree of mobility they have, the acceptance of transfers if the wife is also working are some of the factors creating stress.

The extent of stress is however a matter of degree. Some organizations manage to generate a more harmonious work atmosphere whereas others have greater friction and tension. Human behavior in an organization is influenced or directed by several physical, social and psychological factors.

1.5 CONSEQUENCES OF STRESS

Stress leads to various consequences which are detrimental to the human beings. Employees working for different organizations reeling under stress undergo various types of consequences which are as given below.

**Physiological Consequences**

Stress will have an impact on the well-being of the employees/workers in the organization. Various manifestations of stress are physiological consequence, emotional
consequences, behavioral and cognitive consequences. Stress affects the heart rate, respiration, blood pressure and digestion among employees. A major physiological consequence is hypertension, which is nothing but high blood pressure. Hypertension denotes the condition when the blood pressure is consistently higher than normal. Though hypertension may not be associated with any symptoms, yet it may kill a person slowly. Complications due to high blood pressure include erosion of end organs such as the kidneys, heart, brain and eyes. It can lead to heart attack, thickening of the heart muscles, heart failure or heart enlargement, stroke, cerebral hemorrhage, renal failure, poor vision etc. Another major effect is to the immune system (Lovallo, 1997)\textsuperscript{20}. Immunologists had earlier believed that the immune system is fairly autonomous in its functioning, responding only to the presence of illness. Recent findings reveal that the immune system is ultimately under behavioral control (Felten et al., 1991)\textsuperscript{21}. There are at least three ways in which stress affects the immune system:

1. Stress affects the immune system activation not only fresh viral onslaught but also tends to reactivate latent viruses. Emotional distress can lower the effects of Hepatitis B vaccination (Glaser et al. 1992)\textsuperscript{22}; it can reactivate latent virus such as those causing Herpes Simplex.

2. Stress increases the risk of rheumatoid arthritis. Sternberg et al. (1991)\textsuperscript{23} have proposed that certain physiological mechanisms associated with depression may enhance susceptibility to or increase the severity of rheumatoid arthritis.

3. Life stresses alter the immune system function. Researches on volunteers experiencing negative life events and negative emotions indicate that these people
are more likely to have higher rates of infection or contacting colds (Cohen, 1994).

**Emotional Consequence**

Emotions refer to the feeling aspect of behavior such as mild irritation, rage, despair, sadness, love and liking. Emotional changes are highly subjective. One can experience them, but one cannot express them in words. Often a person may be seething the anger within, but maintains a cool exterior, clearly indicating that emotions are not always observable. In general emotions are internal states, which are often short-lived and can even be experienced in combination (one can feel anger, fear and even pleasure at the same time). Three identifiable emotional constellations that are a fairly regular outcome of stress are anxiety, anger and depression.

**Behavioral Consequence**

Stress may do considerable damage to a person internally, but there are external manifestations too. The most important and probably the most relevant for the manager is how stress affects the ways in which people behave the effects on their interpersonal behavior. There are at least three important areas of interpersonal behavior which are affected; relationships within the family, relationships with peers and relationships with other people. We may dump our negative feelings, our frustrations and our tensions on our family members or our friends (who often have nothing to do with the cause of the stress). Some of the commonly seen behavioral effects are:

- Arguments and fights over relatively trivial matters
- Overdependence
• Uncommunicativeness

• Unreasonableness

• Withdrawal of love

• Lack of interest/over interest in sex.

**Cognitive Consequence**

The relationship between stress and mental functioning is in the form of a U-shaped function. Thus, moderate levels of stress are considered optimal for mental operations such as attention, learning, problem solving and creativity. At lower levels of stress, one fails to be attentive enough (may show all the signs of boredom, weariness, lack of interest, lethargy) and at higher levels, cognition may become highly distorted. Some of the distortions are as follows:

• Greater attention paid to negative aspects of life and work

• Inability to concentrate due to constant worry and anxiety.

• Overemphasis on self rather than on task

• Problems in retrieval/recall from memory.

• Reduced responsiveness to incidental data (e.g., one may focus just on the words used by the boss but not the context)

• Narrowing span of attention i.e., the number of things or aspects that one can attend to simultaneously.

**1.6 REVIEW OF LITERATURE**
The word stress has originated from Latin. It means hardship, adversity, or affliction. Stress is the action on a body of a system of balanced forces where by strain or deformation results. Stress is mental, physical, or emotional strain or tension. The meaning of strain is, to exert to the utmost, is to stretch beyond the proper point or limit. Stress is a threat to the quality of life, and to the physical, and psychological well-being. In the seventeenth century, the word “stress" is popularly used to mean hardship, strain, adversity or affliction (Chakrapani, 1995). In 1936, Hans Selye has introduced stress as a concept in the life sciences. During the eighteenth and nineteenth centuries, stress is identified with force, pressure, or strain exerted on a person or material object, which resists these forces and attempts to maintain original position. Stress is defined in engineering as the “ratio of the internal force brought in to play when a substance is distorted to the area over which the force acts” (Hinke, 1973). Stress is perceived as negative influence, which disturbs the natural equilibrium of the body, and includes within its reference, physical injury, deprivation, exposure, disease and emotional distress. Thus, distress, disturbance, disease, strain, and disequilibrium are the words commonly associated with stress. According to Lazarus, stress refers to a broad class of problems, which are distinct from the other ordinary problems.

Stress is the "ratio of the internal force generated within a solid body by the action of any external force which tends to distort body; 'strain' is the resulting distortion, and the external force producing the distortion is called 'load'. Even though physicists and engineers in their studies have initiated the concept of stress, it has flourished through the researches of psychologists and social scientists in the 19th and 20th centuries. Based on these studies, Selye has formulated the 'General Adaptation Syndrome'. It constituted
three stages - the Alarm Reactions, Resistance, and Exhaustion, Canadian physician and physiologist, Hans Selye made a distinction between stress and distress in the 1950s. Stress is the normal set of pressures that focus us, help us jump out of the way of danger and help them see potential problems in adverse. Distress includes those facts which would normally have caused a response in humans and other animals but to which we can no longer respond as nature intended. Some of us internalize the distress and end up with physical illnesses like headache, stomachache or backache. Others pass on the distress to others and take it out on people around us. Both of these are destructive. He has termed these reactions as "the General Adaptation Syndrome" (GAS). Not only the hardship and struggle as a way of life that causes Selye's distress, it is much more multi-dimensional and cumulative. There is the impact of personality type on our stress levels and we all have different "stress buttons". Life events, physical challenges, reactions to change and self-esteem all lead toward stress. When human body experiences physical stress according to General Adaptation Syndrome, it basically has three levels of response. The first is specific to the stressor that has caused it. For example, during freezing cold, our blood vessels constrict and move away from the surface of the body and our body shivers. The first level responses are termed as "alarm reactions". The secondary reactions are almost identical. For example, during stress, we need emergency energy and our body releases the stored energy. Several other reactions occur, like stopping the digestive work and slowing down our immune system, and we perform tasks that are impossible under other circumstances. These reactions are termed as "adaptation reactions". The final level is called "exhaustion", when many of the stress related diseases develop because we have used up much of our energy in one area and the other areas no
longer can garner the resources to be effective. Our body passes stress along to various parts of the anatomy, which in turn leads to overt physical symptoms that include the whole body organs and systems, from skin to cardiac functioning. The amount of stress and the type of stress we can handle is different for everyone. That is mainly due to our personality type, although all of us have a certain point, beyond which we can become seriously ill.

Stress is valuable to an extent. Certain stressors lead to increase in performance followed by a healthy tiredness eliminated by rest. When we get caught in a self-defeating struggle to close the gap between what we are capable of achieving and what we think we must achieve, we are led from eustress (good stress and positive reactions) to distress (over stress and accumulatively negative reactions), then people are referred to as having a "breakdown". There are essentially three different, but overlapping approaches to the definition and study of stress—the engineering model, the physiological model, and the psychological model. The first two models are obvious among the earlier theories of stress, while the psychological models characterize the contemporary stress theory.

Stress terminology has undergone noteworthy changes during 1950s. Stress is perceived as the resultant of the mismatch between person and environment. It conceives stress as a dynamic and inevitable state of human organism. Since stress is a dynamic state within an organism in response to a demand for adaptation, living creatures are continuously in a state of more or less stress. Stress is typically associated with constraints and demands, the former preventing you from doing what you desire and the later referring to the loss of something desired. Constraints and demands lead to potential
stress which when coupled with anxiety or the outcome and the importance of the outcome, leads to actual stress.

The concept of overload contributed by the physical sciences is also subjected to change- "we should not consider stress as imposed upon the organism, but as its response to internal processes which reach those threshold levels that strain its physical and psychological integrative capacities close to or beyond their limits". Researchers have highlighted the importance of perception causing stress for a person. This is not a simple perception of the elements of a situation, but a judgment, an interference in which the data are assembled to a constellation of ideas and expectations. Researchers have also focused on identifying the individual orientations in explaining stress. It is stated that stress occurs when demands on person exceeds his adjustment resources. The researchers have further explained that the environment stressful to one person may not be so for another person. Stress is the process that occurs in response to events that disrupt, or threaten to disrupt, our physical and psychological functioning. It is a many faceted process that occurs in reaction to events or situations in our environment termed stressors. An interesting feature of stress is the wide range of physical and psychological reactions that differ from person to person and from time to time.

In simple terms, stress occurs only to the extent that the persons involved perceive that the situation is somehow threatening to their goals (referred to as primary appraisal) and that they will be unable to cope with these dangers or demands (often described as secondary appraisal). Hence, the researchers investigated stress in relation to personality traits.
When the term stress is used in the psychological context it is not necessarily equivalent to systemic stress. Psychological stress is in general a broader term encompassing both systemic stress and the conditions preceding systemic stress. In psychology, stress refers to a state of the organism resulting from its interaction with environment. Physical and neurological stimuli are primarily studied in physiology and psycho- biology as systematic stress and psycho -social stimuli in psychology as psychological stress. It is understood that the concern of the physiologists is primarily with physiological changes; psychophysiologists with health and behaviour; and psychologists with deviation at the psychological (anxiety, depression) and behavioural levels such as withdrawal or aggression.

**Organizational sources of stress**

Organizational sources of stress includes organizational structure, organizational climate, job satisfaction, job involvement, individual role in organization, Hierarchical level, career development, interpersonal factors and Home/work interface. Majority of the past studies have tried to study the effect of individual role on stress (Madhu, 1976\textsuperscript{27}; Rao, 1987\textsuperscript{28})

Stress may be viewed as a stimulus to growth and achievement of a new balance. Keeping in view that stress is a personal response to certain variation in the environment it is possible to (Pestonjee, 1987\textsuperscript{29}) conceive the same set of stressors can be differently perceived depending on.

- The nature and magnitude of the strategy.
- The importance of the stressor to the individual.
- The perception of the threat element as a component of the stressor.
• The personal and social support systems available to the individual and
• The involvement and willingness on the part of the individual ‘to do something’ about the state of stress.

One must view the sources of stress in light of social system to which we all belong (Pestonjee, 1987). There are two such systems the primary system such as family and religious, regional and linguistic groups the secondary system to which we relate such as neighborhood, schools, colleges, technical institutes and work organizations. As the functional requirements and role expectations from both these systems differ the demands made on the individual in one system have their effects on his/her performance in the other. Moreover resources from one system can also be invested in the other system to take care of the problems arising in it.


Ahmad and Khanna (1992) investigated the relation between job stress, job satisfaction and job involvement in Hotel managers. Pandey (1997) conducted the study and determined the relationship between personal demographics and organizational role stress in Indian Railways personnel Minaketan (2000) study on sources of stress include interpersonal organizational and private life stressors.

**Organizational structure and change**
One of the chief potential sources of employee stress is simply being in the organization and threat to an individual freedom, autonomy and identity. This situation creates problems such as little or no participation in decision-making process, lack of morale, lack of effective consultation, poor communication, restriction behavior and office politics (Cooper and Payne, 1978)\(^35\).

According to French and Caplan (1973)\(^36\); Schuler (1979)\(^37\) an individual’s participation in the decision making process especially when they are related to his/her work and perceived as legitimate should be related to his/her needs for meaningfulness, a sense of responsibility, autonomy, certainty and a sense of ownership. The benefits of participation in reducing stress has been stated by Buck (1972)\(^38\); Schuler (1979)\(^37\).

Organizational structure as potential source of stress among military officers has been studied by Rogers and Shani (1987)\(^39\) and upper middle managers (Rogers, 1997)\(^40\). Occupational type or organizational structure and climate are sources of stress according to Marks (1967)\(^41\) and Cooper and Marshall (1976)\(^42\). Brown and Lawton (1986)\(^43\) stated that burnout among probationary officers can be particularly attributed to the organizational structure in traditional bureaucracy.

Ahmad (2003)\(^44\) aimed at studying the organizational change with special reference to life satisfaction among employed women. Results indicated that young women are more prone to life satisfaction than old women towards organizational change, although both the groups of women have shown quite favorable inclination towards organizational change.

**Organizational climate and working conditions**
Organizational climate or environment and working conditions act as potential sources of stress. Sarason and Johnson (1979)\textsuperscript{45} investigated the relationship between change experienced both within the personal lives and in the work environment and job satisfaction. Results suggest that negative life change experienced with one’s personal life are related to lower levels of satisfaction with both the change and negative changes being related to lower levels of satisfaction.

Mukharjee (1997)\textsuperscript{46} studied relationship between organizational role stress and organizational climate in banking professionals and revealed that junior level managers experienced higher stress on all the role stress dimensions as compared to senior level managers. Houtman et al. (1998)\textsuperscript{47} study monitored on risk and consequences of stress and physical load at work, preventive actions in companies to reduce risks and organizational and environmental variables.

**Job satisfaction, Involvement, commitment**

From the previous research studies, it has been stated that there exist negative relationship between stress and job satisfaction. Schuler (1977)\textsuperscript{48} stated that the less stress leads to more satisfaction and involvement. Keenan and Mc Bains (1979)\textsuperscript{49} study did not find any relationship between role conflict and job satisfaction and tension and ambiguity, but found the relationship between role overload and tension. He suggests that high levels of workload results in increase of anxiety, but was not associated with lowered job satisfaction.

P.K. Srivastava and M.M. Sinha (1983)\textsuperscript{50} investigated the effect of employees ego strength and job involvement on their experience of role stress arising from overload, role ambiguity and role conflict. It revealed that the more the involvement the less the role
stress. Mishra (1986)\textsuperscript{51} studied the role of strenuous working conditions in Indian population as a potential moderator of the job satisfaction, job involvement in Industrial supervisors. He concluded that strenuous working conditions did not have any effect on the job dissatisfaction, job involvement relationship. But his study (1987) on the influence of occupational stress and job satisfaction on job involvement found that job involvement scores were related only to job satisfaction and that occupational stress and job satisfaction had a significant negative relationship.

Kedar Nath (1988)\textsuperscript{30} studied the effect of organizational climate, role stresses and locus of control on job involvement among banking professionals. Results revealed that subjects who experienced high role stress has less job involvement. Ahmed et al. (1991)\textsuperscript{52} examined relationship between Occupational role stress (ORS) and job satisfaction and revealed that ORS was significantly but negatively correlated with all four factors of job satisfaction (nature of job, management, personal adjustment, and social relations). Burge et al. (1991)\textsuperscript{53} study focused on determining the relationship between employees level of work satisfaction and related it to balancing work and family issues. Results indicate that high levels of stress were associated with low levels of work satisfaction. Findings indicate that the effects of stress on work satisfaction were greater than those of work satisfaction on stress.

Luhadia (1991)\textsuperscript{54} studied relationship between role stress and job satisfaction in various level officers. Results revealed that job satisfaction was found to be negatively related with role stress. Higher the stress lowers the job satisfaction. Ahmad and Khanna (1992)\textsuperscript{32} investigated the relationship between job stress, job satisfaction and job involvement among hotel managers. Analysis revealed a significant negative
relationship between job stress and job satisfaction. Occupational stress was reported to be negatively correlated with job involvement and the high job involvement group was more satisfied with their job than low job involvement group.

Grover and Sen (1994)\textsuperscript{55} compared job stress and organizational commitment in managers and supervisors and found that managers experienced less job stress and expressed greater organizational commitment as compared to supervisors. Chandraiah et al. (1996)\textsuperscript{56} examined the incidence of occupational stress, job satisfaction and Type-A behavior among managers. Results revealed that high stress is associated with low job satisfaction. Sehgal (1997)\textsuperscript{57} attempted to assess the effect of role stress on the level of involvement the person has in job and found that job involvement was found to be correlated negatively and significantly with role stress.

Gupta and Kulakarni (2001)\textsuperscript{58} study tested two concepts, firstly more dissatisfied employees will experience greater role stress and secondly, less job involved employees will experience greater role stress. Analysis yield results which confirmed that more dissatisfied employee and less job involved employees experienced greater role stress.

**Role in organization**

An organization can be defined as a system of roles. However, role itself is a system. Pareek (1993)\textsuperscript{59} has defined role as any position a person holds in a system (organization) as defined by the expectations of various significant versions, including himself/herself have from that position. Srilata (1988)\textsuperscript{60} attempted to study the organizational role stress, role ambiguity, role conflict and intrinsic as well as clarity aspects in public and private sector organizations. Results showed negative relationship
with three factors of role perception – clarity, difficulty and intrinsic nature in both sectors.

Upinder (1991)\textsuperscript{61} examined the concept, determinants and management of stress. The determinants were identified as follows: Personality characteristics, role overload, role conflict, role ambiguity, role stagnation, mid-life crisis, absence of social support and role incompatibility. Satyanarayana (1995)\textsuperscript{62} investigated stressors among agents and supervisors of BHEL and revealed that role erosion, personal inadequacy, resource inadequacy and role stagnation were dominant contributors of role stress.

Pareek (1995)\textsuperscript{59} found ten types of role stress among managers in organizations. They are self-role distance, role isolation, role ambiguity, role expectations conflict, resource inadequacy, personal inadequacy, role stagnation, role-erosion and role overload. The following nine factors seem to contribute to executive glow up or burnout; level of stress, type of stress, personality, nature of the job or the role, non-work life, lifestyle, role style, coping styles and organizational climate.

Srivastava (1997)\textsuperscript{63} examined the dynamics of role stress in large public sector organization and revealed that maximum role stress was experienced on the dimensions of role erosion followed by self-role distance, resource inadequacy, role isolation and role expectations conflict. Chand and Sethi (1997)\textsuperscript{64} examined junior management officers in various banking institutions in Himachal Pradesh state and found significant positive relationships between job related strain and role overload, role conflict and strenuous working conditions.
Pestonjee and Mishra (1998) found through references that stress has both negative and positive effects. Negative effects can be role ambiguity, anxiety etc., the positive effects can be creativity, determination, persistence, self-sufficiency etc.

**Organizational Hierarchy**

The position or the level in which the individual is placed also play key role in generating stress and stress varies along the organizational hierarchy. The following studies reveal the same. S. Singh (1986) studied various dimensions of stress and revealed that higher level agents experienced less stress and strain. Palnitkar (1987) attempted to explain occupational stresses in the job level and found that Class-I officers exhibited significantly higher occupational stress than class II officers.

Kumar (1989) studied relationship between role stress and level of managers and revealed that role stagnation, personal inadequacy and self-role distance were found to be significantly higher among lower level agents. Luhadia (1991) studied relationship between role stress and job satisfaction in various levels of officers differed on role stress dimensions. Role inadequacy caused maximum stress in higher level officers whereas role erosion caused maximum stress for middle and junior level officers. Role stagnation caused minimum stress in higher level officers and also influences job satisfaction on the whole. Job satisfaction and role stress were correlated negatively and significantly in higher, middle and junior level officers.

Mc Carthy (1993) found in their survey that the experience of burnout is different depending on the level of organization of these non-management personnel experienced the highest burnout. Desai (1993) studied managers at various levels (30 at level 1, 70 at level 2, 50 at level 3) and attempted to identify and determine differential
response profile of three levels of management. Different measures of rest and mental workload and he examined the relation between stress and workload in the three levels of management. Results indicated that higher and middle management had higher and similar levels of stress and mental workload, followed by lower management.

Srivastava et al. (1994)\textsuperscript{71} compared organizational role stress and job anxiety among top managers, middle managers and workers in private sector organizations. Results reveal that middle level managers perceived greater role stress and anxiety in comparison to top managers and workers. Pareek (1995)\textsuperscript{59} stated that top and senior managers experience more frequently role erosion, self-role distance in that order. However among middle managers role stagnation is more evident than inter-role distance. Chandraiah et al.(1996)\textsuperscript{56} examined the incidence of occupational stress among junior and senior managers and revealed that Junior managers reported high job related tensions, particularly in terms of home/work interface as well as lower job satisfaction on the job itself.

Sehgal (1997)\textsuperscript{57} attempted to assess the effects of role stress on the level of involvement the person has in the job. Results reveal that senior level agents scored higher on ORS as compared to junior level agents. Mukherjee (1997)\textsuperscript{46} studied relationship between role stress and organizational climate in banking professionals and revealed that junior level managers experienced higher stress on all the role stress dimensions as compared to senior level managers.

Jagadish and Singh (1997)\textsuperscript{72} examined the moderating effect of hierarchical level on occupational stress and strain, job satisfaction and mental health. Results reveal a
significant relationship between job satisfaction and occupational stress. However this was not observed in the case of occupational stress and mental health. Kakar (1998)\textsuperscript{73} stated that stress at the top level manifests itself primarily for two reasons. One is where you do not have control over situations but are accountable for the outcome. This is a part and parcel of every managers working life. It is more attenuated due to higher stakes at top. The second reason is loneliness at the top. There exists problems which he must solve them face them and live with them. Besides these, there could be malfunctioning in the company and problems at home which will add to the stress.

Agrawal (1998)\textsuperscript{74} studied job satisfaction and job stress in three hierarchical ranks of employees. Results revealed that those who perceived themselves to be close to management were satisfied and less stressed than those who did not perceive themselves to be close to the top management.

**Career Development**

Career crisis is another important area related to organizational sources. Career crisis represents any one of several conditions in which an individual may find himself/herself and which may occur midway through individual career. Over promotion, lack of job security, status incongruence and thwarted ambition are some of the conditions of career crisis (Cooper and Marshall, 1976)\textsuperscript{42}. Stress as resultant of career choices is explained by Erikson, Push and Gunderson, (1972)\textsuperscript{75}; Brook, (1973)\textsuperscript{76}; Klenier and Parker, (1963)\textsuperscript{77} Arthur and Gunderson (1965)\textsuperscript{78} found that promotional delay was significantly related to psychiatric illness.

According to Sofer (1970)\textsuperscript{79} career progressions is of overriding importance for many managers. He further states that at middle management level career becomes
slowed down if not actually stopped. Constandse (1972)\textsuperscript{80} refers to this phase as the ‘male menopause’. According to Sleeper (1975)\textsuperscript{81} managers adapt their expectations to suit new circumstances “career development” stress especially in later life is likely to become an increasingly common experience.

According to Guest and Williams (1973)\textsuperscript{82} the complete career cycle say that because the demands of the different systems change overtime they cause stress. Cooper and Marshall (1978)\textsuperscript{83} stated major clusters of potential stressors in this area.

1. Lack of job security, fear of redundancy obsolescence or early retirement, etc.
2. Status incongruity under or over promotion, frustration having reached ones career ceiling etc.,

Tomaka et al (1997)\textsuperscript{84} studied threat and challenging responses to potential stress. Studies suggest a central role for cognitive appraisal processes in elicitation of threat and challenge response to potentially stressful situations. Pestonjee and Mishra (1998)\textsuperscript{65} state the challenges in one’s career can cause stress but they also create the strengths to face them and achieve success.

**Interpersonal factors**

To understand the process of organizational stress one must study the psychological process, interpersonal relation and individual problem in work environment. Poor social environment and lack of support or help from coworkers and supervisors can be real sources of stress. An example would be when an employees’ physical isolation reduces his / her opportunities to interact with other workers or receive help from them.
Kahn et al. (1964)\textsuperscript{85} and Schuler (1979)\textsuperscript{37} suggests that the importance of quality of interpersonal conditions appear to derive not only from its association with need of interpersonal recognition and acceptance but also because of its ripple effect. For example if an individual perceives an unsatisfactory relationship and if theirs is some task dependency between the two, they may find task achievement difficult.

Interpersonal conflict arising in well structural group situation is a source of emotional stress according to Jackman et al. (1963)\textsuperscript{86} and Balint (1967)\textsuperscript{87}. The interpersonal condition in the organization constitutes the nature of relationships an individual has with his/her colleagues and subordinates. The relationship an individual has with his/her manager, colleague and subordinates significantly influence the individuals stress activity.

According to Argyris (1964)\textsuperscript{88}; French and Caplan (1973)\textsuperscript{36} when interpersonal relationships are not satisfactory to an individual stress often sets in. Good supportive work relationship may buffer the effects of job stress on individual strain as stated by Kahn et al. (1964)\textsuperscript{85}; French (1973)\textsuperscript{89} and French and Caplan (1973)\textsuperscript{36}.

Bucks’s (1972)\textsuperscript{38} revealed that behavior of supervisors on the subordinate is significantly and inversely related to job pressures. Managers who felt that their boss was low on consideration said that they experienced more job pressure. The relationship with Boss involves directive, supportive, participative and achievement oriented behaviors (House and Mitchell, 1974)\textsuperscript{90}. Person’s relationship with supervisor’s lack of support from co-workers and inadequate performance by subordinates can be source of stress (Theorell, 1974)\textsuperscript{91}. 30
Cooper and Marshall (1976) explained the supportive interpersonal recognition and acceptance-stress relationship between the employees. According to Burke, (1976) informal relationships do develop in organizations and the co-workers interact around a variety of work and non-work related problems and because of this stress may arise. Cooper and Marshall (1978) felt that inability of the managers to participate in tasks lead to tension or stress. Managers with technological and scientific backgrounds relationships with subordinates can be a low priority and seen as time consuming and as an impediment to do the job well. One would expect their interactions to be more a source of stress than those of people oriented manager.

Barnes, Potter and Fiedler (1983) showed that interpersonal stress generated by competing demands for attention decreases for attention, decreases the power of intellectual performance. Srilata (1988) studied personality characteristics related to organizational role stress and revealed that personality characteristics of the superior supervisory behavior, perception of subordinates and colleagues contributed to the experience of the organizational stress. Reddy and Ramamurti (1991), Minaketan (2000) revealed that interpersonal factors are potential sources of stress.

Home / work interface

Another important source of organizational stress is that of factors inside and outside organization that might put pressure on the person, Reiser, (1974), Cooper, (1981). Pahl and Pahl (1971) are of the opinion that conflict within the extra organizational non-work role, such as family crisis, the effects of which may influence the work role, (Dohrenwend and Dobrenwend, (1974), Gowler and Legge, (1975).
Gowler and Legge (1975)\textsuperscript{98} conceptualized “the hidden contract” in which wife agrees to act as supportive team so that her husband can fill the demanding job to which he aspires without much stress or pressure from the home front. Singer (1975)\textsuperscript{99} and Becker (1976)\textsuperscript{100} explained a range of biological, psychological and social conditions which produce stress, show that the psychological conditions constitute the parent-child conflicts. Sibling rivalry and emotional reactions to internal and external events, social conditions were the genetic cultural and situational factors.

Pre-stress lives were characterized by conflictual interpersonal relationships with high degree of communicative impairments. Few friends and lack of success in handling previous stress, ill-defined goals and few agrees of life satisfaction are precipitating stressful events as stated by Dressler (1976)\textsuperscript{101}. He says that these constitute a ‘Last straw’ in a series of life experiences. According to Burke, Weir and Duwors (1979)\textsuperscript{102} family relationships cause stress.

Eyer (1980)\textsuperscript{103} indicated that migration, marriage delay and disintegration of labor market, unemployment were major non job factors that produce psychological stress. Weinberg and Richardson (1981)\textsuperscript{104} stated that birth of a child is a major extra organizational stressor. Pardine et al. (1981)\textsuperscript{105} report that pressures of non-work and work stress combine in a multiplicative fashion and produce strain in the workers.

According to Brodsky (1984)\textsuperscript{106} factors within and outside the work environment would produce stress. Greenhaus and Bentell (1985)\textsuperscript{107} stated that when time devoted to the requirements of one role makes it difficult to fulfill requirements of another, work-family conflicts exists. Savita and Asnani (1993)\textsuperscript{108} discussed stress, its nature and the
importance of maintaining a balance between work, play, love and worship in reducing stress.

Singh and Sahgal (1995)\textsuperscript{109} studied various measures of stress, strain and social support. The results indicate that men experience greater role erosion than women and single career husbands have higher well-being and married working women display higher irritability, anxiety and depression.

Daga (1997)\textsuperscript{110} examined the influence of social family role stress and social support on quality of life among working women and found significant differences on the relationship of quality of life and social family role stress. Lundberg and Frankenhaeuser (1999)\textsuperscript{111} investigated psychological and physiological stress responses related to work and family in male managers. Both men and women are stressed by unpaid work load and by a greater responsibility for duties related to home and family.

Saini and Das (1999)\textsuperscript{112} studied the relationship between stress in personal and occupational life. Analysis revealed a non-significant positive correlation between scores on the personal and occupational tests implying that the stress experienced in occupational life was independent of stress in personal life.

1.7 SYMPTOMS OR OUTCOME OF OCCUPATIONAL STRESS

Occupational stress and its relationship to physical and mental illness have been of great interest in research. Occupational stress can be organized into two basic schools of thought.

**Physiological symptoms**
Stress is predominant factor for various diseases. It is responsible for heart diseases, hypertension and psychosexual diseases. The following studies reveal that the organizational stress is contributor of ill-health

**Organization stress: Heart diseases**

Bosma et al. (1998)\(^{113}\) examined associations between job stress and coronary heart disease. Doloresksong (1999)\(^{114}\) stated that job stress is linked to heart disease and other health problems like gastrointestinal illness, immune system dysfunction back and joint pain, depression and absentism. Kivimaki et al. (2002)\(^{115}\) found that high job strain and effort reward imbalance seem to increase the risk of cardiovascular mortality.

**Organization stress: Hypertension**

Pickering et al. (1996)\(^{116}\) aimed to relate the job strain to coronary heart disease. Results reveal that job strain is a risk factor for hypertension in men but not in women. Cesana et al. (2003)\(^{117}\) studied the association between job strain at office and BP in a pooled analysis. Results reveal that among men, there is increase of systolic BP moving from low to high strain job categories.

**Organization stress: Psychosomatic diseases**

Srivastava and Singh (2002)\(^{118}\) examined the relationship of job and life stress to health outcomes (psychosomatic health complaints and pathogenic health habits) among male managers revealed that job stress was significantly positively related to psychosomatic health complaints and pathogenic health habits while life stress was observed to be significantly positively related to all the health outcomes.

**Organizational stress: Psychosexual diseases**
Chaudhuri (1977)\textsuperscript{119} studied patients who complained of amenorrhea and found that psychic stress such as over work, anxiety, change in dwelling or occupational confinement were prime responsible for such a disorder.

**Psychological symptoms**

Psychological symptoms are the effects which are studied rather extensively in organizational behavior and Industrial Psychology in association with job stress. Most frequently used variables are job dissatisfaction, role conflict, poor decision-making, etc.

French and Caplan (1973)\textsuperscript{36} suggest that the behavioral consequences or role overload include job dissatisfaction and increased job tension. Many researchers supported that role stress does cause job dissatisfaction (Abdel-Halim, (1978)\textsuperscript{120}, Greene and organ, (1973)\textsuperscript{121}, Gross, Mason and Mc Eechern, (1958)\textsuperscript{122}, Johnson and Stinson, (1975)\textsuperscript{123}, Lyons, (1971)\textsuperscript{124}, Valenzi and Desseler, (1978)\textsuperscript{125} but the studies of Hammer and Tosi (1971)\textsuperscript{126}, (1974)\textsuperscript{127} and Tosi (1971)\textsuperscript{128} found that role conflict and role ambiguity are not always negatively related to job satisfaction but that the amount of reported influence is positively related to the amount of perceived threat and anxiety while role ambiguity was negatively correlated to job satisfaction and influences positively related to job threat and anxiety.

Bheer, Walsh and Taber (1976)\textsuperscript{129} found that role overload was not only correlated positively with organizationally valued outcomes but also with adverse individual outcomes such as job dissatisfaction, fatigue and tension. Singh and Sinha (1987)\textsuperscript{130} middle level agents from seven private and three public sector organizations of north India and found a negative impact on job behavior namely job dissatisfaction. They
further suggested that if there is too much work to be finished in too little time, it will produce job dissatisfaction.

**Behavioral symptoms**

There are different behavioral consequences of organizational stress like poor performance, smoking, drinking, absentism, drug abuse, etc.

**Poor performance**

Lazarus (1960)\(^{131}\) reported that stress narrows the individual apprehensiveness about evaluation of their work performance rests well on creative tasks. Poor performance on job is another consequence related to job related stress (Drabek and Haas, 1969)\(^{132}\) Andrews and Farris, (1972)\(^{133}\).

Margolis, Kroes and Quinin (1974)\(^{121}\), Mc Grath (1976)\(^{135}\) is of the opinion that stress is a unitary phenomenon that influence performance primarily because of the pattern of physiological responses associated with General Adaption Syndrome. Pestonjee (1987)\(^{29}\) reported the relationship between job performance and role ambiguity, role conflict in work setting and revealed that higher the stress the lower the performance.

Singh and Sinha (1987)\(^{130}\) studied agents on group cohesiveness and job requirements capability. Results revealed that agents whose team is not cohesive and who feel that their abilities are not well matched toward their job rate themselves as poor performers. Role conflict is also predicted to reduce a person’s performance. Smith (2000)\(^{136}\) reviewed the scale of perceived occupational stress and revealed that high level of occupational stress may influence physiology and mental conditions.
Smoking and Alcoholism

Smoking can be considered as a resultant of organizational stress. French and Caplan (1970)\textsuperscript{36} found that objective quantitative overload was strongly related to cigarette smoking. Persons with more phone calls, office visits and meetings per given unit of work time were found to smoke significantly more cigarettes than persons with fewer such engagements. Margolis et al. (1974)\textsuperscript{134} found that several stressful aspects of jobs were related to escapist drinking although they used a self-report measures of drinking.

Drug abuse and coffee addiction

Ahuja, Rao and Subbakrishna (1998)\textsuperscript{137} studied job stress in agents. It was observed that 67 percent of the agents found their job to be ‘fairly’ to ‘highly’ stressful. The high stress group had higher caffeine and poor dietary intakes. Further the agents had inadequate knowledge about the role of life style and health factors.

Bray et al. (1999)\textsuperscript{138} examined relationship between perceived stress (at work, in family or personal life) and substance use (heavy drinking, drug use, cigarette smoking) and found significant positive relationship.

Absenteeism and turnover

Employees tend to be away from the job stress by absenting themselves to work or by changing the work situation. Lyons (1971)\textsuperscript{124} has shown that perceived role ambiguity among registered noises is related to voluntary turnover. Absenteeism and turnover have negative organizational consequences.
Margolis et al. (1974)\textsuperscript{134} found that overload was significantly related to absenteeism from low motivation to work and lowered self-esteem and intention to leave the job. Beehr, Walsh and Taber, (1976)\textsuperscript{129}, Gupta and Bheer, (1979)\textsuperscript{139} stated that under extreme job stress, which is aversive, most employees try to avoid it by withdrawing psychologically (disinterest in job, lack of job involvement) or physically through absenteeism or turnover or late coming.

Bhagat et al (1985)\textsuperscript{140} study show that negative stress is related to turnover and absenteeism only when labor market conditions are favorable and people can afford to move to less stressful jobs. Pestonjee and Mishra (1998)\textsuperscript{65} found through references that stress has both negative and positive effects. Positive effects can be creativity, determination, persistence, self-sufficiency etc. Negative effects can be role ambiguity, anxiety etc. It was stated that challenges in one’s career cause stress but they also create strengths to face them and achieve success.

Thus the above are the symptoms of stress in an organization. The same stress experience in organization may cause different symptoms in different individuals as there are individual differences in responding to different situations. In the same manner a stress experience may cause different symptoms in different situations in the same individual. Thus there may be no stability in symptoms of organizational stress. They are interchangeable, interrelated and inter convertible from one symptom to another.

**Chapter Summary**

Stress has become part & parcel of everyday life in the modern world. An individual is exposed to various stressful situations in his/her day-to-day life. The concept
of stress means an extreme condition, involving tension, perhaps damage and some form of resistance to the straining force. Stress leads to various consequences which are detrimental to the human beings. Employees working for different organizations reeling under stress undergo various types of physiological and psychological consequences.