CHAPTER I
INTRODUCTION

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1.1 OCCUPATIONAL STRESS: ITS CONCEPTUAL FRAMEWORK

Now it is an established fact that high and consistent stress is unpleasant and undesirable, and leads to a variety of psychological and somatic pathologies. Consistently increasing rate of psychosomatic diseases and psycho-pathological disorders among the employees and supervisors in the industrial organizations reflect the high level of occupational stress prevailing in the world of work in the modern competitive climate of global economy.

Researches in this area are going on vigorously for more than three decades. The construct of occupational stress has now been identified and established firmly and many factors affecting it have also been identified by a number of researchers.

Caplan, Cobb and French (1975) have accordingly defined occupational stress as, “any characteristics of job environment which poses a threat to the individual”.
Coper and Marshall (1976) have expressed that, “by occupational stress is meant negative environmental factors or stresses associated with a particular job”.

Allen, Hitt and Green (1982) have defined occupational stress as disruption in individual's psychological or/and physiological homeostasis that force them to deviate from normal functioning in interaction with their jobs and work environment. Consistent with recent conceptualization, stress denotes the psychological state experienced by an employee when faced with demands, constraints and/or opportunities that have important but uncertain outcomes (Beehr and Bhagat, 1985; Schuler, 1980).

**Stress:**

The term stress has been derived from the latin word stringere which means to draw tight. The term was used to refer to hardship, strain, adversity or affliction. Various terms have been synonymously used with stress, viz., anxiety, frustration, conflict, pressure, strain etc. The psychologist, Connon (1914), in his work on homeostasis had used the term stress to describe emotional
states that had possible detrimental physical impact on the focal organism. In 1935, Connon modified the use of the term stress to describe physical stimuli and used the term strain for organism's response to the stressor. Some have described the term stress as the quality of stimulus (Dunbar, 1947), while others defined it as the quality of both stimulus and the response. Wolff (1950) described it as a state of human organism. Some others have described it as that class of stimuli which produce anxiety and reportable experience of tense dread (Basowitz, Persky, Korchin, Grinker, 1958). The Concise Oxford Dictionary defines stress in five different ways. But three of these definition are relevant in present context. The first definition offered is that of a constraining or impelling force (e.g. under the stress examination or poverty). The second definition treats stress as an effect or demand on energy (e.g. subjected to great stress). The third definition talks of a force exerted on the body. In Penguin Medical Encyclopedia (Wingate, 1972) stress has been described as, “any influence which disturbs the natural equilibrium of the body, and includes within its reference, physical injury, exposure, deprivation, all kinds of disease and emotional
disturbance”. These dictionary definitions of stress may be presented in a model which denote stress as a constraining force action on a person, who in attempting to cope with this force exerts himself, and consequently feels fatigued or distressed. However, the concept of stress seems to have had special place in the mind of laymen and scientists ever since Selye (1956) popularized the term in his writings on “General Adaptation of Syndrome (GAS)”. He defined stress as “non-specific responses of the body to any demand made upon it”. He was of the opinion that organism makes a universal pattern to response to all types of internal or external demands made on the body. The GAS has three stages, i.e., alarm, resistance, and collapse. The alarm stage is the body's initial response to stressor, e.g., increased heart rate and blood pressure, and release of glucose to provide energy for action. If the stress is prolonged, the stage of resistance emerges. The process of homeostatis comes into play at this stage. The body tries to maintain equilibrium. There is continuing effort to adapt to the stresses during this stage. The body can not go on coping with stress indefinitely. The third stage of collapse is characterized by a loss of resistance to the stressor,
and exhaustion, collapse and even death can occur. But this model of GAS has been challenged by the stress researchers as it does not give any significance to cognitive processes and individual differences in these physical responses to stressors.

Behr, 1984; Bhagat, 1985; Selye, 1956 viewed stress as stimulus that actually environmental situations or conditions characterized as novel, intense, rapidly changing, demanding, sudden or unexpected. Stressful stimuli include fatigue or boredom, highly persistent stimulation absence of aspected stimulation. In this model stress has been treated as an independent variable. In the stimulus model of stress external stresses give rise to stress situation. Stimuli are in fact events such as failure or threat of failure, noxious are unpleasant agents in the environment. Other stimulus situations are (i) Losses of personal, physical, cognitive, or affective functions; (ii) Frustration of anticipated reward or goal attainment; (iii) Failure are change in social feedback mechanism; (iv) Impulse flooding and approach avoidance conflict situations.
Thus, it may be stated that the social situations or events which require a person to make excessive adaptive effort have been considered as stress. But it is very difficult to identify that which condition is stressful and which is not and what are the common characteristics of the stressful situation. The common characteristics of stressful stimuli may be undesirable, unpleasant, uncomfortable, threatening and demanding. Different researchers have taken stressful situations differently. For example Lazarus (1966) considered perceived threat as the main feature of stressful situations. Franken Haeuser (1975,a) has described “lack of control over events” as stressful situation. So in the stimulus perspective of stress we find that all undesirable and excessively demanding stimuli or situations have been considered as stress.

In fact, all these undesirable and excessively demanding stimuli or situations may be more suitably called stressors; than the stress; these situations generate the feeling of persons in some persons by not necessarily in everyone. Situation itself is not stress, it may generate stress. It is the interpretative meaning of a situation
or event that may generate stress in one person and may not generate stress in another person.

The another group of scholars working in this area defined stress in the response perspective. Emphasis was given on the meaning of stimulus rather than stimulus itself. This perspective see stress as an imbalance between the requirements to make an adaptive response and the repertoire of the focal person. The greater the perceived discrepancy between demand and response capacity and the higher the appraised cost of making such reactions, the more stress. There will be impinging on individual. The stress has been used as a response to stressor by a number of researchers. Prominent among them are Behr (1984); Caplan, Cobb, French, Harrison and Pinneau (1975) and Kahn and Quinn (1970).

Selye (1956) is pioneer in giving a model of stress for response theorists. Tache and Selye (1979) stated that “Stress is the non-specific response of the body to any demand made upon it. He described stress as the individual's response to the demands of his environment.
Three basic themes build Selye's concept of stress. First, the psychological stress response does depend upon the nature of the stressor, and not all the organism and which it is evoked. Such responses represent a universal patterns of reactions which protect the individual preserve its integrity. Second, the individual believes that the defence reactions progress in three stages, if the exposer to the stress is continuous, namely, alarm reactions; resistance-bodily changes making the person adaptative to the external force and exhaustion. The third theme of the Selye's concept of stress is that if these defence responses are severe and prolonged, it would result in disease status. It has been observed that much of the physiological response is not directly determined by the actual presence of the stressor agent but by its psychological impact on the person.

**Transactional Model of Stress :-**

This model is more suitable in the present context of complex work. In this approach stress has been regarded as part of a complex and dynamic system of transaction between the person and his environment. It emphasizes that stress is an individual's perpetual
phenomenon routed in psychological process. The model is propounded by Lazarus and Colleagues (Lazarus and Lunier, 1978; Lazarus and Folkman, 1984). This model is regards that stress occur due to demands that tax or exceed the resources of the system. Stress occurs due to demands to which there are not readily available adaptive responses. This model emphasizes ‘cognitive appraisals and coping responses’. A stressful transaction begins with a primary cognitive appraisal that a situation requires and affective responses to avoid or reduce physical or psychological threat or harm, and a secondary appraisal that no completely response is presently available. The events or situations is not stressful in itself. It becomes a source of stress only when the focal person appraises it as to be a threat for him and to exceed his capability to deal with it. The person makes the best response possible and actively defines and shapes stressful transactions by means of his cognitive appraisals and coping responses. The severity of the felt stress is determined by the degree of imbalance between cognitively appraised demand (CAD) and cognitively appraised supplies (CAS) of the human and physical resources. Thus, stress = CAD > CAS.
A stress reaction in the individual is the joint effect of his psychic and somatic dispositions and stress provoking quality of situational conditions. Lazarus (1975) has given a term that is general adaptation syndrome (GAS). The GAS may be precipitated not only by noxious stimuli but by psychological reaction to physical stimuli also. Cox (1978) also defined stress in transactional perspective. According to Cox (1978) stress can only be sensitively defined as a perceptual phenomenon arising from a compression between the demand of the person and his ability to cope. And imbalance in this mechanism, when coping is important, gives rise to the experience of stress and to stress response.

**Cognitive-affective Model of Stress :-**

This model is proposed by Wofford and Daly (1997), it emphasized the role of cognitive and perceptual processes in response to stress situations. The model explains why each individual's perception and response to stressful situation is a unique one. This question has been answered in the light of CASP (Cognitive-affective stress propensity), which includes 8 variables viz., cognitive-affective connectivity, psychological magnification,
attributional style, self-esteem, private self consciousness and anger irritability as determinant stress-strain relationship. Psychological stress is not a simple process. Shrivastava (2000) is of the view that it is a process which comprises of following successive events:

1. Perception of some unusual, demanding, noxious or adverse situation or event.

2. Cognitive appraisal by the focal person of the demands or threats, and probable undesirable consequences of the situation, and of his capabilities and available resources.

3. Emergence of a state of emotional disequilibrium spontaneously followed by deviant or unhealthy psychological, physiological and bio-chemical responses.

4. Operation adaptive or coping efforts by the focal personnel at cognitive and behavioural levels.

Stress, therefore, may be referred to “as a deviant psycho-physiological state of the individual resulted from a situation cognitively appraised as excessively demanding or threatening, and requiring the focal person to make some adaptive efforts to cope with it”.
Occupational Stress :-

Caplan, Cobb and French (1975) have defined occupational stress as "any characteristics of job environment which poses a threat to the individual". Copper and Marshall (1976) have emphasized that "by occupational stress is meant negative environmental factors or stressors associated with a particular job". But some other stress researchers are trying to define it in terms of interaction between worker and work environment. The stress, coolness of a job situation or a factor is determinant not only by the divergent or threatening demands of the situation but how the individual perceives and evaluates it with reference to his own capability and characteristics. Beehr and Newman (1978) described job stress as "a condition wherein job related factors interact with the worker to change (Disturb and Enhance) his psychological conditions such that the person is forced to deviate from normal functioning". Allen, Hitt and Green (1982) have defined occupational stress as a disruption in individual's psychological or physiological homeostasis that force them to deviate from normal functioning in interaction with their jobs and work environment.
French, Rodgers and Cobb (1974) explained that the people vary in these needs, expectations and abilities just as jobs vary in their requirements, demands and incentives. When there is poor fit between the characteristics of the employee and the job, the employees well being is affected. This phenomenon is called as P-E fit. P-E fit is not unilateral, it is bilateral. The employer and the employee both should satisfy each others demands or expectations. Poor P-E fit may cause stress. One form of fit involves the discrepancies between the needs and aspiration of the employee and the supplies and the job and environment to meet his needs and goals. A good P-E fit occurs when the supplies in the environment (money, support from superiors and colleagues, opportunities to satisfy for needs, for affiliation, power and achievement) are sufficient to motives of employee.

Second form of fit involves the relationship between the requirements and demands of the job are the abilities of the employee to meet those demands. If the demands of the job exceed the abilities of the employees or does not match with the temperament and interests of the employees, it will cause stress and results in
psychological strain. If supplies for the motives of the person are threatened by discrepancies between demands and abilities, the individuals will experience stress. P-E fit theory emphasizes the causal relationship between misfit and strain. Severity of strain is determined by the following factors: (i) needs which are not being satisfied, (ii) abilities to meet the job demands, (iii) the genetic and socio-cultural background of the employee, (iv) defence and coping predispositions and (v) situational constraints on particular responses. Ross and Altmair (1994) have also defined occupational stress in P-E fit framework. According to them, “Occupational stress is the result of interaction of work conditions with characteristics of the worker such that demands of the worker exceeds the ability of the worker to cope with them”. The nature and severity of occupational stress may be more adequately and conveniently understood by observing physical and psychological symptoms which occur in the employee under the condition of job stress. Beehr and Newman (1978) have divided these symptoms into three categories :
1. Psychological symptoms - It includes job dissatisfaction, disliking for the job, depression, anxiety, boredom, isolation, frustration and resentment. Because of these problems the employee is not able to cope with the problems of job resulting into the deterioration of performance and mental outlook.

2. Physical symptoms - It has been empirically established that prolonged or consistent job stress links with certain physical symptoms and diseases. These symptoms and diseases include cardiovascular diseases, gastrointestinal problems, allergies and skin diseases, headache and respiratory diseases.

3. Behavioural symptoms - The behavioural symptoms pertaining to job stress can be classified into two categories, one is related to focal employees, and the other belongs to organization. The employees related symptoms are avoidance of work, increased intake of alcohol or drugs, over eating or under eating, aggression towards co-workers or family members and interpersonal problems.
1.2 OCCUPATIONAL STRESS: ITS EMPIRICAL STATUS

Occupational stress refers to the stress or tension experienced by the people while they are performing their duties in their occupations. The concept of stress was first introduced in the life sciences by Hans Selye in 1936. Perhaps the two essential ingredients necessary for occupational stress to come into being as a sub discipline were the finding of the field of psychosomatic medicine by Dunbar and others (In holt 1986). Another important historical event helping to crystalline occupational stress as a new field of research was the passage of the occupational safety and Health act of 1990 creating the occupational safety and health administration (OSHA) in the department of labour. Though literature survey reveals that a lot of work has been done on occupational stress, a review of different studies is as under:

Gupta and Pratap (1987) conducted a study to determine the role of service length on organizational role stress and trait anxiety and coping strategies. The sample of 200 executives of BHEL, a public sector undertaking were divided into three categories on the basis of their length of service. Those with 5 or
less than 5 years of service, those with 5 to 10 years of service and rest with more than 10 years of service. The findings were as below:

(a) A linear increase was observed in the extent of organizational role stress as a function of service length.

(b) Executives with longer service length 5-10 and 10 or more than 10 years obtained more trait anxiety scores than the group with service lengths upto 5 years.

Palnitkar and Helode (1987) attempted to explain occupational stress in the light of field independence-dependence, locus of control and length of service. They studies 275 PWD employees. Out of 275, 125 were Class I and 1550 were Class II officers. They used Srivastava and Singh's (1981) occupational stress index and Palnitkar and Helode's (1987) Hindi research form of Witkin et al's (1954) HFT. The study suggested that –

(1) Subjects who were field independent with internal locus of control and shorter length of service showed significantly higher occupational stress than their counterparts.
(2) Similarly Class I officers who were field independent with locus of control and shorter length of service were significantly higher in occupational stress as compared to Class II officers who were field independent with external locus of control and longer length of service.

(3) Subjects with internal locus of control and shorter length of service showed significantly higher occupational stress than subjects with external locus of control and longer length of service.

(4) Class I officers with internal locus of control and shorter length of service showed significantly higher occupational stress than Class II officers with external locus control and longer length of service.

(5) Field independent Class I officers with shorter length of service showed significantly higher occupational stress than field independent Class I officers with longer length of service.

(6) Field independent officers with internal locus of control and
shorter lengths of service showed significantly more occupational stress than field independent officers with external locus of control and shorter lengths of service.

Srilata (1988) tried to find out whether stress may arise because of job related factors like job-tenure, career growth etc. She studied 316 middle management personnel from the public sector and 52 personnel from private sector. It was found these studies that managers with job tenure between 18 to 25 years experienced greater degree of stress than those who job tenure was below 18 years.

Sharma and Acharya (1989) studied coping strategies and anger expression. Their investigation was concerned with dominant stress coping strategies of 75 male Junior Engineers having mean age of 35 years with regard to anger expression. Result imply that regardless of job level, both approach (functional) and avoidance (dysfunction) modes of coping with role stress were used by engineers working in the same organization suggesting that job hierarchy is not a significant determinant of stress coping strategy.
The avoidance coping group reported greater suppressed anger and less externalization and control over anger than its approach coping counterpart.

Padma and Helode (1989) studied the job involvement and organization hierarchy among the employees of Simplex Casting Private Limited. They concluded that the length of service as a factor has significantly influenced the job involvement of the employees. Employees having long length of service have shown significantly more job involvement than the employees having short length of service.

Sahu and Helode (1989) studied productivity as function of organizational climate, locus of control and length of service. Their study was concerned with the employees working in Bengal Nagpur Cotton Mill, Rajnandgaon. From the study it was concluded that the relationship between productivity and length of service has been found to be insignificant.

Martocchio and O’Leary (1989) studied sex difference in occupational stress. Their findings indicate that there is no sex
difference in experienced and perceived work stress. These findings need further research.

Agrawal and Saxena (1989) investigated managerial strategy utilization as a function of level of organizational success. Studies were carried out for 60 middle level Indian managers to cope with stressful situations in more successful organization (Gr. I) and less successful organization (Gr. II). Data were collected from a rating scale of organizational success and a semi projective instrument designed to assess role stress coping strategies of the type described by S. Rosenzweig (1978). Group II used avoidance strategies significantly more often than group I which used intro persistive and extra persistive (i.e. approach) strategies. Group I was more approach oriented while group II was more avoidance oriented. Strategies from both groups showed similar levels of group conformity.

Cummins (1989) studied the relationship between job stress and job satisfaction. He examined the role of social support (SOS) and locus of control (LOC) as determinants of job satisfaction and as moderators of the job stress – job satisfaction relationship in 96
strategies (aged 20-49 years). Survey results showed that type of support (integration) was associated with job satisfaction depending on perceptions of LOC. In addition different dimensions of LOC internal, external chance, external powerful others had differing effects on job satisfaction independent of level of SOS. It was concluded that the buffering effect of SOS may be applicable to job stress only when that support is content specific, and individual’s receiving such support believe they have an impact on their outcomes (internals on LOC).

Kinnunen Parkathi and Rasku (1994) studies occupational well being among aging teachers in Finland. 1012 teachers over 45 years of age were examined. Occupational well being was described by affective (Job anxiety, depression, burnout), behavioural (job competence and aspiration), and health (Psychomatic symptoms and work ability) components. The level of well being among aging strategies was quite high although 36% of the subjects had problem of well being related to affective, health and behaviour. Only 41% of the 41-45 years old and 12% of the 55-59 years old teachers were classified as having poor work ability. Demographic variables
examination revealed that the most variation in occupational well being was produced by subject and teaching level. The level of well being was the lowest among vocational subject teachers in vocational school and highest among special class teachers in comprehensive schools.

Spielberger and Reheiser (1994) constructed the job stress survey, measuring gender difference in occupational stress. Stress in the work place results in extensive cost of individual's, organizations and society through the adverse effect on employee's productivity, absenteeism, health and well being. Person environment fit and the transactional process theory of L.S. Lazarus (1994) guided construction and development of the Job Stress Survey (JSS). This psychometric instrument assessed the perceived psychological severity and anxiety of 30 job stressor events and how often they occurred in variety of occupational settings using 922 women and 859 men working in University and corporate settings. Overall stress level were similar for men and women but gender differences were found in perceived severity and frequency of occurrence of individual. Stressor events male and female
managerial/professional Ss reported experiencing the occurrences of 30 JSS's stressor events much more frequently than did the clerical/maintenance staff.

Rogers and Ellis (1994) studied perceptions of organizational stress among female executives in the U.S. Government. They investigated the psychometric properties and factor structure of a 15 item self reporting instrument measuring perceptions of stress precipitators in a sample of 146 female senior executive service employee's of the US Federal Government. Cluster analysis revealed the presence of 3 relatively homogenous subgroups of sample respondents based on the source and level of their perceived stress. It was found that concerns about one's performance was the highest ranked stressor followed by concerns about work load, responsibility and authority ambiguities and the fear of making the wrong decision. The cluster analysis resulted in 3 groups of stress patterns. The highest group included women who put the job above all else, the 2\textsuperscript{nd} highest group had a high propensity for job achievement and the lowest stress group represented women who placed a high emphasis on self actualization and outside job considerations.
Bunce and West (1994) studied changing work environments: innovative coping responses to occupational stress. A qualitative questionnaire survey that assessed how innovation was used as a stress coping strategy among 333 community and hospital nurses, administration workers and paramedics. 31.5% respondents reported a coping response subsequently coded as innovative and significant difference between occupation group difference in the frequency of usage were found. Over work, procedural difficulties and dealing with others were the stressors eliciting the greatest number of innovative coping responses. Such responses were seen as an effective and important way of dealing with occupational stress.

Gardner and Rose (1994) studied stress in the workers of social services day centres. Assessment was done by interviews, discussions and questionnaires. Depression and anxiety scales of the thoughts and feelings index were used for measuring strain. High levels of the stress were found in the staff and the main sources of stress appeared to be work load and organizational structure reflecting recent external pressure of the centre. A follow up assessment of 18 staff members indicated that the staff was quite
positive about the intervention and the specific organizational changes in stress levels had occurred in the centre.

Usha Shree, Seshu and Vinolya (1995) studied gender, gender role and age effects on teacher's job stress and job satisfaction. Two groups of high school teacher's were examined. Between the age group 40 to 60 years, 40 males and 40 females were selected for the study. Ss were asked to rate their responses to a question about teacher's stress, to fill in a schedule regarding job satisfaction. Results indicate a significant effect on gender role differences on job stress but no gender or age difference was found. Stress was found more in masculine and androgynous Ss. Job satisfaction was not influenced by any of the independent variables.

Langan-Fox and Poole (1995) studied occupational stress in Australian business and professional women. They studied occupational stress in 163 Australian managerial and professional women (age 21-25 years) using occupational stress index normative data were obtained, reporting scale reliabilities and differences between Ss according to marital and parental status and most stressful roles. Results showed that the wife's role had the highest
mean score for the most stressful role. Ss with 3 or more children reported proper physical health. Parental status was related with headaches, exhaustion, over eating, smoking and drinking but also with job satisfaction. Having children under 18 years of age was linked with decrease in sexual interest, as was full time work status. Non married vs married Ss had proper mental health and more type A behaviour. The OSI is a satisfactory measure of occupational stress among Australian women.

Doby and Caplan (1995) studied organizational stress as a threat to reputation and its effect on anxiety at work and at home. They hypothesized that the job stressors that threatened employees reputations with their supervisors are particularly likely to generate anxiety symptoms that carry from work to home. 36 rates primarily working accountants identified job stressor as high or low on threat to reputation. Independently, 102 accountants rated their own exposure to these stressors and their anxiety at work and home as predicted the high threat stressors were the most likely to generate home experienced anxiety and work experienced anxiety served as a key mediator. Implications relating to models to work and family well being are discussed.
Bogg and Cooper (1995) investigated job satisfaction, mental health and occupational stress among civil servants. 557 senior UK servants and 1056 private industry executives were selected for the study of occupational stress, job dissatisfaction, mental and physical health using occupational stress indicator. Civil servants showed more job satisfaction, mental and physical ill health than their private sector counterparts. Civil servants also perceived more stress from factors intrinsic to their job such as lower pay and working condition. They felt less control over their job organization. Organizational climate influences strongly job satisfaction among Civil servants. Jobs and organizational stressors more strongly predicted job dissatisfaction whereas personality factors more strongly predicted mental and physical health.

Matuszek, Nelson and Quick (1995) studied gender differences in distress. Literature suggests that women are socialized to experience more distress and to cope less effectively with stresses. Women are vulnerable to stressors such as organizational politics, legitimate power deficits, total work load, roll over load and socio economic status which may be accounted for by specific coping strategies used by men and women.
Bernett and Brennan (1995) studied the relationship between job experience and psychological distress. They used structural equation modelling to examine the relationship between seven job conditions and psychological distress in 240 males and 364 female full time employees in dual earner couples. Job conditions identified as potential job stressors included skilled discretion, decision authority, schedule control, job demands, pay adequacy, job security and relation with a supervisor. Only skill discretion and job demands were related to self reported psychological distress. The magnitude of the relationship between job experiences and psychological distress did not differ between men and women.

Hart, Wearing and Headey (1995) studied police stress and well being that integrate personality coping and daily work experiences. They examined personal and work related factors which contribute to a police officer's psychological well being within a perceived quality of life (PQOL) framework that integrates personality, coping process and a police officer's positive (beneficial to well being) and negative (harmful to well being) work experiences. It was found that problem focussed coping resulted in positive work experiences, whereas emotions focussed coping contributed to negative work experiences.

Crum, Huntaner, Eaton and Anthony (1995) studied occupational stress and the risk of alcohol abuse and dependence. They examined occupational stress and risk for alcohol disorders in 18,571 strategies selected in 1980-84 from the epidemiological catchment area programme. At basline Ss completed standardized interviews that measured socio-demographic variables and assessed diagnostic criteria for currently or formerly active alcohol abuse dependence syndromes, interviews were readministered one year later. Among the 507 Ss there were 126 incident of alcohol abuse
dependence and age and residence matched non cases. Relative to low strain employment, men were found to be 27.5 times more likely to develop alcohol abuse dependence if they had been employed in a high strain job classified as having high psychological demands and low control and 3.4 times at higher risk if they were employed in high strain job with physical demands and low control. No appreciable risk was found for women in any of the high strain job categories.

Kagan, Kagan and Watson (1995) studied stress reduction in the work place, the effectiveness of psycho-educational programmes. Participants in this three year field study were 373 employees in the emergency medical service of a municipal fire department, a framework for defining stress and categorizing psycho-educational stress reduction programme was developed. The overall effect as a single treatment type of seven psycho-educational programmes based on physiological (M) coping with people (A) or interpersonal awareness (I) processes and the 4 combination programmes A and I, M and A, M and I and M,A and I on measures related to job stress was determined as well as the relative effect of
each programme in the near and long term. Pre and post follow up improvements were found on standardized psychological instrument and on a job performance measure. Findings supported the value of psycho-educational training programmes for preventive mental health in work place.

Brook and Brook (1995) studied several sequential tree methods of examining the relationship between job stress and mental health. They analyzed data from a study of 178 managers using a sequential decision three method that segmented the sample into homogenous subgroups and gave insight into the relationship between job stress and mental health. Ss completed the job related tension index (R.L. Kahn et al, 1964) and the Hopkins symptom checklist. Lack of needed information was the 1\textsuperscript{st} stressor to divide the sample followed for the majority of managers, by acceptance by fellow workers, supervisor's evaluation and conflicting demands. Results suggested that there are subgroups of managers whose response to work stressors depends on which aspect of work environment they consider to be most important.
Manning, Jackson and Fusilier (1996) studied occupational stress and health care use. They examined the relationship between health care use and stressful work events, strain, social support, type of job and industry and individual characteristics of control, commitment and length of time in position. Ss were 128 managers and 132 employees with no supervisory responsibilities (all Ss aged 21-64 years) from two different industries. Correlational analysis suggested that health care claims and casts were positively related to employee's length of time in position. Industry type also predicted the health care variables. Multivariate analysis suggested that environmental stressor and strain variable accounted for up to 16% of variance in health care costs.

Al-Shammari, Khoja and Al-Subaje (1996) studied job satisfaction and occupational stress among primary health care centres doctors. They investigated that the causes of occupational stress and job dissatisfaction among 361 male and 154 female primary health care doctors in Saudi Arabia. Ss completed a questionnaire to assess information on their working arrangements, health centre location, daily patient work load and possible causes
of stress. Data showed that SSs stress increased with age especially for those above 50 years; male doctors scores were higher than female doctors and the scores of SSs who spoke a language in addition to Arabic and English were significantly low. The most frequent causes of job dissatisfaction and occupational stress were related to subjects social life particularly the effects of the job's demand on family life and the lack of support or recreational activities.

Lu, Tseng, Cooper (1999) studied managerial stress, job satisfaction and health in Taiwan. This study was made on an integrative work stress model using data from a heterogenous sample of 347 Taiwanese managers. The purpose of this study was to investigate the source of stress, job satisfaction, and health among managers in Taiwan and to test the moderating effects of personality and coping strategies. Results indicated that these managers were under considerable work stress and at risk of mental and physical ill health. Internal control was related to higher job satisfaction and was beneficial to mental health, however, its interactions with work stress was detrimental to psychological well being. A specific facet of type A behaviour pattern was also related to poor physical
health. These results were discussed with an emphasis taking account of the Chinese culture.

Fielden and Pecker (1999) examined work stress of hospital doctors. Their findings indicated a direct link between the number of hours worked and stress levels, although the number of hours worked was positively related to the perceived availability of social support. Twenty eight junior hospital doctors used social support as a coping strategy significantly more often than 48 senior hospital doctors with both perceiving the hospital environment as a more effective source of social support than the home environment. Despite having access to high levels of effective social support junior hospital doctors faced significantly greater sources of stress and poorer mental health than their senior counterparts.

Lu, Kao, Cooper and Spector (2000) studied managerial stress, locus of control and job strain in Taiwan and UK. They examined managerial stress in Taiwan and UK as representative cultures of the East and the West. The relationship between work pressure and strain, the possible moderating effects of coping and locus of control were examined in each country and compared across
cultures specially. 234 managers in UK and 347 managers in Taiwan completed the occupational stress indicator - 2 (C.L. Cooper et al, 1987) and the work locus of control (PE Spector, 1988) scale. Their results showed that the reliability and validity of the measures used were acceptable and comparable in the two samples. There were similarities as well as differences in managerial stress in the two countries. Recognition and managerial role were important predictors of strain for the Chinese managers, whereas relationship, organizational climate and personal responsibility were important predictors of strain for UK managers. There were consistent moderating (vulnerability) effects of internal control for Taiwanese managers. Results corroborated some previous studies conducted in the west. However, caution was also suggested for generalizing Western originated concepts and theories across cultural boundaries.

Sharpley and Gardner (2001) studied managers understanding of stress and its effect in the workplace. Thirty six senior managers from large and successful organizations were interviewed about their understanding of stress and its effect. Semi structural interview schedule was applied. Participants were encouraged to argue the
questionnaire with their own words. 80% of managers interviewed acknowledge that stress was an issue of great concern in their organization and attributed over half of their stress to work related factors. When asked to define the nature of stress 55% of managers saw it as a reaction to events rather than those events themselves, following major theoretical and medical constructs of stress and all (94%) managers related stress to a loss of control in physical, emotional and behavioural domains. Although 100% managers stated that stress had damaging health on employment health, 89% stated that it also reduced productivity, very few managers have attended stress management interventions at work.

Above studies reveal that occupational stress is a real phenomenon and that high levels are reliably associated with a range of casual factors including those intrinsic to job, individual vulnerability and systemic influences. Limitations with the current research base of occupational stress are identified in different fields but little is known about the effects of reducing or mediating the impact of stressors. There are serious problems in generalizing findings from stress management in occupational sectors.
An attempt has been made in the present investigation to study - OCCUPATIONAL STRESS OF SUPERVISORS AS A FUNCTION OF CAREER STATUS OF COUPLES, SHIFT WORKING AND TYPE OF ORGANIZATION.