CHAPTER – I

INTRODUCTION

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Chapter-I

INTRODUCTION

1.1 Occupational stress: Its conceptual shades

In modern society we are living in growing complexities and pressures where every one seems to be talking about stress without knowing its exact definition. People of different fields look into the word “stress” from their angles. But the concept of stress was first introduced in the life sciences by Hans Selye in 1936. According to Selye (1976), stress is the non-specific (i.e. common) result of any demand put upon the body, be the effect mental or somatic. The formulation of this definition, based on objective indicators such as bodily and chemical changes that appear after any demand has brought the subject up from the level of cocktail party chit-chat into the domain of science. One of the first things to bear in
Mind about stress is that a variety of dissimilar situations—emotional arousal, effort, fatigue, pain, fear, concentration, humiliation, loss of blood and even great and unexpected success—are capable of producing stress; hence no single factor can in itself, be pinpointed as the cause of the reaction as such. To understand this point it is necessary to consider certain fact about human biology. Medical research has shown that while people may face quite different problems, in some respects their bodies respond in a stereotyped pattern; identical biochemical changes enable us to cope with any type of increased demand on vital activity.

Mason (1975) reviewed literature on stress and concluded that the term stress has been used variously to refer to (a) stimulus (external force acting on the organism), (b) response (changes in the physiological functions), (c) interaction (interaction between an external force and the resistant opposed
to it) and (d) more comprehensive combinations of the above factors.

A transactional model of stress appears to be emerging as a broad integrative framework in this complex area. This model has been developed largely by Lazarus and his colleagues. According to this view, stress is set to occur in the face of “demands that tax or exceed the resources of the system or to put it in a slightly different way, demands to which there are no readily available or automatic adaptive responses”. The transactional perspective emphasizes cognitive appraisals and coping responses. A stressful transaction begins with a primary cognitive appraisal that a situation requires an effective response to avoid or reduce physical or psychological harm and secondary appraisal that no completely effective response is immediately available. The person makes the best response possible.
Lazarus (1966) suggested considering the field of stress, which would include physiological, sociological, and psychological phenomenon and related concept. In his opinion, stress is not a stimulus, a response, or an intervening variable but a collective term for an area of study. Lazarus (1976) noted that “stress occurs where there are demands on the person which tax or exceed his adjustive resources”.

Levitt (1980) found that “the word stress is used constantly in connection with emotional states”.

Pearlin, Lieberman, Menaghan and Mullan (1981) suggested that the stress refers to a response of the organism to a noxious or threatening condition.

Hans Selye’s (1936) General Adaptation Syndrome (GAS) has been widely held as a comprehensive model to explain stress phenomenon. This three stage model states that when an organism
is confronted with a threat the general physiological response occurs in three stages i.e.

i) Alarm reactions

ii) Stage of resistance

iii) Stage of exhaustion

i) **Alarm stage**: The first stage includes an initial “shock phase” in which resistance is lowered and a “counter shock phase” in which defensive mechanisms become active, alarm reaction is characterized by autonomous excitability.

ii) **Stage of resistance**: Maximum adaptation occurs during this stage. Resistance increases to levels above normal. But if the stressor persists, defensive reaction becomes ineffective and deterioration of organism occurs.

iii) **Stage of exhaustion**: Stress involves so much energy that it affects both physical and emotional health and under conditions of extreme stress,
people show disorganized behavior. If stress is not relieved they become too exhausted to adopt. The result is maladjustment and withdrawal and even death.

But according to Pestonjee (1987 a) there are certain shortcomings of this GAS. The first major shortcoming of this theory is that it is based on researches carried out on infra-human subjects. Second, Selye's work on stress depends on the existence of a non-specific physiological response. However Pestonjee(1987 a) has noted that it is "natural and healthy to maintain optimal levels of stress and opined that success, achievement, higher productivity and effectiveness call for stress". When stresses are left unchecked and unmanaged they can create problems in performance and affect the health and well being of the organism. Pestonjee (1987 a) has identified three important sectors of life in which stress originates. These are:-
i) **Jobs and the organization**

It refers to the totality of the work environment (task, atmosphere, colleagues, compensations, policies etc.)

ii) **The social sectors**

It refers to the social / cultural context of one's life. It may include religion, caste, language, dress and other such factors.

iii) **The intrapsychic sector**

It refers to those things which are intimate and personal like temperament, values, abilities and health.

It is contended that stresses can originate in any of these sectors or in combination thereof. Out of these the most important one is the Occupational Stress or the stress in occupation. Occupational stress refers to the stress or tension experienced by the people while they play their role in their
occupation. It is not a new phenomenon, but it is a relatively new concept and field of study. Perhaps two essential ingredients necessary for Occupational Stress to come into being as a sub-discipline were the findings of the field of psychosomatic medicine by Dunbar and others (in Holt, 1986) and the pioneering work of Selye (1976) on stress and the GAS as a fresh conceptualization of the nature of much illness.

Another important historical event, helping to crystallize Occupational Stress as a new field of research, was the passage of the Occupational Safety and Health Act of 1970, creating the Occupational Safety and Health Administration (OSHA), in the Department of Labour. Papers on Occupational Stress often begin with the remark that the concept of stress is unclear and variously defined. The chief source of confusion is whether to conceive of stress as a situational factor (the distressing circumstances external to the person) or
a reaction (the disturbance of a person’s normal state, viewed either physiologically or psychologically).

Selye (1956) preferred the second definition, calling the external initiators of an organismic stress reaction stressors. McGrath (1976) and some other writers try to use the word “stress” non evaluatively, as more or less equivalent to activation but that convention makes cross study comparisons difficult.

Put in commonsense terms, the basic proposition of the whole field of Occupational Stress might be expressed thus: some aspects of many kinds of work have bad effects on most people under certain circumstances. By a process sometimes called a response definition of the stimulus, the field of Occupational Stress then becomes the study of those aspects of work that either have or threaten to have bad effects.
Occupational or job stress may also be defined as a “mechanism whereby the human body attempts to adapt to the environment”. The body has a normal mechanism for dealing with stressful situations which is known as the “fight or flight” response. The stress cycle always includes the danger stimulus, the removal of the danger, and a state of relaxation. Many of the sources of stress at work have a different character – they are more subtle, more pervasive, and come from a variety of factors. Whether it’s increased work load, eyestrain from staring into computers, unpredictable disciplinary action by a supervisor, or never being complimented about the quality of work we produce, these all cause the “fight or flight” response to be triggered. Since we have “gotten used to” working in stressful environments, however, we may be unaware of the body’s reaction. Yet even if we are not conscious of it, the demands of being in a constant “on-alert” state takes its toll on our physical health and emotional well-being.
1.2 **Occupational Stress: Its empirical status**

There are a lot of study available on Occupational Stress in different fields as a function of different variables. The review of different studies is as under:

**Usha Shree, Seshu and Vinolya (1995)** studied gender, gender role and age effects on teachers’ job stress and job satisfaction. They examined two groups of high school teachers: 40 males and 40 females (40-60 years old). Ss were asked to rate their response to a question about teacher stress, to fill in a schedule regarding job satisfaction and to fill in the Bem sex role inventory. Results indicate a significant effect of gender role differences on job stress but no gender or age differences on job stress were found. Higher amounts of stress were detected in the masculine and androgynous Ss. Job satisfaction was not influenced by any of the independent variables.
Al-shammari, Khoja, and Al-subaie (1996) studied job satisfaction and Occupational Stress among primary health care centers' doctors. They investigated 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 center location, daily patient work load and possible causes of stress. Data showed that Ss' stress increased with age especially for those above 50 years; male doctors' scores were higher than female doctors; and the scores of Ss 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 Ss' social life, particularly the effects of the job's demands on family life and the lack of supports or recreational activities.
Agarwal & Saxena (1989) investigated managerial strategy utilization as a function of level of organizational success. The strategies employed by 60 middle level Indian managers to cope with stressful situations in more (Group-1) and less (Group-2) successful organization were studied. Data were collected from a rating scale of organizational success and a semi projective instrument designed to assess role stress coping strategies of the types described by S.Rosenzweig (1978). Group-2 used impunitive and extra punitive (i.e. avoidance) strategies significantly more often than Group-1, which used intropersistive and extrapersistive (i.e. approach) strategies. Group-1 was more approach oriented while Group-2 was more avoidance oriented. Ss 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 Ss (aged 20-49 years). Survey results showed that support from a variety of sources focusing on problems at work was stress buffering for internals whereas supervisory support was directly related to job satisfaction for externals. 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 levels of SOS. It is concluded that the buffering effect of SOS may be applicable to job stress only when that support is content specific (issues at work) and individuals receiving such support believe they can impact their outcomes (internals on LOC).

Langan-Fox and Poole (1995) studied Occupational Stress in Australian business and professional women. They studied Occupational Stress in Australian business and professional women.
Stress, while assessing the Occupational Stress Indicator (OSI), in 163 Australian managerial and professional women (aged 21-25 years). 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 role had the highest mean score for the “most stressful role”. Ss with 3 or more children reported proper physical health. Parental status was associated with headaches, exhaustion, overeating, 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. Single Vs married Ss had proper mental health and more type-A behaviour. The OSI is a satisfactory measure of Occupational Stress among Australian women.

Kinnunen, Parkatti and Rasku (1994) studied Occupational well being among aging teachers in Finland. They examined occupational well being
among 1012 teachers in Finland who are over 45 years old. Occupational well being was described by affective (job anxiety, depression, burnout), behavioural (job competence and aspiration), and health (Psychosomatic symptoms and work ability) components. The structure of well being consisted to affect health and behaviour dimensions. The level of well being among aging Ss was quite high, although 36% of the Ss had problems of well being related to both affect health and behaviour. However according to the work ability index, only 4% of the 45-49 years old and 12% of the 55-59 years old teachers were classified as having poor work ability. Of the demographic variables examined, 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 the highest among special class teachers in comprehensive schools.
Sharma and Acharya (1989) studied coping strategies and anger expression. They investigated the dominant stress coping strategies of 75 male Junior Engineers (mean age 35 years) with regard to anger expression. Result imply that regardless of job level, both approach (functional) and avoidance (dysfunctional) 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.

Spielberger and Reheiser (1994) constructed the job stress survey: measuring gender differences in occupational stress. Stress in the work place results in extensive cost to individuals, organizations and society through its adverse effect on employee 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 a 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 the 30 JSS’s stressor events much more frequently than did the clerical / maintenance staff.

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
employee's reputations with their supervisor are particularly likely to generate anxiety symptoms that carry over 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 senior civil servants. Occupational stress, job dissatisfaction, and mental and physical health among approximately 557 Senior UK civil servants and 1056 private industries executives using occupational stress indicator were compared. Civil Servants showed more job satisfaction and mental
and physical ill health than their private sector counter parts. Civil Servants also perceived more stress from factors intrinsic to their job such as lower pay and working condition, felt less control over their job organization. Organizational climate appears to influence 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. They presented an explanatory frame work for understanding women’s work place distress. Women are vulnerable to stressors such as organizational politics, legitimate power deficits, total work load, roll over load and socioeconomic status which may be accounted for by specific coping strategies used by men and women. Literature suggests that women are socialized to
experience more distress and to cope less effectively with stressors.

Barnett and Brennan (1995) studied the relationship between job experiences and psychological distress. They used structural equation modeling to examine the relationship between seven job conditions and psychological distress in 240 male and 264 female full time employees in dual earner couple. Job conditions identified as potential job stressors included skilled discretion, decision authority, schedule control, job demands, pay adequacy, job security and relations with a supervisor. Results showed that 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.
Boyle, Borg, Falzon and Baglioni (1995) explained a structural model of the dimensions of teachers stress. M.G. Borg et al. (1995) found a four factor solution of teachers stress (pupil misbehaviour, time / resource difficulties, professional recognition needs and poor colleague relations) among 710 teachers. Results supported the proposed dimensionality of the sources of teacher stress along with evidence of an additional teacher stress factor (work load).

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 officers' psychological well being within a perceived quality of life (PQOL) framework that integrates personality, coping process and a police officers' positive (beneficial to well being) and negative (harmful to well being) work experiences. It was found that problem
focused coping resulted in positive work experiences whereas emotion focused coping contributed to negative work experiences.

**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 supports, 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 costs were positively related to stressful work events and strain and negatively related to employees’ length of time in position. Industry type also predicted the health care variables. Multivariate analysis suggested that environmental stressor and strain variable accounted for upto 16% of variance in health care costs.
Mohanty & Mishra (1998) examined the extent and dimensions of occupational stress among front line and middle line private and public sector executives. The respondents were front line or middle line executives working in private and public sectors, 60 from each category, 240 in total. Each was administered a job stress questionnaire containing 10 independent factors. These factors were (a) Lack of group cohesiveness (LGC), (b) Role conflict (RC), (c) feeling of inequity (FI), (d) Leadership support (LS), (g) constraints of change (CC), (h) job difficulty (JD), (I) job requirement (JR) and (j) Inadequacy of role authority (IRA). The private sector was found to cause significantly more job stress than public sector on total job stress and on each of the 10 components of job stress. Front line executives experienced significantly more job stress than middle line executives on total job stress and on each of the 10 components of job stress. Public sector and private sector were found to have
differential effects on job stress experienced by front line and middle line executives.

Crum, Muntaner, 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 Ss, selected in 1980-1984 from the Epidemiological Catchment Area Program. At baseline, Ss completed standardized interviews that measured socio-demographic variables and assessed diagnostic criteria for currently or formerly active alcohol abuse dependence syndromes; interviews were re-administered 1 yr. Later. Among the 507 Ss, there were 126 incident cases of alcohol abuse dependence and 381 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.

Palnitkar and Helode (1987) studied occupational stress of the employees of the Public Works Department (PWD) of both state and central Govt. services. In this organization there exists a hierarchical structure. This structure has three levels of management: Top management, middle management (i.e. Class one officers) and bottom management (i.e. class two officers). Apart from three levels of management there are levels of employees namely class III, Class IV, Class V employees. From the study it was found that persons having less length of service may show more occupational stress than persons having more length of service.
Palnitkar and Helode (1987) attempted to explain occupational stresses in the light of field independence – dependence locus of control, and length of service. In this study of 275 PWD employees comprising of 125 class-I and 150 class-II officers, they used Srivastava & Singh's (1981) Occupational Stress Index and Palnitkar & Helode's (1960) Hindi Research Form of Witkin et al's (1954) HFT. In this study it was found out that (i) Subjects who were field independent with internal locus of control, and shorter lengths of service, showed significantly higher occupational stress than their counterparts. (ii) 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 lengths of service. (iii) 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 lengths of service. (iv) 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 of control and longer lengths of service. (v) Field independent Class-I officers with shorter lengths of service showed significantly higher occupational stress than field independent Class-II officers with longer lengths of service. (vi) Field independent officers with internal locus of control and shorter lengths of service showed significantly more occupational stress than field dependent officers with external locus of control and longer lengths of service.

Gupta and Pratap (1987) conducted a study to determine the role of service lengths 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 lengths of service – those with 5 or less than 5 years of service, those
with 5 to 10 years of service and the rest with more than 10 years of service. The findings of the study were as follows:-

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

(ii) Executives with longer lengths of service (5-10 years and 10 or more than 10 years) obtained higher trait anxiety scores than the group with service lengths up-to 5 years.

In another study Srilata (1988) among other things, attempted to find out whether stress may arise because of job-related factors like job-tenure, career growth, etc. Here subjects included 316 middle management personnel from the public sector and 52 from the private sector. One of the findings of this study was – Managers with job tenure between 18 to 25 years experienced greater degree of stress than those whose job tenure was either below or above this range.
Padma and Helode (1989) studied the job involvement and organizational hierarchy among the employees of Simplex Casting Private Limited. They concluded that length of service (experience) as a factor has significantly influenced the job involvement of the employees, in that 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. Conducted the study on 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 statistically insignificant.

Viswesvaran, Sanchez and Fisher (1999) studies the role of social support in the process of work stress: a meta-analysis. In study 1, correlation
between (1) social support and work place stressors and (2) between social support and strains as well as (3) incremental $R^2$S across 68 studies, when the interaction term of the stressors and support was added to the regression of strain on stressors and support, were meta-analytically cumulated. Potential moderators of these relationships were weak, suggesting the presence of 3 general constructs of stressors, strains and social support. In study 2, the various models for the role of social support in the process of workplace stress were tested for the general constructs identified in the 1st study. Results indicated that social support had a threefold effect on work stressor-strain relations. Social support reduced the strains experienced, social support mitigated perceived stressors, and social support moderated the stressor-strain relationship. Evidence for mediational and suppressor effects of social support on the process of work stress was weak. In addition the argument that social support is mobilized
when stressors are encountered was not consistent with the available empirical evidence.

Martocchio and O' Leary (1989) studied sex differences in occupational stress. Meta analysis was performed on 15 studies that examined sex differences in occupational stress. Contrary to previous qualitative literature review, these results indicate that there are no sex differences in experienced and perceived work stress. Moderator analysis were conducted. Because non results were obtained a discussion of empirical and theoretical shortcomings in the sex occupational stress literature was presented for consideration by future research.

Jena (1999) studied job, life satisfaction and occupational stress of women. Meta-analysis of the sex occupational stress literature revealed that physiological sex alone does not fully represent the difference between men and women. Marriage work interface, social isolation, discrimination, and
stereotyping play significant roles in determining life satisfaction and occupational stress. Physiological and situational factors that also co-vary with sex deserve consideration for future research.

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 employees of the US federal government. Cluster analysis revealed the presence of 3 relatively homogeneous 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 workload, responsibility and authority, ambiguities and the fear of making the wrong decision. The cluster analysis resulted in 3 groups of stress patterns. The highest stress group
included women who put the job above all else, the 2nd 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.

Kagan, Kagan and Watson (1995) studied stress reduction in the workplace: the effectiveness of psycho-educational programmes. Participants in this 3 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 programmes 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 combinations programmes, A & I, M & A, M & I and M & A & 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 instruments and on a job performance measure. Findings supported the value of psycho educational training programmes for preventive mental health in the workplace.

Brook and Brook (1995) studied sequential tree method of examining the relationship between job stress and mental health. They analyzed data from a study of 178 managers using a sequential decision tree 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 1st stressor to divide the sample, followed for the majority of managers, by acceptance by fellow workers, supervisor's evaluations, and conflicting demands. Results suggested that there are subgroups of managers whose response to work stressors
depends on which aspects of the work environment they consider to be most important.

**Bunce and West** (1994) studied changing work environments: Innovative coping responses to occupational stress. They examined to what degree individuals adopt their work environments in response 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% of respondents reported a coping response subsequently coded as innovative, and significant between occupational group difference in the frequency of usage were found. Overwork, 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. Programmes that encourage individuals to change
workplace factors through innovation could supplement interventions that emphasize individual adoption to stressful work environments.

Gardner and Rose (1994) studied stress in a social services day center. Describes the steps taken to assess and attempt to reduce stress levels experienced by the staff working in a day center for people with learning disabilities. 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 stress were found in the staff, and the main sources of stress appeared to be work lead and organizational structure reflecting recent external pressures of the center. After the analysis of the questionnaire data intervention sessions on staff stress were carried out. 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 center.

Lu, Tseng and Cooper (1999) studied managerial stress, job satisfaction and health in Taiwan. This study tested an integrative work stress model using data from a heterogeneous 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 were at risk of mental and physical ill-health. Internal control was related to higher job satisfaction and was beneficial to mental health; however, its interaction with work stress was detrimental to psychological well being. A specific facet of type A behaviour pattern was also related to poorer physical health. These results were discussed with an emphasis,
taking account of some distinctive characteristics of the Chinese culture.

Fielden and Peckar (1999) examined work stress of the 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 and examined managerial stress in Taiwan and UK as representative cultures of the East and the West. More specifically, 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. 234 managers in the UK and 347 manages in Taiwan completed the occupational stress indicator – 2 (C.L. Cooper et al. 1988) and the work locus of control (P.E. Spector. 1988) scale. Their results showed that the reliability and validity of the measures used were acceptable and comparable in the 2 samples. There were similarities as well as differences in managerial stress in the 2 countries. “Recognition” and “Managerial Role” were important predictors of strain for the Chinese Managers, whereas “Relationships” “Organizational climate”, and “Personal responsibility” were important predictors of strain for UK managers. There were consistent moderating (Vulnerability) effects of internal control for the Taiwanese
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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 effects in the workplace. Thirty six senior managers from large and successful organizations were interviewed about their understanding of stress and its effects, semi-structural interview schedule was applied and participants were encouraged to augment the questionnaire with their own words. 80% of managers interviewed acknowledged that stress was an issue of great concern in their organizations 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 on behavioural domains. Although 100 % of managers stated that stress had damaging effects on employee health and 89 % stated that it also reduced productivity, very few managers had attended stress management interventions at work. The main reasons given for this apparent failure to follow through with interventions designed to address the damaging effects of stress were focused about the need to avoid drawing attention to oneself as “failing” or appearing “weak” in the workplace.
1.3 Occupational Stress: The rationale for the present study

In the present day life each and every human being is under some sort of stress. Every one seems to be talking about the word “stress”. This topic is being discussed not only in daily conversation but also on TV, Radio, in the newspaper and in conferences etc. University courses are also devoted to stress. Yet very few people know the correct definition of the much talked “word”. Different people look to this from different angles. The business persons think of stress as frustration or emotional tension, the biochemist as a purely chemical event and the athlete as muscular tension. This list could be extended to almost every human experience and activity. The concept of stress and indeed research on stress have reached an all time peak in popularity during the past few years. Hence we may say that ours is the ’age of stress’. 
Out of different forms of stress, “occupational stress” is the most important one. Industrial psychology is my favourite subject. Besides as I am staying in Bhilai Steel township, in the vicinity of the steel giant Bhilai Steel Plant, I got the opportunity to come across the people working day and night facing heat, dust and other hazards. Both these points (i.e. my favourite subject being industrial psychology and my interaction with persons working in Bhilai Steel Plant), coincided and I became interested to study the occupational / industrial stress of the employees working in Bhilai Steel Plant. Occupational stress depends on many factors. After analyzing the existing literatures and discussing with my guide, I decided to study the impact of six variables on occupational stress (i.e. age and level of education as demographic variables, length of service and job status as situational variables and social intelligence & ego state as psychological variables).
Besides, from the literatures it is observed that outstanding efforts have been made to study the occupational stress, job satisfaction and mental health among senior civil servants (Bogg and Cooper, 1995); job satisfaction among primary health care center doctors (Al-Shammari, Khoja and Al-Subaie, 1996); police stress and well being that integrate personality, coping and daily work experiences (Hart, Wearing and Headey, 1995); stress in a social service day center (Gardener and Rose, 1994); managerial stress, job satisfaction and health in Taiwan (Lu, T.Seng and Cooper, 1999); occupational stress among front line and middle line private and public sector executives (Mohanty and Mishra, 1998); work stress of hospital doctors (Fieldon and Peckar, 1999); managerial stress, locus of control and job strain in Taiwan and U.K. (Lu, Kao, Cooper and Spector, 2000); managers’ understanding of stress and its effects in the work place (Sharpless and Gardner, 2001); job, life satisfaction and occupational stress of women (Jena,
organizational stress as a threat to reputation and its effect on anxiety at work and at home (Dobby and Caplan, 1995).

However, in the light of the studies cited above it can be said that studies pertaining to the investigation of occupational stress in relation to the above mentioned 6 variables are scanty. Therefore an attempt has been made in the present investigation to study occupational stress in the light of demographic factors i.e. age and level of education, organizational or situational factors i.e. length of service and job status and psychological factors i.e. social intelligence and ego state of the employees of Bhilai Steel Plant, SAIL. It is natural and healthy to maintain an optimal level of stress as success, achievement, higher productivity and effectiveness call for stress. When stresses are left unchecked and unmanaged they can create problems in performance and affect the health and well being of the organism (Pestonjee, 1987a).