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INTRODUCTION

1.1 - STRESS : ITS CONCEPTUAL SHADES

Stress is the most common problem of everyday life in this modern world of achievements. Individual is exposed to various stressful situations throughout his life, whether it be within the family, business organization or any other social or economic activity. The different situations such as 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 be regarded as the cause of stress.

The term stress, meaning 'hardship' or 'adversity' can be found at least as early as the 14th century (Lumsden, 1981) but it first seems to have achieved technical importance in the 17th century. The concept of stress was first introduced in the life sciences by Selye in 1936, a concept borrowed from the natural sciences. Derived from the Latin word 'stringere' stress was popularly used in the 17th century to mean hardship, strain adversity or affliction. It was used in the 18th and
19th centuries to denote force, pressure, strain or strong effort with reference to an object or person, on which it is exerted. In psychophysiology, stress refers to some stimulus resulting in a detectable strain that cannot be accommodated by the organism, and which ultimately results in impaired health or behaviour.

Multiple meanings of the term stress exist and variety of other terms are used to refer to similar phenomenon. Epstein (1962) employs the term "conflict" to refer to the same kind of situation. Janis (1958) treats the psychological threat of surgery under the rubric of stress, while Selye (1956) uses stress to refer to direct physical assaults by noxious stimuli on tissue system. And those who work in the area of anger and aggression refer to "frustration".

Selye (1976) defined stress as the "nonspecific response of the body to any demand."

Lazarus (1966) construed stress as referring to the whole area of problems that induces the stimuli producing stress reactions, the reactions themselves and the various intervening processes. 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 state."

May (1977) called stress a half way station on the way to anxiety, and like anxiety has been defined as a stimulus, response and an intervening state of the individual.

Arnold (1960) defined stress as "any condition that disturbs normal functioning."

Agarwala et al (1979) believed that the confusion in definition is primarily due to the fact that the same term is used variously by scholars at different disciplines. Thus in physics, stress is a force which acts on a body to produce strain. In physiology, the various changes in the physiological function to evocative agents denote stress. In psychology stress refers to particular kind of state of the organism resulting from some interaction between him and the environment.

**STRESS AS A STIMULUS**

Many writers in psychology and physiology, have adopted the engineering convention, stress being the external agent or stimulus and strain being the resultant effect. The work of Adolf Meyer (1930) is in this direction. The concept was further developed by Holmes & Rahe (1967). They defined stressful life events as those events
having significant life changes in humans, particularly they related life events to illness.

From the homeostatic point of view a stress is some stimulus condition that results in disequilibrium in the system and produces a dynamic kind of strain.

Stress conceived as a stimulus has been used to describe situation characteristic as new, intense, rapidly changing, sudden or unexpected. Stressful stimulus can also include stimulus deficiet, absence of expected stimulation.

**STRESS AS A RESPONSE**

This approach describes stress as response of the body to demands made upon it. Selye (1956) considers stress as 'nonspecific' response of the body to demands made upon it, and he meant that whatever the external or internal demand, the person's response to stress followed a universal pattern. He termed this as 'General Adaptation Syndrome.' The GAS model states three stages of general physiological response to sustained and excessive stress.

1. Alarm
2. Resistance
3. Exhaustion or collapse.

The stimulus itself may cause some impact
damage but the true consequences of stress arise from the manner in which, the organism responds to the presumed danger. In this perspective it is the way in which the organism handles perceived stressors, the defences it mobilizes and the alarm reactions ignited that constitutes the true nature of the stress. Some alterations of body function that exceeds or depots from the norm, increased heart rate, ACTH excretion, galvanic skin response change etc. has been seen as a marker of stress. The emphasis in this model is upon the meaning of the stimulus, rather than objective nature of stimulus itself.

STRESS AS AN INTERACTION

Lazarus defines stress as occurring when there is an imbalance between demands and resources, and emphasizes the ongoing nature of the balance or imbalance. The model also says that environments can influence people and people can influence environments. At the psychological level, mediational processes involving evaluation and judgement are crucial to the stress reaction. Stress is a relational or transactional concept describing certain kinds of adaptive commonence between organism and environment.
STRESS AS A PROCESS

Stress is after all, an ongoing process that can be worsened by our inability to control either the problem that is causing stress or our reaction to problem. Psychological stress is dependent on cognitive mediation, i.e appraisal. Appraisal is the process that mediates or actively negotiates between the demands, constraints and resources on one hand, and goal hierarchy, personal beliefs of the individual on the other (Lazarus). According to Lazarus four concepts can be considered in stress process.

1. A causal external or internal agent.

2. An evaluation (by mind or physiological system) that distinguishes what is threatening or noxious from what is benign, i.e cognitive appraisal.

3. Coping process used by the mind (or body) to deal with stressful demands.

4. A complex pattern of effects on mind and body; referred to as stress reaction.

There have been two influential qualitative expansions of the stress concept:

1. Seyle, late in 1974 drew a health centered distinction between eustress and distress. Eustress was a good kind of stress because it was associated presumably
with positive feelings and healthy bodily states; distress was the bad kind, associated with negative feelings and disturbed bodily states. (Eustress may enhance immune system competence while distress may impair it).

2. Lazarus (1966) drawn a distinction among three kinds of stress, harm, threat, and challenge (Lazarus, 1966, 1981; Lazarus & Launier, 1978, Lazarus & Folkman 1984). Harm refers to psychological damage that had already been done eg. an irrevocable loss. Threat is the anticipation of harm that has not yet taken place but may be imminent. Challenge results from difficult demands that we feel confident about overcoming by effectively mobilizing and deploying our coping resources.

Threat is an unpleasant state of mind that may seriously block mental operation and impair functioning, while challenge is exhilarating and associated with expansive often outstanding performance. Stress can not be considered in terms of a single dimension such as activation. Such a recognition involves considering diverse emotional states, some negative, some positive.

Stress as a universal phenomenon, results in intense and distressing experience and appears to be of tremendous influence in behaviour.
1.2 STRESS : ITS TYPES

Manifestations of stress are found at every level of organismic functioning, from the microbiological to the emotional. The sources of stress extend from the most immediate contexts of people's lives to the outermost boundaries of societies and culture. The stress is classified in different types according to the context in which it is noticed, such as physiological stress, psychological stress, sociological stress, occupational stress etc.

PHYSIOLOGICAL STRESS

The effects of physical assault on the tissues and the physiological mechanisms involved would fall under the general heading of physiological stress. Janis (1958) introduced the concept of physiological stress. Cannon's (1939) homeostatic models played a large role in physiology and are at the root of Selye's analysis of stress. The concept of homeostasis and its disturbances are the basic elements around which the idea, causes and consequences of physiological stress exists. (Helode & Palnitkar, 1987).

SOCIOLOGICAL STRESS

Sociologically defined mechanisms of disasters and the impact on the social structure can be included
under sociological stress. Social conditions that can produce social disequilibrium are the causes of sociological stress (Smelser 1963). In his theory of Panic and Riot Smelser says conditions such as poverty, social isolation, flood, earthquakes, war, societal bans and taboos, racial prejudices and discrimination are the stimulus agents responsible for producing stress leading to social disorganization.

PSYCHOLOGICAL STRESS

At the psychological level mediational processes involving evaluation and judgement are crucial to the stress reaction. Psychological stress requires a judgement that environment and/or internal demands tax or exceed the individual's resources for managing them. The stimulus that can produce stress in a given human individual are of numerous varieties, such as fear of failure, sense of frustration, heightened anxiety and reactions to these stimulus can be noticed as psychosomatic reactions, cognitive changes, disturbed mental state and physiological changes with certain intervening process followed by coping behaviour.

OCCUPATIONAL STRESS

Occupational stress can be considered as an accumulation of stressors, job related situations that are
considered stressful. Stressful work situations might be one with many demands placed upon the employee, with little time for meeting them, and with increasing criticism from supervisors. Occupational stress can be defined as the interaction of work condition with characteristics of the worker to cope with them. Beehr & Newman (1978) outlined three categories of symptoms occurring under conditions of occupational stress: Psychological symptoms, physical health symptoms and behavioural symptoms. Psychological symptoms include emotional, cognitive, problems job dissatisfaction, depression, anxiety, boredom, frustration, isolation and resentment. Physical symptoms include cardiovascular disease, gastrointestinal disease, sleep disturbances, headaches, respiratory diseases. Behavioural symptoms include avoidance of work, increased alcohol, drug use, overeating, underrating, aggression toward fellow workers or family members, interpersonal problem, counter productive acts, absenteeism, leaving the job, accident proneness, loss of productivity etc.

Paine (1982) has observed burnout stress syndrome, the consequence of high levels of job stress, inadequate coping skills. It has major personal, organizational, and social costs.
There are several sources through which occupational stress can be caused. Factors tied to the individual such as personality, age, gender, sense of control etc and factors tied to the workplace such as role characteristic job, characteristic, interpersonal relationships, organizational structure and climate, human resource management practices, physical qualities and technology etc.

1.3 OCCUPATIONAL STRESS: ITS EMPIRICAL STATUS

In different organizations, outbreaks of psychogenic illness in work setting apparently have become more frequent in recent years. Physical symptoms of illness are reported frequently. Affected workers have been subject to considerable occupational stress, boredom, production pressure, poor labour management relations and a noisy, unpleasant working environment. Accidents on the job have long been a subject of research. Such an accident may be disastrous to workers and to a large public sectors. So the sources of these stress and the moderator variables of these stressors are largely studied by researchers nowadays. Such researches and the empirical status of occupational stress are reviewed and attempt has been made to throw light on such researches in different organizations.
Westman & Etzion (1999) investigated crossover of stress and strain in the workplace on a sample of 47 school principals and 183 teachers in Israeli elementary schools. They found a significant crossover of job induced tension but not of burnout from principals to teachers and vice versa.

Weisberg & Sage (1999) focused on the impact of burnout dimensions on the intension of 28 female teachers in Israel (mean age 40 year) to leave their current jobs. Both physical and mental exhaustion were found positively and significantly to influence intention to leave. The influence of emotional exhaustion and ages was not significant. Tenure was negatively and significantly correlated with both burnout and intention to leave.


Von et al (1999) presented results of a study on burnout among 249 Dutch elementary and secondary school teacher. Findings show that when teachers invest
more than they get back from their school, they report higher levels of emotional exhaustion. At the interpersonal level, low outcomes from students are related to high burnout levels, whereas at the organizational level, low investments are related to higher burnout level.

Abel & Sewell (1999) examined sources of stress and symptoms of burnout in 51 rural and 46 urban secondary school teachers from Georgia and North Carolina. It was observed that urban school teachers experienced significantly more stress from poor working conditions and poor staff relations than did rural school teachers. Stress from pupil misbehaviour and time pressure was significantly greater than stress from poor working conditions and poor staff relations for both rural and urban school teachers. Poor working conditions and time pressures predicted burnout for rural school teachers' pupil misbehaviour and poor working conditions burnout for urban school teachers.

Jamal (1999) examined the relationship between job stress and employee well-being among college teachers in Canada and Pakistan. Job stress was operationalized in terms of perceived experiences at the job which were chronic in nature. In both countries, job
stress was significantly related to a number of well being variables.

Leung, (1994) discussed reasons for suicides committed by 3 Chinese teachers in 1994, which were preceded by suicides of several students. Issues addressed discussed, include the possible phenomenon of teacher suicide, causes and prevention. In discussing causes, the author notes that changes in Chinese society, impact child rearing and thus the types of problems that teachers have. Teachers are said to have a greater workload in addressing the needs of more troubled students, which may increase their own stress level.

Friedman (1995) examined student behaviour pattern that contribute to burnout among teachers in general and male and female teacher's possessing different pupil control ideologies. Results revealed that typical student behaviour disrespect, inattentiveness and sociability accounted 22% of teacher burnout variance and for 33% of burnout variance in religious schools. Burnout among male teachers was affected by inattentiveness and in female teachers by student disrespect.

Montalvo et al (1995) examined the perceptions of factors in occupational stress among 17 elementary
and 25 secondary school teachers. The school teachers' gender, age, experience and the grade they taught were taken into account. Results showed that maximum stress was experienced due to disruptive students, attitude of students towards learning, salary received by the teachers, lack of time to spend with individual students, and the lack of time for planning and preparation. Despite reported stress, for 97% of respondents, students were the major source of satisfaction.

Thomson and Wendt (1995) studied the relationship between the hardiness, personality trait and school climate in their contribution to student teacher alienation. Results revealed that individuals indicating higher levels of hardiness had significantly lower alienation scores across all school climate conditions than their less hardy counterparts did. Data also indicate that as the school climate become more supportive, students teachers who have high levels of hardiness become progressively less alienated. Alienation actually increased as climate conditions become more supportive.

Peeters et al (1995) explored the types of work related stressful events reported by 41 university secretaries. Interpersonal frustrations appeared to be
one of the most significant stressors. Much of the strain of working may be due to interpersonal environment rather than to specific job demands. Other stressors include the hectic environment in which they have to work and the problems they experienced with the bureaucracy of the university. Overload is not appraised as a significant stressors. The degree of controllability over an event appeared to be the most prominent dimension of cognitive appraisal.

Chaplain (1995) investigated sources of stress and job satisfaction among primary school teachers. The strongest correlations were found between professional concern and occupational stress. Men reported more stress than women on professional tasks and pupil behaviour and attitudes. Women scored higher on professional concern. Teachers were most satisfied with their professional performance and least satisfied with teaching resources. Reports of high occupational stress were related to low levels of job satisfaction.

Kelley et al (1999) examined stress and burnout among collegiate tennis coaches. The relationship between personal/situational variables (hardiness, coaching issues, competitive level, gender, trait anxiety, initiating and consideration - leadership styles) and burnout among men and women were examined.
Preliminary analysis revealed that the tennis coaches were suffering from levels of burnout similar to those of other helping professionals working in higher education. A significant main effect for gender but not for competition level was found. The women had a higher tendency than the men to find coaching issues stressful.

Pruessner et al (1999) examined the effects of burnout on perceived stress on early morning free cortisol levels after awakening, in a group of teachers. Perceived stress correlated with increases of cortisol levels during the first scoring, high stress or burnout showed lower overall cortisol secretion on all sampling days. The results demonstrated differential effects of burnout and perceived stress on hypothalamic pituitary adrenal axis regulation.

McCormick and Shi (1999) examined similarities and differences in teacher's attributions of responsibility for occupational stress in large educational system in New South Wales, Australia and Hebel Province China. The results suggested that both the Australian and Chinese teachers had similar work environment, the negative effects of which are buffered by perceived support from within the organization, but not by that perceived to be available from informal source such as family and friends.
Fernandes and Murthy (1989) carried out a study on job-related stress and burnout in middle and secondary school teachers. The study was undertaken to explore the prevalence of stress and burnout in teachers teaching in Bangalore city school. It was found that 76% of the total sample faced stress on the job. Pupil misbehaviour was found to be the most stressful, followed by "time pressures", "poor working conditions" and "poor school ethos". Correlation between stress and burnout revealed that stress was correlated significantly with the emotional exhaustion subscale while non significant relationship were observed in the case of depersonalization and personal accomplishment.

Ushashree and Jamuna (1990) conducted a study to examine role conflict and job stress among special (deaf & dumb) and general school teachers. The analysis did not reveal any sex differences among teachers from special schools on role conflict and job stress. However women teachers in general schools were found to experience greater role conflict and had poor attitudes towards their students and were less satisfied with their careers as compared to their male counterparts in general schools. Teachers from special schools, both men and women, were found to experience significantly greater role conflict and job stress compared to their counterparts in general schools.
Jamuna and Ushasree (1990) carried out study to examine burnout among teachers working in private and public schools. The results indicated that women in the lower age groups exhibited a higher degree of burnout. Also, a significant difference was observed between private and public school teachers in career satisfaction, perceived administrative support and coping with job related stress.

Biswa and De (1993) studied the role of organizational climate on professional stress experienced by teachers working in an open climate and male teachers working in paternal climate. The analysis revealed that the teachers working in an open climate experienced less composite professional stress, powerlessness and social isolation than the teachers working in a paternal climate. It was also found that the teachers in an open climate has less negative orientation and affection towards different aspects of their jobs and professional lives.

Mishra (1995) conducted a study to explore the relationship between job related stress and depressed mood at work among male teachers of higher educational institutions. Results showed a highly significant and positive relationship of overall job related stress and its four dimensions, i.e role based stress, task based stress,
boundary mediating stress and conflict mediating stress with depressed mood at work among male teachers of higher educational institution.

Sultana (1995) investigated the level of organizational role stress among male and female teachers of professional and nonprofessional courses. The findings revealed significant differences between professional male and female teachers on the dimensions of inter-role distance, role stagnation, role expectation conflict, role erosion, role overload and role ambiguity. Significant differences were also found between non-professional male and female teachers on the dimensions of role expectation conflict, role isolation, personal inadequacy, self-role distance and role ambiguity. Significant differences observed between professional and non-professional male teachers on the role stress dimensions of role stagnation, role expectation conflict and role isolation. Significant difference between professional and non-professional female teachers on the role stress dimensions of inter-role distance, role stagnation and role overload.

Mishra (1996) studied occupational stress and job satisfaction among male and female teachers of higher educational institutions. The results showed significant differences between male and female
teachers in the areas of private life, work overload, underload, role conflict, and interpersonal stress. Female teachers experienced more stress in these areas than male. In environmental, structure of institution and personal areas no significant difference in two gender groups observed. In overall stress and overall job satisfaction the significant differences were observed. Stress was found to be correlated negatively and significantly with job satisfaction in both the groups. Male teachers obtained maximum scores on underload areas whereas female teachers obtained maximum scores on overload areas.

Upadhyay and Singh (1999) compared the occupational stress level experienced by college teachers and executives. The results revealed a significant differences between these two groups on the experience of stress on various subscales of occupational stress index between two groups. The study indicated experience of occupational stress amongst the academician as well as executives.

Joshi and Singhvi (1987) examined the effect of teachers' personality factors on their experience of role stress. The maximum role stress was experienced on the dimension of role erosion. Adventurous withdrawal dimension of contact personality correlated negatively
with all the role stress dimension except role erosion. Alienation correlated positively with all the role stress dimension and total role stress. Machivellianism correlated positively with all role stress dimensions except inter-role distance. Locus of control associated negatively with role ambiguity. Internality associated positively with role stagnation and negatively with role ambiguity.

SERVICE ORIENTED ORGANIZATIONS

Barnett et al (1999) studied number of hours worked and estimated its relationship to burnout in a non-random sample of 141 married physicians. Results showed that the relationship between number of hours worked and burnout depends on the extent to which work schedules meet the needs of the worker, her or his partner, and their children.

Acker (1999) observed that greater involvement was related significantly to higher level of emotional exhaustion and depersonalization. Overall results suggested that social workers are affected negatively by this type of work.

Boey (1999) examined the relative contribution of personality coping and family support to adaptation to stress in nursing. Findings indicated that stress resistant
nurses who adopted to high work stress with good mental health status had a higher self esteem and were more internal in locus of control than the distressed nurses who reported poor mental health status under high work stress. The use of negative emotion focused coping was less frequent among the stress resistant nurses who also had good greater supports from family relationship. Analysis revealed that behavioural coping (enhancement of ability - physical health) had greater contribution to stress resistance than cognitive coping (e.g. acceptance of situations or changes of perspectives).

Thornberg et al (1998) examined the relationship between competence and burnout in adult family child care providers. Results showed that 5 variables (marital status, number of own children, salary, hours worked and years of child care experience) have no significant impact on competence and burnout. Other variables (age of providers, educational level of the provider, use of lesson plans, perceived adequacy of space and satisfaction with materials and equipment) showed a significant relation with competence and burnout or both. Findings showed that family child care providers with higher education and greater satisfaction with materials and equipment tend to be more competent. Provider who are older and reported less satisfaction with their materials and equipment experience more burnout.
Leiter et al (1998) examined the relationship of nurse burnout, intention to quit and meaningfulness of work as assessed on a staff survey with patient satisfaction with nursing care, physical care, information provided and coordination of care and outcome of hospital stay. Patients perception of the quality of each of the 4 dimensions correspond to the relationship nurses had with their work. Patients on units where nurses found their work meaningful were more satisfied with all aspects of those hospital stay. Patients who stayed on units where nursing staff felt more exhausted or more frequently expressed the intention to quit were less satisfied with the various components of care.

Barnes (1999) examined the relationship among burnout, sense of competence, role ambiguity and experience level, and practitioner's perception of their clients. The study found that most practitioners perceived clients a average people who were not overly negative or positive in their personality traits. Correlation analysis supported the hypothesis that burnout is negatively associated with perceptions.

Bourbonnais et al (1999) examined the association of job strain with psychological problems and the potential modifying role of social support at work. The same association were found between psychological
demands, decision latitude and a combination of the two with psychological distress, and emotional exhaustion for current exposure and for cumulative exposure. Social support had a direct effect on these psychological symptoms but did not modify their association with job strain.

Winefield and Barlow (1995) investigated client and staff satisfaction with the working of multidisciplinary child protection agency client, expressed a great deal of satisfaction with the agency staff and services. Agency staff was relatively satisfied with their jobs and showed little evidence of burnout.

Janz et al (1995) identified the frequency of staff stressors and their association with programmatic factors in AIDS prevention and service projects. Findings suggest that staff working in AIDS prevention and service projects perceive significant levels of stress regardless of project focus. Most frequently too much work, rapid organizational growth burnout, and problems with staff relations and communication. Among the issues rarely reported were too little work, discomfort with the target population and personal health risk concern.

Parker and Kulik (1995) examined how job stress and work support predict the experience of burnout and how burnout is related to absenteeism and job
performance in registered nurses. Analysis indicated that levels of work support and job stress were both significant predictors of burnout. Higher burnout levels were significantly associated with poorer self-rated and supervisor rated job performance, more sick leave and more reported absences of mental health reasons. The findings suggested that burnout may negatively impact health care providers and may influence objective absenteeism and supervisor perceptions of employee performance.

Beardslee et al (1995) described strategies that decreases stress and enhance job satisfaction for nurse educators. Subjects indicated that faculty stress had a significant negative influence on job satisfaction. Findings demonstrated that the hardiness factor of commitment and the social support factor of supervisor support mitigated the impact of stress. Job satisfaction is enhanced when these two factors are supported.

Buchman and Freeborn (1999) examined whether or not primary care physicians affective reactions to uncertainty and their job characteristics were associated with use of referrals and burnout. Younger physicians had higher referral rates than older and general internists had higher rates than did either family practitioners or paediatricians. Greater stress from uncertainty increased
referrals and referrals were negatively correlated with heavier work demands. Greater stress from uncertainty perceived workload (too high), and sense of loss of control over the practice environment were associated with higher levels of burnout.

Holder and Vaux (1998) examined white work settings. They studied the potential influences on job satisfaction of routine and race-related work stressors, personal workplace, spirituality, internal locus of control and work related and non work related social resources. No significant differences of these variables were observed for type of work setting or for gender. Job satisfaction was related to routine work stressors, race related stressors, internal locus of control and work related social support but not to workplace spirituality or non work social support.

Kalliath et al (1998) tested the relationship between dimensions of burnout and employee commitment to the organization in 2 hospital samples. The data showed that low commitment contributes to the experience of burnout particularly in nurses, and commitment showed direct effect on emotional exhaustion and depersonalization and a weaker indirect effect (via exhaustion) on depersonalization. Similar patterns of effects emerged in laboratory technicians from the same organization.
Jain et al (1996) examined the effects of locus of control, occupational stress and psychological symptom distress on job satisfaction with practising nurses. Greater work related stress and higher psychological symptom distress were negatively correlated with job satisfaction. External locus of control was also negatively associated with job satisfaction.

Flett et al (1995) elucidated the stress related concerns of rehabilitation professionals. Studies showed a relationship between burnout and personality variables such as learned resourcefulness and empathy, job dissatisfaction, perceived pole stress, organizational withdrawal behaviour bureaucratization and limits of an autonomy. Data suggested certain types of coping, such as restraint, planning reappraisal and seeking social support for emotional reasons are associated with higher levels of positive affect, life satisfaction and job satisfaction. Organizational factors including clarification of roles, responsibilities and policies and the development of more effective intraorganizational communication, also help in dealing with job stress.

Leiter and Durup (1996) examined psychological states as a function of demands and resources in the workplace and at home. Spillover was examined in female hospital workers with families. Subjects sense of
Professional efficacy had the most wide ranging relationships with links within the work domain, the home domain and the boundaries between these two domains. Spillover from work made a much greater contribution to the prediction of family states than spillover from family did for work states. Emotional exhaustion played a central role in the work domain, in the family domain, personal accomplishment at work was the most central component of spillover stress.

Waters (1999) studied the relationship between resources and conditions in the work environment and job stress among correctional treatment staff members. They observed that those experiencing a higher quality of personal relationships and social support in the work environment reported fewer stressors at work.

Butterworth et al (1999) studied stress, coping, burnout and job satisfaction in British nurses. Results showed that occupational stress levels are rising in nursing. While there is now a greater focus on community nursing, this would appear to be more stressful, though also more satisfying than working in hospital settings. Nurses appear to perceive stressors differently according to their grades.

Cooper et al (1999) examined the nature of stress experienced by anaesthetics and its effect on job
satisfaction and individual well-being. Compared to other workers, anaesthetics reported high levels of stress comparable to other health care professionals. Organizational issues, especially communication within the hospital and perceived lack of control were most important in determining job satisfaction and individual well-being.

Dyer and Quine (1998) examined occupational stress among direct care staff working with people with learning disabilities. The results suggested that occupational stress amongst staff caring for people with learning disabilities is best reduced by increasing support since the job is likely to remain demanding.

Corrigan et al (1995) studied burnout and collegial support in state psychiatric hospital staff. Burnout was positively associated with anxiety, frequency of illness and contrary job attitudes, and correlated negatively with level of satisfaction with the collegial support network. Analysis showed that satisfaction with support system diminished the effects of burnout on frequency of illness and job attitudes.

Sekhar (1996) explored job stress, job related anxiety and helplessness, and job burnout experiences among nursing personnel from three hospitals. Results revealed that the type of hospitals differentially affected
job stress and job burnout experiences. University hospital nurses scored lower on all the stress and burnout experiences. Nurses' helplessness, depersonalization experiences and personal accomplishment were significantly affected by the number of patients nursed.

Ferrari et al (1999) compared the level of burnout among staff working in a hospital Emergency Unit vs a General Surgical Department to determine if the impossibility of planning work and the continuous working in an urgency dimension are associated in the Emergency Unit, with higher levels of distress. Results showed that emergency unit subjects had a high level of physical exhaustion. Job-related problems were found to invade the private sphere of subjects' levels and numerous defensive strategies were used to protect against stress. General surgical ward subjects were characterized by a low level of exhaustion and a total absence of emotional and mental exhaustion factors. They were not influenced by any stressors and received social support from family and colleague.

Tattersall et al (1999) investigated the role of coping in the relationship between job stress and well-being in hospital doctors. Psychological stress was associated with particular work situations and specific coping strategies. Distress increased with greater job
constraints, management issues and problem of diagnosis and treatment. Higher levels of distress were associated with coping strategies that involved emotional distancing from stressors in contrast to activity dealing with them. Some doctors may reduce intrinsic stress by use of appropriate coping strategies.

Fielden and Pecker (1999) found out linkage 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. Junior hospital doctors used social support as a coping strategy significantly more often than 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 higher levels of effective social support, junior hospital doctors faced significantly greater sources of stress and poorer mental health than their senior counterparts.

Payne et al (1999) have done research on the psychological effects of work characteristics investigated their relationship with both work attitudes and psychological strain. The result strongly supported the moderating effect showing that as strain increases, the strength of the relationship between perception of work characteristics and work attitudes decreases.
Shaddock et al (1998) reported the extent of association between the burnout scores of workers in residential services for people with an intellectual disability and variables such as religious affiliation, personal relationships, perceived skill levels, job satisfaction, case loads, decision making and social support. Significant associations were found between burnout scores and some demographic variables (e.g. practice of religion was associated with low burnout scores). Similarly, low burnout services were associated with some features of the work situation (e.g. job satisfaction).

Shiu (1998) explored the significance of sense of coherence for perceptions of task characteristics and for stress perceptions during interruptions of female public health nurses with children. There was positive correlation between sense of coherence and perceived task characteristic. Also, when interruption occurred subjects with high sense of coherence had higher positive affect and lower negative affect than did subjects with low sense of coherence.

Dupree and Day (1995) examined the effects of managed mental health care on job satisfaction and on burnout among psychotherapists. Psychotherapists in private practice reported higher levels of satisfaction and
lower levels of burnout than did public sector therapists. No gender differences were found in job satisfaction, but male therapists had higher burnout scores than did females. Levels of job satisfaction and burnout among private practitioners were not related to their reported percentage of managed mental health care clients however for male therapists in general the higher percentage for managed mental health care clients were associated with lower job satisfaction and higher burnout.

Reid and Moss (1999) measured stress levels of doctors before and after the introduction of a partial shift system as a result of the new deal. The study exhibited higher stress levels than the doctor 'norm' group and higher than most other professional groups. The introduction of a partial shift system resulted in a marked reduction of stress levels in relation to mental well-being and job satisfaction and a significant reduction in the effect of stress on physical health. Despite this reduction doctors did not feel that the new working pattern was a success.

Ogus (1991) examined the relationships between burnout, work stress and social support in 128 female nurses. The findings revealed that subjects with high social support and high satisfaction with social support reported less burnout than subjects with little social
support and less satisfaction with social support regardless of level of work stress.

Mittal (1992) studied the role stresses in relation to coping style, locus of control and personality type, using a sample of 147 doctors belonging to both private and government hospital settings.

a) The major stress experienced by doctors was role erosion, followed by inter-role distance.

b) Private doctors experienced more overload and self-role distance in comparison to government doctors.

c) Male doctors experienced more role erosion and self-role distance than female doctors.

d) Male private doctors experienced more self-role distance and role ambiguity in comparison to male government doctors.

e) Female private doctors experienced more role overload than the female government doctors, whereas female government doctors experienced more self-role distance and role ambiguity than female private doctors.

f) Role stagnation was found to be significantly and positively related to impunitive style of coping and negatively to total approach style of coping.
g) Role erosion was found to be negatively and significantly associated with intropunitive style of coping.

h) Type A personality was associated positively and significantly with total role stress.

i) Locus of control was found to be positively and significantly associated with self-role distance, role ambiguity, and role expectation conflict.

f) Type A personality led to a positive relationship between the total role stress and the total approach styles of coping.

Pestonjee (1995) investigated the motivational profiles of public health personnel i.e. doctors. The findings showed that the doctors belonging to two groups were equally satisfied with their jobs. Junior doctors were more consistent in their feeling of satisfaction and attitude toward morale. Junior doctors although less alienated showed more consistency in their feelings than senior doctors. Junior doctors believed in participation in organization more than senior doctors. Dependency and affiliation were reported to be dominantly perceived whereas control as remotely perceived motivational climates by both the groups. Role erosion and resource inadequacy were experienced as dominant contributors.
in junior and senior doctors whereas role ambiguity and role overload as remote contributors of role stress in seniors, and role ambiguity and role stagnation as remote contributors in junior doctors. Job satisfaction variables correlated negatively with all the role stress dimensions in case of both the groups.

Sharma et al (1998) studied Type A behaviour in relation to occupational stress, anxiety, and anger in nurses. It was found that occupational stress was correlated significantly with Trait-anxiety, anger in and anger out. It was also found that Jerkins Activity Scale Type A subjects were significantly higher on occupational stress, Trait anxiety and anger expression than their Type B counterparts. Type A subjects reported greater affective discomfort than their Type B counterparts.

ARMY (MILITARY), POLICE, LEGAL ORGANIZATION

Gulie et al (1998) reported a preliminary explanation of stress in the South African Police Service in the Cape Peninsula. Results indicated that the way in which the police organization operates in South Africa creates stress in addition to the inherent pressure already existing as a result of the nature of police work. This finding indicated a potential area of intervention and also showed that further research could profitably be conducted.
Calian, et al (1994) tested two models of resources and coping strategy toward organizational change by administering survey on lawyers. The main effects model proposes that irrespective of stress level, coping resources and coping strategies have direct effects on well-being. The second model predicts that buffering effects of coping resources and strategies are evident only at high levels of stress. Results generally supported the main effects model. Lower levels of organizational change, greater self confidence, greater internality of control beliefs, and less use of emotion focused coping strategies. Lower levels of depression in employees were also linked to judgements of lower levels of organizational change, greater use of resources and less appraised stress.

Srivastava, (1994) studied 160 junior commissioned and noncommissioned officers from 6 Indian Army regiments on job satisfaction, job anxiety, work environment preference schedule. Factor loadings indicated that army personnel have low job anxiety, high job satisfaction and high preferance for the military environment. The 2nd factor represented functional unity and the 3rd, a healthy and mature personality among army personnel. There were 6 variables on which every regiment was alike. However, there were 6 others on
which all regiments differ significantly, which suggested that individuals personality difference within regiments greatly influenced both job satisfaction and job anxiety.

Perrott and Tayler (1995) compared 123 Canadian constables and 36 of their immediate supervisors on measures of authoritarianism, perceived stress, job satisfaction, and social nearness to several clearly defined community groups. Although constable and their supervisors did not differ on perceived stress, supervisors reported significantly higher levels of authoritarianism, job satisfaction, and social nearness to certain groups. Lower levels of social nearness in the constable sample accompanied by lower levels of authoritarianism, suggested that feelings of social nearness may result from social factors.

Kirkcaldy et al (1995) examined specific facets of subjectively perceived job stress and their effects on the job satisfaction and physical and mental health of American Police officers. Occupational stress indicator scores of 49 police officers were compared to population norms. Although the police officers perceived less stress from factors intrinsic to the job, they expressed greater job-related pressures from organizational structure and climate. They also gave higher ratings in competitiveness and assertiveness in their work behaviour.
McClain (1995) examined the relationship between health and safety, risks and job satisfaction, stress and distraction from work tasks in firefighters emergency technicians. Lower perceived risk and stronger belief that risk exposure was evenly distributed, were positively related to satisfaction with both work place conditions and with work in general. Subjects who rated high on how much of their salaries they would trade for safe and healthy workplaces were more satisfied with work. Greater danger, greater perceived risk, and less equal exposure to risk predicted greater distraction form task accomplishment. Results showed that individual regularly exposed to health and safety threats where they work interpret the risk in a variety of ways, and that these interpretations have implications for job satisfaction, stress, and task performance.

Hall and Jansen, (1995) evaluated 47 commissioned officers, 86 non-commissioned officers, and 92 junior enlisted soldiers from the 28 the combat support hospital for stress and arousal during developmental preparation for operation. Uphold democracy. Increased levels of arousal were also found in officers and older soldiers. Higher levels of arousal were also found in subjects reporting a greater number of hours of sleep during the preceding 24 hours No.
significant difference was found in stress scores for several demographic and coping behavioural groups. Lower arousal scores suggested that younger, sleep deprived, and enlisted soldiers may be at the highest risk for accidents during deployment preparation.

Kirkcaldy and Furnham (1995) examined coping behaviour i.e. seeking social support) among 90 German Police manager (6 females) who completed measures on job stress, coping skills, job satisfaction, and mental and physical health contained in an occupational stress indicator. There was evidence of a direct impact of social support on both mental and physical health. Job satisfaction had a direct impact on mental ill-health. There was no direct relationship between overall job stress and job satisfaction.

Brown and Comphell, (1992) studied the sources of stress in 954 police officers form a non metropolitan police force in England. Their findings indicated that overall exposure rates were highest for organizational and management stressors rather than for routine operational duties.

Mathur(1994) studied organizational role stress among police professionals. Results indicated that the maximum scores were obtained on the dimensions of role erosion, self-role distance, inter-role distance and
role stagnation. Total role stress was also reported to be fairly high.

Mathur (1995) examined the level of awareness of stressors among police personnel. A group of 71 gazetted officers and another group of 81 police personnel from other ranks from 16 different states and central police organization of India constituted the sample. Results revealed that both the groups experienced job-related stress. Major stressors reported were those affecting career development, use of weapons, dangerous work duties, threat of personal injury or death of colleagues, unofficial work as directed by their boss, and poor personnel policies.

Mishra (1997) conducted a study to examine the level of occupational stress and assertiveness among police officers. The results showed no significant differences were found between police officers who were more assertive and those who were less so, in areas of personal life stress, environmental stress, organizational stress interpersonal and personal stress. A significant difference was found between more and less assertive police officers on overall occupational stress areas, were found to be correlated negatively and significantly with assertiveness. Assertiveness was found to have no
effect on occupational stress experienced by higher ranked police officers.

Singhvi and Mathur (1997) examined the difference in experiencing various role stresses by a group of officers belonging to CRPF. A group of 18 gazetted officers of the rank of deputy Superintendent of police and another group of 32 non gazetted officers (12 transferable and 20 nontransferable) constituted the sample. The findings showed that role erosion and inter-role distance were found to be the most dominant whereas role ambiguity and role overload were the least dominant contributors of role stress for the total sample. Gazetted and non-gazetted (transferable) officers obtained lower role ambiguity scores as compared to non-gazetted (transferable) officers. Gazetted officers obtained lower scores on personal inadequacy. Non-stafic officers obtained significantly higher scores on all the role stress dimensions. Significant differences were observed between gazetted officers and non-gazetted (non-stafic) officers on all the dimensions of role stress as well as total role stress. Significant differences were also found between gazetted and non-gazetted officers on the dimension of role erosion, role overload, role isolation, personal inadequacy role ambiguity, resource inadequacy and total role stress.
Lundberg, et al (1999) examined psychological and physiological stress, as well as muscle tension and musculoskeletal symptoms among 72 female supermarket cashiers. Stress levels were found to be significantly elevated at work, as reflected in the catecholamines, blood pressure, heart rate, electromyographic activity and self-reports. Fifty cashiers were found to have higher activity at work and reported more tension after work. Women who kept a diary for week and reported more musculoskeletal pain were older, had higher blood pressure, and reported more work stress and psychosomatic symptoms.

Wolden and Good, (1995) surveyed 193 sales associates and managers from branches of 2 departmental stores to determine to what extent tension exists and what sources or combination of sources of social support is perceived to influence the interaction of life remains in terms of role theory. Role conflict, role overload, number of children and role ambiguity were significant predictors of tension. Social support from supervisors and coworkers was significant predictors of tension. Specifically, for subjects experiencing low levels of tension, there were no differences in the level of social support from supervisors and coworkers for those
experiencing high levels of tension. There was significantly more co-workers support than supervisors support from family/friends was not significant in influencing tension for either of 2 groups.

Gomzi, et al (1999) examined the complex relation among psychological personality characteristic of video display terminal (VDT) operators, including perceived health status, job demands, and objective ergonomic features. The results showed that complaints concerning health status in all subjects were significantly related to neuroticism. Psychological characteristic job task related features, and objective ergonomic conditions all contributed to the perceived levels of job stress and health complaints. Neuroticism was significant predictor of the health status in females only while ergonomic conditions were the only significant predictor in males.

Babakus et al (1999) examined emotional exhaustion a potential important construct in sales force behaviour and attitude relationship. The results offered strong support for relationship involving role ambiguity, and conflict antecedents and organizational commitment, job satisfaction, performance and intention to leave consequences of exhaustion. Based on the logic that emotional exhaustion is the first stage of burnout process. Under standing the role of this component of burnout in
sales force behaviour and attitude and relationship has important implications for reducing burnout before it happens.

Tuchmann et al (1999) examined how work demands translate into acute changes in affective response and hence into chronic response. Seven accountants reported their reactions 3 times a day for 4 weeks, on pocket computers. Analysis showed that mood and emotional exhaustion fluctuated in parallel with time pressure over time. Disaggregated time series analysis confirmed the direct impact of high demand periods on the perception of control, time pressure, and mood, and the indirect impact on emotional exhaustion. A curvilinear relationship between time pressure and emotional exhaustion was shown. The results suggested that enhancing perceived control may alleviate the negative effects of time pressure.

Hemstron (1999) examined whether work-related factors contribute to excess male mortality. All Swedish deaths during 1970-80 and 1980-86 were analysed for all individuals and for labour force participants, to estimate gender mortality rate ratios for all causes, circulatory diseases and external causes. Results for all men and women, as well as results restricted to those in full time
employment, revealed that no work related factors contribute to excess male mortality.

Peeters et al (1995) examined the daily Interaction Record in Organizations assessed social interactions, stressful events, and negative affects at work in 41 female secretaries of the Netherlands. Results showed that social interactions of secretaries were characterized by 3 dimensions

1) intimate support
2) instrumental support and
3) rewarding companionship. These dimensions appear to have different relationships with occupational stress. Instrumental support played the most important role in the work of the subjects whereas rewarding companionship played no role at all in alleviating stress.

Bliese and Halverson (1996) contrasted individual and nomothetic perspectives of job stress by examining the linkages between work hours, vertical and horizontal cohesion and psychological well-being. Results revealed that respondents from the same work group agreed about perceptions of the work climate and that both individual and nomothetic perspective were useful in describing the relationship between cohesion and psychological
well-being. The relationship between work hours and psychological well-being was best modeled from nomothetic perspective.

Burke (1991) studied the effects of physical environment and technological stressors among stock brokers. The results revealed that subjects reporting more stressors from physical environment and technological work also reported less satisfaction and poorer emotional well-being.

Jex and Elacqua (1999) examined whether self esteem moderates the relationship between stressors and both psychological and physical strains. Overall results showed some support for moderator effects.

De (1999) examined the effects of stressors in both the vocational and relationship careers of youngsters on the formation of adolescents mental health. The correlation between relationship stressors and vocational identity have similar effects on mental health. (i.e. the more achieved identity, the better the person's mental health) Vocational and especially relationship stressors lead to poorer mental health, but did not affect the mental health of boys and girls differently. The same goes for the influence of relationship and vocational identity formation on mental health.
Pradhan and Mishra (1999) explored experiences of organizational role stress (ORS) perceptions of the human resource development (HRD) climate among 120 younger vs 120 older executives from public vs private sector organizations. Younger subjects differ significantly from older subject with regard to their experience of role stagnation, role ambiguity, and self-role distance, suggesting that younger subjects experienced a slightly higher degree of stress with regard to role expectation conflict. On total organizational role stress scores, there were significant differences between younger and older subjects between public and private sector subjects with regard to perceptions of Human Resource Development climate there were significant differences by age but not public Vs Private sector.

Lundbek and Frankenhauser (1999) studied psychological and physiological stress. Stress responses related to work and family were investigated in 21 female and 21 male managers and professional specialists in high ranking positions. The main result was that both women and men experienced their jobs as challenging and stimulating, although almost all data indicated a more favourable situation for men than for women, In addition women were more stressed by their
greater unpaid workload, and by a greater responsibility for duties related to home and family.

Chand and Sethi (1999) examined the organizational factors as predictors of job related strain in 150 junior management scale -1 officers in banking institution. The findings showed significant positive relationship between job related strain and role overload, role conflict and strenous working conditions. These were found to be the clearest and most significant predictors of job-related strain.

Chaudhary (1990) examined the relationship between stress and job satisfaction among bank officers above and below 35 years age. The findings showed that role erosion and resource inadequacy were experienced as dominant whereas role ambiguity and role expectation conflict as remote contributors of role stress among bank officers. No significant differences were observed between the two age groups on role stress dimensions. The overall indices of role stress and job satisfaction were found to be negatively correlated in higher as well as lower age groups of bank officers.

Pattanyak and Misra (1997) explored the prevalence and determinants of organizational climate, job stress and job stain among the employees in service
sectors i.e. bank and insurance companies. The results showed significant differences between banking and insurance employees with regard to role conflict and experience of inequity, also between younger and older employees on the dimensions of experience of inequity, job difficulty and inadequacy of role authority. No significant differences were found between the two types of organizations for organizational climate. Younger and older employees differed significantly on a few dimensions of organizational climate like formalization, professional help and standardization. Job strain due to latent hostility, depression and physical strain was found to be uniformly distributed in both banking and insurance sector. Younger age employees scored higher on all the three job strain dimensions as compared to older age employees.

Mukherjee (1997) studied the relationship between organizational role stress, role efficacy, and organizational climate among banking professionals. The findings showed higher stress on all role stress dimensions in junior level managers whereas senior level managers scored higher on all the dimensions of role efficacy. Significant differences were observed between the two groups on inter-role distance, role overload, personal inadequacy and total role stress, and also...
between the two groups on dimensions of proactivity, creativity, helping relationships, influence growth and total role efficacy. Maximum role stress was experienced on the dimension of role erosion, role isolation and self-role distance by both the groups. Role stress variables were found to be inversely associated with role efficacy in both the groups. Dependency and affiliation were reported to be dominantly perceived whereas extension and expert influence as remotely perceived motivational climates in case of senior level managers. Dependency and control were reported to be dominantly perceived whereas extension and affiliation as remotely perceived motivational climates in case of junior level managers. A significant difference was observed between the two groups in the perception of affiliation climate.

Singh (1993) examined the level of stress among workers working on video display terminals in various newspaper establishments. The analysis of the data revealed that video display terminal user group experienced significantly higher stress than the non video display terminal users group. Mental fatigue in video display terminal user group was found to be quite high as compared to the non-video display terminal user group.
Arora (1994) compared the level of stress, alienation and physical health among Video display unit users and non-video display unit. A sample comprised of 105 clerical and managerial video display unit users and non-video display unit (users working in banks. Findings of the study revealed that clerical video display unit users, as compared to clerical non-video display unit users and managerial video-display unit users, experienced pressure and time urgency, and were controlled by their supervisors. Video-display unit using clerks were not encouraged to be self-sufficient and take their own decisions. what to expect form their daily routine and experienced less control by their supervisors. Data entry staff, in contrast with video display unit managers, experienced alienation in terms of powerlessness, meaningless-ness, self-estrangement and instrumental work orientation. Video display unit using managers expressed greater anxiety and fatigue than non-video display unit users. Authors argued that stress generated by computerization led to an alienation and had an acverse effect on health.

Srivastava (1991) examined the realtionship between employees role stress and mental health and the moderating effect of adopted coping strategies in this relationship 300 employees of supervisory cadre
form LIC participated in the study. The analysis indicated that employee's role stress and mental ill health positively correlated. It was also noted that the approach coping group scored higher on role stress than avoidence coping group. But the approach group manifested lesser symptoms of mental ill health.

Kivimaki et al (1998) examined whether the hostile individual were more vulnerable than others to health problems when faced with stressful changes in their working lives. Hostility, sickness absence and psychosocial stressors in local governement employees over a 5 year period, which included severe economic decline, were investigated. Results showed that exposures to stressors during the period of economic decline was related to increased rates of sickness absence. In men hostility increased rates of absence through sickness and absence because of musculoskeletal disorders in individuals facing stressors such as organizational downsizing, high or increased levels of job demands, or negative change.

Vermulst and Dubas (1999) investigated the relationship between job stress and 4 domains of family functioning in a sample of families with at least one adolescent (13-22) years. Results indicated that job stress has a direct influence on parental depression and
indirect effects on marital strain, parent adolescent relations and problematic adolescent behaviour. In addition the personality dimensions of emotional stability was found to explain the relationship between job stress and parental depression, particularly for mothers.

Narayanan et al (1999) examined stressful incidents at work using an open-ended technique for 3 different occupations. Clerical workers, university professors and sales associates. The study revealed both similarities and differences in stressors and coping techniques reported across occupations. Inter-personal conflict, work overload and time wasters were common across all occupations. Lack of control and work overload were reported as major stressors by the clerical group and interpersonal conflict as a major stressor by the academic and sales group. Gender differences were also found.

Jamal and Badawi (1995) studied non-standard work schedules and work experiences to 325 Muslim immigrants living in Canada subjects on nonstandard shifts experienced higher job stress and lower job satisfaction and spent less leisure time with family than did subjects on standard day shift schedules. Subjects working non standard workdays reported higher job stress and job involvement
and spent less leisure time with family than subjects on standard work schedule. Limited support for marital status and spouse employment status as moderators of work schedules and outcome variables was found.

Siegrist (1995) described a model of effort-reward imbalance at work. Evidence showed that workers who exhibit high effort in combination with low reward, as especially with low job security or promotion prospects, suffer from 3 to 4 fold increased risk of cardiovascular disease. These workers also exhibit higher BP, blood lipids and fibrinogen.

Greenland et al (1995) examined the associations of high demands (JD) low decision latitude (DL) and job strain with cardiovascular disease risk factors Black and White working men and women were examined. The analysis revealed an inverse association with risk factors in high job strain low decision latitude and job strain few associations supported the hypotheses that high job strain low decision latitude on job strain are associated with increased levels of cardiovascular disease risk factors. Among women subjects higher job decision latitude was related to higher values for blood pressure and alcohol consumption.

Glaser, et al (1999) tested the effects of work load on stress and performance. Social support was
also investigated as a moderator variable. Analysis showed an indirect relation between work load and performance with social support as intervening variable. There was a 3 way interaction between workload, social support and time. The interaction showed that, in the early stages of the experiment high social support led to higher stress. This 'reverse buffering effect' did not occur during later stages. Several alternative explanations are offered regarding this effect including the possibility that stress leads to social support seeking behaviour. One practical implication of the study is that managers may need to take into consideration the employee workload when developing performance and goals.

Manning et al (1996) investigated the relationship among health care costs, social support, and occupational stress. Health care cost data were collected over 2 years for 260 working individuals. Main effects and interactions each accounted for significant proportions of the variance in health care costs.

INDUSTRIAL ORGANIZATION

Collinson (1998) explored the asymmetrical power relations and institutionalized inequalities that characterize the offshore industry. The study examined
the economic and time-space pressures they faced, both offshore and onshore. These workers had not employment security and had to cope with the problem of working away from home for two week stretches. While many prioritized the economic and temporal compensation of off shore work, in practice work spilled over personal life in various negative ways. Male contract workers clearly enjoyed a dominant position in relation to women but on the platform and at home. It also suggests that within the work place, they were subordinated in ways that led to complex spillover and contradictory tensions between work and home.

Gardiner and Tiggermann (1999) investigated the impact of working in either a male or female dominated industry on the leadership style, stress levels and mental health of 60 female and 60 male managers. Women did report more pressure from their jobs than men in male dominated industry from discrimination. There was no overall difference between women and men's mental health, there was difference int the pattern of leadership style and mental health. Women in male dominated industries reported worse mental health when they utilized on interpersonally oriented leadership style, whereas men in male dominated industries reported better mental health, when they utilized such a leadership style. These
findings suggest that both gender and gender ratio of the industry influence leadership style, stress and mental health.

Hagen and Magnus (1998) studied the relationship of neck/shoulder and low back disorders to work tasks and perceived psychosocial job stress among forestry employees, classified as manual worker, machine operators and administrative workers. Low-back disorders were more common among the manual workers than administrative workers. For the machine operators and manual workers an increasing level of psychological demands was significantly associated with an increased prevalence of low back disorders. The prevalence of neck/shoulder disorders was significantly highest amongst the machine operators and manual workers than administrative workers. An increasing level of psychological demands combined with a decreasing level of intellectual discretion was associated with an increased prevalence of neck/shoulder disorders. Musculoskeletal disorders were associated with both physical and psychological factors.

Kozen, et al (1995) measured cardiovascular reactivity, during work and home activities, as well as personality characteristic of engine drivers to study relative work stress. Results suggested that frequency,
intensity and persistence of psychological and physiological reactions to urgent situations seem to be more relevant measures of health impact of the psychological job stress than shift average values of physiological markers of stress.

Heaney and Clemans (1995) investigated the pathways through which occupational stressors and employee perceptions of stress influence subsequent sickness and non-sickness related employee absenteeism in a manufacturing plant. Results showed that occupational stress, specifically the perceived stress measure was more strongly related to physician excused, than non-excused absenteeism. Separated or divorced subjects those younger than 40 years and those paid on a piece rate basis were more likely to have had an absence than others. However, there were no significant relationships between employee perceived stress and absenteeism.

Pestonjee and Singh (1981) investigated the moderating effect of locus of control on stress and job satisfaction relationship in the case of 101 role incumbents of private electricity supply company. Their findings revealed that out of 63 coefficients of correlation between role stress and job satisfaction variables, 50 were found to be negatively and significantly
correlated. Only role stress variables, i.e. inter role distance correlated significantly with the area of social relations. They also reported no significant difference between the stress-strain relationship for low and high scoring group of locus of control.

Mishra and Singh (1987) examined the relationship of occupational stress, ego strength and job satisfaction with the job involvement of 400 first level industrial supervisors. Results revealed that job involvement and occupational stress were negatively related and that supervisors with high ego strength found greater stress in the job.

Shrivastava and Jagdish (1983) tested the moderating effect of mental health on the relationship between perceived occupational stress job satisfaction in the case of 400 first line technical supervisors. Selected randomly from a large locomotive industry. Their results revealed that the supervisors' perceived occupational stress was correlated negatively with job satisfaction and mental health was found to moderate the stress and job satisfaction relationship to the significant extent.

Mishra (1988) while studying the effect of occupational stress and job satisfaction on the job
involvement of a random sample of 400 first line supervisors at a diesel locomotive works in India found correlation between job involvement and job satisfaction only and a significant negative relationship between occupational stress and job satisfaction.

Kaur and Chadha (1989) in their study on 100 blue collar and white collar workers and supervisors in an Indian factory found stress to be significantly related to involvement for both blue collar workers and white collar workers. However, stress was significantly related to satisfaction for white collar workers only. For white collar workers high stress lead to low involvement and for blue collar workers high stress led to high involvement. Among both blue and white collar supervisors and blue collar workers stress showed no significant relationship with satisfaction.

Srivastava (1983) with a sample of 50 supervisors and 200 blue collar employees found blue collar employees to be more anxious with respect to their job life than supervisors. In addition, workmen's job anxiety level increased with increasing job involvement. However, no interaction was found between job involvement and occupational status in determining job anxiety.
Jenner, (1987) investigated organizational stress in the context of powerful others and network factors while putting to test the hypothesis that belief in the influence of powerful others is associated with greater perceived organizational stress, using data gathered through individual interviews and a survey of questionnaire from 43 professionals working in a single department of a large manufacturing firm. Results indicated that variations in the reported organizational stress could be explained better by belief in powerful others than by chance or internality. The presence of stressful events in personal relationship was the strongest predictor of organizational stress.

Malamed et al (1999) studied burnout syndrome comprised of the symptoms of emotional exhaustion, physical fatigue and cognitive weariness, believed to be a result of ineffective coping with enduring stress. This study of 111 nonshift blue-collar workers examined whether chronic burnout is associated with a state of somatic and physiological hyper arousal. Results showed that 37 workers exhibited symptoms of chronic burnout, with symptoms lasting at least 6 months. These workers compared with no burnout or non-chronic burnout symptoms, had higher levels of tension at work, post work irritability, more sleep disturbances and complaints
of waking up, exhausted and higher cortisol level during the work day. Results suggest that chronic burnout is associated with heightened somatic arousal and elevated salivary cortisol levels.

Manning et al (1996) examined relationship between health care use and stressful work events, strain, social support type of job and industry, and the individual characteristic of control, commitment and length of time in position. Subjects were 128 managers and 132 employees with no supervisory responsibility from two different industries. Analysis suggested that health care claims and costs were positively related to stressful work events and strain and negatively related to employee's length of time in position. Industry type also predicted the health care variables.

Frese (1999) studied the buffer effect of social support within a longitudinal study on male blue collar workers in the German metal industry. There were moderator effects of social support on the relationship between stressors and psychological dysfunctioning.

Shrivastava (1985) investigated the moderating effect of need for achievement on the relationship between role stress and job anxiety, using 400 first line technical supervisors selected randomly from a fertilizer company. His findings showed that role stresses (role...
conflict and role ambiguity) correlate positively and significantly with job anxiety and negatively with need for achievement to the significant extent. He observed that role stresses as well as interaction term of role stress and need for achievement significantly affect the level of job anxiety and need for achievement moderated the relationship of role conflict and role ambiguity with job anxiety.

Sehgal (1985) examined the moderating effect of three modes namely need for personal growth, need for achievement and need for self actualization on the relationship between stress and strain in the case of 400 supervisors working in a large fertilizer project in Northern India. His findings revealed that three needs were negatively and significantly correlated with role stresses and job anxiety; role stresses were positively and significantly correlated with job satisfaction and job anxiety; that employees' work motivation arising from need for personal growth and self actualization significantly moderated the relationship between role stress and job anxiety, and that supervisors' work motivation pertaining to need for achievement and need for self actualization significantly moderated the relationship of role stresses with job dissatisfaction.
Parkes (1999) examined the potential confounding of observed relations between shift work and health outcomes by differences in the jobs typically carried out by shift workers and day workers from oil industry personnel. Shift work and job type each predicted specific health outcomes when evaluated simultaneously. Work perceptions also contributed significantly to each outcome partially mediating relations between job type and health.

Landsbergis et al (1999) examined the impact of new systems of work organization such as lean production and total quality management on occupational injuries or illness or on job characteristics related to job strain, linked to hypertension and cardiovascular diseases. The studies reviewed provide little evidence to support the hypothesis that lean production 'empowers' auto workers. Auto industry studies suggested that lean production creates intensified work pace and demands. Increases in decision authority and skill levels are modest or temporary, whereas decision latitude typically remains low. Thus such work can be considered to have job strain. In jobs with ergonomic stresses, intensification of labour appears to lead to increase in musculoskeletal disorders. The evidence for adverse health effects remains inconclusive for related new work system in
other industries such as modular manufacturing or patient focused care.

Hasan et al (1983) found stress 3 times as frequent among the unskilled workers as among managers. Stress symptoms were most common among subjects working at a forced place, those who found their jobs uninteresting and those working in hazardous environments. Stress was also found to be correlated with high absenteeism and problems of locomotives system.

Studenski and Barczyk (1989) in their investigation on mining workers found that stress is caused mainly by the health and life endangering job environment, the hindrances in work, time pressure, shortages of material and man power, excessive work, autocratic management, responsibility for the resulted work and safety of others, and lack of clear criteria for the distribution for bonus. Findings also confirmed that occupational stresses may cause sleep disorder and job dissatisfaction.

Kitzman et al (1991) studied 630 hourly and salaried employees working in a component parts plant of a major manufacturing corporation. Their results showed that the way people felt at work was largely a
function of condition at work. Both work and non-work stress were independently associated with physical and mental health, although the relationship between the non-work stress and health was slightly stronger. Taken together these findings suggested that the stress people experience at work is not simply a reflection of their "personal problems".


Stogstad et al (1995) examined differences between 218 flight deck crewmen (4 women) and 565 cabin crewmen (cc; 430 women) concerning information exchange and communication. 50% of subjects were dissatisfied with information exchange and cooperation between the cockpit and cabin. Difference concerning debriefing were significant cabin crewmen and especially females, reported being inadequately informed about specific operational procedures and technical matters,
Most subjects were satisfied with interpersonal relationships, and 53% expressed satisfaction with supervisors and social support. 86% confirmed that frequent changes between crews were stressful. Regression analysis yielded significant relationship between frequencies of meetings supervision and support issues, and scheduling schemes and satisfaction with information exchange and cooperation. Results indicated a need to provide more open continuous and effective communication between the cockpit and the cabin.

Singh and Srivastava (1998) examined the impact of Type A behaviour pattern on stress and health outcomes. The sample was a managers of Diesel Locomotive Works. The results showed that Type A behaviour pattern and role over load, role ambiguity, role conflict, and overall job stress were found to be significant in the positive direction and Type - A personnel significantly scored higher her on role amligity, role conflict and overall job stress in comparision to Type B managers and related to elevated levels of systolic blood pressure and diastolic blood pressure in comparison to Type B managers. No significant differences were observed between Type A and Type B groups on role overload, psychosomatic health complaints and pathogenic health habits. Type A
employees experienced more serious dysfunctional consequences of job stress than Type -B employees. Relationship between stress and blood pressures were unaffected by the role of behaviour pattern.

Ahmed et al (1991) examined the relationship between organizational role stress and job satisfaction and personality dimensions of neuroticism stability and extraversion-introversion of 50 middle managers of a large industrial organization. The narootism - stability dimension of personality was significantly and positively related to six dimensions of organizational role stress including role ambiguity. Only one dimensions of organizational (role stress expectation conflict) had a significantly negative relationship with extraversion-introversion.

Singh and Singh (1997) investigated the effects of organizational role stress, organizational climate and ego strength on psychological strain and coping behaviour of industrial managerial personnel. 400 middle level managers from the different departments of large industrial organization comprised of a sample. The findings showed that the managers belonging to high organizational role stress group scored significantly higher on environmental frustration, anger reactions, job anxiety and lower on job satisfaction in comparison to
the managers belonging to low organizational role stress group. The managers of high perceived organizational climate group scored significantly lower on job anxiety and higher on job satisfaction. The managers with high ego strength group scored significantly lower on the job anxiety and approach coping behaviour and high on the job satisfaction and avoidance coping behaviour in comparison to the managers with low ego strength group. Organizational role stress was significantly and positively associated with environmental frustration, anger reaction and job anxiety and was negatively associated with job satisfaction and organizational climate and ego strength. Overall organizational role stress emerged as the strongest predictor in the case of job satisfaction and job anxiety. Ego strength was observed to be the most powerful predictor of variance in coping behaviour. The authors concluded that psychological strains were not only influenced by role stress but situational and personality variables were also important in affecting psychological strains.

Beena and Poduval (1991) studied gender differences in relation to the work stress with age as an independent variable in a first level executives of a large industrial organization. The findings indicated that stress experience of the executives increased with advancing
Pattanayak (1993) examined the level of stress experienced by 240 employees of an industrial public sector undertaking in Orissa. Results revealed that supervisors experienced greater job stress lack of leadership support, and inequity then executives. Employees of the production unit experienced greater job stress, role conflict role ambiguity, role overload, job difficulty, lack of leadership support, inequity, inadequacy of role authority them service employees. The production supervisors scored highest on role conflict; production executives scored lowest on experience of inequality; and service executives scored lowest on lack of leadership support.

Satyanayana (1995) investigated stressors among 75 executives and 75 supervisors of BHEL. The analysis of data revealed that role erosion, personal inadequacy, resource inadequacy and role stagnation were experienced as dominant contributors of role stress in executives and supervisors. The two groups differed significantly in respect of inter-role distance, role overload, personal inadequacy and role ambiguity dimensions.
Pattanayak and Mishra (1997) conducted a study to make comparative assessment of work organizations in old and new public sectors in relation to organizational role stress and quality of work life as an index of organizational effectiveness, on executives and non-executives of two industrial organization, public sector and private sector. The results showed significant differences between old and the new public sector organization production and service employees, executives and non-executives on all the 10 dimensions of organizational role stress and total role stress. The old and the new organization production and service employees, and executives and non-executives differed significantly on all the quality of work life sub-scales.

Pattanayak and Mishra (1997) attempted to make a comparative assessment of shift and non-shift employees in relation to job satisfaction, perceived organizational commitment job stress and human resource development climate. Also the study tried to examine the difference between executives and non-executives. The sample consisted of 360 employees of Rourkela Steel Plant, Orissa. The findings showed that executives found to have more job satisfaction than supervisors. No significant differences were observed between shift and non-shift employees on job satisfaction.
Relations officers of private sector scored significantly higher on role overload than the Public Relation Officers of public sector.

Barnes (1992) conducted a study on stress among aviation personnel. A sample of 25 aircraft pilots, 16 flight engineers and 11 cabin crew members from Air India were tested using different stress indices to evaluate their health status and adjustment to occupational stressors. The group on the whole showed heightened state and trait anxiety. Pilots manifested significantly higher trait anxiety attributable to high responsibility and accountability expected by the nature of their job specification. Cabin attendants scored significantly higher on health problems, work overload and stress prone diet as compared to pilots. They also exhibited low self-esteem and high frustration.

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Pange (1997) conducted a study to determine stress, job satisfaction and performance among Type-A and Type-B managers, and to determine if these managers used different coping strategies. The sample consisted of 200 male managers belonging to the middle management level from large, medium and small organizations in Nasik. The findings showed that Type A and Type-B managers did not differ significantly on stress. No significant difference was found between Type A and Type B managers regarding job satisfaction. Type A managers coped better than Type-B managers. They didn't differ on their performance scores. Coping and job satisfaction were most powerful predictors of performance. Significant and positive correlations were observed between Type A behaviour pattern and coping, between job satisfaction and coping, between job satisfaction and performance between coping and performance, and between self-rating and supervisor's rating of performance. The comparative study between United Kingdom managers and Indian managers showed that Indian managers scores significantly higher on stress, job satisfaction, coping and Type A behaviour patterns as compared to their U.K. counterparts.

Reddy and Rammurti (1991) studied the effect of age, personality and general intellectual ability on stress.
in 200 male executives in four age groups (21-30, 31-40, 41-50, 51-60). Results indicated that there were age difference in the sources of stress. The influence of personality and general ability on the stress experience were limited but significant. On the basis of these findings authors suggested that the stress experience may be better conceived as an interplay of the factors studied and other situational and organizational factors.

Aditya and Sen (1993) attempted to study the nature and extent of stressors faced by male and female executives in their job situation. The analysis revealed that male executives who were predominantly masculine in their sex role orientation faced greater stress and anxiety in their job situation than female executives who were predominantly androgenous in their sex role orientation, and the two groups differed maximaly in terms of role ambiguity, role conflict, inter-role distance, future persopects, human relations at work, and femininity and masculinity dimensions.

Goklaney (1993) explored whether a high level stress is associated with greater creativity in 55 middle level managers from three age groups (below 31 years., 32-41, 42-56 years). Results revealed that age didnot affect creativity, low stress groups differed significantly
from moderate and high stress groups but the latter groups were comparable.

Srivastava et al (1994) compared organizational role stress and job anxiety among 50 top managers, 50 middle managers and 50 workers in a private sector organization. Results indicated that middle level managers perceived greater role stress and anxiety in comparison to top level managers and workers. It was also found that workers perceived more role stress and anxiety than top managers who were least affected.

Panchnatham et al (1993) investigated the problem solving styles of executives and assessed the influence of occupational stress on problem solving styles using a sample of 150 executives from a large government organization. The analysis of data established the adoption of both optimisors style and implementer style by the executive for problem solving and the absence of a significant relationship between occupational stress and problem solving styles. A lower degree of occupational stress was experienced by administrative executives as compared to their counterparts in other departments.

Ahmad and Khanna (1992) investigated the relationship between job stress, job satisfaction and job
involvement among 5.0 middle level hotel managers. The analysis of the data revealed a significant negative relationship between job stress and job satisfaction irrespective of the subjects' sex, marital status, education and experience. Occupational stress was reported to be negatively correlated with job involvement, and the high job involvements group was more satisfied with their job than the low involvement group.

Pandey (1997) conducted a study to determine the relationship between personal demographics and organizational role stress in 61 personnel of Indian Railways. The analysis revealed a positive but non-significant relationship of age with all the dimensions of role stress except role ambiguity. Similarly, education showed positive but nonsignificant correlation with all the 10 dimensions of role stress. Experience was reported to be positively and significantly associated with inter-role distance, role expectation conflict, role ambiguity, personal inadequacy, role stagnation, role erosion, and self-role distance.

Luhadia (1991) investigated the relationship, between role stress and job satisfaction. The sample comprised of 20 higher level, 30 middle level and 50 junior level geological officers. The findings showed that three different levels of officers differed on role stress.
dimensions. Role inadequacy caused maximum stress in higher level officers whereas role erosion cause maximum stress for middle and junior level officers. Job satisfaction was found to be negatively related with role stress. Higher the stress, lower was the job satisfaction among different levels of officers Role stagnation caused minimum stress in higher level officers, and also influenced job satisfaction on the whole. Job satisfaction and role stress were correlated negatively and significantly in higher, middle and junior level officers.

Raju and Madhu (1994) examined the influence of organizational level on the role stress of 154 lower level, 202 middle level and 101 higher level employees of a public sector organization. Results revealed that higher level employees experienced lessor role conflict and role ambiguity than their middle and lower level counterparts who obtained comparable scores.

Kumar and Pandey (1994) examined the correlates of conflict and their relationship with various types of conflict conceptualized in literature. The study was conducted on a sample of 100 middle level executives from four medium-sized organizations. Organizational conflict was found to be associated negatively with age, tenure, job involvement, and role efficiency.
Pandey (1997) examined the relationship between role stress and role efficacy using a sample of 61 personnel of Indian Railways. The coefficient of correlation between the first dimensions of role efficacy, namely centrality and all the 10 dimensions of role stress were found to be negative. The second dimension of role efficacy i.e. integration was correlated negatively and significantly with all the dimensions of role stress except role erosion. The coefficients of correlation between proactivity and role stress dimensions were found to be negative and significant at the accepted levels in the case of six dimensions. Creativity was found to have nonsignificant but positive correlations with all the dimensions of role stress except role overload and self-role distance. The dimension of helping relationship was found to be significantly and natively correlated with all the dimensions of role stress. The relationship of superordination with 10 dimensions of role stress were also found to be negative and significant in four cases. The dimensions of influence, growth and confrontation were also found to have negative relationship with role stress dimensions with significance in a few cases.

Alam (1997) conducted a study to determine the strength of job satisfaction, job involvement and organizational role stress among private and public sector
executives. The results showed that executives of private and public sector did not differ significantly on areas of job satisfaction like management personal adjustments and social relations. Executives differed significantly on the variable of job involvement, private sector executives being more involved with their job as compared to public sector executives. And private sector executives experienced more role stress as compared to their public sector counterparts.

Sehgal (1997) assessed the effect of role stress on the level of involvement the person has in the job and alienation, and the coping mechanism used by him/her to deal with stress. The sample was 222 executives belonging to junior, middle and senior levels in a large public sector organization. Role erosion, resource inadequacy and inter-role distance were found to be dominated contributors of role stress, Junior level executives experienced relatively higher role isolation and self-role distance, middle level executives reported higher role stagnation and senior level executives experienced more role expectation conflict, senior level executives scored higher on total organizational role stress. Job involvement was found to be correlated negatively and significantly with role stress.

Inter-role distance role erosion self-role distance and total
organizational role stress associated negatively and significantly with job involvement. Total organizational role stress was correlated positively and significantly with despair (powerlessness), unstructured universe (normlessness), and psychological vacuum (meaninglessness), variants of alienation. Avoidance styles of coping were used more frequently than approach styles of coping and negative relationship was observed between approach styles of coping and organizational role stress.

Dwivedi (1997) conducted a study to explore the magnitude of trust, distrust and organizational role stress and to determine the extent of relationship among them and their consistency across the 'low' and 'high' performance on public and private sector organization. The findings revealed that all trust measures, individual trust, group trust, organizational trust, composite trust were found to be negatively associated with organizational role stress variables, whereas all distrust measures reported to be positively related with role stress variable. All the trust measures had higher level and distrust measures had lower level in the high performance (private sector) organization when compared to low performance (public sector) organization. Low performance organization was marked
by a lower level of trust and higher level of distrust. In the high performance organization stress levels were found to be low whereas in low performance organization stress levels were reported to be high. The trust measures had positive impact on organizational performance whereas distrust and role stress variables had negative impact. Trust, distrust and role stress variables significantly differentiated the low performance (public sector) and high performance (private sector) organization.

Mishra and Somani (1993) investigated the relationship between occupational stress and mental health among supervisors from public sector and private sector organization. The study revealed that the relationship between occupational stress and mental health was found to be negative and significant in the case of private sector supervisors while it was negative and insignificant in the case of public sector supervisors.

Mishra (1996) examined the nature of motivational climate, role stress, and coping strategies among the air traffic controllers and investigated the relationship amongst these variables. The findings revealed that the overall motivational climate was perceived as strong in control and dependency dimensions and weak in achievement and extension.
dimensions by the air traffic controllers. Inter role distance and resource inadequacy were dominant whereas personal inadequacy and role ambiguity were remote contributors of role stress. Defensive style was the most frequently used coping style. Avoidance strategies of coping were used more frequently than approach strategies. Significant differences were observed among the air traffic controllers into different groups divided as age, education, work experience, marital status and total monthly income regarding their motivational climate, role stress and coping strategies. Achievement climate was correlated negatively and significantly with inter-role distance, role isolation and self role distance. Expert influence climate was associated positively and significantly with resource inadequately. Affiliation climate was correlated negatively and role expectations conflict and intropersistive style of coping. A positive and significant relationship was observed between total role stress and overall avoidance coping styles. Total role stress was associated negatively and significantly with overall approach coping styles. Motivational climate, role stress and coping strategies emerged as significant predictors of each other.
Sahoo et al (1995) examined role related stress, job satisfaction, self-concept, organizational commitment, and intention of leaving organization in employees from administrative and financial organization. Results indicated that employees of administrative organization experienced greater work family conflict and had higher intentions to leave the organization as compared to employees of financial organization. Employees of financial organization showed greater commitment than their administrative counterparts. Juniors expressed higher intention to leave their organization than seniors.

Roy (1997) examined the relationship between organizational role stress and social support among scientists belonging to ICAR. The results showed that junior scientists scored higher and significantly differed from senior scientists on the dimensions of role stagnation, role erosion and resource inadequacy. Senior scientists scored higher on role overload but difference was insignificant. Out of 70 coefficient of correlation between role stress and social support seven coefficients of correlation were significant for junior scientists and only one correlation to be significant for senior scientists.

Barnes (1992) evaluated varied stress factors among transport workers. The study was conducted on
three groups of personnel from aviation, railways and road ways. The findings showed that aviation workers experienced a high level of state anxiety as well as frustration, boredom and noise pollution. Trait anxiety was experienced by both aviation and railway workers but not by roadways personnel. Roadways personnel exhibited poorer health status. Frustration and boredom were observed among all the three groups. Both roadways and railways personnel showed anxious reactive personality, work overload and fatigue.

Barnes (1992) conducted a study to determine the impact of occupational stressors on adjustment among different categories of railway personnel, namely motormen and guards. The analysis of data revealed no significant difference between job level groupings in their adjustment to stressors. Guards manifested greater anxiety and lower health status. Guards found their job mechanical, boring and intellectually unchallenging and hence, had low self concept and personal morale. Motormen also manifested trait anxiety and anxious reactive personality. Motormen also felt that the noise pollution was severe in intensity.

Sayeed et al (1998) studied occupational stress among guards and engine drivers. The results indicated a significant difference between guards and engine
drivers in overall occupational stress. The two groups also differed significantly on occupational stress dimensions such as role overload, under participation, power lessens, poor peer relations and strenuous working conditions. Guards obtained significantly higher scores on these dimensions.

Kumar and Kulkarni (1996) conducted a study on stressors, strains and coping strategies among Indian commercial pilots. The findings indicated that the most frequently experienced stressors for pilots were lack of career opportunities and potential advancement, followed by deficient facilities and unsafe environment at the airports lack of modern landing and navigational facilities, lack of management support, and inadequate pay and perks. The major strains experienced by pilots were found to be fatigue, followed by dissatisfaction with job, tension, high consumption of caffieniated drinks, depersonalization of colleagues and physical complains. Pilots used coping strategy of reading to increase knowledge information most frequently, followed by exercise/relaxation technique, trying to understand and analyse the problem logically, planning, time management, and taking a vacation. Pilots used functional coping strategies more frequently than dysfunctional coping strategies.
Helode (2000) studied stress coping among the entrepreneurs identified the stress coping patterns. The small scale entrepreneurs exhibited significantly greater magnitude of Task-oriented coping device than that of defence oriented coping device. The male entrepreneurs showed significantly greater degree of Task-oriented coping device than that of the defence oriented coping device. The female entrepreneurs revealed insignificant but greater magnitude of defence oriented coping device than Take-oriented coping device, significantly greater than Ailnment-oriented coping device.

Mishra et al (1997) investigated the nature extent, functions, and interrelations between motivation and role stress that mould or temper the entrepreneurial tendencies and behaviour in men and women. The findings show that women entrepreneurs scored higher on all the motivational variables, namely, basic safety, belongingness, self-esteem, and self-actualization as compared to men entrepreneurs. Significant differences were observed between women and men entrepreneurs on the motivational dimensions of safety and belongingness and between on the dimension of resource inadequacy. Inter-role distance and role erosion were experienced as dominant whereas role ambiguity
and role expectation conflict as remote contributors of role stress in case of both women and men.

Tharakan (1992) studied professional and nonprofessional working women on job-related stress and level of job satisfaction. A sample of 90 technocrat working women (doctors, engineers and lawyers) and 90 non-technocrat working women (clerks, officers and teachers) was used. The relationships between occupational stress and job satisfaction was found to be significantly associated with the professional qualifications of the women. Professional working women experienced greater work related stress than nonprofessional working women.

Pattanayak and Mishra (1997) studied occupational stress and role conflict problems among working women belonging to service sector. The results showed significant difference between executives and assistants on occupational stress dimensions such as role overload, role ambiguity, role conflict, responsibility for persons, intrinsic impoverishment and low status and also between the two groups on role conflict. There was no significant difference between executives and assistants on total occupational stress.

Kumar and Murthy (1998) examined the stressors, strains and coping strategies among women managers...
of public sector oil company. The results indicated that the most frequently experienced stressors for women managers were office politics, followed by conflict between work and home, travel to work place, lack of opportunity and challenge, and child care problems. The major strains were found to be anxiety, tensions, fatigue, lack of concentration, irritation, and physical health problems. The most frequently used coping strategies were reported to be talking with spouse/friends/parents/superiors/colleagues about the problem, followed by efforts to increase knowledge/information, withdraw physically from the situation for a while, engage in socio-cultural or religious activities, and engage in physical exercise/yoga/meditation.

Gaur and Dhawan (2000) examined the relationship between work related stressors and adaptation pattern among women. A sample comprised of 120 women professionals (30 teachers, 30 doctors, 30 bank officers and 30 bureaucrats). The women in all the 4 professionals reported moderate work related stressors and differed on two dimensions. a) career development and b) stressors specific to working women. They showed a configuration of adaptation pattern of active coping stance, planfulness and initiative, moderate trust and internality. Taken together the measures of
adaptation pattern emerged as good predictor of work related stress.

Christian and Dieter (1999) investigated the moderating effect of social support by supervisors, and colleagues relative to social stressors at work and depressive symptoms using a structural equation approach in a 3 wave longitudinal study over 1 year. The analyses were based on a randomly drawn sample of citizen in the area around Dresden in the former east Germany. Analyses revealed a moderating effect for supervisor support. Under low support condition depressive symptoms were increased by social stressors whereas social stressors reduced subsequent depressive symptoms under high support conditions.

Lee and Ashforth (1996) examined how demand and resources correlates and behavioural and attitudinal correlates were related to each of the 3 dimensions of job burnout. Both the demand and resource correlates were more strongly related to emotional exhaustion than to either depersonalization or personal accomplishment. Emotional exhaustion was more strongly related to the demand correlates then to the resource correlates. The 3 burnout dimensions were differentially related to turnover intentions, organizational commitment and control coping.
Lundberg (1996) studied the influence of paid and unpaid work on psycho physiological stress responses of men and women. Although women's employment doesn't seem to have negative health consequences, studies in Sweden showed that role conflicts and work overload is reflected in women's elevated psycho physiological arousal not only at work but also off work, which may induce psychosomatic symptoms. Multiple role demands reduce women's possibilities to make a professional career on the same terms as men.

Karabik and Van (1995) examined the influence of sex and gender role orientation on social support and coping with work stressors in 17 men and 18 women managers. Biological sex was more important in determining work stressors experienced, whereas gender role orientation was more influential in affecting coping and social support. Women reported encountering more work stressors, and coping with general stressful situations through self blame. Subjects high in expressivity were more likely to report coping with specific social support through both avoidance and seeking support than those low in expressivity. They also reported receiving more emotional and overall support in specific social support than did low in expressivity.
STUDIES RELATED TO INTERVENTION

Kampler and Victario (1995) summarized results of 32 studies from 13 countries. On work stress, of bus drivers. They concluded that bus-driving is characterized by high demands, and low control and support. It is a high strain occupation with high risks of physical and mental ill health, leading to absenteeism and decreased productivity of employees. Several recommendations for reducing work stress in bus drivers relate to ergonomics of the bus cabin, job rotation and combination jobs, timetables, shift schedules and quality of break periods and social work environment and management style have been given. Organizations may participate in a 5-step approach to reduce stress: preparation, problem analysis, choice of measures; implementation and evaluation.

Anderson et al (1999) observed results in reducing teacher stress have come from the practice of standardized meditation (SM). They assessed the effect of 5-week standardized meditation class on the perceived occupational stress of 91 full-time elementary, middle and high school teachers from suburban districts. Results showed that standardized meditations significantly reduces teachers' perceived stress.
Winzberg (1999) studied the effectiveness of meditation training to help individual manage stress in teachers recruited from university teaching. A simple meditation technique using sound as a focusing device and three corollary techniques were used. Subjects were found to reduce significantly stress symptoms in the post test measurements when compared to the control group in the domains of emotional manifestations, gastronomic distress and behavioural manifestations.

Cooley and Yovanaff, (1996) evaluated the combined and differential effects of 2 interventions designed to enhance school's ability to support and retain special education personnel. 92 special educators and related service providers participated in series of stress management workshops and peer collaboration program. In general, improvements on dependent variables occurred as a function of intervention. Treatment group members tended to improve on all measures, while the control subjects' problems tended to get worse. Participants perceived the targetted skills and strategies to be practical, valuable ways preventing or alleviating job burnout. The programs showed promise as means of providing on-the-job support for such professionals at risk of burnout or exiting the field.
Brown and Keegen (1999) explored the role of humor in a hotel kitchen, focusing on the effects of humor in such matters as staff-retention and training. By viewing the hotel kitchen from the angle of humour, co-author Keegan, the hotel manager hoped to improve the smooth running of this department. Over 10 days 205 instances of humor were recorded in relation to stress, power, discipline, and group cohesion. Humor offered relief from stress, acting as a coping device, against failure or the unknown. Humor was able to reduce hostile emotions, and relieve boredom. Humor was used differently by more or less powerful staff, was used more to reprimand than to discipline, and worked to create group cohesion when comparisons with other kitchens, but not with other hotel departments' were expressed. The research also clarified the main reason for flare-ups between kitchen and restaurant staff.

Sounders, et al (1996) conducted a meta analysis to determine the overall effectiveness of stress inoculation training and to identify conditions that may moderate the effectiveness of this approach. Results, indicated that stress inoculation training was an effective means for reducing performance anxiety, reducing state anxiety, and enhancing performance under stress. The examination of moderators such as the experience of
the trainer, the type of setting in which training was implemented, and the type of trainee population revealed no significant limitations on the application of stress inoculation training to applied training environment.

Munday (1995) determined the effects of stress management training (SMT) on the levels of anxiety of preservice secondary teachers, enrolled in a course required for secondary certification. It was observed that stress management training failed to reduce the anxiety levels of preservice teachers.

Helode (2002) conducted a study to see whether field independent managers showed more occupational stress than the field dependent bank managers and to assess an effectiveness of the Rational Emotive Cognitive Therapy in reducing occupational stress of the bank managers. Analysis of the data revealed that field independent bank managers showed significantly greater occupational stress than the field dependent bank managers, and the use of Rational Emotive Cognitive Therapy session proved to be effective in reducing their occupational stress to the significant extent.

1.4 OCCUPATIONAL STRESS: ITS PARAMETERS

The consequences of occupational stress are severe. High levels of occupational stress may lead to
fustration, and inadequate coping skills, have major personal, organizational costs and social costs. Burned out worker may leave their jobs, also professions. This loss is particularly severe for human service professions. The cost of society of leaving these well trained and highly experienced professionals is a high one.

There are several routes through which occupational stress can be caused. There are factors tied to the individual such as personality characteristics, control, gender etc., factors tied to the work place i.e. work-setting variables and interaction of these.

1) INDIVIDUAL VARIABLES

a) Type - A Behaviour Pattern

This behaviour pattern is characterized by:

i) specific behaviour such as rapid and emphatic speech style accelerated pace of activities,

ii) Behaviour dispositions such as ambitiousness, aggressiveness, competitiveness and impatience and

iii) emotional responses such as irritation, hostility and anger Booth - Kewley and Friedman (1987) have related this pattern to chronic heart disease.
Factors of Type A behaviour patterns are tenseness, impatience, restlessness, achievement orientation, domineering and workaholic. These characteristics lead Type A to more prone to stresses.

b) Sense of Control

Control has been shown to have important effects on people's response to stress, and its role in occupational stress is important. People's belief on control persists in difficult circumstance. Workers who experience low control combined with a highly demanding job are particularly prone to occupational stress. Lack of control is the biggest contributor to occupational stress. Two aspects of control are important, the control experienced by worker and the control exercised by worker on their job. Experiencing control by making decisions about work is an important aspect of reducing or avoiding occupational stress.

c) Gender

The changing role of women in society and in workforce had led to greater consideration of the influence of gender on occupational stress. Women are experiencing the stresses of multiple roles in the context of no previous experience to serve as a resource for
managing these multiple roles. Health benefit model highlights the benefits of woman employment leading them to great financial resources, enhanced self-esteem and greater opportunities for social contacts which result in enhanced health. Yet their employment lead to increased job stress. Research suggested that women experience certain stressors to a greater degree and with different effects than men. The frequency of work-family conflict is striking. Because of their involvement in family responsibilities, women are prone to experience negative effects from spillover. Women's job over load was associated with increased marital strain and dissatisfaction. (Wortman et al, 1991)

Coping Resources

The perception of available coping resources affected the individual appraisal of a situation as stressful or not, as well as influenced his coping responses.

Social Supports: Support from co-workers and supervisors has been shown to be a strong influence on occupational stress. Men with high support from either supervisor or coworker generally reported low role conflict, low role ambiguity and low future ambiguity, high participation and good utilization of their skills.
In the light of psychoanalytic excitation, depression was the strain measure most frequently correlated with support.

Thus we can say that people's personalities can make occupational stress worse, as might Type A behaviour pattern. Certain personality characteristics such as sense of coherence can help occupational stress by making difficult situation more manageable. It is important to consider people's home lives when thinking about occupational stress since at work can spillover to home and stress at home to work.

2) WORK SETTING VARIABLES

Factors in the workplace linked to occupational stress are categorized as role characteristics, job characteristics, interpersonal relationships, organizational structure and climate, human resource management practices, physical qualities and technology etc.

i) Role Characteristics

Role pressure occurs when an individual's expectations or demands conflict with expectations and demand of the organization, some role stresses are

a) Role ambiguity

When the individual has to work in a situation
with inadequate or misleading information about his work, the individual is faced with the occupational stress. Individual is not clear about his role about the objectives, irresponsibilities and duties. Organization needs leaders to clarify this.

b) Role Overload

Individual is not able to complete his work within a given time or given amount, he feels overloaded. In quantitative overload individual does not have enough time to complete all the work. In qualitative work overload, employees don't believe they can perform adequately with the effort or skills they possess.

c) Role Underload

When the person's skills are under utilized, the stress of role underload results. This type of stress occurs when employees have too much ability for the jobs they hold. Negative effects can arise when an individual is over skilled for a job (Tayler.1911). In this case employee may become dissatisfied and leave the job.

d) Role Conflict

Whenever the compliance with one set of role pressure make compliance with another set of role pressure is objectionable the stress of role conflicts occur.
Inter sender :- demand form one person conflicts with demands from other person.

Intrasender :- When the same member asks an employee to perform mutually exclusive or incompatible activities.

Person role conflict :- occurs when the demands of an individual's work roles conflict with the individual's values.

Inter role conflict :- results when on employee experience conflict between the expectations and demands of people at work and outside work.

ii) Job Characteristics

Factors specific to the way in which a job is performed or accomplished seem to affect occupational stress. Different characteristics of job are outlined, work pace, repetition of work, shift work, task attributes.

Work pace - The pace at which an individual must do his work referred to as work pace. It is concerned with who or what controls the pace of work particularly the amount of control an employee has over the work process. Workers who experience a work pace as full of pressure or highly demanding are likely to experience the greater amount of work stress.

Repetition of Work - The more repetitive a particular job, the more likely the job incumbent to experiences stress.
Shift work - Mental efficiency and work motivation are directly and indirectly affected by shift work. Shift work also been associated with psychological difficulties arisen from the fact that our society is day time oriented. Shift work leads to experiencing domestic pressure, spouses/ familial difficulties, social isolation and causes disturbed circadian rhythms (of sleep, body temperature, gastrointestinal functions etc.).

Task attributes - Task attributes affect directly and indirectly the affective and behavioural responses of an employee to a job. The interaction between the individual and attributes represent the best explanation of perceived occupational stress. The attributes include variety autonomy, required interactions, optional interactions, knowledge, and skills required, responsibility etc. A job that offers little opportunity for interaction, perceived as more stressful for a worker who is highly extroverted than one who is more introverted.

iii) Interpersonal work relationship

The quality of relationship that employees have at work has consistently been linked to job stress (Payne, 1980).

a) Relationship with CO-workers/ work-group relationship

Poor relations with coworkers are associated
with feelings of threat for employees. Poor coworker relationship are associated with low trust, low supportiveness and low interest/willingness to listen (French and Caplan, 1973). Group cohesion among workers are best able to cope with stress on the job (Ketz, de Vries 1984) Communication is one of the major factors to consider in assessing the role among coworkers. Informal communication most likely to alleviate stress and improves coworker relationship.

b) Relationships with Supervisors: Relationship with supervisor influences the occupational stress. Several aspects of this relationship are identified as potentially affecting work-related stress. 'Considerate' leadership from supervisors leads employee to experience less job stress. This style is characterized as allowing employees to participate actively in decision making and offering an avenue for good communication.

c) Relationship with Clients / Customers

Potentially stressful relationships in the workplace is found in interactions with customers or clients. Stressful nature of relationships with clients has been examined in the light of occupational burnout. Service providers may become easy targets for job stress because of the strong feeling of personal responsibility
they experience in helping others and, they experience in helping others and, the infrequent feedback about work success they receive.

iv) Organizational Structure and Climate

A number of characteristics associated with an organization have been linked to occupational stress; some of these are organizational structure, position / level within an organization, organizational culture, and organizational territory.

Organizational Structure

Centralized organizational structure (tall organization) in which a majority of the decision making power is placed with top level managers, and decentralized organizational structure (flat organization) in which employees have more direct control of their work no, matter what level they occupy in the organization. Structure which allows individual more decision making power produce less stress. Employee in flat or decentralized organization reported more job satisfaction, less job stress and better work performance. (Ivancevich and Donnelly, 1975).

Person's Level within the Organization

Employee's position or level in the organization has found to affect occupational stress. Job status or
level affects the interpersonal relations which may affect occupational stress. Ivancevich et al (1982) found out that low level category including middle or low level managers face more occupational stress.

Organizational Culture

The culture or climate of an organization has also been suggested to be a source of occupational stress. Culture of organization has defined by the beliefs and expectations shared by organizational members. A particularly important stress resulting from culture is the existence of competition. Many workers report stress caused by power struggles or office policies. These conditions are more evident, the higher, an employee moves in an organization. Office policies is an important factor in number of organization practices. Promotions, transfers, allocations of supplies or equipment, division of authority and coordination between high level managers. Managers who are engaged in power games and political alliance can place stressful expectations and demands on subordinates (Matteson and Ivancevich, 1987).

ORGANIZATIONAL TERRITORY

Territory is personal space or arena of activities within which an employee works. It is identified as a powerful stressor for workers.
v) Human Resource Management Practices

Today the human resource function within many organizations includes training, career development, succession planning, compensation, benefits, outplacements etc.

Entering the workplace or a new work setting is the potential for stress. Individual experience stress because of the perceptual differences between what new workers expect a work environment to be like and the reality they find dealing with the ambiguity, uncertainty, concern about establishing an organizational identify and learning to deal with managers and coworkers, adequate socialization to the new work setting.

Lack of Training

Having insufficient opportunity for training might increase the amount of uncertainty a new employee experiences, and lack of training can affect workers beyond the period when they are new in an organization. A primary stress or for older workers is in having to deal with new technology and the need for new skills.

Building and Maintaining a Career

In the mid career, over promotion, underpromotion, status, incongruence, thwarted ambition are found to be stressors, Occupational locking in is a
situation when people feel boxed in because they have no ability to move from their present job or when the only job for which they are qualified is the one they hold.

Performance feedback

Receiving feedback can enhance performance and motivation, absence of feedback represent a potential occupational stressors. Two dimensions have been identified in understanding the association between job stress and performance feedback.

i) Faulty feedback system can lead to occupational stress.

ii) Frequency with which an individual receives feedback. The less frequently a worker receives feedback, the more likely is the worker to experience stress.

Rewards

If worker feels he is not adequately rewarded for performance, they likely to encounter stress. Rewards for performance include the monetary compensation and benefits that are administered within the human resource management function in organization. Stress might result if employees feel they are not receiving adequate informal rewards, such as special treatment, privileged recognition etc.
Job Future Ambiguity and Insecurity

When workers feel uncertain about the security of their jobs, they experience occupational stress. The changes in traditions, organizational structures meant that formally secure jobs are no longer as likely to assure employee of long term employment. Organizational acquisition and mergers; an increase in competition for jobs because younger people come to the workplace with better education than the older ones and the continuing introduction of new technology, many old workers experience occupational stress.

Job/Career Transition

To make change or transition of any sort can be stressful. Even positive transitions can lead to stress. Job relation, within the same department can lead to stress as individual might feel uncertain, helpless and afraid of unknown work demands.

When the worker leaves the workforce transition occurs. Stresses identified when an individual ends a career or prepares to retire. Stressors involve the psychological, physiological and social areas of person's life such as dealing with the aging process, facing changes in physical and mental abilities, coping with new technology and skill obsolescence, confronting the lack of promotions and preparing for retired life.
vi) Physical Qualities and Technology

Stress occurs with regard to physical variables, whom a minimum level of biological functioning and physical safety is not maintained. Potentially stressful qualities of work are light, noise, temperature, vibration, motion, polluted air.

Another area related to physical environment is technology, the way an organization transforms research and other inputs into desirable outputs. Technology design is the source of potential stress in work setting.

Stress factors associated with the workplace range from the individual worker to the immediate work environment and even to the entire organization.

COPING STYLES OR STRATEGIES

Individual or organization cannot constantly live in a state of tension. Some strategy is adopted to leave the conflicts and stress to take care of themselves.

Coping can have effect on three kinds of outcomes psychological, social and physiological. From a psychological perspective coping can have effect on the person's morale (the way one feels about oneself and one's life), emotional reaction e.g. level of depression or anxiety, or the balance between positive trends and negative feelings (Bradhum, 1969), the incidence of
psychiatric disorder and even performance. From a social perspective one can measure its impact on functional effectiveness, such as employability, community involvement and sociability (Ronne, 1974), the effectiveness of interpersonal relationships, or the degree to which useful social roles are filled (and acting out antisocial behaviour etc. are avoided). From a physiological perspective, outcomes include short term consequences, such as the development and progression of a particular disease.

Moss & Belling (1987) have organized the dimensions of appraisal and coping included in measurement procedure into three domains.

APPRAISAL-FOCUSED COPING

It involves attempts to define the meaning of a situation and includes such strategies in logical analysis and cognitive redefinition.

PROBLEM - FOCUSED COPING

Seeks to modify or eliminate the source of stress to deal with the tangible consequences of a problem or actively change the self and develop a more satisfying situation.
EMOTION-FOCUSED COPING

Includes response whose primary function is to manage the emotions aroused by stressors and thereby maintain effective equilibrium.

The primary focus of these categories is on appraising and reappraising a situation, dealing with the reality of the situation, and handling the emotions aroused by the situation.

Maddi and Kabasa (1984) talked about two forms of coping -

a) transformational and

b) regressive. Transformational coping involves altering the events so that they are less stressful. Regressive approach, includes strategies wherein one thinks about event pessimistically and acts evasively to avoid contact with them. There are certain resources like "personality hardiness" (including three tendencies namely 'Commitment', 'Control' 'Challenge' that increases the likelihood of meeting stressful events with transformational rather than regressive coping.

Lazarus (1975) has suggested a classification of coping processes which emphasize two categories, namely direct actions and palliative modes. Direct action
includes behaviour or action which when performed by the organism in face of a stressful situation is expected to bring about a change in stress causing environment. Palliative modes refer to those thoughts or actions whose purpose is to relieve the organism of any emotional impact of stress. There is no clear consensus as to which coping strategies or modes are most effective.

Research has shown that social and emotional support available to the person helps him to effectively cope with stress. Person maintaining close interpersonal relationships with friends and families are able to use more approach strategies.

Approach or effective strategies of coping include efforts to increase physical and mental preparedness for coping (through physical exercises, yoga and meditation) creative diversions for emotional enrichment (music, art, theatre etc.) and strategies of dealing with the basic problems.

Coping may either take the form of avoid the situation (reactive strategy) i.e. dysfunctional style or confronting and approaching the problem (proactive strategy) i.e. functional style. First category consists of persons who decide to suffer from, accept or deny the experience stress or put the blame on somebody (self or others) or something for being in that stressful situation.
These are a passive or avoidance strategies and termed as dysfunctional. The other category consists of persons facing the realities of stress consciously, and taking some action to solve the problems them selves or with the help of other people. These are active approaches and termed as 'functional' styles more approved by social scientists as these are supposed to be more effective and healthy.

Coping is highly contextual, since to be effective it must change over time and across different stressful conditions (Folkman & Lazarus, 1985). The 'Berkeley stress and coping project' addressed contextual side of coping.

Lazarus (1993) noted some findings about coping in his studies.

1) coping is complex and people use most of the basic strategies of coping in every stressful encounter.

2) Coping depends on appraisal of whether anything can be done to change the situation. If it says yes, then problem focused coping predominates. If appraisal says nothing can be done then emotion-focused coping predominates.

3) When the type of stressful encounter is held constant - e.g. work, health or family-related
stress-women and men show very similar coping patterns.

4) Some strategies of coping are more stable than others across diverse stressful encounters while others are linked to particular stressful contexts. e.g. thinking positively about the situation is relatively stable and depends on personality, while seeking social support is unstable and depends on social context.

5) Coping strategies change from one stage of a complex stressful encounter to another.

6) Coping acts as a powerful moderator of emotional outcomes, positive outcomes are associated with some coping strategies, negative outcomes with others.

7) The utility of any coping patterns varies with the type of stressful encounter, the type of personality stressed, and the outcome modality studied (e.g. subjective well-being, social functioning or somatic health). What works in one context may be counterproductive in another.

MODERATORS OF OCCUPATIONAL STRESS

There are certain moderator variables, influencing stress strain relationship. These are
difference in personality, motivation, involvement, job level, age, sex, commitment, and socioeconomic conditions such as the nature, type and extent of one's social relationships.

1) Needs considered as moderator variable. Need for achievement buffers the adverse effect of role stress on job anxiety (Shrivastava, 1985). Also the need for self-actualization have moderating effect on relationship between role stress and job anxiety (Srivastava, 1987).

2) Locus of control as moderator - The relationship between stress and satisfaction dimensions would be mediated through locus of control.

3) Mental health occupational stress is found to be correlated negatively with job satisfaction and mental health variables (Srivastava and Jagdish, 1983). Moderating effect of mental health may be attributed to effective coping strategies adopted by these workers, with high participation, self-confidence, self-respect, environmental mastery, and appropriate realistic approach.

4) Effort and outcome orientations may moderate the stress-strain relationship.
5) Organizational climate may moderate role stress and job satisfaction relationship, with a change in the perceived level of dimensions of climate, the level of both felt role stresses and job satisfaction varies inversely to each other.

6) Job satisfaction is found to moderate the relationship between occupational stress and mental health (Srivastava and Jagdidh, 1989).

7) Hierarchical level moderates the relationship between occupational stress and job satisfaction. Also the moderating effects of participation in opinion seeking, group oriented attitude, social support is found.

Occupational stress can be effectively managed through planned efforts on the part of organization and individual.

A number of practice interventions on the part of the organization are developed by Pastonjee (1987). One of these is undertaking stress audit.

The objective of stress audit may be enumerated as follows:

i) Ascertain dominant stresses at various levels of the organization.
ii) Identifying the dominant personality profiles in terms of anxiety, anger, depression, values etc.

iii) Determining remedial measures, like training efforts, counselling and readjustment to enhance the effectiveness of the organization.

Murphy (1988) has suggested three different forms of stress management techniques.

a) Stress Management Training Programme Training causes designed to provide employees with improved coping-skills, including training in technique such as meditation, bio feed back, muscle relaxation and stress inoculation.

b) Employee Assistance Program This program refers to the provision of employee counselling services by an organization.

c) Stress reduction/Intervention program is denoted by interventions designed to change level or form of job stresses experienced by employees, usually through job redesign or work reform.

Srivastava (1997) suggested some organizational interventions which can be helpful in preventing the undesirable consequences of stress.
a) Prevention of Stress through organizational interventions at the management level, such as selection of suitable personnel, proper job redesigning and training, adequate work conditions, effective supervision and incentive system, effective communicative system, participative management etc.

b) Minimizing the frequency and intensity of stressful situation integral to the job at organizational level.

c) Moderating the intensity of integral job stressors and their consequential strains through the effect of other variables of positive value, such as high or extravoges, non-financial incentives, social support generating team feeling, participative decision making.

Individual can reduce his stress by cultivating belief in self, developing inner directed personality, developing self coping mechanism by adopting the strategy of owning up to stress, relying on genuine problem solving strategies cultivating positive habits based on interests such as yoga, meditation, sports and breathing exercises, relaxation, deep breathing, Transcendental meditation, self-hypnosis, physical
exercise, walking, maintaining good relations with family, friends, coworkers and supervisors, time management etc.

THEORIES AND MODELS OF OCCUPATIONAL STRESS

EFFORT AND OUTCOME ORIENTATION

Pandy and Naidu (1986) theorised that effort and outcome orientation may moderate the stress-strain relationship. They noted that the concept of 'detachment is valued in Indian culture. The doctrine of detached action calls upon the individual to serve society by performance of one's duties with utmost skill but without designing fruits of actions. Effort orientation, is the individual's focusing on task at hand, whereas outcome orientation can be 'advice of not to focus on or to be concerned about the outcomes of that activity. The authors theorized that the effort and outcome orientation may moderate the stress-strain relationship for three reasons.

1) The individual practising ideal of detachment would concentrate on most of activities he engages in, which would lead the attainment of higher degree of skills.

2) The practice of being less concerned about the outcome may help in conserving the physical
and psychic energy and hence be less affected by mental distracters such as anxiety and fear of failure.

3) It is likely that the person practising these ideals cognizes the stressful events in relatively more positive terms.

SELF-THEORIES

Lecky (1945) introduced a phenomenological theory of personality. He was the first of several self-theorists who assumed that one of the most basic needs of all individual is to maintain the unity of their conceptual systems. Lecky (1945) believed that two major sources of stress producing incompatibilities are inconsistencies with the self-system and reality.

Rogers (1951, 1959, 1961) presented most detailed development of the self-theories. According to him, three kinds of incompatibility that can produce high levels of stress are incompatibility between an individual's ideal and actual self, between conscious and subconscious perceptions, and between external reality and perception.

Cognitive Personality theorists, such as Kelly (1955), Sarbin (1952), Hilgard (1949), and Epstein (1972), (1980), social psychologists such as Festinger (1957),
Brehm and Cohen (1962), Rokech (1973), also have emphasized cognitive incongruity as a major source of stress.

Murray's (1938) need-press theory of personality was the interaction between person factors and situation factors.

Lazarus and Launier (1978) stated that "threat cannot be described in terms of person or environment alone, but must be defined by both: They pointed out that the relationship between person and environment is one of "reciprocity of causation" as the person actively impinges on the environment receives feedback from these efforts, and is confronted with a more or less potent environments. The interaction is dynamic process that takes place over time.

**TRANSACTION AND PROCESS**

In psychological stress theory Lezarus and colleagues (Lazarus, 1980; Lazarus and Laurnier 1978) suggested that stress can be most adequately described in terms of transaction between person and environment. According to Pervin (1968) transaction means not only that the environment influences the person but also that person is an active agent in influencing the environment. According to Lazarus (1980), and Pervin
and Lewis (1978), a transaction which is brought about by the interaction between personal and environmental variables should be considered a new entity with unique characteristic.

**LIFE CYCLE PERSPECTIVES**

Psychoanalysts and ego psychologists emphasized the processes of defense and coping and also provided the basis for formulating developmental perspectives that focused on the gradual accumulation of personal coping resources. Over an individual's lifespan. Erikson (1963) described eight life stages each of which represents a new challenge, or crisis that must be negotiated successfully in order for the individual to cope adequately with the next stage. Personal coping resources (such as the development of trust and autonomy) accrued during the adolescent and young adult years are integrated into the self concept and influence the process of coping in adulthood and old age. This perspective assumes that adequate resolution of the transitions and crisis that occur at each point in the life cycle leads to coping resources that can help resolve subsequent crisis. Successful encounters with environmental stressors build a sense of efficacy and ego integrity.
The relative consistency model (Magrusson 1976) is closely bound to a trait measurement model which guided most empirical research in the field of personality. The two models differed, with respect to situational effects individual differ in terms of their emotional, physiological behavioural reactions to stressful situation only with respect to the level of cross situational profiles.

The rank order of individual for a certain behaviour will vary across situations. According to an interactional coherence model, individual differ behaviourally with respect to two main parameters: the main level of intensity of reaction across situation and partially unique cross situational profiles.

Lazarus (1966) noted, models or theories of stress may be partitioned into three types: stimulus oriented theories, response oriented theories, and organism oriented or interactions theories.

These theories view stress as a potential residing within the stimulus properties of the organism's
environment. According to this approach, those aspects of the environment that are demanding or disorganizing for the individual impose stress upon him. The engineering model essentially states that each individual has an innate capacity to withstand environmental stressors; when the cumulative stress experience is greater than that value the individual begins to undergo a deterioration in function the reaction to stress.

**RESPONSE ORINTED THEORY**

It is the response of the individual to the events of the environment that is treated as defining the presence of stress. In particular the pattern and amplitude of emotional responses (at least at the psychological level) are used to evaluate presumptive levels of stress. Response oriented theorists owe much in their position to the work of Selye (1970) and his elucidation of the GAS. More recent theories arising from this position tend to be more interactional in nature. However, they continue to define stress in terms of response variables and hold that this response pattern is a precursor to or instrumental in, the devolvement of functional derangement and diseases.

**INTERACTIONAL THEORIES**

This point of view emphasizes the characteristics of organism as major mediating mechanisms between
stimulus characteristics of the environment and the response they invoke. Interactional theorists are critical of the unelaborated stimulus and response theories in that both these theories dismiss the importance of variable of person in the stress equation, and the important characterising the basis for individual differences. The transactional position hold that perceptual, cognitive, and emotional mediating processes of the individual affect the demand characteristic of the environment so that the status of system is constantly changing.

THEORIES OF NOISE

High levels of stimulation may lead to stress. Theories of noise vary in the extent to which they attribute derailments in performance and negative affective, status to heightened arousal (Broadbent, 1971), cognitive overload (Cohen, 1978), or distraction and interference (Poulton, 1979). Each of these theorists also attempted to explain the decrements in task performance that may follow exposure to noise (Glass and Singer 1972). Whereas Broadbent (1971) talked about 'learned helplessness' and Cohen (1978) about 'cognitive fatigue'.

Social overload models, by Altman (1975), Valins and Boum (1973) Desor (1972), Milgram (1970) and
Saegert (1973) suggest that crowding is stressful to the extent that it creates excessive or unwanted levels of social stimuli.

Lindsley (1961) proposed that the conditions of sensory overload, sensory underload and sensory distortion have common neuro physiological mechanism, namely, the ascending reticular formation. Lindsley (1961) viewed the ascending reticular formation as a barometer for both sensory input and sensory output; a homeostatic regulator of input-output relations that is subject to an adaptation level. Any deviation from the established level upsets the balance of the regulating system resulting in a variety of disturbances. Lindsley (1961) noted that "blocking of the reticular formation may occur and behavioural immobilization and general confusion may result."

A number of related conceptions and theoretical elaborations have been introduced that have bearing on sensory overload. Hebb (1955) proposed a homeostatic theory that views the organism as acting to produce an optimal level of excitation.

Claude (1860) proposed that individual's internal system should ideally remain constant inspite of external changes, a concept that was developed into the notion
of homeostasis by Cannon (1935). This concept of homeostasis has relevance for stress when we think about ourselves as a system that balances specific resources with the demands imposed upon us.

A MODEL OF STRESS AND ILLNESS

Dohrenwend and Dohrenwend (1981) delineated seven models but several of these are related to each other.

Innocent Victim Model- The prospective patient by chance is exposed to stressful environmental events or circumstances that cause illness.

Vulnerability hypothesis - A model more relevant to psychiatric disorder. According to this model, chance exposure to stressors triggers illness and onset in already vulnerable people. The source of vulnerability may vary according to the disorder or the investigator's point of view and may include childhood experiences, family relationships or genetic predisposition.

INTERACTIVE MODEL

Suggests that because of preexisting deficiencies in coping and interpersonal skills, people who later become clinically ill either are vulnerable to forestall the occurrence of undesirable life events or by
their behaviour actively provoke them while at the same
time they lack the ability to make good events happen.

**INTERRUPTION THEORY**

The premise of interruption theory is the automatic activity results whenever some organized action or thought process is interrupted. Any event external or internal to the individual, that prevents completion of some action, thought sequences, plan or processing structure is considered to be interrupting. Interruption can occur in the perceptual, cognitive, behavioural, or problem-solving domains. Mandler (1964) assumes that most psychologically stressful situations are the result of interruption.

**THE CONFLICT-THEORY ANALYSIS**

(Janis & Mann, 1977) They postulated that stress engendered by decisional conflict frequently is a major determinant of failure to meet the criteria for high quality decision making. Decisional conflict refers to simultaneous tendencies within the individual to accept and to reject a given course of action. The most prominent symptoms are hesitation, vacillation, feeling of uncertainty and signs of acute psychological stress.

Sely's General Adoption Syndrome: has been widely held as a comprehensive model to explain the
stress phenomena. This three stage model states that when an organism is confronted with a treat, the general physiological response occurs in three stages.

1) Alarm Reaction - includes' 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, adrenalin discharge; increased heart rate, muscle tone, blood content; and gastrointestinal ulceration. Depending on the nature and intensity of the threat and the condition of the organism, the periods of resistance vary and the severity of symptoms may differ from 'mild invigoration' to 'disease of adaption'.

2. Stage of resistance - Maximum adaptation occurs during this stage. The bodily signs characterized of the alarm reaction disappear. Resistance increases to levels above normal.

3. Stage of exhaustion - Adaptation energy is exhausted. Signs of the alarm reaction reappear and the resistance level begins to decline irreversibly the organism collapse.

Pestonjee (1983) has developed a model to explain how we cope with stress reaction. It is called the 'bounce model' because the behavioural
decompensation taking place due to stress tends to get reflected in interpersonal and other reaction. The reactions are received and analysed by the environment, which in turn, bounces back signals to the individual to bring about a change either at the organismic level or at the response level.

Construct model of role conflict explain role conflict as arising out of inappropriate constructs.

MODEL OF EFFORT-REWARD IMBALANCE AT WORK

The model states that the work role in adult life defines a link between self-regulatory functions of a person and the societel structure of opportunities and reward. It defines job conditions where high costs are associated with low gains and different sources of high effort' an intrinsic source (the demands on the job) and an extrinsic source (the motivators of individual workers in a demanding situation). Studies on work related distress and cardio vascular risk in middle aged male population shows that workers who exhibit high effort in combination with low reward especially with low job security or promotional prospects suffer from increased risk of cardiovascular disease also exhibit higher BP, bloodlipids and fibrinogen.

BUFFERING MODEL OF SOCIAL SUPPORT

Buffering model of social support (Cohen and
wills, 1985) suggests that social support operates as a buffer for stress. Thus, when individual are under low levels of stress, both those with high social support and those with low social support will show few negative effects. However, during stressful times, individual with low levels of support will begin to show negative effects, individuals with high support will show few negative effects since their support "buffers" them from the effects of stress.

1.5 THE PRESENT STUDY: ITS RATIONALE

The empirical studies conducted in the field of occupational stress are found to be mostly on different factors or sources of occupational stress, different coping styles and moderators of occupational stress. The studies are conducted on samples from different organizations, such as educational, service oriented, industrial organization etc. Few studies noted on industrial organization focus on managers and their role stress, very few studies are found on supervisors. Managers are found to be highly stressed, also workers facing more stress.

Type A behaviour pattern is studied in various physiological strains such as cardio-vascular disease, blood pressure, etc. Type A managers are found to
experience more stress (Mittal, 1992) particularly role stresses. Study on job status shows that high occupational stress found in top level managers (Jha, et al 1994). There are no such type of clear findings on supervisors, so to see, to what extent supervisors are stressed, and among these cadre whether high level and low level of job status have any effect on occupational stress or not the present study is designed. Supervisory cadres divided in master technicians, senior technicians and technician having superior-subordinate relations are studied to see their occupational stress. These levels of job status with their personality Types A and B are studied in relation to their occupational stress. Whether these three job status with Type A and B personality composition influence their occupational stress motivated to plan this study.

The cost of occupational stress is found to be much. Stressed or burned out workers are the big cost for society and organization. They can leave the job or may be depressed or may suffer from any other psychological disorders counterproductive behaviour problems. The trained people leaving the job is a big cost or accidental death is also the biggest loss. The spillover from work to family is also harmful. So to reduce the stress of industrial personnel or organization efforts have
also been made to reduce the stress by different stress management programs, counseling etc. Many of the factors of stress can be changed through effective intervention. There are some techniques used for stress management, such as exercise, relaxation, assertive training, cognitive therapy, progressive relaxation, self hypnosis, transcendental meditation etc.

Cognitive intervention may be helpful for the counsellor in the organization because the situation or working conditions are not always easy to change. Some working conditions cannot be changed, e.g. shift work or strenuous working conditions in industries, because it is the need of the technology. Sometimes for improving relations among workers and his supervisors, it is not possible to change or control the behaviour or attitude of supervisor, or sometimes stress may be due to employee's own faulty beliefs, expectations and attitudes. The thing only can be done here, is that to change individual's own thinking attitude his appraisal of situation and view at the situation is to be changed, and make possible to manage the stress. His faulty beliefs, expectations can be altered so that he can experience less stress and do his job more efficiently. So to see whether the cognitive therapy (Rational Emotive Therapy) can be used in the industrial organization or not to reduce
the felt occupational stress, an experimental study of such intervention is designed on industrial personnel of Bhilai Steel Plant, Bhilai in the present scientific endeavour.