CHAPTER 2

REVIEW OF LITERATURE
Stress is the sum total of all non-specific biological phenomenon elicited by adverse external influences. One feels stressed when one is confronted with unexpected. It is a multi-dimensional concept and has variety of usages in different fields which vary according to specific focus and purpose.

2.1 Definition and Concept of Stress

According to Selye (1956) stress is “any external event or internal drive which threatens to upset the organismic equilibrium”.

Cofer and Appley (1964) defined stress as a state of an organism where he perceives that his wellbeing is endangered and that he must direct all his energies to its protection.

Lazarus (1966) referred stress a state of imbalance with in an organism that is elicited by an actual/perceived disparity between environmental demands and the organism’s capacity to cope with these demands; and is manifested through variety of physiological, emotional and behavioral responses.

Wolf and Goodell (1968) defined stress as a dynamic state within an organism in response to a demand for adaptation.

McGrath (1970) defined stress as a perceived imbalance between demand and response capacity under conditions where failure to meet demand has important consequences.

Cox (1978) has described three classes of definitions. Stress can be variously thought of as a response, i.e. the stress response to an extreme stimulus; as a stimulus i.e.as the stressor itself as an intervening variable.

Spielberger (1979) defined stress in two different ways. According to him, it is a dangerous potentiality, harmful/unpleasant external situation/conditions
(stressors) that produce stress reaction; and secondly to the internal thought, judgment, emotional state and physiological process that are evoked by stressful stimuli.

It is considered to be an internal state or reaction to anything we consciously or unconsciously perceive as a threat, either real or imagined (Clarke and Watson, 1991).

Ryhal and Singh (1996) stated that stress is the state of an organism it perceived that its well-being is endangered and that it must direct all its energies to its protection.

Robbins (2001) defines stress as a dynamic condition in which the individual is confronted with an opportunity, constraint, or demand related to what he or she desires and for which the outcome is perceived to be both uncertain and important.

2.2 Factors influencing Stress

Both the individual and organizational factors influence stress.

2.2.1 Demographic Factors and Stress

The relationship between demographic variables viz., age, gender, education, occupation, experience, type of family, and stress reviewed as below.

2.2.1.1 Age

Reddy and Ramamurthy (1991) analyzed the influence of age on stress experience of a person. The sample consisted of 200 executives. The results revealed that executives in the age group of 41-50 experienced more stress than the age group of 51-60. Moderating variables among executives experiencing stress include not only age but also the years of service in the employment.

Beena and Poduval (1992) conducted a study on sample of 80 (40 male and 40 female) executives in different organizations. They found that when age increases, experienced stress also increased due to the increase in the
responsibility of the executives. Female executives showed higher rate of stress because women experience greater amount of work change than men do.

Mayes (1996) conducted a study on police officers, fire fighters; electrician and executives aged 18-63 years. Multiple regressions revealed that age moderated the relationship among various stressors and physiological symptoms as well as psychological depression and life satisfaction.

Aminabhavi and Triveni (2000) in their study found that age, sex, coping strategies of bank employees have not influenced their occupational stress.

Virk et al. (2001) conducted a study on occupational stress and work motivation in relation to age, job level and type-A behavior. He reported that age and job level can have strong influence on job stress.

Rastogi and Kashyap (2003) conducted a study on “occupational stress and work adjustment among working women”. Sample consisted of 150 nurses, clerks, and teachers. The average age of the sample is quite matured and experienced, which help them to ignore the stress and maintain the smooth adjustment in the organization.

Bhatia and Kumar (2005) studied on occupational stress and burn out in industrial employees. The sample consisted of 100 employees belonging to supervisor and below supervisor level. Their chronological age ranged from 22-32 years and 33-42 years. Among the industrial employees at supervisor rank and below supervisor rank belonging to higher age group experienced more occupational stress.

Anitha Devi (2007) aimed at identifying the degree of life stress and role stress experienced by professional women. A total sample of 180 women professionals belonging to six occupations were chosen for the study. The results revealed that, the older person experience lower life stress and role stress. Younger people experience more stress as compared to older people. The greater the numbers of years of service the greater life and role stress. The lower the income, greater stress experienced i.e. stress decreases with increase in income.
Khurshid et al. (2011) conducted a research on public and private sector teachers and found gradual increased in stress with the passage of time, older teachers have more stress than younger. Overall, senior teachers of private sector were more stressful than public sector.

From the above studies, it can be concluded that younger age group is more susceptible to stress due to lack of experience and older age group experience stress due to the increase in the responsibility.

2.2.1.2 Education

Education acts as mediator, either increases or reduces stress depending on perspective of the individuals. Ansari (1991) had studied the nature and extent of stress in agriculture university teachers. Sample consisted of 235 respondents comprising 30 professors, 74 associate professors and 135 assistant professors. The result revealed that the correlation between the nature of stress and qualification of teachers in different cadres was found to be non-significant.

Chand and Monga (2007) examined the correlates of job stress and burn out among 100 faculty members from two universities. He found that, higher education can combat stress and burn out related problems among the faculty members.

Khurshid et al. (2011) conducted a research on public and private sector teachers and found that in the public sector, teachers having Master’s degree exhibited more stress and in private sector, lowest mean scores were among the same class teachers, whose qualification was up to Master’s degree.

Occupation and Position

Ryhal and Singh (1996) studied the correlates of job stress among university faculty. A sample of 100 faculty members 30 professors, 31 associate and 39 assistant professors. Results revealed that assistant professors experienced higher job stress than associate professors and professors.
Orpen (1996) examined the moderating effects of cognitive failure on the relationship between work stress and personal strain. He compared the work stress among 136 nurses and 12 college lecturers. The results found that nurses experienced more stress than the lecturers.

Ansari and Singh (1997) made an attempt to explore the contribution of demographic variables to the nature of stress experienced by the teachers in an agriculture university. The study comprised sample of 235 faculty members (23 professors, 74 associate and 138 assistant professors). The professors were either in moderate or in high stress categories as compared to associate and assistant professors.

Upadhayay and Singh (1999) studied the level of occupational stress experienced by the 20 college teachers and 20 executives. The executives showed significant higher levels of stress than college teachers on role over load, role ambiguity, role conflicts factor.

Gaur and Dhawan (2000) examined that the relationship between works related stressors and adaptation pattern among women professionals. A sample of 120 women professionals (30 teachers, 30 doctors, 30 bank officers and 30 bureaucrats) participated in the study. It showed that the four professionals groups have shared almost similar level of stress except in the categories of career development and stressors specific to working women.

Pandey and Srivastava (2000) had studied the female personnel working in railway, bank and teaching institutions. A sample of 96 females, 16 subjects in each professional area were taken. The study identified that respondents among all the three dimensions, clerks of bank and railway experienced more work stress as compared to teachers.

Aminabhavi and Triveni (2000) revealed that managers experience significantly higher occupational stress than clerks. The fact is that managers have greater responsibility of his position than the clerks.

Anitha Devi (2007) aimed at identifying the degree of life stress and role stress experienced by professional women. A total sample of 180 women
professionals belonging to six occupations were chosen for the study. The result showed science and technology professionals and doctors experienced significantly greater life and role stress followed by administrators and self-employed. Teachers and bankers experienced comparatively lesser stress in both role as well as life.

Chand and Monga (2007) examined the correlates of job stress and burn out among 100 faculty members from two universities. Respondents with internal locus of control, high social support and high job involvement experience less stress. Results also revealed that, maximum stress is reported by professors and minimum by assistant professors.

Kaur and Kaur (2007) attempted to make a study on occupational stress and burn out among women police. The sample comprised of 80 women police and age ranges between 25-45. The results concluded that police work is most stressful occupation and as the occupational stress increases the level of the burn out also increases.

Khurshid et al. (2011) conducted a research on public and private sector teachers and found that university teachers with a permanent employment had lowest stress compared to the teachers employed on contract basis, which indicates that type of employment also have bearing on the stress level.

From all these studies, it can be concluded that as the position of the worker increases, the stress level also increases. Teachers experienced low stress as compared to other professionals.

2.2.1.4 Experience

Blix et al. (1994) conducted a study on occupational stress among university teachers and found that faculty having less than 10 years of experience had higher stress than faculty with more than 20 years of experience.

Ryhal and Singh (1996) considered university faculty for their study comprised sample of 100 faculty members 30 professors, 31 associate and 39 assistant professors. Results revealed that those with 26-35 years experience had higher job stress than those with teaching experience of 16-25 years and 5-
15 years. Those with 16-25 years experience had higher job stress than those with teaching experience of 5-15 years.

Ansari and Singh (1997) made an attempt to explore the contribution of demographic variables to the nature of stress experienced by the teachers in an agriculture university. The study comprised sample of 235 faculty members (23 professors, 74 associate and 138 assistant professors). The associate professor’s total service experience was positively related to stress.

Bhagawan (1997) conducted a study on 100 teachers selected from 20 schools in Orissa. The sample consisted of 100 teachers (53 male and 47 female teachers). The study revealed that higher the teaching experience, lesser the perceived burn out.

Bhatia and Kumar (2005) studied on occupational stress and burn out in industrial employees. A sample consisted of 100 employees belonging to supervisor and below supervisor level. Their experience/length of service varied from 2-6 and 7-12 years. Industrial employees at supervisor rank and below supervisor rank with more experience of service had more occupational stress due to more feeling of depersonalization and more emotional exhaustion.

From the above studies, it can be concluded that the length of service has negative and positive relationship with stress. Even then more studies revealed that individual with lesser experience, experienced more stress as compared to the individual with more service years.

2.2.1.5 Type of Family

Nuclear family creates more stress as compared to joint family. Joint family and support from the Joint family acts as buffer against stress.

Abrol (1990) had examined the strains experienced and coping strategies used by 27 male and 27 female teachers. Results indicated that subjects reported interpersonal and psychological stress. They used social support to deal with stress.
Vashishtha and Mishra (1998) observed that social support from the family, coworkers, supervisors and other people could minimize stress among the employees.

Pandey and Srivastava (2000) had studied the female personnel working in railway, bank and teaching institutions. A sample of 96 females, 16 subjects in each professional area both from nuclear and joint family were taken. The study identified that respondent’s belonging to nuclear family had expressed more interpersonal work stress.

Khurshid et al. (2011) conducted a research on public and private sector teachers and found that the married teachers experience more occupational role stress than the unmarried ones.

2.2.2 Organizational Factors and Stress

The organizational factors seem to have the most significant influence on an individual. The relationship between Organizational factors viz., work, role, personal development, interpersonal relationship, organizational climate and stress of the individual reviewed as below.

2.2.2.1 Work Stressors

The work factor is closely associated with the level of stress experienced by the employees in the organization.

Tharakan (1992) studied on occupational stress and job satisfaction among workingwomen. He observed that professional women experienced greater work related stress than non-professional women. The expectation of technocrats was much higher than the non technocrats.

Fulcheri et al. (1995) also observed that size of workloads, the complexity of tasks and responsibility are the major sources of stress factors. The reasons for frustration are delay in career development and a slow erosion of status among the managers.

Aminabhavi and Triveni (2000) revealed that nationalized bank employees have significantly higher occupational stress than non nationalized bank
employees, in the dimensions such as role conflict, unreasonable group/political pressure, intrinsic impoverishment and strenuous working conditions.

Bhattacharya and Guha (2006) conducted a study on stress and coping: A study on lady criminal lawyers of Kolkata city. A group of 34 lady criminal lawyers were selected for the study. The significant factors, which are generating stress, are busy schedule of work, odd duty hours, poor interaction, leading tendency of superiors, and poor interpersonal relationship among the colleagues in the work environment.

Latha and Panchanatham (2007) found out the job stressors and their implications on the job performance of 40 software professionals. Result showed that work load acts as major stressors for software professionals. Long work hours are indirectly associated with psychological distress.

Shahu and Gole (2008) drew attention on occupational stress which they said is commonly acknowledged to be a critical issue for managers of private manufacturing companies. Their study examined the relationship between job stress, job satisfaction and performance among 100 managers of private manufacturing firms. The findings of the study suggest that higher stress levels are related to lower performance whereas higher job satisfaction indicates higher performance.

Ismail, Suh-Suh, Ajis and Dollah (2009) conducted a study to examine the effect of emotional intelligence in the relationship between occupational stress and job performance. The outcome of the study clearly stated that relationship between occupational stress and emotional intelligence significantly correlated with job performance. Statistically, the results confirmed that the inclusion of emotional intelligence in the analysis mediated the effect of occupational stress on job performance.

Workplace stress may also result in behavioral problems, such as increased alcohol consumption and smoking (Dollard & Winefield, 2002). A common finding is that work stress has negative effects on families and home life.
(Muchinsky, 2000). It makes sense that the outcomes of occupational stress are not confined to work.

As Repetti (1987) suggested, when negative affect develops as a result of stressors in one sphere, it subsequently transfers to other life spheres. Robinson, Flowers, and Carroll (2001), for example, reported that work stress negatively affects marital cohesion.

In addition, Crouter and Bumpus (2001) highlighted the negative spillover effect of work stress into family life. They reported that work stress has detrimental implications on the quality of family interactions. Feelings of overload and strain predict increased family conflict, a withdrawal from family involvement, and even adjustment problems for children. Through their influence on family problems, mental health issues, and unemployment, the consequences of work stress may also be expected to affect the community at large (Kelly, 1995). These observations provide a strong mandate for conducting research into the factors that precipitate occupational stress and to identify effective interventions that can be implemented to treat, manage, and, we hope, prevent the occurrence of this phenomenon.

Work stress appears to have multiple origins, and much of the reported research attempts to establish links among taxing aspects of the work environment (stressors); perceptions and appraisals of these; and manifestations of strain, including physiological, psychological, and behavioral changes (Baker, 1985; Greenhaus & Parasuraman, 1987).

A number of theories have been developed to conceptualize the problem of occupational stress and to explain and predict when work stress will occur (Dollard, 2001b). Some of these theories concentrate on the stressors within the work environment (e.g., the demand–control/support model; Karasek & Theorell, 1990), some focus on the mismatch between organizational requirements and rewards (e.g., Siegrist’s [1996] effort–reward imbalance model), some have a greater focus on the resources available to employees to cope with demands (e.g., the conservation-of-resources model; Hobfoll & Freedy, 1993), and others focus on appraisal and coping to explain Occupational Stress Research in Australia 151 individual differences in
reactions to stress at work (e.g., Lazarus and Folkman’s [1984] cognitive phenomenological theory). Although all of these models have received some empirical support in the literature, the dominant view is that work stress and the resulting mental health outcomes are more strongly related to job factors or aspects of the work environment rather than to personal or biographical factors (Maslach & Schaufeli, 1993)—that is, work stress depends primarily on the way that jobs are constructed, constituted, and managed (Dollard & Winefield, 2002). Depending on the emphasis of the theory, different implications for interventions result. Interventions in stress management are typically classified into primary, secondary, or tertiary approaches (Kendall et al., 2000). Primary approaches include strategies that aim to prevent the occurrence of work stress, secondary approaches are activities designed to change an individual’s reaction to stressors (e.g., by means of relaxation training and team building), and tertiary approaches are those that are used to treat the symptoms of stress and strain after they have been identified.

J. D. Quick, Quick, Campbell, and Nelson (1998) published a useful summary of preventive strategies and surveillance indicators for organizational stress. J. D. Quick et al. (1998) identified both organizational and individual strategies within each of the three levels of prevention.

De Jonge and Dollard (2002) presented a matrix of stress management approaches that focus on the three levels of prevention (i.e., primary, secondary, and tertiary) and possible intervention strategies within each level, emphasizing the individual, the organization.

<table>
<thead>
<tr>
<th>Overview of Work Stress Interventions Level</th>
<th>Primary prevention</th>
<th>Secondary prevention</th>
<th>Tertiary prevention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization</td>
<td>Improving work content, fitness programs, career development</td>
<td>Improving communication and decision making, conflict management</td>
<td>Vocational rehabilitation, outplacement</td>
</tr>
<tr>
<td>Individual–organization interface (e.g., team or group)</td>
<td>Time management, improving interpersonal skills, work/home balance</td>
<td>Peer support groups, coaching, career planning</td>
<td>Post traumatic stress assistance programs, group psychotherapy</td>
</tr>
<tr>
<td>Individual</td>
<td>Pre employment medical examination, did stress management cognitive-</td>
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behavioral techniques, relaxation Rehabilitation after sick leave, is ability management, case management, individual psychotherapy Note.

2.2.2.2 Role Stressors

The role factor is closely associated with the level of stress experienced by the employees in the organization.

Madhu et al. (1990) conducted a study on role stress: differential influences of some antecedently factors. 173 managerial personnel from steel organization and 76 from petroleum organization participated in the study. The present study attempted to compare the influence of the antecedent factors namely, personal, organizational, job, superior, leadership styles and communication factors on role conflict and role ambiguity. It was found that role conflict and role ambiguity experienced by the employees were most significant in the petroleum organization.

Mishra and Dixit (1995) attempted to reveal the coping styles of 300 allopathic doctors. It was found that each of the four type of job stress namely role based stress, task based stress, boundary spanning stress and conflict mediating stress influenced burn out among the doctors and role based stresses such as role conflict and role ambiguity are related with feeling of lack of personal accomplishment.

Peterson (1995) explored role conflict; role ambiguity and role overload as reported by industrial workers and also found that managers are more stressed due to role overload from his study “organizational issues for managers”.

Upadhyay and Singh (1999) compared the level of occupational stress experienced by the 20 college teachers and 20 executives. The executives showed significant higher levels of stress than college teachers on role overload, role ambiguity, role conflicts factor.

Hasnain et al. (2001) on his study “role stress and coping strategies in different occupational groups” assessed the coping strategies in three different occupational groups (20 engineers, 20 managers and 20 teachers). Role over
load and role erosion were found to be major sources of role stress in all three groups.

Pandey and Tripathy (2001) also found that teaching is a stressful occupation. Job stressors in this profession are role ambiguity and unreasonable group pressure.

Vinod, Sangeetha& Bansal, Ipshita (2011) adopted a descriptive research design with its hypothesis concentrating on understanding the presence of role stress (dependent variable) among Asian and Non-Asian women professionals working in various organizations in the Emirates of Dubai, Sharjah and Ajman and the influence of the ten role stress dimensions (independent variables). 207 women aged 20-50 years both married and unmarried were selected for the study. They found a highly significant correlation between overall role stress scores versus the few specific dimensions of role stress and occupational diseases among both Asian and Non-Asian women. Self-role distance was the dimension that created significant levels of role stress among both segments of women professionals.

2.2.2.3 Personal Development Stressors

The personal development factor is closely associated with the level of stress experienced by the employees in the organization.

Fulcheri et al. (1995) also observed that delays in career development and a slow erosion of status are the main reasons for frustration among the managers.

Upadhyay and Singh (1999) compared the occupational stress level experienced by the 20 college teachers and 20 executives. The teachers showed significant higher levels of stress than executives on intrinsic impoverishment and status factors. They experienced stress because their personal wishes and strong desire for better and prosperous career were felt to be blocked by others.

Gaur and Dhawan (2000) examined that the relationship between works related stressors and adaptation pattern among women professionals. A sample
of 120 women professionals (30 teachers, 30 doctors, 30 bank officers and 30 bureaucrats) participated in the study. It showed that teachers experienced more stress as far as opportunities and obstacles of career development are concerned.

Tang et al. (2001) reported that teachers experience a great deal of stress in the course of their career. Burn out represents teachers' negative response to the mismatch between job requirements and their perceived abilities, self-efficacy and proactive attitude.

Triveni et al. (2006) concluded that the major sources of job stress perceived by 90 veterinary assistant surgeons were numerous meeting, work load, lack of personal growth, lack facilities and monotonous nature of work.

Latha and Panchanatham (2007) found out the job stressors and their implications on the job performance of 40 software professionals. More than 50% of the respondents do not feel stressed by the working conditions and promotional opportunities.

2.2.2.4 Interpersonal Relationship Stressors

The interpersonal relationship factor is closely associated with the level of stress experienced by the employees in the organization, As per the report by Madhu et al. (1990) the contribution of interpersonal relation factors to job stress were found significant among the employees in the steel industry.

Upadhyay and Singh (1999) compared the level of occupational stress experienced by the 20 college teachers and 20 executives. The teachers showed significant higher levels of stress than executives on under participation and poor peer relation factors.

Potter et al. (2002) concluded that the interpersonal stressors at work place have the influence on the employees. Interpersonal conflicts experienced in the work place also predict diseases and well being declines. Results proved that psychosocial environment of workplace have unique effects on employee.
Osmany and Khan (2003) conducted a study on Organizational stress in working women by taking 30 married and 30 unmarried working women. He found that unmarried working women reported high stress at work place due to political pressure and for married women, it may be due to poor peer relation.

Bhattacharya and Guha (2006) conducted a study on stress and coping: A study on lady criminal lawyers of Kolkata city. A group of 34 lady criminal lawyers were selected for the study. The significant factors which are generating stress are busy schedule of work, odd duty hours, poor interaction, leading tendency of superiors, and poor interpersonal relationship among the colleagues in the work environment.

Zhao and Rashid (2010) found that among all the job stressors, role ambiguity has the most adverse influence on retention. Work-leisure conflict partially mediates the negative relationship between role conflict and retention, and fully mediates the negative relationship between role overload and retention. The empirical findings implied that organizations should tackle role ambiguity with highest priority and relieve work leisure conflict to effectively retain employees under job stress.

2.2.2.5 Organizational Climate Stressors

The organizational climate factors are closely associated with the level of stress experienced by the employees in the organization.

Madhu et al. (1990) conducted a study on role stress: differential influences of some antecedent factors. 173 managerial personnel from steel organization and 76 from petroleum organization participated in the study. It was found that the petroleum organization has an acclimate which would assist the employees in stress reduction where as the steel organization may not have developed such a climate.

Basha and Ushashree (1997) studied on job stress and coping as related to perceptions of organizational climate. Significant negative relationship was
found between perception of organizational climate and the amount of stress experienced by the employees.

Newstrome and Davis (1998) found that when job autonomy provided to managers is high; they enjoy their work and have freedom to do the task according to their own will so that they feel less stress.

Vashishtha and Mishra (2000) found that appraisal support had a partially moderating effect on occupational stress in organizational commitment relationship.

Das and Singhal (2003) explored the effect of job autonomy upon occupational stress among managers, 300 male managers were selected for the study. The findings of the study revealed that the managers with high job autonomy show less stress as compared to managers with low job autonomy.

Rastogi and Kashyap (2003) conducted a study on “occupational stress and work adjustment among working women”. Sample consisted of 150 nurses, clerks, and teachers. The results concluded that maximum occupational stress is found among nurses as compared to other two groups. Nurses work under the most severe occupational environment. Teachers perceive the minimum occupational stress because their working climate is best in comparison to the other two groups.

Vashishtha and Mishra (2004) explored the relative contribution of social support and occupational stress to organizational commitment of supervisors (n=200) the result revealed that the social support and occupational stress significantly predict the degree of organizational commitment of supervisors.

Latha and Panchanatham (2007) found out the job stressors and their implications on the job performance of 40 software professionals. More than 50% of the respondents do not feel stressed by the working conditions and promotional opportunities. It can be inferred that IT industry is providing better working environment.

It is quite obvious that occupational stress influences employee’s experiences indifferent aspects of their job, such as job performance and job satisfaction. A
part from this, occupational stress in turn gets influenced by the factors like work, role, interpersonal relationship, personal development and organizational climate. Studies in this regard revealed the above facts.

2.3 Level of Stress

Reddy and Ramamurthy (1990) reported that top-level managers experienced more occupational stress.

Tharakan (1992) studied on occupational stress and job satisfaction among working women. He observed that professional women experienced greater work related stress than non professional women. The expectation of technocrats was much higher than the non technocrats.

Barnes (1992) conducted a study on stress in aviation personnel. A sample of 25 captains, 16 flight engineers, 11 cabin crew members from air India were considered for the study. The results revealed that the cabin crews have far more stressors than other aviation groups. This is followed by pilots.

Srivastava et al. (1994) revealed that in private sector organization middle level managers faced greater stress and anxiety as compared to top level managers.

Sahu and Mishra (1995) explored the life stress and coping styles in teachers. The sample consisted of 120 male and 120 female teachers. The males experienced greater stress in the work and society areas, while females experienced more stress in family areas.

Aminabhavi and Triveni (1998) found that the signal maintainers have higher occupational stress as compared to other employees in railways. It also showed that railway employees who expressed moderate level of job satisfaction and life satisfaction have significantly higher occupational stress than those who expressed higher life and job satisfaction.

Cluskey (1994) carried out a survey on management accountants and examined the relation between stress and job strains. He found main causes of stress to be as follows:
(1) Reporting to more than one boss,
(2) Heavy workload under time constraints,
(3) Work relations in the organization, and
(4) A perceived lack of career progress.

He also reported an additional source of stress, a mismatch between personality and the task demands of the job.

Sehgal (1997) assessed the effect of role stress on the level of involvement a person has in the job and alienation and the coping mechanism used to deal with stress. It was found that role erosion, resource inadequacy and inter-role distance were dominating contributors of role stress. Avoidance style of coping was used more frequently than approach styles of coping.

Chand and Sethi (1997) conducted a study to examine the organizational factors as predictors of job related strain among 150 junior officers working in various banking institutions in the state of Himachal Pradesh. Role conflict, strenuous working conditions and role overload were found to be the dearest and most significant predictors of job related strain.

Abraham (2000) deliberated that the social skills component of Emotional Intelligence is related to positive interpersonal relationships and it increases the feeling of job satisfaction and decreases occupational stress. She further stated that these social skills foster networks of social relationships which in turn increase an employee’s commitiment to the organization.

In their theoretical paper, Spector and Goh (2001) examined the role of emotion in occupational stress. They employed a narrow definition of job stress as “any condition or situation that elicits a negative emotional response, such as anger / frustration or anxiety / tension” in an attempt to overcome the broadness of previous definitions and focus on negative emotional responses. The authors suggested that emotions influence how the work environment is perceived, that is, whether a particular condition is appraised as a job stressor or not. They further suggested that these appraising emotions may lead to psychological and physical strains.
Psychological strain might result from continual negative emotional experiences and may lead to decreases in job satisfaction and organizational commitment. Physical strains (for example, suppression of immune system, heart disease) may result from the physiological components of experienced emotions that can adversely affect health. It was concluded that an individual’s ability to manage and control their emotions (particularly negative emotions) in the workplace will influence the outcome of stress.

Slaski and Cartwright (2002) investigated the relationship between measures of emotional quotient, subjective stress, distress, general health, and morale, quality of working life and management performance of a group of retail managers. Significant correlations in the expected direction were found, indicating that managers who scored higher in emotional quotient suffered less subjective stress, experienced better health and well-being, and demonstrated better management performance.

Kaur (2003) identified role erosion, role overload, role isolation and personal inadequacy responsible for occupational role stress in her study of managers working in different branches of Punjab State Cooperative Bank Ltd.

Aziz (2004) opined that organizational stress originates in organizational demands that are experienced by the individual. Stress is built up in the concept of role which is conceived as the position a person occupies in a system. The paper investigated the intensity of organizational role stress among women information technology professionals in the Indian private sector. Organizational role stress scale was used on a sample of 264 professionals to explore the level of role stress. Resource inadequacy emerged to be the most potent role stressor, followed by role overload and personal inadequacy. The research found differences in the level of stress between married and unmarried employees on several role stressors. However, level of education did not emerge as a significant differentiator of stressors.
Duran and Extremera (2004) in their study including professionals employed in institutions for people with intellectual disabilities, revealed a significant relationship between emotional intelligence and burnout syndrome, and personal accomplishment in particular. The data clearly indicated that emotional intelligence expressed in the ability to recognize, express, and control emotions may have impact on the perceived job stress and the consequences of experienced stress.

Boroun et al. (1998) studied the job stress and job performance among 150 self paced repetitive workers. He indicated that the low satisfied workers experienced more ‘after work’ stress than the high satisfied workers.

Aminabhavi and Triveni (2000) revealed that nationalized bank employees have significantly higher occupational stress than non nationalized bank employees, in the dimensions such as role conflict, unreasonable group/political pressure, intrinsic impoverishment and strenuous working conditions. Non nationalized bank employees have significantly higher stress due to low status.

Gaur and Dhawan (2000) examined that the relationship between works related stressors and adaptation pattern among women professionals. A sample of 120 women professionals (30 teachers, 30 doctors, 30 bank officers and 30 bureaucrats) participated in the study. It showed that the four professionals groups have shared almost similar level of stress except in the categories of career development and stressors specific to workingwomen.

Pandey and Srivastava (2000) studied the work stress experienced by teachers, railway and bank employees. Maximum work stress was reported by the railway employees but the level of stress was lesser in bank personnel and least in teachers.

Harshpinder and Aujla (2002) found in their study that working women were more stressed due to sociological factors where as non working women were more stressed due to environmental factors.
Das and Singhal (2003) explored the effect of job autonomy upon occupational stress among managers. 300 male managers were selected for the study. The findings of the study revealed that the managers with high job autonomy show less stress as compared to managers with low job autonomy.

A study by Aujla et al. (2004) showed that working women were significantly more stressed due to psychological stressors than non-working women.

Ojha and Rani (2004) examined the level of life stress and various dimensions of mental health among working (n=30) and non-working (n=30) Indian women. Working women were significantly scored higher on life stress in comparison to non-working women.

Bhatia and Kumar (2005) attempted to explore occupational stress and burn out among employees. A sample consisted of 100 employees belonging to supervisor and below supervisor level. Employees at supervisor rank experienced more occupational stress than below supervisor level due to more responsibility and accountability.

Bidlan (2005) conducted a study on “job involvement, job frustration, and occupational stress among workers of small and large scale industrial units”. He examined semi-skilled workers (n=200) from small and large scale industrial units. Results showed that small scales industrial worker had significantly greater degree of job stress than the workers of large scale industrial units.

Srivastava (2005) on his study effects of cognitive appraisal on the relationship of job stress and job related health outcomes considered the sample size of 300. The results showed that the employees who are appraised the severity of and threats posed from stressful situation as to be high experienced markedly higher degree of job stress in comparison to those who appraised the severity and expected threats as to be low.

Panchanatham et al. (2006) analyzed the stress pattern of coercive and non coercive leaders. A group of 60 problem solving executives who belong to
implementer style were considered for the study. It proved that coercive leaders are more stressful than non-coercive leaders.

S.R.L.M. and Sarada Devi (2006) assessed the probable ratio of satisfaction to stress of women in different occupations. The total sample comprised of 120 working women in which 30 lawyers, 30 engineers and 60 clerks. The findings of the study revealed that among all the three categories of women employees, the probable ratio of stress was more than satisfaction in their role performance.

Chandra and Sharma (2010), assessed the level of occupational stress among the managerial employees of a public sector organization and found that occupational stress is not very high among the managerial employees of the organization covered by this study, 55 per cent of the respondents do experience some degree of stress.

From all these studies it can be concluded that individuals do experience stress of different levels; only their sources of stress vary according to the type of institution, working conditions in which they have to work.

2.4 Coping Strategies

Mishra and Dixit (1995) attempted to reveal the coping styles of 300 allopathic doctors. It was found from the investigation that those who use effective coping (i.e. above average control style and below average escape style) are less burn out than those who use in effective coping (i.e. above average escape style and below average control style).

Upamanyu (1997) explored the stress management techniques used by the educated working women. The sleep & relaxation, exercise, time management, diet and yoga are the best way adopted to manage stress by educated working women.

Aminabhavi and Triveni (2000) in their study found that age, sex, coping strategies of bank employees have not influenced their occupational stress.
Pandey and Srivastava (2000) studied coping with work stress in career oriented females. It was found from the result that teachers expressed significantly better active coping than bank employees.

Gaur and Dhawan (2000) examined that the relationship between works related stressors and adaptation pattern among women professionals. A sample of 120 women professionals (30 teachers, 30 doctors, 30 bank officers and 30 bureaucrats) participated in the study. They showed a configuration of adaptation pattern of active coping. The junior level job group or junior age group is significantly more active coping, greater plan fullness and has more initiative as compared to middle and senior age group or level of employment status.

Harshpinder and Aujla (2001) investigated the different physical stress management techniques utilized by women. Results showed that working women were making more use of writng, standard furniture and high fiber diet as compared to non-working women. The two groups did not differ significantly in the use of other techniques.

Hasnain et al. (2001) on his study “role stress and coping strategies in different occupational groups” assessed the coping strategies in three different occupational groups (20 engineers, 20 managers and 20 teachers). No significant difference was obtained among the coping strategies of the three groups. The two coping strategies used by these three groups were extra-persistive and inter-persistive (approach coping). In a nutshell it can be said that in all the three groups approach coping strategies were more frequently used than avoidance strategies.

Aminabhavi and Kamble (2004) conducted a study on work motivation and stress coping behavior of technical personnel at a railway work shop. The sample comprised of 30 technical personnel in the age range of 30-59 years. It was found that middle-aged technical personnel had significantly higher stress coping behavior as compared to the older technical personnel.
Aujla et al. (2004) investigated to analyze the different stress management techniques used by 75 working women and 75 non-working women of Ludhiana city. Results showed that majority of the respondents in both the categories were using various stress management techniques viz. relaxation, music, prayer, recreation with family, planning etc. Planning and relaxation were most preferred techniques among both the groups.

Aditi and Kumari (2005) found that the stress buffering effects of friendship and social support systems seem to a significant contributor to high levels of stress.

Randeep and Ravindran (2005) attempted to explore the relationship between coping strategies and coping styles among 30 marketing executives in two private sector mobile phone companies. It was concluded that in the use of coping styles such as task strategies, logics, home and work relationship, time management and involvement, executives differ considerably with respect to their cognitive styles.

Bhattacharya and Guha (2006) conducted a study on stress and coping: A study on lady criminal lawyers of Kolkata city. A group of 34 lady criminal lawyers were selected for the study. The significant coping mechanisms as preferred by them are reading books, traveling or outing, listening to music etc.

Chand (2006) studied to examine the psychological factors in the development of work stress. The respondents are 150 junior management scale-1 officers in various banking institutions. The findings of the study revealed that job related strain is positively related with escape coping and negatively related with life event stress, control coping and symptom management coping.

Sikthingnanavel (2006) explored the effect of select yogic practices on stress of working women of 15 normal female volunteers. The suitable parameters were used before and after 10 days training programme. The results show that there is a greater improvement in the reduction of stress in the experimental group than the control group.
Hsu (2011) proposed that people with external locus of control believe that external elements such as luck, chance and destiny are stronger to determine their lives, and their failures or successes are not due to their own efforts.

Karimi&Alipour, (2011) found that locus of control can be as an effective factor to reduce workplace stress by job satisfaction, promotion, sense of self-esteem, increasing high salary and quality of life. Also, planning an accurate program like integrating primary, secondary and tertiary interventions, clear objectives, sense of control, appropriate communication and enough exercise and sleep are ways to reduce occupational stress.

All these studies have revealed that coping strategies of individuals has significant effect on mitigating of stress. The above studies explored different stress management techniques to reduce or minimize stress.

2.5 Gender differences in Relation to Stress and Coping Strategies

As far as gender differences are concerned the studies revealed the following facts

2.5.1 Gender differences in Relation to Stress

Beena and Poduval (1992) conducted a study on sample of 80 executives in different organizations (40 male and 40 female) within the age range of 25-45 years, to know the gender difference in work stress. The result revealed that female executives experienced higher rate of stress.

Mitra and Sen (1993) in their study found that male and female executives differed significantly on role ambiguity, role conflict, inter role distance, future prospects and human relation at work and femininity and masculinity dimensions. Male executives with masculine sex role orientation faced greater job stress and anxiety than females possessing an androgynous personality. Authors attributed this fact to a greater reluctance to self disclose among men and different socialization patterns laid down for both men and women in Indian society.
Ushashree et al. (1995) on their study considered 80 male and 80 female high school teachers in the age group of 25-40 year (adult) and 41-60 years (middle) age to know the effect of gender on teacher's experience of job stress and job satisfaction. Analysis of data indicated significant effect of gender on job stress.

Sahu and Mishra (1995) made an attempt to explore gender differences in relationship between stresses experienced in various areas of life. The sample for the study was 120 men and 120 women teachers. The result revealed the significant positive relationship between works related stress and society related stress in males. On the other hand, in females, a significant positive relationship was observed between family stress and society related stress.

Bhagawan (1997) studied on job stress among 53 male and 47 female teachers’ from 20 schools in Orissa. It was found from the results that male teachers experienced more stress compared to female teachers.

Barkat and Asma Praveen (1999) studied the effect of gender on organizational role stress. The sample consisted of 50 managers, 25 male and 25 female of SBI. The age range of the subjects was between 36-55 years. Results indicated that females showed lower degree of role stress than their male counterparts.

Dasgupta and Kumar (2009) examined the sources of role stress among doctors and the stress levels among male and female doctors working in Indira Gandhi Medical College and Hospital, Shimla (India). The study revealed that role overload, self-role distance, role isolation, inter-role distance, role stagnation, role expectation conflict, role ambiguity and role inadequacy are the major sources of role stress. It further stated that there is no significant difference between the stress levels among male and female doctors except in cases of – inter-role distance and role inadequacy, which was found more in male doctors.

Aminabhavi and Triveni (2000) conducted a study on the nationalized and non nationalized bank employees. The sample consisted of 78 bank employees of which 39 nationalized and 39 non nationalized banks. The result revealed that
male and female bank employees do not differ significantly in their occupational stress.

Pradhan and Khattri (2001) studied the effect of gender on stress and burn out in doctors. They have considered experience of work and family stress as intra-psychic variables. The sample consisted of 50 employed doctor couples. Mean age was 40 years for males and 38 years for females. The result indicated no gender difference in the experience of burn out, but female doctors experience significantly more stress.

Triveni and Aminabhavi (2002) conducted a study to know the gender difference in occupational stress of professional and non-professionals. The sample consisted of 300 professionals (doctors, lawyers and teachers) and 100 non professionals. The result revealed that women professionals experience significantly higher occupational stress than men due to under participation.

Makhbul & Hasun (2011) pointed out that women tend to be satisfied with their job when they can interact with others who understand their roles in the organization, while men tend to be satisfied when their performance itself valued by others. They also found that there is no significant difference in the stress outcomes experienced by male and female employees. It is argued that the nature of work as a supporting staff doesn't shows any gender differences in psychological responses to a stressor.

All these studies have revealed controversial results but gender of individuals has significant effect on experience of stress. In some situations, women experience more stress than men and vice versa.

2.5.2 Gender differences in Relation to Stress Coping Strategies

Sahu and Mishra (1995) explored the life stress and coping styles in teachers. The sample consisted of 120 male and 120 female teachers. The males used emotion-focused coping as well as problem-focused coping while females used only emotion-focused coping.

Khan et al. (2005) conducted a study on coping strategies among male and female teachers with high and low job strain. The results of the present study
indicate that both male and female teachers used the same strategies to cope with job strain. Significant difference was not found to exist between the male and female teachers on different types of coping strategies except use of humor. Teachers have adopted a range of coping strategies most tend to be functional or active and some are dysfunctional or passive (i.e. self-distraction and use of humor). Male and female teachers did not give response on alcohol dimension of cope scale.

Research done by Ironson et al. (2005) suggested that avoidant coping strategies such as emotion-focused coping (where the goal is to mitigate the negative emotional states occurring rather than actively focusing on finding a solution to the problem) are more commonly used by women and can be associated with greater perceived stress, depression and potentially detrimental immune parameters such as lower B-cell count.

Pietila and Rytkonen (2008) stated that men suffering more from stress compared to women. It is argued that females are more likely to use "emotional-focused coping strategies compared to males who are more proficient with "problem focused" coping strategies (Stone and Neale, 1984).

All these studies have revealed controversial results but gender of individuals has no significant difference on the use of stress coping strategies.

2.6 Women in Information Technology Sector

A few academic studies on gender differences in IT careers have been reviewed here.

Shuttleworth (1992) examined the position of women in the computing industry in the US and the UK, and the impact of new technology on women employed in information handling occupations. She found that the majority of women are employed in routine and specialist work, while men are engaged in analytical and managerial activities. For example, in 1990, 86% of all data-entry clerks were female. They further found that 10% of males and only 3% of the females in the survey had achieved senior managerial positions. Research in the UK and US was consistent. In the US, in 1990, 34% of
computer programmers, 33.7% of systems analysts (US Department of Labor, 1975–1990) and only 5% of upper management slots in IT industry are estimated to be occupied by women.

Colley et al. (1994) showed that girls and women are less likely to enjoy, use and fully adopt computers and computer tools at all stages of education. Women tend to participate less and are less comfortable with computers than are men.

Truman and Baroudi (1994) concluded that this field may not be immune to the problems of gender discrimination. They analyzed the data gathered by the Society of Information Management (SIM) and found that women received lower salaries than men even when job level, age, education and work experience were controlled. They also observed that there were a disproportionately high number of men in the managerial ranks. Investigating this issue further, Igbaria and Baroudi (1995) investigated the impact of gender on job performance evaluations, job performance attributions and career advancement prospects. Although they did not find any significant differences in job performance ratings, they reported that women are perceived to have less favorable chances for promotion than men.

Gefen and Straub (1997) have argued that gender effects are themselves largely cultural differences.

Srite (2000) examined the influence of national culture on technology acceptance behaviors while controlling for gender found both these factors to be influential in explaining technology acceptance.

Venkateshet al. (2000) found gender differences in individual adoption and sustained usage of technology in the workplace. In their study, men’s decisions in this regard were more strongly influenced by their attitude toward using the new technology, while women were more strongly influenced by subjective norm and perceived behavioral control. The findings were robust across income, organization position, education and computer self-efficacy.
Ahuja, M.K. (2002) presented a framework for examining women’s choice, persistence and advancement in IT careers. It is believed that it is critical to consider the reasons for the lack of women’s participation in this leading-edge industry. He identified specific factors responsible for loss of valuable human resources.

Mohsin, Aziz (2004) investigated the intensity of organizational role stress among women informational technology professionals in the Indian private sector. Organizational role stress scale was used on a sample of 264 to explore the level of role stress. Resource inadequacy had emerged as the most potent role stressor, followed by role overload and personal inadequacy. The research found differences in the level of stress between married and unmarried employees on several role stressors.

Gladies, J. Juliet & Kennedy, Vijila (2011) attempted to evaluate the effectiveness of organizational climate dimensions in IT organizations of Bangalore, Chennai, Coimbatore and Pondicherry and its role in inducing job stress among the women executives. The researcher has identified the causes of stress among women employees and the relationship between organizational climate and job stress. Therefore, it is suggested to the IT companies, that job redesign and organizational change may be the preferred approaches to stress management because this will focus on reducing or eliminating sources of problems in work environment.

Thus these integrated studies on the stress and its various aspects provide strong evidence to the cause and effects of stressors in organization. However, specific studies on organizational climate and stress with special emphasis on Women IT professional are rare. While each job has its stress, IT jobs cause more stress as they are mostly contractual with less job security but high pay and entail strong competitiveness along with a globalized life style. So the present study is centered with how the organizational climate affects stress level of women employees in the IT sector. This is particularly relevant because jobs in IT is the most coveted one in modern India and the most brilliant section of the youth specially women enter into this sector.