CHAPTER II

REVIEW OF LITERATURE

2.1 INTRODUCTION

Review of related literature is an important pre-requisite for actual planning and execution of any research work. We should not neglect a particular things because it is of past and should not accept a new one because of its newness. It is only with the reference to old that a new thing can be learned. It is necessary to connect previous knowledge with the new idea to be grasped. It means that to learn a new thing our previous knowledge must be brought to the forefront. It is imperative for a review of previous studies on the subject before embarking upon making a fresh study. In this chapter an attempt has been made to take cognizance of studies, which has relevance to present problem. Sometimes the studies reviewed could not be classified into the areas concerned. The review was intended to provide a background to the study that followed and it was thought that such an attempt would be of great help for the formation of hypothesis.

2.2 THE CONCEPTS OF STRESS

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.

First to use the term in a biological context, Selye continued to define stress as “the non-specific response of the body to any demand placed upon it.”

Selye first described this reaction in 1936 and coined it the General Adaptation Syndrome (GAS). The GAS includes three distinct stages: a) alarm reaction, b) stage of resistance c) stage of exhaustion

Present-day neuroscientists including Bruce McEwen and Jaap Koolhaas believe that stress, based on years of empirical research, “should be restricted to conditions where an environmental demand exceeds the natural regulatory capacity of an organism.” Despite the numerous definitions given to stress, homeostasis appears to lie at its core.

A search within the Microsoft Word thesaurus identifies pressure, strain, anxiety, constant worry, nervous tension, tension, trauma, and hassle as synonyms for stress.

Within the Compact Oxford English Dictionary, stress is also used as a verb to mean ‘subject to pressure, tension, or strain.

Keil (2004) stated that it is worth noting that stress “is defined by reference to two types of physical force that are, in fact, in asort of opposition to each other” (p. 662).
Based on Merriam-Webster’s Online Dictionary (2004), stress means the deformation caused in a body by such a force or a physical, chemical, or emotional factor that causes bodily or mental tension and may be a factor in disease causation. Also means strain or pressure.

Copstead & Banasik (2005) described stress as a state of tension leading to a disruption or threat to homeostasis.

The first and most generic definition of stress was proposed by Hans Selye: “Stress is the nonspecific response of the body to any demand.” mentioned by Fink, (2009).

The concept of stress was introduced to physiology in the 1930s by Hans Selye, who defined it as a non-specific response of the organism to any pressure or demand. The concept was then embraced by psychology and other social sciences, as well as by social policymakers, and ultimately made its way to everyday vocabulary. The universal embracing of this concept to this day goes to prove that it refers not only to an important theoretical problem, but also touches on a real and critical aspect of our lives.

The concept of stress was first introduced in the life sciences by Selye Hans in 1936. It was derived from the Latin word ‘stringere’; it meant the experience of physical hardship, starvation, torture and pain.
According to Lazaras, (1976): stress occurs when there are demands on the person, which taxes or exceeds his adjustive resources.

Selye (1975) when our balance or equilibrium is disturbed by excessive pressure from imposed change or other environmental stressors our body uses up considerable amounts of adaptation energy trying to restore the balance. In this respect, humans have evolved with the capability to appraise the stressor in the short term and control the acute stress response. The difficulty lies when the individual can no longer manage the pressure or the stress appraisal has been ineffective.


However, Segerstrom and Miller’s (2004) meta-analysis of stress research of more than 300 studies over the past 30 years, found that psychological challenges are capable of modifying various features of the immune system and that behaviour was a potentially important pathway linking stress with the immune system. In fact Jones and Bright (2001) argue that stress should be seen as an umbrella term including a range of environmental stimuli and
personality factors. Stress was thus seen simply as a stimulus that could produce changes in our behaviour, cognition, emotion and physiology.

Lazarus (1999) proposed a more transactional approach to stress incorporating an interactive relationship between the person and the environment. He believed that stress occurred when the person appraised the situation as exceeding their adaptive responses.

Mc Grath (1976), Stress is involved in an environmental situation that perceived as presenting demand which threatens to exceed the person’s capabilities and resources for meeting it, under conditions where he or she expects a substantial differential in the rewards and costs from meeting the demand versus not meeting it.

Hazards, (1994) Stress is the term often used to describe distress, fatigue and feelings of not being able to cope. The term stress has been derived from the Latin word ‘stringer’ which means to draw tight. The term was used to refer the hardship, strain, adversity or affection. Stress is an integral part of natural fabric of life. It refers both to the circumstances that place physical or psychological demands on an individual and to the emotional reactions experiences in these situations.

According to Selye (1976), stress is caused by physiological, psychological and environmental demands. When confronted with stressors, the body creates extra energy and stress occurs because our bodies do not use up all of the extra energy that has been created.
Many people still get confused about pressure and stress, yet there’s a great deal of difference between the two. We all experience pressure on a daily basis, and need it to motivate us and enable us to perform at our best – ask any athlete or actor. However, if we experience too much pressure without the opportunity to recover, we feel unable to cope and stress is the result.

2.2.1 Biological concept of stress

Selye, (1978) proposed that stress was a biological response: “the state manifested by a specific syndrome which consists of all the non-specifically-induced changes within a biologic system” (p.64). Selye (1978) pointed out that a state could be recognized only by its manifestations; for instance, the state of stress by the manifestations of the stress syndrome. He defined stress as an adaptive or defensive reaction to an event or stimulus. He has labeled the defense reaction or body’s response to stress as the General Adaptation Syndrome (G.A.S.), which occurs in three stages: the alarm reaction (A.R.), the alarm resistance (A.R.), and the stage of exhaustion (S.E.).

The alarm reaction is a physiological response for alerting the defensive forces in the organism. In this stage, blood is diverted toward the skeletal muscles in order to prepare them for action. If the stress exposure remains, the stage of resistance or adaptation will follow. According to Selye, this stage is quite different or sometimes the opposite of the alarm reaction. The longer this stage lasts the greater the danger to the person. If an individual accepts the source of
stress as a necessary part of life, the stressor may persist indefinitely. The person then gradually becomes more susceptible to a wide range of stress-related problems and diseases, such as headaches, hypertension, and cardiovascular disease (Magill, 1993).

With long-term stress exposure, the individual will enter into the third stage, the stage of exhaustion. If the stressor is extremely intense and persists over a long period of time, the exhaustion stage sets in, and the risk of emotional and physical problems increases. In this stage, the individual experiences symptoms of exhaustion, such as loss of morale and feelings of loss of control (Rice, 1999), and a final collapse will occur.

In Selye’s system, the precise nature of the source of stress is unimportant, as the physiological stress response does not depend on the nature of the stressor. Selye believed that if the event is stressful for individuals, the individuals’ bodily reaction remains the same as the G.A.S stage. His opinion largely ignored psychosocial factors however, including the emotional component as well as individual interpretation of stressful events.

2.2.2 Cognitive concept of Stress

In contrast to the biological response definition of stress, Lazarus and Folkman (1984) proposed that an individual’s perception of an event was a direct result of their cognitive appraisal of the event.
Two cognitive processes, appraisal and coping, are important to the person/environment transaction.

From this point of view, cognitive appraisal is a process of either consciously or unconsciously evaluating one’s performance whilst interacting with the environment (Lazarus, 1999).

According to Lazarus and Folkman (1984), cognitive appraisal is the evaluative process used by the individual to determine why and to what extent a particular transaction or series of person-environment transactions results in stress. Simultaneously, cognitive appraisal is also a process through which an individual evaluates and manages their environment and their emotional and behavioral responses. The perceived demands and pressures produced within these ongoing interactions may result in varying levels of stress for many individuals. The individual’s response to such perceived stresses can also vary greatly. For example, one person may respond with anger, another with anxiety, and still another feel challenged to engage and interact in a more constructive manner.

Lazarus (1999) proposed that increasing levels of dysfunctional stress occur when an individual perceives that they do not have the necessary interpersonal and/or physical resources to successful negotiate or cope with the demands or pressures emanating from the environment.
From Lazarus’s (1999) perspective, cognitive appraisal of the situation is an important factor within the stress situation. Lazarus and Folkman (1984) considered cognitive appraisal essential for understanding stress for two reasons: to understand variation factors among individuals under an event and the factors affecting this interaction, and secondly to distinguish between benign and dangerous situations in which individuals survive and flourish. Before proceeding, some appraisal-related terminologies in the cognitive appraisal of stress should be clarified.

Lazarus (1999) described three types of cognitive appraisals – primary, secondary and reappraisal – that individuals use to evaluate their situation. Primary appraisal is an evaluation of what is at stake. Primary appraisal describes the way people evaluate a potentially stressful situation relation to their own goal commitments, values, beliefs about self and the world, and situational intentions. Goal commitment has been found to be a stronger factor influence on action than values (Lazarus, 1999).

One can have values without acting in their interest, but the term goal commitment refers to the fact that an individual will attempt to attain a goal. If there is no goal commitment, a stress reaction will not occur because there is nothing of adaptational importance to interrupt the individual’s routine. In contrast, if an individual perceives a situation as harmful, threatening or challenging, stress and its related emotions will occur.
**Lazarus (1999)** concluded that as a result, when the condition of stress is occurring, an individual would make an appraisal.

In addition, **Lazarus and Folkman (1984)** have distinguished three kinds of primary appraisal namely: irrelevant, benign-positive, and stressful. Irrelevant appraisal is the transaction that carries no implication for an individual’s well-being. In this kind of appraisal, individuals have nothing to lose or gain. Benign-positive appraisal occurs when the outcome of an encounter is perceived as a positive or pleasurable emotion such as joy, love, happiness, or peacefulness. Stress appraisals include harm/loss, threat, and challenge. Damage to an individual may be sustained in a situation of harm/loss, such as in debilitating injury or illness, recognition of social esteem damage, or loss of a loved or valued person. Threats to central and extensive goal commitment are the most damaging life events for individuals.

Threat and challenge focuses on the future: those individuals have uncertainty about what will happen. According to **Lazarus (1999)**, threat and challenge can occur in the same situation or in a continuing relationship, and the more individuals are confident in overcoming obstacles and dangers, the more likely they are to feel challenged rather than threatened. Threat appraisal is different from harm/loss appraisal as it permits anticipatory coping and threat concerns harm/losses that have not yet taken place (Lazarus & Folkman, 1984). Threat is characterized by negative emotions such as fear, anxiety, and anger. Furthermore, threat has an important inference for adaptation. Challenge appraisal is different from threat in
that it is characterized by pleasurable emotions such as eagerness, excitement, and exhilaration. Moreover, challenge has important implications for adaptation.

Lazarus and Folkman (1984) pointed out that challenged individuals are more likely to have better morale as they feel confident about demanding encounters. Threat or challenge varies greatly according to situational demands, constraints, and opportunities, which individuals are able to recognize.

Secondary appraisal refers to the cognitive-evaluative process in which individuals evaluate their resources for dealing with a stressful person-environment. Secondary appraisal also includes an evaluation of the likelihood that a given coping option will result in the satisfaction of that desire, as well as the likelihood that the individual can apply effective strategies (Lazarus & Folkman, 1984).

At this point, Magill (1993) indicated that individuals would determine their ability to control or cope with the new situation by examining potential options for dealing with an event. Secondary appraisal may occur during or after primary appraisal. It is not necessary that primary appraisal come first as it operates independently of secondary appraisal.

According to Zohar, and Dayan (1999), both primary and secondary appraisal can exert a moderate effect on positive and negative moods. After primary and secondary appraisals are exerted,
reappraisal will occur. Reappraisal is the process of evaluating the stress potential of a situation based on new information. The result of this process may resist or nourish the pressures felt by individual. This can lead to an increase or decrease in stress.

Coping is the second cognitive process that Lazarus and Folkman (1984) described in their concept of stress. The concept of coping will be explained in more detail in the later stage of this chapter. The psychological approach to stress from Lazarus and Folkman (1984) focused on cognitive appraisal of the situation as the most important factor. They argued that an individual’s perception of an event plays a major role in the stress response. Individual perception is a combination of the perception of a threatening/challenging event and their perceived ability to cope with that event. This theory is similar to that of Cox (1987). According to these authors, stress is a dynamic system of interaction between the individual and their environment.

Cox (1987) defined stress as a perceptual phenomenon arising when an individual assesses the demand to the situation in relation to their ability to cope. From this point of view, when perceived imbalance in this comparison occurs, an experience of stress and a stress response will occur. If the coping is effective, the stress should be reduced. In contrast, if coping is ineffective, a prolonged exposure to stress will occur and may lead to functional damage. Cox’s system comprised five stages of stress. As individuals have psychological and
physical needs, the first stage is embodied by the sources of demand related to the individual and their environment.

The fulfillment of these needs is important to determining behavior. If there is an imbalance between the individuals’ perceived demand and the individual’s perception of their ability to meet this demand, the second stage of stress arises. In this stage, cognitive appraisal plays a crucial role as it does in Lazarus and Folkman’s theory (1984).

If the individual has high demand and they can cope with it, they will not be stressed. If the individual has high demand and they perceive a limitation of their ability, then stress arises. For example, the stress may arise if the individuals’ life style fails to match their aspirations. In the third stage, the response will be accompanied by physical, cognitive, and behavioral changes in an attempt to reduce the stressful nature of the demand. The fourth stage involves coping responses. Ineffective or inappropriate coping strategies may increase the experience of stress. The authors suggested that occurrences of prolonged or severe stress are often accompanied by functional and structural damage. Feedback is the fifth and last stage in this stress system. Feedback is an effective way of shaping the outcome at each of these stages and feedback will occur to all other stages in the stress system.

Cox and Mackay’s stress model focused on the imbalance between the perceived demand and perceived capability to cope with
situations. They also emphasized cognitive appraisal, similarly to the stress system offered by *Lazarus and Folkman (1984)*.

The view of stress from both *Cox (1987)* and *Lazarus and Folkman (1984)* focuses on the concept of demand. A demand in their point of view means a request or requirement for physical or mental action, and implies some time constraint (*Cox, 1987*). A demand is an important concept and as *Cox (1987)* pointed out, stress may arise when there is an imbalance between the perceived demand and the person’s perception of his capability to meet that demand.

### 2.2.3 Social concept of stress

*Slavin, Rainer, McCready, and Gowda (1991)* extended the cognitive appraisal theory of *Lazarus and Folkman (1984)* into a social stress theory by proposing a multicultural model of stress. Slavin et al. argued that the *Lazarus and Folkman (1984)* theory reflected a white or Euro-centric cultural bias in its basic assumptions by emphasizing individual goals and achievements. In contrast, other cultures focus on harmony and the well-being of the family, tribe, or group.

*Slavin et al. (1991)* suggested that there are four ways that the cultural group affects the nature and frequency of certain stressors. Firstly, being a member of a minority group can increase the frequency of stressful events. Secondly, a member of oppressed groups has an increased likelihood of experiencing acts of
discrimination. For example, gay students may be discriminated by their friends, family, and community. Thirdly, those who are of lower socio-economic status, poor, or lack political power face greater stress than advantaged groups due to monetary and lifestyle restraints. Finally, a social costume unique to the person’s culture can result in prolonged perceived threat of discrimination, and the stressful conditions of poverty and racism can lead to a chronic state of hyper-attention and hyper-sensitivity to events. This model is offered as an extension to the cognitive appraisal theory, and may be useful in terms of conceptualizing the individual’s interpretation of stressful events in relation to socio-cultural factors.

To sum up, Selye (1978) clearly focused on stress as a biological response of an individual to a wide range of stimuli. Selye emphasized the non-specific nature of the stress response. In Selye’s system, the precise nature of the source of stress is unimportant, as the physiological stress response does not depend on the nature of the stressor.

The psychological approach to stress is best represented by the work of Lazarus and Folkman (1984). They claimed that cognitive appraisal is the key to stress responses. Lazarus and Folkman argued that it is the individual’s perception of an event that plays a major role in the stress response. Individual perception is a combination the perception of threatening events and the perceived ability to cope with that event.
**Slavin et al. (1991)** extended the cognitive appraisal theory into a social stress theory by proposing a multicultural model of stress. They suggested that membership of cultural groups can affect the nature and frequency of certain stressors and that a member of an oppressed groups has an increased likelihood of experiencing acts of discrimination. Also, those of lower socio-economic status, or who lack political power, or have social costumes unique to the person’s culture, can have alternative forms of stress coping.

For the purposes of this study, stress is defined as the level of biopsychophysiological response an individual has to either a given event, or culmination of life events. The severity of this response is in direct relation to firstly how threatening or distressing one perceives the events, and subsequently the perceived ability to cope. How an individual responds to a given event is determined by a complex interplay of physical (biological), emotional (affective), cognitive, and behavioral responses.

Despite many opposing approaches to stress (Cox, 1987; Lazarus & Folkman, 1984; Selye, 1978; Slavin, et al., 1991), all of the theories discussed agreed that stress could increase the risk of illness. Although stress is not the sole cause of many disorders, it is a significant contributor to their development.
2.3 DEFINITION OF STRESS

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

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

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 within 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 behavioural responses.

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.

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.

2.4 FACTORS INFLUENCING STRESS

Both the individual and organizational factors influence stress.

2.4.1 Demographic factors and stress

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

2.4.1.1 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 a 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 a higher rate of stress because women experience a 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 behaviour. He reported that age and job level can have a 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.

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.

2.4.1.2 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.

2.4.1.3 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.
Ansoni 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 a 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 overload, 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.

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.

2.4.1.4 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.

2.4.1.5 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 respondents belonging to nuclear family had expressed more interpersonal work stress.

2.4.2 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.

2.4.2.1 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 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.

Fulcheri et al. (1995) also observed that size of work loads, 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.

2.4.2.2 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 antecedental 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 antecedental 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 overload 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.

2.4.2.3 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.

2.4.2.4 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 work place 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.

2.4.2.5 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 antecedental factors. 173 managerial personnel from steel organization and 76 from petroleum organization participated in the study. It was found that the petroleum organization has acclimate which would assist the employees in stress reduction where as the steel organization may not have developed such a climate.

Basha and Uhashree (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 in different 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.

2.4.2.6 Organisational structure, leadership

According to Cartwright and Cooper (1997), psychological strain is often due to the culture and management style adopted within an organisation. They highlight that factors relating to organisational structure and climate that are stressors include hierarchical, bureaucratic structures that allow employees little participation in
decisions affecting their work; lack of adequate communication between managerial and non-managerial levels; cynicism regarding leadership and attempts by employees to further their own interest at the expense of others.

Kahn and Cooper (1993) also indicate that limited opportunities for advancement, insufficient performance feedback, performance assessment measures being inadequate and biased control systems and culture within the organisation, may be perceived as potential stressors.

2.4.2.7 Stressors and Work

Warshaw (1982, cited in Steenkamp, 2003) maintains that work stressors can only be fully comprehended if the importance of work to the employee is understood; be it for meeting the basic needs for employees, including maintenance, activity, social needs, self-esteem and self-actualisation. The perceived threat or failure to satisfy these basic needs represents a source of stress in the work place.

Research has highlighted that there are six major sources of work place stress which include: factors intrinsic to the job, the role of the employee, relationships at the workplace, organisational climate and structure, the lack of potential for career advancement, as well as factors external to the work environment (Cooper, Cooper & Eakes, 1988, as cited in Cartwright & Cooper, 1997). Figure 2.2 provides
an overview of the dynamics of stress, highlighting the sources of stress, symptoms and disease manifestation.

Stressful situations occur within schools because of the organisation’s culture, function, structure, the nature of the management procedures, insufficient training of teachers, time pressure, poor work conditions and poor consultation and communication (Brown & Ralph, 1998; Kyriacou, 1998).

It is further highlighted by Saptoe (2000, cited in Olivier & Venter, 2003) that the lack of discipline in schools, the abolishment of corporal punishment, unmotivated learners, redeployment, retrenchment, and retirement packages for teachers, large teacher-pupil ratios and a new curriculum approach all contribute to the increase in stress levels of teachers.

In addition, the management style of principals, new governing bodies for schools, the high crime rate, coping with current political change and corruption in state departments are also cited as factors contributing to the stress experienced by teachers (Marais, 1992, cited, in Olivier & Venter, 2003).

Several international studies have highlighted that teachers perceive the implementation of the inclusive model as having insufficient support resources, the policies were confused and that inclusion had been imposed from the top, without adequate consultation (Bender, Vail & Scott, 1995; Forlin et al., 1996;
Giangreco, 1997; Mitchell, Buist, Easter, Allen, Timutimu, MacFarlane, Moltzen & Quinn, 1999).

2.4.2.8 Leadership

Research indicates that principals play a vital role in the care for the personal welfare and emotional support of teachers. Isherwood (1973) found that principals that demonstrated excellent human relations skills heightened teachers’ loyalty and improved teacher satisfaction, whilst the lack in participatory management, lack of sensitivity to school and teacher-related problems and lack of support was reliably associated with teacher stress and burnout (Jackson, Schwab & Schuler, 1986).

Abbey and Esposito (1985) report that teachers who perceive greater social support from their principal’s report less stress than those who do not receive any social support. Setting up shared decision-making processes in schools, such as governance councils, allows teachers to participate in school processes rather than feel subordinate to their principals and coerced into participating in school and teacher responsibilities (Nagel & Brown, 2003).

2.4.2.9 Lack of influence

Cheek and Miller (1983, cited in Steenkamp, 2003) surmise that not being involved in decision making has been established across all occupational groups to be the most salient source of stress that
correlates with low self esteem. Several studies have also highlighted that teachers feel that they have a lack of control and decision-making powers due to the hierarchical nature of bureaucratic structures at school which concentrates power in the hands of a few (Dinham, 1993; Kyriacou, 2001; Louden, 1987; Pithers & Soden, 1999; Punch & Tuetteman, 1996).

In the post-election period in 1995, in developing new education legislation, the Western Cape Education department gave a great deal of attention to democratisation, and an emphasis was placed on creating a system which enabled “the nation to become part of the school system” in the creation of School Governing Bodies (SGBs). Providing a historical perspective on the challenges faced by the education system, Education Minister, Naledi Pandor, states that the emphasis on SGBs rather than the school leadership is to blame for the continuing difficulties. Pandor further states that the SGBs have become too powerful, rendering principals powerless. Hence the challenge forward would be to revise policies and practices, and to introduce legislation giving principals more power and authority. At the various schools, the input of the SGBs has been exceptionally well received, however, the problem faced is that most of their focus has been on their respective institutions and not on the community at large (Mail & Guardian, 2005).

There are numerous problems that face teachers as a consequence of recent government policies involving rightsizing or downsizing of teachers, the banning of corporal punishment,
redeployment of teachers, voluntary severance packages, early retirement and retrenchment. Radical changes in the education system are apt to take their toll on the well-being of the teacher corps as changes in social life and school practice bring about serious psychological adjustment problems (Ngidi & Sibaya, 2002).

The major problems facing teachers are due to the fact that the increases in responsibility have not been accompanied by appropriate changes in facilities and training in order to equip teachers with these new demands. Consequently teachers may feel threatened by these new demands, thus becoming stressed. Changes in education have been identified as a major factor among sources of stress in Britain (Cox, Boot, Cox & Harrison, 1988; Travers & Cooper, 1996).

2.4.2.10 Colleagues

According to Sutherland and Cooper (1990, p. 46), poor work relations are defined as “having low trust, low levels of supportiveness and low interest in problem solving within the organisation.” Supervisors, peers and subordinates can dramatically influence employees just by their interactions. Problems of instability may occur in situations where the relationship between a supervisor and subordinate is psychologically unhealthy. Competition amongst colleagues and differences in personality clashes amongst fellow workers can give rise to stress (Cartwright & Cooper, 1997). Jarvis (2002) found that factors such as social support amongst colleagues
and leadership style have an impact on levels of stress amongst educators.

Negative interpersonal relations and the absence of support from colleagues or superiors can be significant stressors for employees (Driscoll & Beehr, 2000). Conversely, having access to social support from other people in the organisation can reduce psychological strain (Beehr & McGrath, 1992) and alleviate emotional exhaustion (Greenglass, Burke & Konarski, 1998).

According to Sutherland and Cooper (1990), the quality of interpersonal relationships at work is important in that supportive relationships are less likely to create pressures associated with rivalry, bickering and gossip mongering. In addition, the superior-subordinate relationship can be potentially stressful when the leadership style is authoritarian, lacks understanding that feedback about performance and recognition and praise for effort are beneficial for boss-subordinate relationship. In conjunction with this, Cartwright and Cooper (1997) indicate that in situations where the relationship between supervisor and subordinate is psychologically unhealthy, problems of emotional instability may occur.

2.4.3 Task Demands
2.4.3.1 Work Conditions - Quantitative Overload

According to Hans Seyle (cited in Sutherland & Cooper, 2000), a certain level of arousal is needed for optimal performance, but when the arousal exceeds our ability to meet the demand placed on
the employee, a feeling of burnout is experienced. In contrast, when employees are not challenged or stimulated by a job, or do not believe that their contribution is valued; feelings of boredom, apathy and poor morale are experienced.

Having too much work to do, which is referred to as quantitative overload, often results in employees working extended hours, and this is often associated with an increased cigarette smoking, increased alcohol consumption, and other stress symptoms (French & Caplan, cited in Cartwright & Cooper, 1997).

2.4.3.2 Understaffing

Classroom discipline is a significant source of stress (Jarvis, 2000), and this situation is exacerbated when teachers are faced with having to deal with pupil-teacher ratios of 60:1. At certain schools there are 15 teachers to 1050 pupils, and this relates to unacceptable working conditions (Mail & Guardian, 2005).

2.4.3.3 Overtime

Various researchers have indicated that administrative work done outside the scope of the classroom as a result of preparation or planning is a source of stress to teachers (Dinham, 1993; Kyriacou, 2001; Louden, 1987; Pithers & Soden, 1999; Punch & Tuetteeman, 1996).

In a survey by the Scottish Council for Research in Education, it was revealed that formal hours established for teaching amounted to
35 hours per week. However, the mean number of hours worked in a seven day period surveyed was 42.5 hours; seven and a half hours in addition to the 35 hours worked, which in effect meant that teachers worked a six-day week. Furthermore, work expanded into evenings and into weekends (Johnstone, 1993).

2.4.3.4 Qualitative Overload/ underload

Qualitative overload, as a source of stress, is linked to low levels of self-esteem, as individuals lack the necessary skill to do a new job. In contrast, qualitative under load is damaging, as the individual is not given the opportunity to use acquired skills and abilities, resulting in feelings of powerlessness to demonstrate talents (Sutherland & Cooper, 2000).

According to Udris (as cited in Sutherland & Cooper, 2000), qualitative overload is associated with job dissatisfaction, tension and low self-esteem, whereas qualitative under load is linked to dissatisfaction, depression, irritation and psychosomatic complaints.

Hall (cited in Chaka, 1998) concludes that a high labour turnover could result from under stimulation.

In addition, Chaka (1998) indicates that a person’s physical and mental wellness could be adversely affected by work that is monotonous, dull and repetitive.
2.4.3.5 Role of Administration

Various studies have highlighted that time pressure with regards to administrative demands and excessive paper work are major sources of stress for teachers, as there is inadequate time for preparation; unrealistic deadlines imposed and issues concerning the workload of teachers (Dinham, 1993; Kyriacou, 2001; Louden, 1987; Pithers & Soden, 1999; Punch & Tuutteman, 1996).

2.4.4 Stress Sources relating to Role in Organisation

According to Sutherland and Cooper (2000), organisations are continually reinventing themselves and as a consequence, changes to job roles are common. The impact of changes in the workplace can alter the nature of job roles, causing role ambiguity or role conflict, or additional demands, resulting in role overload.

Role ambiguity, role conflict and level of responsibility for others are often regarded as the major sources of stress relating to a person’s role in the organisation (Cartwright & Cooper, 1997).

2.4.4.1 Role Overload and Responsibility

Role overload, referring to the number of different roles an individual has to fulfill, can lead to excessive demands on the individual’s time and may create uncertainty about the ability to perform these roles adequately (Driscoll & Cooper, 2002).
French and Caplan (cited in Sutherland & Cooper, 2000) posit the view that being responsible for the work and performance of others, demands more interaction with others, and is thus more stressful than being responsible for equipment, budgets and other issues.

2.4.4.2 Role Ambiguity

Role ambiguity refers to the extent to which employees lack clarity about their role or the task demands at work (Spector, 2000). It occurs when an employee does not understand or realise the expectations and demands of the job, or the scope of the role (Kahn & Cooper, 1993).

Research evidence has shown that role ambiguity has been associated with tension and fatigue, intention to quit or actually leaving the job, and high levels of anxiety, physical and psychological strain, and absenteeism. The stress arising from unclear objectives or goals can lead to job dissatisfaction, a lack of self confidence, a lowered sense of self esteem, depression and low work motivation, increased blood pressure and pulse rate, and intentions to leave a job (French & Caplan, 1970; Kahn, 1965; Margolis, 1974). According to Driscoll and Beehr (2000), and Zohar (1997), research has demonstrated a consistent link between role ambiguity in a job and high levels of psychological strain and burnout.

Role ambiguity involves a lack of clear and consistent information about duties, tasks, responsibilities and rights (Smylie,
The roles and responsibilities of teachers are changing as schools are attempting to create inclusive school communities (Sands, Kozleski & French, 2000).

Educators are faced with learners with disabilities within their classes, and many teachers feel unprepared and fearful of working with learners with disabilities (Kokhar et al., 2000), as they are not confident in their ability to fulfil the tasks that are needed to support inclusive education (Buell, Hallam & Gamel-McCormick, 1999).

Previous research (Forlin et al., 1996; Mastropieri & Scruggs, 2000; Soto & Goetz, 1998), indicates that inclusive education makes additional demands on teachers, and that teachers’ sense of efficacy in including learners with disabilities in their mainstream classes, play a defining role in the successful implementation of inclusive education.

Inclusive education, as indicated by Kyriacou (1998), changes the fundamental responsibilities of teachers in mainstream classes, and the need to cope with the change is listed as a major source of stress for teachers.

2.4.4.3 Role Conflict

According to King and King (1990), role conflict arises when an employee experiences incompatible demands or incompatible goals surrounding tasks connected with their job which can induce negative emotional reaction due to perceived inability to be effective on the job.
Furthermore, having to do tasks that are not perceived to be part of one's job role can potentially lead to stress associated with role conflict (Cooper & Sutherland, 2000). Cartwright and Cooper (1997) maintain that people who have a more flexible orientation to life, suffer less from role conflict than people with high anxiety levels.

### 2.4.5 Individual factors and Extra-Organisational Stress

According to Driscoll and Cooper (2002), individual differences may play a major role in the relationship between work-related stressors and psychological strain.

Internal characteristics are found to be one of the most important sources of stress, as it not only contributes to teacher’s susceptibility to stress, but might also dictate how teachers handle the stress that they encounter and what they are able to tolerate (Kaiser & Polczynski, 1982). The many different personality variables that could impact on work stress include:

#### 2.4.5.1 Type - A Behavioural style

This behavioural style according to Cooper and Bramwell (1992) is characterised as aggressive, ambitious, hard-driving, impatient, seeking to control and expressing time urgency. It may lead to both positive (high performance), and negative (high strain and burnout) outcomes. Type-A characteristics are more likely to create
strain for themselves by increasing their workload, and often appraise events to be more stressful than do the Type-B counterparts.

Patel (1991) argues that individuals are unique, and given a stressful situation, no two teachers will respond to stress in the same way. The response will largely depend on the personality type of the individual; one teacher may experience a situation as extremely stressful, while the next teacher might experience it as challenging and exciting (Fisher, 1994).

2.4.5.2 Negative Affectivity

Negative affectivity reflects a stable tendency to experience low self-esteem and negative emotional states; individuals have a gloomy view of the world, and may be more sensitive to stressful conditions (O’Driscoll & Cooper, 2002).

2.4.5.3 Self-efficacy

Brockner (1988) indicates that individuals with low self-efficacy tend to react more to external events because they experience more uncertainty about the correctness of their perceptions and emotional reactions. These individuals often seek social approval by conformity with others’ expectation, and tend to allow negative feedback on one area of their behaviour to generalise to other dimensions of their self-concept.

2.4.5.4 Locus of control
Situational control refers to the extent to which individuals believe they can exert control over a specific aspect of their job, such as the pace of work or the procedures for task completion, scheduling of tasks and decision latitude (O’Driscoll & Cooper, 2002).

Locus of control and self-esteem has been linked to teacher stress (Byrne, 1992; Farber, 1991; Fielding & Gall, 1982). For example, Byrne (1992) found that teachers who have low self-esteem tend to be more susceptible to stress and that teachers with high self-esteem tend to handle stressors in a more productive manner.

Similarly, teachers who have an external locus of control have been found to experience greater stress than teachers with an internal locus of control (Byrne, 1992; Farber, 1991; Kyriacou & Sutcliff, 1979).

2.4.5.5 Social support

There is consistent evidence that employees with more support from others experience lower strain and burnout (Lee & Ashforth, 1996), and where an employee is faced with potentially stressful demands, conflicts and problems in the work place, having support from others may reduce the impact of the pressures on the individual’s well-being (O’Driscoll & Cooper, 2002).

Although research (Ganster, Fusilier & Mayes, 1986) found no evidence of buffering or found reverse buffering; where the presence of social support exacerbated the amount of stress experienced, Greenglass, Fiksenbaum and Burke (1996) indicate
that support from colleagues and supervisors had a significant buffering influence on teacher burnout, and feelings of isolation exacerbated the stress experienced.

Isolation and stress were assessed in 1110 Canadian teachers, and it was found that a strong positive correlation exists (Dussault, Deaudelin, Royer & Loiselle, 1997). Van Dick (1999) highlighted in the assessment of 424 teachers in Germany, that social support had both a positive effect on health and also a buffering effect in respect of work stress.

2.5 SOURCES OF STRESS WITHIN AN INCLUSIVE ENVIRONMENT

Despite an increase in the number of learners with special educational needs included into mainstream classes in South Africa, teachers’ experience of inclusive education remains very limited (Engelbrecht et al., 2001).

Although the number of pupils needing special education has increased, schools have not been successful in retaining teachers, specifically where teachers are faced with learners with emotional and behavioural disorders (Akin, 1988; George, George, Gersten & Grosenick, 1995).

Research (George et al., 1995; Lawrenson & McKinnon, 1982; McManus & Kauffman, 1991) reveals that excessive administration and lack of support; isolation from colleagues and
dissatisfaction with parental support, are consistently cited as sources of stress amongst educators in inclusive environments.

In addition, students with emotional and behavioural disorders failing to make expected progress (Zabel, Boomer & King, 1984) as well as physical and verbal attacks (Johnson, Gold & Vickers, 1982) often create stress and dissatisfaction in teachers.

Similar findings were reported regarding the inclusion of learners with Down’s syndrome (Engelbrecht et al., 2001). Research has highlighted that high stress levels are associated with adapting the curriculum to meet the learners’ needs and sustaining an effective learning environment for learners with Down’s syndrome. This is attributed to the lack of effective in-service or pre-service training associated with the implementation of inclusion and special needs (Engelbrecht et al., 2001).

In their investigation, Eloff et al. (2000) revealed that overall the most stressful issues for teachers regarding the implementation of inclusive education related to teachers’ perceived professional self-competence, administrative issues and those related to the behaviour of learners. In addition, limited contact with parents as well as the parents’ perceived lack of understanding of learner’s capabilities and long-term prognosis, inadequate pre-service or in-service training and the reduced ability to teach other learners effectively also proved to be stressful.
Administrative issues, involving taking full responsibility and accountability for educational outcomes of learners as well as adapting the curriculum and adjusting the unit plans to support the learners’ needs in an inclusive environment, were also contributing factors to the high levels of stress experienced by teachers (Eloff et al., 2002).

However, it appears from a survey conducted in both the Gauteng Province and the Western Cape that teachers regarded the inclusion of physically disabled students in their mainstream classes as relatively easy, and were experiencing no stress in many instances (Eloff et al., 2002).

2.6 ENVIRONMENTAL FACTORS

Environmental factors causing stress are those systemic factors that are not intrinsic to teaching, but depend on the climate of the educational institution or wider context of education including the political domain. Teachers often cite the lack of government support, lack of information regarding changes, constant change and the demands of the National Curriculum as amongst their greatest source of stress (Travers & Cooper, 1997). These “trickle down” systemic factors act in addition to and feed the dynamics of the individual organisation (Jennings & Kennedy, 1996).

In addition to the changes, teachers are also faced with having to deal with negative publicity, poor or low status, lack of reward or recognition and the social problems of pupils in the area in which the
school is located. Gangsterism has been the most widely publicised by the media (Govender, 2005).

2.6.1 Violence and Danger caused by pupils

A survey conducted in 1998, by the Institute of Criminology, revealed that crime and violence is endemic to both primary and secondary schools. The following findings were tabulated:

- The major problems in all schools were the theft of property and the possessions of weapons.
- Fighting/physical violence and vandalism were reported in 95% of schools.
- Drug abuse was a serious concern in 90% of the schools.
- Bullying and intimidation were reported in over 75% of schools, assault in 60% of the schools, gangsterism in 50% and rape in seven of the twelve secondary schools (National Department of Education, 2001).

2.6.2 Lack of Reward/Recognition

Smith and Bourke (2011) indicate that one of the major contributing factors to teacher stress are those arising from lack of rewards and recognition. Teacher dissatisfaction regarding the education department’s reward system has been an on-going battle for educators in South Africa. In 2004, South Africa witnessed its biggest strike in a single sector in history; in which the majority of the 800
000 (Cape Town-50 000; Durban-45 000 and Pretoria-90 000) unionised government employees took mass action to protest against the derisory 6% wage offer increase. In addition, the deterioration of conditions of service as well as the decline in infrastructure and the quality of service delivery in health and education have resulted in an exodus of teachers, to work overseas (*The Star, 2004*).

In their research, *Olivier and Venter (2003)* found that respondents indicated that salaries cause a great deal of stress, especially taking into account the after-hours input their jobs demand from them and how negatively their salaries compare with those of people in the private sector and other government departments (*Olivier & Venter, 2003*). That is perhaps the reason why some teachers embark on second jobs, mostly to the detriment of the school and the learners. Others search for other propositions and change to completely new jobs for the sake of better incomes (*Olivier & Venter, 2003*).

**2.6.3 Negative publicity**

Ongoing public criticism, the lack of respect for teachers as professionals by pupils, parents and society and the on-going public scrutiny, underscore teacher burnout and stress as one of the most common and serious afflictions amongst educators (*Cox & Wood, 1980; Dunham, 1992; Timpane, 1982*).
The media is often critical of the shortcomings in the education system. The commentaries often imply that teachers’ work is not complex, and that educators could expend more effort. These reports often exacerbate the stress experienced by teachers (Naylor, 2001).

A recent report on teacher misconduct, involving 269 teachers dismissed for rape and sexual abuse, fraud and financial mismanagement, administering corporal punishment and assault, highlights that findings are often generalised to include all teachers in the misconduct of colleagues. The general secretary of the South African Democratic Union (SADTU), emphasised that although between 90% and 98% of the cases were found in favour of the employer, the union rejected any generalisations made to the rest of the teaching profession (Sunday Times, 2005).

2.7 CONSEQUENCES OF STRESS

According to Kyriacou (2001), symptoms of stress in teachers are manifested in anxiety and frustration, impaired performance, and ruptured interpersonal relationships at work and at home. Statistics reveal that teachers hand in more medical insurance claims than persons in other professions, have a four year shorter life expectancy than the national average and often blame stress as a reason for sick leave from school (Van Wyk, 1998).

From an organisational point of view, the consequence of stress results in a significant loss of skilled and experienced teachers through resignation and/or premature retirement from all levels of the teaching
workforce. The stressed teachers who remain within the profession, on the other hand, are likely to be less effective in key areas such as lesson organisation, student behaviour management, responsiveness to students and self-confidence relationships with parents. In individual human terms, the cost of teacher stress can be huge and include impaired health, reduced self-confidence and self-esteem and damaged personal relationships. If early retirement or resignation is taken, often the consequence is dramatically reduced economic status (Warren & Toll, 1993).

Researchers generally agree that a certain degree of stress is a normal part of life, but prolonged stressors could lead to symptoms that are physical, psychological or behavioural (O’Driscoll & Beehr, 2002). Figure 2.3 provides an overview of the response to stress.

2.7.1 Physiological effects of stress

Cartwright and Cooper (1997) postulate that when an individual is confronted with a challenging situation, tension or pressure, the sympathetic nervous system can be triggered to activate a wide variety of hormonal secretions. The hypothalamus, when it identifies danger, triggers the pituitary gland to release hormones that causes the adrenal glands to increase its secretion of several hormones, including cortisol which provides more energy to the body; epinephrine which increases both the rate and strength of the heart’s contractions and raises blood pressure; and norepinephrine, which
similar to the body’s sympathetic nervous system, acts as the body’s fight or flight system when faced with emergencies (Rice, 1992).

According to Tucker-Ladd (1996), the hormonal responses determine the severity of the individual’s anxiety reactions, mind-set, energy level, level of depression, and physical state of health after experiencing a stressful event. Dollard (2002) however maintains that when the challenge is short term the body’s first reaction is adaptive, enabling the person to set in action energy resources to combat the stressor, however when these challenges are continuous, severe or repetitive the “normal physiological reaction may turn pathological” (Dollard, 2002, p. 6).

Researchers have linked many diseases to job stress. Some ailments are minor whilst others are deadly.

Landsmann (1977) highlighted that a survey conducted by the Chicago Teachers’ Union revealed that 56.6% of the participating teachers had suffered physical or mental illness related to their teaching occupations, and symptoms included migraine and sinus headaches; allergies; colds; post nasal drip; hypertension; bladder disorders; kidney disorders, bowel disorders; colitis; nervous stomach; acne and weight problems.

2.7.2 Psychological Problems and Behavioural problems
Stress has a marked impact on an individual’s psychological well-being. The most often reported symptoms are anxiety, frustration, passivity, aggression and depression, which often combine in a potent form to reduce productivity and performance. The UK Times Educational Supplement reported that a number of teacher suicides, specifically in England and Wales, are directly related to anxiety over workloads and school inspection (Bunting, 2000).

During 1996, a study by the Independent Education Union (IEU) in Victoria Australia found that teachers reported experiences of stress due to workload pressure, difficulties with management and poor staff-student relationships. The stress manifested in terms of irritability at home (59%) and in class (55%), anxiety (64%) and feelings of powerlessness (45%). Eighteen percent (18%) of the respondents reported psychosomatic complaints such as headaches, chronic fatigue, shingles and heart palpitations (Howard & Johnson, n.d).

In a survey of head teachers by the National Association of Head Teachers (NAHT) in May 2000, 40% of respondents reported having visited their doctor with stress-related problems in the previous year; 20% considered that they drank too much alcohol, and 15% believed that they were alcoholics; 25% suffered from serious stress related health problems including hypertension, insomnia, depression and gastrointestinal disorders (Jarvis, 2002).
Teaching is commonly recognized as one of the most stressful occupations in our nation. Teacher stress results in such consequences as early retirement, long and excessive absences, new teachers leaving during training, and an increase in teachers leaving the profession within their first five years (Bachkirova, 2005).

In recent years, professional satisfaction has been decreasing while job pressure has been on a steady rise for teachers. These issues have raised many questions about the growing problem of teacher stress (Guglielmi & Tatrow, 1998).

It has been reported that teacher stress affects the learning environment and ultimately prevents achievement of the teacher’s educational goals. This leads to disinterest, negligence, bitterness, and absenteeism among teachers, and can result in teachers leaving the profession (Guglielmi & Tatrow, 1998).

In North Carolina, about 28% of teachers who resign each year leave the profession due to a career change, health, being dissatisfied with teaching, teaching at a private or charter school, or for unknown reasons (Annual Report of the Reasons Teachers Leave the Profession, 2007).

Although leaving for a private or charter school is listed above, it is rare that this happens because private schools require most teachers to hold an advanced degree and teachers usually are not
compensated as well. In fact, half of private school teachers who resign each year do so, to teach at a public school (Miner, 2009).

Increasing attention has been given to understanding teacher stress to further study this alarming phenomenon (Blase, 1982).

Even though stress is quickly becoming a recognized occupational hazard of the teaching profession (Pettegrew & Wolf, 1982), little theoretical work on teacher stress has been attempted or completed (Blasé, 1982), and recently there have been no studies that have focused specifically on stress within the primary school environment.

The few studies that have been tried lacked subjects’ perceptions (Blasé, 1986) and have been flawed in other areas. Some studies have been focused on large urban school districts, which is not representative of smaller districts in which the majority of teachers are employed. Also, stress has not been dealt with as an organizational matter; meaning ways to lessen job related stress have not been discovered (Bacharach, Bauer, & Conley, 1986).

### 2.7.3 Teacher Stress, Strain, and Burnout

With teacher stress getting increased attention, it is important to understand what stress and teacher stress are. Hans Selye describes stress as the body’s non-specific response to any demand (1976). With teacher stress getting increased attention, it is important to understand what stress and teacher stress are. Stress results when people perceive
a situation as threatening and are unable to cope. Stress triggers the cerebral cortex and limbic system to carry messages to the hypothalamus. When these messages reach the anterior hypothalamus, the autonomic nervous system (ANS) is aroused which controls the heart, lungs, stomach, blood vessels, and glands (Palmer & Dryden, 1995).

The ANS is made up of both the sympathetic nervous system (SNS) and the parasympathetic nervous system (PNS). The SNS conserves energy levels, increases tears, gastric acids, mucus, and saliva which helps defend the body. The PNS aids in relaxation and helps restore a person to a state of equilibrium. In a stressful situation, the SNS prepares the body for action by increasing the strength of skeletal muscles, heart rate, sugar and fat levels, perspiration, mental activity, while reducing blood clotting time, intestinal movement, and tears.

The SNS also allows the bladder to relax, pupils to dilate, and most blood vessels to constrict (Palmer & Dryden, 1995).

During the stress response, the pituitary, thyroid, and adrenal glands are activated. The pituitary gland releases adrenocorticotropic hormone, which activates the adrenal cortex in order to increase arterial blood pressure, mobilize fats and glucose from adipose tissue, and reduce allergic reactions. The pituitary gland then releases thyroxin, which is a thyroid stimulating hormone. Thyroxin increases metabolic rate, respiration, heart rate, blood pressure, and intestinal
motility. Too much thyroxin and over activity of the thyroid gland can lead to anxiety attacks (Palmer & Dryden, 1995).

The adrenal gland produces adrenaline and noradrenalin, which is released into the blood supply. The adrenal gland increases heart rate and pressure in which blood leaves the heart, dilates gastrointestinal activity which leads to person to feel as if they have “butterflies” in their stomach (Palmer & Dryden, 1995).

Activity of the adrenal gland starts the stress reaction in which Hans Selye refers to as “The General Adaptation Syndrome” (1976). The General Adaptation Syndrome consists of three stages; the alarm stage, resistance stage, and the exhaustion stage. The alarm stage is the initial reaction to stress and comes about when a person first recognizes there may be a trouble and prepares to deal with the threat. This reaction is commonly referred to as “fight or flight.”

A person’s instinctive impulse draws from energy reserves and puts it immediately at their disposal to either defend one’s self (fight) or to run away (flight). The activation of the SNS and adrenal glands allows for hormones such as cortisol, adrenaline (flight), and noradrenalin (fight) to provide instant energy to take appropriate action (Selye, 1976).

In the resistance stage, stress is on the verge of being resolved. Homeostasis begins restoring balance and a period of recovery and renewal takes place. The exhaustion stage occurs if stress has
continued for some time. When this happens, the body’s ability to resist is lost and all energy supply is gone. The exhaustion stage may be referred to as adrenal fatigue, maladaptation, and dysfunction. If stress is not resolved by this point, overload and burnout may occur.

Teacher stress is described as any characteristic of the school environment that poses a threat to the teacher (Sutton, 1984). While these definitions are widely accepted, Guglielmi and Tatrow argue that there is no agreement on what stress is, as the term holds different meanings for different people (1998).

The difference in the definition of teacher stress is influenced by how that person is affected by their job demands, and their ability to cope with these demands (Blase, 1982). The impact of teacher stress depends upon an individual’s social support, personality characteristics, and job satisfaction (Guglielmi & Tatrow, 1998).

Two types of stress can ultimately affect teachers. Task based stress, such as dealing with disruptive students, refers to problems that are associated with a variety of specific tasks that teachers must perform in their teaching role. Role based stress, such as an absence of sufficient resources to perform adequately, refers to how teachers’ expectations of their role fit in with the actual work-related responsibilities needed to fulfill their role (Pettegrew & Wolf, 1982).
Stress within teaching is driven by the organizational factors related to the way in which teachers are expected to work (Hepburn & Brown, 2001).

Organizational factors that contribute to teacher stress can include unreasonable directed time budgets, excessive paperwork, unrealistic deadlines, and intimidating inspection regimes (Hepburn & Brown, 2001).

A teacher’s personality is a factor when explaining the amount of stress that is present. Teachers’ skills, motives, and perceptions of their work environment determine the amount of stress that may take place (Guglielmi & Tatrow, 1998).

A teacher who does not have a conflict between personal values and those of educational authorities, has a high ambition to succeed professionally, and is not easily upset or excited; tend to experience the least amount of stress (Bachkirova, 2005).

Teacher stress is closely linked to strain and burnout. Strain is any unpleasant behavioral, psychological, or physiological outcome in a teacher (Sutton, 1984).

In general, strain is the result of an interaction between a person and their environment. Strain is measured in terms of physiological dysfunction, psychological dysfunction, or behavioral dysfunction (Guglielmi & Tatrow, 1998).
Physiological dysfunction refers to any cardiovascular disease and bodily complaints (Sutton, 1984). Psychological dysfunction refers to depression, anxiety, and negative effect towards life and job.

Behavioral dysfunction explains any change in normal behavior such as drug abuse (Sutton, 1984), smoking, drinking, absenteeism, or unhealthy eating (Guglielmi & Tatrow, 1998).

Burnout is the emotional, mental, and physical exhaustion that comes about from job related stress and roughly describes any negative responses by teachers to work-related stress (Blase, 1982).

Teachers who are idealistic and enthusiastic are most vulnerable to burnout (Farber, 1991). Buffers for burnout include social support, sense of control, and dietary habits (Guglielmi & Tatrow, 1998). Burnout tends to occur when effort and coping resources fail too overcome stress, and stems from an individual perception of a significant discrepancy between effort and reward (Farber, 1991).

It is characterized by depersonalization and a decline in personal achievement. A burnout cycle begins when teachers show a decrease in effort and major valued outcomes, and an increase in job strain. Burnout is the end state of “burning out” which is the gradual attrition of important technical, psychological, and social resources (Blase, 1982).
Sutton (1984) found that there are two dysfunctional responses to burnout. First, teachers feel forced to do low quality work or not finish their work at all. This often leads to lower self-esteem, high blood pressure, and anxiety. Second, teachers may choose to keep up with the demand. This often leads to family problems, and a lack of sleep and relaxation (Farber, 1991).

Teachers can be considered burned out if they show attitudes that depersonalize students, as well as exhibit low levels of personal accomplishments in their work (Hastings & Bham, 2003).

Burnout can also be explained by ineffective performance with students which is a direct sign of a decrease in work satisfaction, involvement, motivation, and effort (Blase, 1982).

Burnout leads teachers to experience an increase in physical and mental problems, an increase in absenteeism, and a higher desire to want to leave the teaching profession (Hastings & Bham, 2003).

2.7.4 Causes of Teacher Stress

Teacher stress can be caused from a variety of situations. Stress often comes about when teachers have difficult negotiating various aspects of interactions with students (Hepburn & Brown, 2001) or from any circumstances that are considered too demanding, depriving of time, and interfering with instruction (Blase, 1986). Stress can best be explained by categorizing factors into first and second order
stressors. First order stressors directly interfere with teacher effort and can include student apathy, student disruption or discipline, poor student attendance, high student to teacher ratios (large classes), paperwork, prep work, irresponsible colleagues, obtrusive supervisors, lack of effective leadership such as assistant principals or principals, and seemingly non-supportive parents. Stressors that occur most frequently tend to be organizational issues dealing with students, administration, other teachers, and other work relationships (Blase, 1986). Second order stressors do not interfere directly with teacher effort and can include issues such as low salary, emotional fatigue, frustration, helplessness, stagnation, boredom, and loss of motivation or enthusiasm (Blase, 1986).

Stress among teachers can also be grouped into three categories: role demands, instructional problems, and interpersonal relationships (Sutton, 1984).

Role related stress is said to be the difference between teachers’ role expectations and their actual experiences within that role (Pettegrew & Wolf, 1982).

Role demand stressors include ambiguity, overload, conflict (Sutton, 1984), preparedness, and non-participation (Pettegrew & Wolf, 1982).
Organizational characteristics such as policies, structure, and processes can also be categorized as role demand stressors (Bacharach, Bauer, & Conley, 1986).

Instructional problems or task stress identifies problems associated with a variety of specific tasks that teachers must perform in their teaching role (Pettegrew & Wolf, 1982).

Instructional problems can include difficulties with student discipline, competence, inappropriate procedures for student placement, instruction, inadequate standardized tests, grading systems (Sutton, 1984), notification of unsatisfactory work performance, being physically threatened by students (Pettegrew & Wolf, 1982) and sparse or dangerous working conditions (Bacharach, Bauer, & Conley, 1986).

Interpersonal relationships refer to relationships teachers have with fellow professionals or community members within the educational environment. Network interaction and supervision may also fall into this category (Bacharach, Bauer, & Conley, 1986).

The most common stressors in this group are conflict with other staff members, and a lack of social support from supervisors and coworkers (Sutton, 1984).

Causes of teacher stress can also be broken down into environmental and individual stressors. Most stressors can be found in
the work environment and include unfavorable working conditions, heavy workloads, organizational problems, and paucity of resources, lack of support and or autonomy, and decision making. The work environment can also include physical stressors such as task-related noise, crowding, the size of the classroom and or school, safety or youth violence, as well as administrative pressures such as support from managers and role ambiguity (Hastings & Bham, 2003).

Individual characteristics include the unique attributes of teachers such as personality, age, gender, demographic background, the ability to establish and maintain supportive networks, cognitive evaluation of stressors, the ability to cope, type of teacher, and job dissatisfaction (Guglielmi & Tatrow, 1998).

Individual stress also can be associated with the compatibility between personal and educational values, ambition to succeed, sensitivity threshold, competitiveness, multiple roles for women teachers (such as parent, caretaker, homemaker, and teacher), and perfection (Bachkirova, 2005).

A major source of teacher stress can be directly attributed to the students. Through survey and interview responses, teachers most commonly refer to students as being responsible for most of their stress (Hastings & Bham, 2003).

Stress resulting from student discipline is associated with teachers having to play the different roles of babysitters, police
officers, or even harsh authoritarians, which can cause role demand overload (Blase, 1986).

Most teachers view disrespectful behavior, student attentiveness, and sociability as the most stressful student misbehaviors (Hastings & Bham, 2003).

Griffith, Steptoe, and Cropley (1999) found that primary classroom teachers suffer more stress than secondary teachers. Primary teachers are responsible for one class throughout the entire school year which makes teachers not only responsible for educational activities, but for moral and social development as well.

More responsibility, along with work pressure and student misbehavior, cause primary classroom teachers to have the highest level of stress. These behaviors along with student discipline management, student apathy, student achievement, and student absences all result in teachers experiencing increased stress (Blase, 1986).

2.7.8 Teacher Responses to Stress

Teachers have varied responses to stress. A response is brought on by stress stimuli, which are organizational characteristics that initiate a stress reaction in a given setting (Bacharach, Bauer, & Conley, 1986).
While some teachers develop confrontational strategies, others experience changes in behavior, emotional responses, or physical or physiological responses. Over time, teachers develop the technical, psychological, and social coping resources needed to effectively work with students (Blase, 1982).

The majority of coping strategies that teachers use come in the form of confrontational strategies. These strategies are used to reduce or eliminate external stress such as student related stressors (Blase, 1986).

Teachers confront classroom stress resulting from student discipline with strategies such as behavior modification, removing the student from class, scolding the child, isolation, inflicting fear, discussing the problem, active ignoring, paddling, and calling parents. Confrontational strategies used to deal with classroom stress resulting from student apathy include varied teaching techniques and materials, individual and personalized instruction, rewarding positive behavior, and striving to be entertaining (Blase, 1982).

Another form of confrontational classroom strategies is the development of adaptive strategies. Adaptive strategies do not directly affect the source of stress, but do manage the consequences for the teacher. These include ignoring the student, not putting extra work in, and giving up (Blase, 1982).
If confrontational strategies do not work, teachers often experience personal changes in behavior to cope with the stress. Most behavior changes that occur as a result of stressors are very unhealthy to the teacher. These changes can include smoking, excessive alcohol consumption, unwanted outbursts of anger, sedentary lifestyle, and sleeping problems (Guglielmi & Tatrow, 1998).

Teachers also express somatic complaints such as trouble falling asleep, back pains, poor appetite, and a decrease in their overall health and energy levels (Sutton, 1984).

Chronic stress symptoms may also occur if stress continues to be present in the day to day activities of a teacher. These symptoms include fatigue, increased illness, and the inability to concentrate (Hepburn & Brown, 2001).

Some teachers may also have an emotional response to unwanted stress. The most common feelings of emotion that occur are anger, depression, anxiety, and self-blame (Blase, 1986).

Teachers experience anger more than any other feeling as a consequence of work stress and is often expressed with strong negative feelings directed towards others. Stress can also lead to teachers being in a depressive state. This is when teachers have a general feeling of being out of control, and a belief that they have little probability of improving their situation (Blase, 1986).
In this state, teachers may also show signs of depersonalization, emotional exhaustion, lack of personal accomplishments, and a decrease in self-efficacy (Hastings & Brown, 2001).

Feelings of anxiety are mostly anticipatory and often occur when teachers expect negative consequences to occur (Blase, 1986).

As feelings of anxiety continue, teachers become less tolerant, patient, caring, and involved (Blase, 1986), and may even become unrealistically biased in their judgments and assessments of learners, which can result in negative outcomes for students (Abidin & Robinson, 2002).

Self-blame results in teachers expressing anger towards self, feelings of guilt, and feelings of self-pity (Blase, 1986).

Over time, self-blame can remove teachers emotionally and socially from their students. A loss of enthusiasm may also occur causing teachers to lessen their attempts of humor, elaboration of subject matter, and creative involvement (Blase, 1986).

Stress may also elicit a physical or physiological response from teachers. Some physical symptoms of stress include fatigue, tiredness, overworked, burn out, headaches, stomach aches, chest pains, sleepiness (Blase, 1982), trembling hands, shortness of breath, dizziness, restlessness, cold sweats, ill health, confused thoughts or difficulty concentrating, loss of memory, loss of appetite, trouble
falling asleep, and the ability to hold productive conversations with colleagues (Bacharach, Bauer, & Conley, 1986).

Some physiological symptoms of stress include an increase in blood pressure, heart rate and or cortisol (Guglielmi & Tatrow, 1998), irregular heartbeat, and nervousness (Bacharach, Bauer, & Conley, 1986).

Developing positive responses to stress will allow teachers to be more satisfied with their role as an educator and be a more effective educator in the classroom. A decrease in work satisfaction results in teachers being less involved and motivated, causing teachers to demonstrate feelings of resentment, frustration, boredom, irritability, anger, stagnation, helplessness, and depression (Blase, 1982).

Finding positive ways to handle stress will allow teachers to maintain their drive and commitment, thus making them continue to put forth the effort needed to being an involved, satisfied, and effective teacher. A proper response to stress via stress management techniques and healthy coping mechanisms keeps teachers actively involved in what they are trying to accomplish and allows them to fully invest themselves with their students (Blase, 1982). Teachers who are satisfied in their profession will have less attrition maintaining a stable educational workforce.

2.8 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.

**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.

**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.

**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.

**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 whereas non working women were more stressed due to environmental factors.

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.

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.
**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 workers 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.
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.

2.9 GENDER DIFFERENCES IN RELATION TO STRESS

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

**Beena and Poduval (1992)** conducted a study on sample of 80 executives in different organizations (40 male and 40 female) with in 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.
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.

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.

2.10 COLLEGE TEACHER’S STRESS

There are four major issues concerning the development of a definition of teacher stress. The first issue is whether to use the term
"teacher stress" to refer to the level of demands made on the teacher, or whether the term should refer to the emotional state engendered in a person in attempting to meet such demands. A second issue is, whether stress should refer to all demands (both positive and negative) or only to a negative one. The third issue involves the fact that teachers' emotional responses to their situation very much depends on their perception of situation and their coping ability. The fourth issue concerns how best to take account of the balance between the levels of demands made on teacher, or the teachers' ability to meet such demands.

Teachers have very important roles and responsibilities in teaching and learning processes and in achieving the overall goals of education. As it is impossible to think that an inefficient teacher will be able to fulfill the purpose of education, even the best teacher fails to do well under inconvenient conditions. However, the teacher has duties with vital effects over students like motivating students, planning class activities, providing knowledge and skills to students, maintaining discipline in the class and keeping parents informed on their children’s progress.

Hence, teachers need to be aware of enacting the multiplicity of their roles. The multiplicity of roles confronts teachers with numerous challenges including insufficient resources, overcrowded classes, lack of professional development opportunities, lack of parents cooperation, and low finical packages and status, to name a few. By its nature, teaching is one of the noblest professions as usually it is the
teacher who shapes the future of a child. As a result, teaching is a very fulfilling and rewarding profession. Students’ success in their lives can become tremendous sources of dignity and satisfaction for teachers. However, because of huge responsibilities and the deep-rooted sense of accountability, teaching is also a very stressful and demanding profession.

It is challenging in both its intellectual and physical dimensions: intellectually, because the profession requires teachers to constantly enhance their knowledge; and physically, because it requires them to be always dynamic, proactive and smart. Professional life forms the most important part of daily life of human beings and the effects of the professional life, therefore, have important implications for their social lives. So, human are affected from stress in their personal and professional life in various ways. Teachers, too, are affected from stress due to delicacy of their job.

In many countries college teacher’s job is often considered as one of the most stressful profession. In the last two decades, intensive researches have been carried out in USA and Europe concerning the sources and symptoms of college teachers’ professional stress. Studies in the field of teacher’s stress show that the greater part of stress is associated with the rapid pace of changes in education, particularly in 1980s and 1990s. Teaching profession is generally considered as a noble profession with lots of expectations from the parents towards their children’s education and the development of their personalities. These expectations may also contribute as a source of stress. Present
study attempts to identify the sources and level of occupational stress and also study its impact on certain demographic variables.

Research conducted in the United Kingdom (UK), United States of America (USA), Australia and New Zealand has identified several key stressors commonly associated with stress among academic staff. These include work overload, time constraints, lack of promotion opportunities, lack of regular performance feedback, inadequate recognition, inadequate salary, changing job role, inadequate management and/or participation in management, inadequate resources and funding and student interactions (Blix, Cruise, Mitchel, & Blix, 1994; Boyd & Wylie, 1994; Cross & Carroll, 1990; Daniels & Guppy, 1994; Doyle & Hind, 1998; Kinman, 1998).

According to Evers, Tomic & Brouwers (2005) and Kokkinos, Panayiotou & Dazoglou (2005), negative aspects of the teaching job such as disciplinary problems, students’ apathy, overcrowded classrooms, involuntary transfer, inadequate salaries, and lack of administrative support. Krause, in Carter, 1994 found that lack of resources, lack of time, excessive meetings, large class sizes, lack of assistance, lack of support, and hostile parents are the potential stressors.

Various studies have highlighted that time pressure with regards to administrative demands and excessive paper work are major sources of stress for teachers, as there is inadequate time for
preparation; unrealistic deadlines imposed and issues concerning the workload of teachers (Dinham, 1993; Kyriacou, 2001; Pithers & Soden, 1999; Punch & Tuetteman, 1996).

Several studies found a correlation between younger teachers and reports of higher stress levels (Malcolmson et al., 2003; Maslach et al., 1996).

Kahn and Cooper (1993) indicate that limited opportunities for advancement, insufficient performance feedback, performance assessment measures being inadequate and biased control systems and culture within the organisation, may be perceived as potential stressors.

Rutter, Hezberg and Paice (2002) found that high self expectation, securing financial support for research, insufficient development in the field, inadequate salary, manuscript preparation, role overload, conflicting job demands, slow progress on career advancement, frequent interruptions and long meetings are the causes of stress among academic staff.

Begley and Cazjka (1993) suggested that committed employees, because of their positive attitudes, are less distressed by occupational stressors and therefore they perceive less stress. Many parents and students feel that student academic difficulties are due, in part, to frequent teacher absenteeism (Pacific Region Educational

**Baker, Israel, & Schurman (1996)** suggest that social support from supervisors have more influence on employee satisfaction and mental health than support from co-workers.

**Merbler, Schlichte & Yssel(2005)** found that “when relationships are poor, attrition is increased” (p. 39). Montgomery & Rupp (2005), Betoret (2006) all echoed this sentiment in finding that where collegial relationships were seen as supportive and a resource, rather than as an obstacle or hindrance, burnout levels were lower.

Social support is an important resource that enables an individual to cope with stress and present burnout (Bonfiglio, 2005 Kim-wan, 1991).

Researchers report that the results of prolonged teacher stress contributes to job dissatisfaction, reduced teacher-student rapport, and decreased teacher effectiveness in meeting educational goals (Kyriacou & Sutcliffe, 1978a).

Dissatisfied faculty can transfer their emotions to other employees (Westman, & Etzion, 1999) It has been found that job satisfaction and teacher stress are strongly correlated, as the amount of stress and degree of satisfaction experienced by teachers influences the quality of life of teachers (Pelsma & Richard, 1988).
Stress is considered to be the main factor contributing towards job dissatisfaction, job-related illness and early retirement in England (Van Dick, Phillips, Marburg & Wagner, 2001).

The elements that cause stress in organizations are environmental factors and the behaviour formed as a result of the pressure of these elements on the individual (Amason, Allen and Holmes, 1999).

Organizational policies, the structure and the climate of the organization, physical conditions and process are the basic factors of stress in the organization (Luthans, 1994). Sources of teacher stress are varied (Dewe, 1986). Some experts argue that those who work in a moderate level of stress work with a higher performance (Steers, 1981). Stress is not always a negative fact (Palmer and Hyman, 1993).

University Durham (1992) defined stress as a process of behavioral, emotional, mental, and physical reactions caused by prolonged, increasing, or new pressures that are significantly greater than the availability of coping strategies.

Teaching related stress, commonly termed ‘teacher stress’, is defined as a teacher’s experience of “unpleasant, negative emotions, such as anger, anxiety, tension, frustration, or depression, resulting from some aspect of their work as a teacher” (Kyriacou, 2001, p. 38).
At a personal level, teaching related stress can affect a teacher’s health, well-being, and performance (Larchick and Chance, 2004). From an organisational perspective, it translates to unproductive employee behaviours such as alienation, apathy, and absenteeism (Gugliemi and Tatrow, 1998).

Stress affects both the teacher and the learners in the teaching process (Forlin, Douglas and Hattie, 1996).

Additional demands on faculty time for tutoring and advisement, along with conflicts of instructional changes have created a climate of increased stress and anxiety for many faculty members (Alfred, 1986; Huber, 1998; Outcalt, 2002).

Chance (1985), noted the female teachers identified ten factors significantly causing greater stress for them then for their male colleagues.

Murphy (1986), found female teachers experiencing more stress than males in the area of time management and even reported high scores of physical symptoms of stress in teacher/teacher relations.

Pelsma and Richard (1988), found job satisfaction and teacher stress to be strongly correlated. They also noted that the amount of stress and degree of job satisfaction experience by teachers directly influence the quality of teacher work life.
Hittner (1981), revealed a list of events related to teachers’ life satisfaction that could affect their stress and performance at work. These events included marriage, divorce, pregnancy of the loved one, and change of residence.

Billingsley and Cross (1992) found that characteristics of special educator such as Gender and marital status appear not to affect their levels or commitments to the field, however, job satisfaction of special education teachers which is correlated with retention, increases with experience.

Landbergis (1993) reported that 12 out of 14 studies showed that there was a clear link between occupational stress and heart disease. Further more, it was estimated that 23% of heart diseases in the US could potentially be prevented if the stress level in job were reduced. The studies also showed that more women and black workers faced higher level of stress than their males.

Randall R Ross, et al (1994) has combined insights and research from occupational psychology and clinical psychology to tackle work place stress. The book focuses on strategies, which can be employed by counselors to help individual suffering from emotional and psychological stress and engendered in the work place.

Tim Newton (1995) examined stress from this perspective and which aims to present a critical understanding of the experience of stress and distress in employment and to use this analysis to explore broader debates relating to discourse, agency and subjectivity.
Singh and Billingsley (1996), Excessive paperwork and lack of administrative support were consistently cited as major sources of stress, dissatisfaction and attrition, while positive working environments were often indications of satisfied teachers of EBD students. They reported isolation from colleagues, dissatisfaction with parent participation, frustration with paperwork, and a dearth of principal support. In general, teachers who ranked their work environment and principal relationships positively were more likely to be committed and satisfied with teaching and less likely to suffer from symptoms of stress.

Terry (1997), found role preparedness, job satisfaction, life satisfaction, illness symptoms (such as migraine and sinus headaches; allergies; colds; post nasal drip; hypertension, bladder, Kidney and bowel disorders; colitis; nervous stomach; acne; and weight problems), locus of control and self esteem to be the internal characteristics that tend to influence teacher stress and the way teachers handle the stress they face. A situation that causes one teacher to experience stress may or may not cause another teacher to experience stress. Examining internal characteristics can provide teachers with insight to the levels of Occupational Stress that they endure. The professional literature indicates that it is not necessarily the stress that is harmful but the levels of stress experienced.

Srivastava (1999), found stress at work resulting from increasing complexities of work and its divergent demands has become a prominent and pervading feature of the organizations. Researchers in this area have used the term job stress to denote
employee’s mental state aroused by a job situation perceived as emphasized the role of job situations in their definition of Occupational Stress. The nature of Occupational Stress can be more conveniently and clearly understood in the framework of its causes and consequences. But in fact, job stress does not directly affect the job behavior of the focal workers. The experience and consequences of stress are mediated and moderated by several psychological and situational factors.

Cooper (2001), examined that the sources and outcomes of job related stress, the methods used to assess levels and consequences of occupational stress, along with strategies might to be used by individual and organisation to confront stress and its associated problems. Clarke,

Cooper (2003), examined that working in a stressful environment not only increase the risk of physical illness or distress, but also increases the likelihood of workplace accidents.

Kirk, (2003), Certain professional variables stimulate teacher stress. For example secondary teachers experience stress more frequently than elementary teachers also the fewer years of professional preparation a teacher has, increases the greater the likelihood of stress. However, age and gender are not significant when examining stress.

William (2004), has presented well-integrated, coherent coverage of the latest scientific finding from psychology neuroscience, and medicine. He did a splendid job of filling a gap in the literature in
stress and health: that gap being the need for an articulate introductory compendium that integrates what is known about the physiology of stress with that of thoughts and emotions.

**Massey (2004),** occupational stress and peacekeepers arising from cumulative effects of occupational strain that is too heavy could lead 'flame out' if too acute or could lead beyond.

**International Journal of Learning, (Sept., 2004),** change in policies teacher’s incompetence in using the language and computers in teaching, student’s level of acceptance, management of time and facilities for teaching, close supervision by authorized personnel, workload and students’ performance, are the main factors which contribute to teachers stress.

**Linden, (2005),** stress management field is a 'soft' one, lacking a strong theoretical foundation, and therefore lacking good studies of efficacy and long term outcome. In order to truly comprehend stress management, there needs to be clear understanding on the phenomenon that is "to be managed." He proposes the need for three distinguishable subtypes of stress management programs—a systematic-preventative approach; a broad-based stress vaccination and prevention type of protocol; and a reactive, problem-solving type of stress reduction intervention.

**Manthei, R. J. (1996)** states that, “there is no doubt that job related stress is rapidly becoming one of the most pressing occupational safety and health concerns in the country today".
Rubina, (2004) declares that, “Teachers play an important role in constructing the personality of their students. Schools are as important institutions as any other organization of the society. It can be reviewed as an interface, a platform where significant socialization of growing children takes place and where a sizable number of adolescent members of a society follow careers and meanings in their lives. Importance of profession is obvious however; the social and psychological conditions exert a strong influence on the levels of performance, job satisfaction and even on the mental health of teachers”.

Vaghn, (1990) suggested that, “Like all other professionals, teacher’s are also overwhelmed by multiple and complex challenges. They lag behind their counterparts in relations to the opportunities for self development and professional enhancement. In many parts of the world, teachers are rarely provided with the resources they need to meet the high demands and expectations placed on them. The long hours at work (as they supervise students' projects, evaluate students' work, prepare lessons and conduct the examination) coupled with pressures of their job environments eventually lead to debilitating health problems”.

Hayward, (1991) stated that, “The teaching profession is one of the helping professions in which practitioners are normally committed to giving their best for the welfare of those entrusted in their care. While the commitment is laudable, the consequences can be detrimental when the job demands overshadow the individual’s coping
resources, as well as the job rewards; thus leaving the practitioner feeling unhappy and unable to perform well”.

Elaborating his view of stress Kalat (1990) argues that almost everyone shows different reactions to different stress factors (such as being bitten by a snake). He adds that the common everyday situations are at times more stressful to some people than to others. He explains that the amount of stress someone experiences in fact depends on how the person views and understands the stress factor rather than on the event itself (Lararus cited in Kalat, 1990).

Easthope et al (1990) suggest that when god hates a man, he drives him into the profession of a school teacher.

Muir (1984), however, views teaching profession in contrast to the above statement: “You should take up teaching: it is a nice easy job and good holidays” (p.04).

There is numerous teaching which endorse what Mari (1984) says about teaching. Islamic teaching, in fact, teaching is a noble and sacred profession.

Black-Branch and Lamont (cited in Murray-Harvey, 1999 p.1) state that teaching profession is considered to be among the professions in which employees are subject to high levels of stress.
Brownell (1997) agreed with his fact saying that teaching profession is comparatively recognized as a demanding profession but student related issues and their behavior have made it challenging and stressful.

Day (2000) argues the last two to three decades have been years of struggle rather than growth and development for many teachers. Because of the social and economic changes, society has p the researches have been supporting the fact that teachers are stressed in most cases.

The factors induce professional or occupational stress as Lunenburg and Ornstein (1991) assert that extremely high and low job demands, role conflicts and ambiguities, poor interpersonal relationships exert a remarkable influence on the teachers’ stress.

Naylor (2001) conducted a qualitative research study on ‘Workload and Stress’. He asked 1500 teachers of British Columbia through random sampling to identify and explain the most significant aspects of workload in teachers’ professional life. The respondents identified the manifold causes of stress in their work as a teacher. Following are the factors that were reported as being stressful for teachers in the research.

The effects of stress on teachers’ health are really upsetting. Teachers’ are suffering from different health problems like body aches to acute problems like ulcers. It is because these health problems and
increasing demands from teachers, that many teacher are planning to get an early retirement and some in extreme cases are planning to quit their job altogether (Naylor, 2001).

According to Gelvin (2007), teacher stress is a response syndrome of negative affects resulting from aspects of a teacher's job and mediated by the perception that the demands constitute a threat to self-esteem and coping mechanisms activated to reduce the perceived threat.

The stress of teaching as an occupation is widespread and cross-cultural. As observed by Lhospital and Gregory (2009), teachers today face high stress that can compromise their well-being, longevity in the profession, and the quality of their interactions with students.

Consequently, many teachers have been leaving their profession in increasing numbers. In many instances, a high proportion of teachers who remained on their jobs freely admitted their dissatisfaction and rated their jobs as very stressful (Thomas, Clarke & Lavery, 2003). Wahlund Edo Journal of Counselling Vol. 3, No. 2, 2010 175 and Nerel (1976) found that among white collar occupational groups in Sweden, teachers were the most exposed to job related stress.
Kokkinos (2006) reported that primary school teachers in Cyprus were high on emotional exhaustion while their counterparts in the secondary schools were higher on depersonalization.

Upadhyay and Singh (1999) found that the executive as well as the teachers experienced a moderate level of stress, the executives experienced more stress than the teachers did. The results revealed a significant difference between these two groups on the experience of stress due to factors such as role overload, intrinsic impoverishment and status variable.

Study by K. S. Rajeswari and R. N. Anantharaman (2003) Development of an instrument to measure stress among software professionals: factor analytic published in SIGMIS CPR April 2003 investigated sources of negative pressure among software professionals, from the perspective of the software development process. The results indicate that stress resulted from fear of obsolescence and individual team interactions accounted maximum.

K. Chandraiah, S.C. Agrawal, P. Marimuthu And N. Manoharan in their study in few of the large scale industries in Calcutta in 2003 - Occupational Stress and Job Satisfaction Among Managers published in Indian Journal of Occupational and Environmental Medicine, found that job becomes less satisfying under excessive stress and their expected intrinsic and extrinsic needs are not fulfilled. They further found that age plays a vital role to test the correlation between occupational stress and job satisfaction level and
suggested that senior level officers have a decreased stress level and increased satisfaction as compared to the middle level officers.

**Leemamol Mathew of University of Calicut (2005)** found in - An Exploratory Study on Occupational Stress and Coping Strategies of Special Educators (those who teach the disabled) in South India as the sources of stress as i) school structure and climate, ii) home/work interface, iii) relationship with other people, iv) intrinsic job factors. The common effect of stress on special educators was found to be health related problems - both physical and mental - and job dissatisfaction. There was no organised method to redress the problem rising from occupational stress. As a result, the most commonly used coping strategies were social support, task strategies, and home/school relationship. The sources of stress as repeatedly reported were that of low salary - due to the subcontracting by the Government to NGO's, job insecurity, work overload, and high teacher-student ratio.

**Study by K. S. Rajeswari and R. N. Anantharaman (2005)** on Role of Human-Computer Interaction Factors as Moderators of Occupational Stress and Work Exhaustion found that IT professionals have long work hours with different time zones, total team work, task to be completed on deadline with perfection as per client needs, which requires interpersonal, technical, and organizational. These characteristics lead to occupational stress and work exhaustion.

Another publication by **V P Sudhashree, K.Rohit and K Srinivas** in the Indian Journal of on Occupational and Environmental
Medicine – Dec 2005 on Issues and concerns of health among call center employees, talks more about the Burnout Stress Syndrome (BOSS), which is the result of continuous noise pollution by way of sudden high frequency acoustic shocks and musculoskeletal disorders.

**A.K. Sharma, S. Khera, J. Khandekar** - Computer Related Health Problems Among Information Technology Professionals in Delhi - A publication in Indian Journal of Community Medicine in January 2006 found more on visual stress and musculoskeletal symptoms, initially being mild and temporary and later with increasing years assuming more intense and permanent nature. It also found that computer related morbidity had become an important occupational health problem and of great concern. It suggested an immediate need for the concerned authorities to collaborate and enforce suitable preventive measures.

**Kulkarni GK.** in an article Burnout published in Indian Journal of Occupational and Environmental Medicine 2006 said that rapid change of the modern working life is associated with increasing demands of learning new skills, need to adopt to new types of work, pressure of higher productivity and quality of work, time pressure and hectic jobs are increasing stress among the workforce. Further he added that privatization and globalization has ignited mergers, acquisitions, and precarious employment has critically affected the domestic industry.

**K.K.Jain, Fauzia Jabeen, Vinita Mishra and Naveen Gupta** in their study in 2007 - Job Satisfaction as Related to Organisational
Climate and Occupational Stress: A Case Study of Indian Oil published in the International Review of Business Research Papers found the results of the study also confirmed the assumption that high age group managers as well as high age group engineers were equally satisfied with their jobs and the study revealed the same findings when low age group managers and low age group engineers were compared on their job satisfaction level.

According to Evers, Tomic & Brouwers (2005) and Kokkinos, Panayiotou & Dazoglou (2005), negative aspects of the teaching job such as disciplinary problems, students’ apathy, overcrowded classrooms, involuntary transfer, inadequate salaries, and lack of administrative support are among the stressors that confront teachers in both developed and developing nations of the world.

In Nigeria, Akande (1989) reported that job-related stress is common among teachers and that the sources of teacher’s stress are infinite. Several causes of stress experienced by Nigerian teachers have been identified, some of which include inadequate and inconsistent salaries, over-crowded classes, poor administration, low status of teachers and the monotony of the job (Akande 1989; Balogun 1987).

It is obvious that the impact of stress on teachers’ job performance and on other areas of life cannot be ignored any longer. Teacher stress may lead to severe negative consequences such as job absenteeism, teacher turnover, reduced output and health problems. At
the personal level, it may result in burnout, which is characterised by emotional exhaustion, depersonalisation and reduced personal accomplishment (Thomas, Clarke & Lavery, 2003).

Teacher stress may also result in educational problems, such as reduced teacher competence (O'Connor & Clarke, 1990). Undeniably, the problem of teacher stress has social, personal and economic implications.

Various attempts have been made to identify factors that predispose people to stress. Many of such attempts have established a link between the incidence of stress and the personality of individuals. For instance, Akinboye and Adeyemo (2002) found that some people are generally more stress prone while others are generally less stress prone depending on their personality traits.

In the same vein, Riolli and Savicki (2003), Readeke and Smith (2004) and Van-Dierendonck (2005) reported that personality characteristics of employees have the tendency to moderate the effect of stressful situations on employees such that certain traits may buffer or enhance more negative outcomes than others.

The findings are consistent with those of Kokkinos (2007) who reported that personality characteristics were associated with stress or burnout dimensions, thus providing support for the transactional model of Personality traits as predictors of stress among female teachers in Osun state teaching service Popoola, B. I. & Ilugbo, E. A.
psychological distress in which in order to better understand its process, both environmental and personality variables should be considered. Nearly everyone experiences psychological distress, or negative effect in actual or perceived stress.

Yet people vary widely in the amount of negative affect reported in response to stress, as well as the amount of stress to which they are exposed. Personality variables such as (agreeableness, extraversion, neuroticism, self-concept, etc) have been identified as important predictors of psychological distress (Baghy & Rector, 1998; Rosenberg & Pace, 2006).

The literature also provides support that an individual’s personality characteristic influences the degree to which he or she seeks social support when confronted by a stressful event (Houston & Zola, 1991).

Some research findings attest to the fact that women are more prone to stress than men. Arroba and James (2002) reported that the relationship between gender and stress is complex and varied and that women are more affected by stress than men.

In the same vein, Melhinsh (1998) and Philips & Segal (1996) concluded that since most women work longer hours than men and both do not share duties equally at home, women tend to experience more psychological symptoms of occupational stress than men. In Nigeria, various attempts have been made in recent times to reduce
job-related stress of teachers. These include an upward review in the salaries of teachers, establishment of various in-service training schemes and the recruitment of more teachers in some states. It is necessary to empirically determine the extent to which these measures have reduced the level of stress experienced by serving teachers. In particular, there is the need for more empirical studies to determine the nature of stress experienced by female teachers as well as identify specific personality traits which are predictors of stress among them. To do this, the present study identified from among the major personality factors in the literature, the personality characteristics of self concept, locus of control, achievement motivation and extraversion as appropriate and relevant for investigation to determine their potency as predictors of stress among female teachers. From the fore-going submissions, three research hypotheses were postulated:

1. There is no significant relationship between female teacher’s level of stress and each of the personality traits of extraversion, locus of control, self concept and achievement motivation.

2. The personality variables of self concept, extraversion, and locus of control and achievement motivation will not significantly predict the stress level of female teachers.

3. Marital status has no significant influence on the level of stress experienced by female teachers.

Stress is an unavoidable characteristic of life and work. In any job, there are wide variety of potential causes of stress, some of which are common to both men and women, and others are specific to each group. Occupational stress describes physical, mental and emotional
wear and tear brought about by incongruence between the requirement of job and capabilities, resources and needs of the employee to cope with job demands (Akinboye et al., 2002).

2.11 FACTS AND FIGURES OF STRESS

Job stress is a common and costly problem in the American workplace, leaving few workers untouched.

1. A recent survey, published in the Journal of Occupational and Environmental Medicine, noted that for those working 12 hours a day, there was a 37% increase in risk of illness and injury in comparison to those who work fewer hours.

2. A study done by Northwestern National Life, reports that one-fourth of employees view their jobs as the number one stressor in their lives.

3. A St. Paul Fire and Marine Insurance Co. study concluded that problems at work are more strongly associated with health complaints than any other life stressor, even financial or family problems.

Facts and Figures on Teacher Stress

HSE research in 2000 found teaching to be the most stressful profession in the UK, with 41.5% of teachers reporting themselves as ‘highly stressed. For comparison, the incidence of any kind of stress across the working population is believed to be less than 20 per cent.
These findings have been further borne out by a survey on occupational stress published in the Journal of Managerial Psychology in 2005, which ranked teaching as the second most stressful job out of 26 occupations analysed. The study found that only ambulance drivers experienced higher levels of stress than teachers.

**Severity of Stress Levels**

The notion that ‘some stress is good for you’ has been rightly discredited. Stress is always a sign that there is an underlying problem in need of resolution - it is never a positive indicator. The fact, however, that many people experience some form of occupational stress can lead to misunderstandings - and even a lack of sympathy - when stress occurs in its more severe forms. So when statistics about stress are being discussed, it is important to get an idea not just of:

- how many people have experienced *any* form of occupational stress; but also of
- how bad that stress has been for them; and
- What proportion of the total has suffered *serious* levels of stress over the time period being considered?

In this way, statistics show that teachers are not just ‘more likely to be stressed’ than other, comparable workers, but also that they are more likely to be more stressed than their counterparts, even compared with those working in other high-stress professions. A large-scale HSE report into the scale of occupational stress in 2000 found that the six occupations reporting the highest stress levels were:

1. teaching;
2. nursing;
3. management;
4. professionals;
5. other education and welfare;
6. Road transport and security.

In all of these groups at least one in five respondents reported high stress. For teachers, notably, the figure was two in five.

**Stress-Related Absences and Ill-Health Retirement**

HSE data has found consistently that stress is the predominant cause of work-related illness in the education sector. Despite this, official figures reveal that less than one per cent of teacher ill-health retirements arise as a direct consequence of stress.

In 2003, the Government commissioned research into teacher absence and ill-health retirements, but concluded there was ‘no significant incidence of teacher stress as the cause for these events’. This is most likely to be due to teachers’ reluctance to cite ‘stress’ as a cause of absence on self-certification forms; GPs too are adept at wording sick notes cautiously in cases of stress generally and psychiatric conditions in particular. As a result of this, official data on stress-related absence amongst teachers often bears little or no relationship with the situation on the ground.

For example, research into teacher absence conducted for the Government in 1999 by the School of Education at the University of Cambridge found that colds, influenza and associated respiratory tract
infections were reported to be the most important causes of teachers' absence, with stress and depression coming at the bottom of the list, beneath headache and upset stomach.

A rather different set of results was obtained in a 2003 study by the Schools Advisory Service - the largest independent provider of teacher absence insurance in the UK. This organisation, whose business depends on accurately forecasting patterns of teacher absence, found that one in three teachers had taken sick leave in the previous year as a result of work-related stress. A survey of heads in 2005 by the NAHT suggested a comparable incidence of stress-related absence amongst head teachers.

Moreover, a recent survey of local authorities found that stress-related absence amongst teachers in Britain led to the loss of around 500,000 teacher days last year\(^1\). This means that stress was listed by local authorities as the official cause of around one in six teacher absences last year. Whilst this is almost certainly still an underestimate, it nevertheless flies in the face of the Government’s insistence that there is ‘no significant incidence’ of teacher stress in absence statistics.

Statistics published by the Welsh Assembly Government in June 2008 showed that more teachers in Wales took sick leave in 2007 than in 2006. 65% of all teachers took sick leave in 2007, compared with 62% in 2006. The total number of days’ sickness absence taken

\(^1\) Speech to NASUWT conference, Judith Hackitt, Chair of HSE, March 2008
by teachers in 2007 was just over 244,700 – 17,200 days more than in 2006. Although these statistics are not broken down according to reasons for absence, it is likely that these figures demonstrate some increase in stress-related illness, given that around 1 in 6 teacher absences are stress related.

Around half of teacher ill health retirements take place for stress/psychiatric illnesses, with the other half for physical illnesses or disabilities. The criterion for ill health retirement is that on the balance of probability the teacher’s health is such that they are permanently incapable of continuing as a teacher. The medical judgments in the cases of physical illnesses tend to be less difficult than with stress/psychiatric illnesses where the determination of permanent incapacity can be more difficult to assess. Nevertheless, as noted above, about half of the ill health retirements are granted for stress/psychiatric conditions.

**Consequences of teacher stress – resignations**

Research by polling experts YouGov in early 2007 found that stress had led half of all teachers to consider leaving the profession. Those considering leaving cited long hours, insufficient management support, excessive workload, large class sizes and pupil indiscipline as the factors chiefly to blame for their high stress levels.

Similarly, a survey of London teachers in 2006 found that more than four-fifths could envisage stress causing them to leave teaching in the future.
Teacher Suicides

Research by the Samaritans suggests that the correlation between high-stress employment and suicide rates is more than just anecdotal. Whilst there is a lamentable lack of data on causal links between occupation and suicide, it is clear beyond doubt that in some cases at the very least, the cumulative effect of working pressures has driven teachers to kill themselves.

The table below compares the suicide rate of teachers with that of the general population, and suggests that teachers as a profession are indeed at a statistically higher risk of suicide compared with the workforce in general.

| 2005 | Suicide rate in England and Wales per 100,000 population | 10.25 |
|      | Suicide rate per 100,000 teachers in England and Wales   | 14.20 |

Of course, figures can only scratch the surface of the truly horrific impact of suicide. Furthermore we do not know the precise extent to which problems at work may have contributed to each suicide. But the fact that the suicide rate for teachers is forty per cent higher than the average for the population would indicate, at the very least, a compelling need for further work to be carried out in this area.

- **1.1 million** working people were suffering from a work-related illness
- **173** workers killed at work
- **111 000** other injuries to employees were reported under RIDDOR
- **212 000** over-3-day absence injuries occurred (LFS)
- **27 million** working days were lost due to work-related illness and workplace injury
- Workplace injuries and ill health (excluding cancer) cost society an estimated **£13.4 billion** in 2010/11

### 2.12 CONCLUSION BASED ON REVIEW

Hence from the review of the literature it is clear that the occupational stress among different employees from different careers vary. Researchers have observed that gender is not significant when examining stress. There will be significant difference of occupational stress among less and more experienced employees. Hence an attempt has been made through the medium study to examine occupational stress due to different stressors.

### 2.13 SUMMARY

Past research generally has been limited to only identifying sources and consequences of stress for teachers. There is a need to further understand why these sources of stress affect teachers and why they choose particular responses to stress. Considering why particular sources of stress affect teachers will allow the health educator to suggest positive stress management programs and coping mechanisms that can be made within the organizational structure of schools that will lessen work-related stress. Understanding why teachers respond
the way they do to stress can allow for adaptive strategies to be used in order to help teachers address and cope with stress. This literature explains in detail the most common coping strategies used by teachers; however, this literature does not clarify why teachers choose particular coping strategies. There is a need to investigate the reasons as to why teachers choose particular coping strategies as a way of handling stress. Understanding why these strategies are used will provide teachers with the opportunity to better understand how to cope with stress and provide the tools and resources for effective stress management programs designed to alleviate attrition.