Chapter II

REVIEW OF RELATED LITERATURE

2.1 Introduction

Review of literature is one of the important aspects of an investigation. It helps to know what is done by the other researchers in the specific subject and its related areas. It aims to have a general understanding on a specific subject and to grasp the essence of the work done by others. In many areas of work, the literature is so extensive that it becomes difficult to know where to stop. Credit is not attached to sheer length in the literature search, but to breadth and depth of coverage of the areas selected, evidence of selectivity in the references discussed, and critical approaches to the literature.

In the present study, the investigator has made an attempt to collect literature on stress and coping patterns of teachers in general, and physical education teachers in particular. To carry out the literature search the investigator primarily used the PsycINFO, J-Gate plus, Google Scholar, JCCC, Web of Science, Scopus database, and other Internet resources. Further, the researcher has consulted some traditional sources such as books, journals, reports and conference proceedings, etc. related to the research topic.

2.2 Review of related literature

Today, even physical education teachers are exposed to stress either at their occupational level or at the psychological level due to a tremendous increase in the expectations by the pupils and society. Further, the job environment and problems increase their stress levels. The sources of stress could be management understanding and maintenance, multiple roles, deviant behaviour from students, and so on. According to Singh (2010), task demands, physical demands, role demands, and interpersonal demands are the four areas from where occupational stress originates and results into the risk of developing job dissatisfaction which is directly associated with adjustment.

The present study is mainly focus on stress and coping patterns among physical education teachers, even though some of the general studies related to stress and coping are also
reviewed, and those reviews are presented in this chapter. The researches that have been reviewed are given under the following headings:

- Studies on stress (Theoretical and empirical)
- Effects of stress
- Causes of stress
- Studies on occupational stress
- Studies on teachers’ stress
- Studies on physical education teachers’ stress
- Studies on stress and coping patterns / strategies among teachers
- Studies on stress and coping patterns / strategies among physical education teachers.

2.2.1 Studies on stress (Theoretical and empirical)

Stress can be defined as a psychological condition or emotional strain or suspense. Selye (1956), laid down the foundation for later research in this area. He described stress as “the non-specific response of the body to any demand”. This diversion from the conventional meaning-became popular among physiologists. Human beings have many biological, psychological, and social needs. When these needs are not satisfied, they experience stress. Besides these needs, there are many challenges in human life and they all are likely to produce stress. Selye (1956), defines stress as “any external events or internal drive which threatens to upset the organismic equilibrium”. The study of stress stems from an early work by Selye (1946, p. 55), who described stress as “the non-specific response of the body to any demand made on it to adapt”. Not all stress is damaging to the body; indeed, positive stress (eustress) is needed to promote physical growth. Eustress is usually associated with a moderate level of stress which motivates the person to achieve an optimum level of performance. What is a moderate level is different for each person. On the other hand, negative or bad stress (distress) is damaging to the body. He identified the stimuli that create stress as “stressors”. Others refer to these simply as causes of stress.

According to Beehr and Newman (1978), “stress is a condition arising from the interaction of people and their jobs and characterized by changes within people that force them to deviate from their normal functioning”
Ivancevich and Matteson (1980), defined stress as "an adaptive response, mediated by individual characteristic and/or psychological processes, that is a consequence of any external action, situation, or event that places special physical and/or psychological demands upon a person".

Stress is an indispensable and inevitable concomitant of human living-- indispensable because without some stress we would be listless and apathetic creatures, and inevitable because it relates to any external event, is it may be a pleasurable or anxiety producing event in human life (Purna & Gowthami, 2011, Ellison, 2004). So stress is a compulsory facet of our life. It adds zest, defies and prospect to our lives, leads us on towards our aspiration and makes experiences exciting and activities challenging (Babar et al., 2004).

The definitions of stress are many and varied, ranging from simple one-word statements, such as, tension or pressure, to complex medical explanations for the physiological responses of the human body to certain stimuli. Stress can be stimulating or energizing. Where it is positive and beneficial it is called stress, however, if it is causes feelings of anxiety and discomfort it is called distress; it is a negative and harmful condition. However, in common usage the term stress is used as in the negative way. Stress is a natural and unavoidable feature of work life and daily life because people try to keep their life, thoughts, emotions, and relationships with their environment in a steady state condition. If this steady state condition is disturbed, people feels or think that they have to get back their feelings of comfort.

Different definitions of stress are related to different theories of stress. There are many theories of stress in general as well as stress in teaching. In the Person–Environment (P–E) Fit theory (Lazarus & Folkman, 1984), the core premise is that stress does not arise from a person or their environment separately, but rather from the interaction, or fit, between a person and their environment (Caplan, 1987). A good fit between a person and the environment generally results in a person not being stressed. On the other hand, stress arises from the misfit between a person and the environment. Thus, the experience of stress is a result of a person’s appraisal of a perceived imbalance between a teacher’s perceptions of the demands of a specific situation and the difficulty or inability to meet such demands in a particular situation where the perceived consequences are important.
There is general assumption or consensus that stress is a physical, mental or emotional reaction which results from an individual's response to environmental tensions, conflicts, pressures and similar stimuli. For example, physiologically stress is defined as the body's biochemical response to a stressor (factor causing stress). Too much stress leads to frequent changes in blood pressure that can cause cardiac problems and other illnesses in the future. The most important thing is getting the feeling of stress (beneficial), but getting rid of distress (harmful) to increase job satisfaction and work productivity.

Stress can effect in two dimensions, it may positive or negative. When stress leads to a positive track it enhances performance, gives confidence, and most excellent results. But when stress moves in a negative direction, it practices physical and psychological destruction (Cooper et al., 2002). According to the American Psychological Associations, stress has diverse forms such as acute stress, episodic acute stress, and chronic stress, and each one has its own distinctiveness, warning signs, duration, and healing approach. Academic stress includes many stressors as numerous assignments, antagonism with other students, disappointment, failures, and poor relationships with other students or lecturers, family or problems at home (Fair Brother & Warn, 2003). Institutional stresses are related with the institution as institutional (university) level stressors are stuffed lecture rooms, semester system, continuing exams and tests, and inadequate funds to perform academic tasks (Ongori et al., 2008; Agolla, 2009). Work stress is also a promising researched area globally.

Stress has turned out to be a critical matter in the studious / academic sphere as well as in our civilization. Many behavioral science scholars who have conducted research on stress and stressors have identified that this area required supplementary attention (Ongori & Agolla, 2008; Agolla, 2009) in medical science (Soleiman et al., 2007) and other organizational studies (Singh 2007; Purna & Gowthami, 2011). Stress is a psychosomatic disease that not only attacks the health, but also diminishes job performance (Purna & Gowthami, 2011, Soleiman et al., 2007).

These studies can be divided into those related to the person, those related to the job of teaching itself, and those related to the environment in which the teacher works. For example:
• the person, e.g. lack of professional satisfaction, professional problems, coping with change, self-esteem, emotional demands of teaching, being evaluated by others, personal perceptions and feelings, professional recognition needs, locus of control, and dealing with colleagues;

• the job of teaching, e.g., role preparedness, class size (generally large classes), the pressure of the teacher’s role, maintaining discipline, pupils’ attitudes and behaviour, teaching pupils who lack motivation, non-participation by pupils, limited progress of pupils, pupil assessment; high pupil-teacher ratio, problems related to the curriculum, and lack of non-contact time; and

• the working environment, e.g. low status of teaching, lack of respect for teachers, role conflict and role ambiguity, time pressures, heavy workload/workload out of proportion with salaries, management style, relationships with colleagues, administration and management, lack of support from managers, supervisory support and peer support, lack of effective communication, poor working environment, poor facilities, resource difficulties, relationships with parents and the wider community, work routine, societal attitude toward physical education, low/insufficient remuneration (including salaries, bonuses, and allowances), lack of involvement in decision making, lack of support from the government, constant changes, lack of information about these changes, national curriculum, lack of relationship between teaching skill and promotion, and social expectations.

According to Goodall and Brown (1980), there are two distinct types of stressors, those without and within. Without stressors originate outside the individuals and include such things as environmental or work-related demands. Within stressors are those from within individuals. These stressors tend to include individuals' personal values, attitudes, and self-concepts.

The fit or misfit may be due – at least in part, to the person’s background and experiences, and roles and responsibilities in society as a result of different cultural and social expectations and environmental factors. These may apply differentially to different groups of teachers. The P–E Fit theory has been used in previous studies of teachers’ stress (e.g., Abel & Sewell, 1999; Brown & Ralph, 1992; Pithers & Fogarty, 1995; Reid
& Hinton, 1999; Smith & Bourke, 1992; Storey & Billingham, 2001; Wilson & Hall, 2002).

A number of accustomed rejoinders of the corpse (mental, emotional, and physiological) intended for self continuation (Princeton University, 2001). A corporeal or psychosomatic aspect beyond the bear of person, and it brings a strain into being under different circumstances (Arnold et al., 1995). According to Campbell (2005), “the adverse reaction people have to excessive pressure or other type of demands placed on them. Stress crops up when a person is tackle by a circumstance that they perceive as overwhelming and cannot cope up with”. It is very attractive area of research concentration for the reason that it is also related with many other human resource and job allied outlooks, i.e., job satisfaction and organizational commitment; and behaviours such as employee turnover and self - efficacy (Sager, 1994).

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).

Chan (2008), assessed emotional intelligence (intrapersonal and interpersonal) and general teacher efficacy to represent personal resources facilitating active and passive adjustment in a sample of 273 Chinese prospective and in-service teachers in Hong Kong. Intrapersonal emotional intelligence and interpersonal emotional intelligence were found to predict significantly active adjustment, but teacher self-efficacy did not contribute independently to the prediction of active adjustment even though there was some evidence that teacher self-efficacy might interact with intrapersonal emotional intelligence in the prediction of active adjustment, especially for male teachers. The study emphasized the need to enhance emotional intelligence to combat teacher stress by preventive intervention efforts.

Sinclair and Ryan (1987), described in their study that people in distress grasp for coping behaviours that are primarily designed to ease their own feelings of distress even if the behaviours are not in the interests of those with whom they are interacting. In their study
with students and beginning teachers, it was evident that, in coping, the teachers (N = 150) progressively adopted more and more authoritarian control techniques. While adopting custodial and authoritarian behaviours is helpful to the teacher in attempting to gain a greater sense of personal control over the teaching situation, it is not necessarily in the best personal or learning interests of the students. The study concluded that it often only exacerbates the problem of teacher-student relationships so that it is not ultimately effective in reducing stress or anxiety and when teacher stress is experienced as anxiety, reduced teaching effectiveness and student performance are the likely outcomes.

Significant negative correlation was found (Memeon, 2008) between teacher stress and job performance and also between teacher stress and teacher efficacy. The study was carried out with two independent samples, i.e., teachers and students. Sample I comprised of 330 secondary school women teachers from government and private schools of three cities of Pakistan. Sample II comprised of 990 girl students selected from 9th and 10th classes of the schools selected in Sample I. The results showed that the teachers displayed moderate level of stress, and the highest scores were displayed on work related stressors. The findings also showed significant differences between government and private school teachers on levels of teacher stress, job performance, and teacher efficacy.

The problem of teacher stress was of great concern in Hong Kong. There is also mention in many media that nowadays teachers are suffering from great pressure. The professional teachers’ union of Hong Kong (1995), conducted a survey on teacher stress. 1000 questionnaires were distributed to its members by random sampling method in January 1995, with a return rate of 45 per cent. The results showed that 61 per cent of the respondent found teaching stressful. The main sources of stress are: students’ unruly behaviour, large class size, too much marking, too much clerical work, and so on. The professional teacher’s union (2005), has also conducted a survey, and the results showed that 28% of the teachers always have more than five burnout symptoms. The situation is serious as such a high percentage of teachers complained about burnout. It would affect the quality of teaching and the quality of life among the teachers.

The use of multiple regressions revealed (Abeid, 2007), that (i) there was negative relationship between demographic variables and occupational stress, (ii) there was positive relationship between work variables and occupational stress, and (iii) the work
variables affect occupational stress more than demographic variables. The subjects were 472 male teachers working in government schools in Riyadh City.

Dworkin and Haney (2006), based their study on the data collected by the National Institute of Education's Safe School Study Report which suggested that teachers in American urban public schools were emotionally and physically victimized and this resulted in high level of stress associated with teaching. The study explored the linkages between reported experiences of victimization by 291 urban public school teachers and task - specific stressors in the performance of the teaching role. It was found that the level of reported stress and nature and degree of victimization differed by the grade level taught and the race of the teacher. Generally, minority teachers (black and brown) were less likely to report being stressed or victimized than white teachers, while elementary school teachers reported their work to be most stressful. There was no evidence of a specific causal ordering between fear of victimization and teacher stress.

Miller and Travers (2005), presented the findings of a nationwide investigation into the mental well-being of minority ethnic teachers in the U.K. The data was collected through a questionnaire containing both open and closed questions. The sample, totaling 208 participants was derived from the National Union of Teachers (NUT) database of minority ethnic teachers and an advertisement in the NUT's Teacher Magazine. A univariate analysis of the results revealed that this group of teachers, as compared to other groups, was experiencing poorer mental health and lower job satisfaction. The multivariate analysis revealed four reliable factors regarding the 'sources of stress' these minority ethnic teachers perceived they were experiencing. These were: hierarchy and culture of the school, workload, cultural barriers, and the lack of status and promotion. Some teachers reported that ethnic discrimination was a contributory factor in their experience of stress. Multiple regression analysis discovered that ‘total stress’, ‘total self esteem’, ‘working conditions’, and ‘total discrimination’ were the major predictors of mental ill health in the minority ethnic teachers.

A research had already proved a strong connection between work related stress and stress related disorders, as ischemic heart disease, duodenal ulcers, headaches, fever, neurosis, and mental health stress (Levi, 2009).
It is evident that stress definitely plays a major role and affects one’s behavioural pattern negatively, which is much highlighted in the preceding studies.

2.2.2 Effects of stress

Since then the word stress has generally been associated with negative effect; stress that is damaging to the body. Kyriacou and Sutcliffe (1978, p. 3) reported that “stress is a response syndrome mediated by an appraisal of threat to the teacher’s self esteem or well-being”. 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 well / teachers are usually not well compensated. In fact, half of private school teachers who resign each year do so, to teach at a public school (Miner, 2009).

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).

Drago, Caplan and Lynn (2000), in their study linked teachers' work to societal trends. They provided evidence by collecting data from 312 elementary school teachers and commented that the nature of work and society had changed, and that education had mirrored commercial demands to "do more with less" placing higher expectations and higher stress on employees. The authors described the concept of "dual-income families" which has greatly increased pressure on women to manage work responsibilities and household tasks. 78% of all U.S. married couples were in what the authors called "dual-income families". Perhaps such families might be more appropriately considered to be "dual work-load families". Secondly, in order to be competitive in the modern world, "high commitment work systems" had become the norm. These systems involved increased levels of teamwork, training, meetings, and involvement in the job, all these increased demands on employees. The work intensification and stress were factors in
Brown and Uehare (1999), investigated the negative effects of teacher stress, with particular attention to teachers in the U.S.-affiliated Pacific, described techniques for reducing these detrimental effects, and also discussed the relevance of such techniques within the cultures of the Pacific region. The review permitted the following conclusions to be drawn.

- Workplace stress and burnout could lead to teacher absenteeism and attrition.
- High rates of teacher turnover and absenteeism negatively associated with student achievement.
- Teacher absenteeism was higher in Pacific region than across the continental United States.
- In the Pacific region, teacher stress was significantly correlated with the number of days that teachers were away from school.
- Difficulties due to geography and limited access to higher education opportunities in the Pacific region make teacher retention a critical concern.
- Successful stress management programmes included awareness and training in cognitive, physiological, and situational coping strategies.
- Perceptions of workplace stress, as well as strategies for coping with it, could vary due to cultural factors.
- Cultural context (e.g., the society in which a school is located, cultural backgrounds of teachers) should be considered before designing stress-management programmes in culturally diverse locations.

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).

Dorothy (1990), determined relationships between selected teacher characteristics and job related stress factors as perceived by teachers in independent schools. Teacher
characteristics identified were number of students taught, days missed, salary as only source of income, sex of a teacher, degrees held, age of a teacher, years of teaching experience, career satisfaction, intention to teach in five years, willingness to teach in a public school, and subject taught. Job related factors, the five stress factors identified by D'Arienzo and confirmed by factor analysis in this study, were relationships with teachers, working with students, financial security, administrative support, and task over load.

Neuman (1990), determined if reported sources of work related stress and the degree of reported stress differ for school managers at the levels of central office administrators, local school administrators, and teachers. These public school educators answered questions on two separate questionnaires. The answers given on the jobs and occupational characteristics questionnaire (JOCQ) determined the level of perceived job related stress. The Stress Performance Index Questionnaire (SPI) determined the perceived sources of stress and their effect on job performance. Statistically significant differences were found among the central office administrators, local school administrators and teachers on the JOCQ. However two stress factors, "no authority" and "relationships" showed significant difference among the three groups. The occupations were further broken down into sub-dimensions and there was statistically significant differences found between several occupational levels.

2.2.3 Studies on causes of stress

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, 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).

Teacher stress can be caused from a variety of situations. Stress often comes when teachers have difficulty in 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 (Blasé, 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 (Blasé, 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 (Blasé, 1986).

A number of causes of stress for teachers have been identified over a period of time by many people. Stress is an area of interest among researchers and practitioners in many fields – including teaching. Many studies over a period of time have found teaching to be a stressful occupation (Fejgin, Ephraty, & Ben-Sira, 1995).

These causes of stress for teachers have largely been identified in studies in western, English speaking countries. Differences in other cultures may result in other causes of stress. For example, Al-farmawy (1994), Bukhet (1994), Ibrahim (1993), and Khaleel (1999), investigated physical and psychological problems of people in organizations, and brought out the importance of such studies for the future of organizations. Kyriacou (2001) reported that prolonged occupational stress could lead to both mental and physical ill-health and it impairs the working relationship between a teacher and pupils, and the quality of teaching.

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 (Blasé, 1986). Most teachers view disrespectful behaviour, student attentiveness, and sociability as the most stressful student misbehaviours (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 responsibilities along with work pressure and student misbehaviour cause primary classroom teachers to have the highest level of stress. These behaviours along with student discipline management, student apathy, student achievement, and student absences all result in teachers experiencing increased stress (Blasé, 1986).

Brember and Marie (2002) examined the gender-related causes of stress in trainee teachers on training practice in the school of education, University of Manchester. A questionnaire was administered to trainee teachers in order to identify their stressors. The means and standard deviations of each item were calculated separately for males and females, revealing that males had higher anxiety than the females. However, of the 12 items the males found more stressful than the females, the two, which were significant, centered on issues of support of friends, family and partner. The study suggested including some stress identification and management courses in teacher training.

Abel and Sewell (1999), investigated the differences in the sources of stress between rural and urban schools. Ninety-eight secondary school teachers in two states of America completed the Sources of Stress Questionnaire, which specifically measures sources of school based stress and the Maslach Burnout Inventory to assess levels of stress and burnout. Significantly greater stress was found for urban versus rural schools from, (1) poor working conditions, including inadequate resources, (2) lack of recognition and advancement prospects, and (3) poor staff relations, including an unfriendly atmosphere and lack of support from both colleagues and school administrators. For both urban and rural schools, student misbehaviour and time pressures were the leading sources of stress, with no significant differences between groups. Overall, different relationships were found between the sources of stress and dimensions of burnout; for example, student
misbehaviour and poor working conditions predicted burnout in urban schools compared to time pressures and poor working conditions for rural schools.

Adams (1999) studied the sources of teacher stress that were harmful to them and affected their teaching, personal lives, and most importantly, their students. The study analyzed six internally related characteristics, namely, role preparedness, job satisfaction, life satisfaction, illness symptoms, locus of control, and self-esteem. The data were collected from 182 teachers from seven vocational areas in a south eastern state and a multiple regression model was used to examine the role of these internal characteristics in explaining vocational teacher stress. This regression model was successful in explaining approximately 55.75% of the variance in vocational teacher stress. The most important internal characteristics in explaining vocational teacher stress were found to be illness symptoms, self-esteem, and role preparedness.

Punch and Tuetteman (1996) investigated the relationship between support found in the work environment and amelioration of teacher stress in Western Australian secondary schools. The authors hypothesized that, while certain stressors may heighten levels of teacher distress, the effects may be offset somewhat by supportive relationships in the work environment, and by teachers being acknowledged for what they do. The four stressors identified in the study were, (1) inadequate access to facilities, (2) intrusion of school related work into recreational time, (3) student misbehaviour, and (4) excessive social expectations. Potential avenues for remedy were cited as, 1) support received from colleagues, including principals, and (2) praise and recognition. For both males and females collegial support emerged as the strongest countervailing influence for the amelioration of distress, and the most significant resource for coping with student behaviour problems.

Smith and Bourke (1991) measured perceived levels of work-related stress, workload, and job satisfaction of 204 secondary teachers in the Hunter Region of New South Wales, Australia, using self-report questionnaires. A causal model was developed hypothesizing relationships between teacher characteristics, aspects of the teaching context, perceived workload, satisfaction with teaching, and four aspects of teacher stress: stress from staff tensions and conflict, time pressure, students and classroom conditions, and lack of rewards and recognition. Teaching context, workload, and satisfaction were found to
affect stress directly. The importance of workload and job satisfaction was demonstrated by indirect effects between teaching context and stress outcomes.

2.2.4: Studies on occupational stress

Stress sources of teachers may be summarized as low motivation in students, discipline problems, the pressure of time and the work load, being assessed by others, colleague relationship, conflict and indefiniteness of roles, bad working conditions and self-respect, students’ discipline problems, the inadequate support of colleagues, family and friends (Detert et al., 2006). In addition, students’ being late to school, their failure, and students’ not doing homework may cause stress in teachers (Adams, 2001; Chadwick, 2000). It is important for educational organizations to study and manage rationalistically the stress sources of teachers who have the important duty of educating individuals. Although, stress in educational organizations has been determined with various studies, the number of researchers who have studied in different societies is limited (Kyriacou, 2001).

Occupational stress means (Tam & Mong, 2005), people experience psychological state which is incongruence and misfit between worker’s perceptions of the demands on them and their ability to cope with those demands.

Occupational stresses as work-related mental, emotional, and psychological injuries have been greater than any other grievance (Hockey, 1993). In the study of organizational behaviour, occupational stress has become a crucial topic because stress has disparaging psychological and physiological consequence on an employee’s yield and absenteeism; it may also be a problematic protection, security, and safety dilemma for supplementary employees (Sreelatha, 1991).

Kauts and Saroj (2010), conducted a study based on the assumption that application of emotional intelligence can increase teacher effectiveness and reduce occupational stress among teachers at the secondary school stage. Six hundred secondary school teachers were selected as a sample for the study. Emotional Intelligence Scale, Teacher Effectiveness Scale, and Occupational Stress Index (OS1) were used to measure the emotional intelligence, effectiveness, and stress among teachers. The results revealed that teachers with high emotional intelligence had lesser occupational stress and higher teacher effectiveness. Further, it was found that teachers with low emotional intelligence
experienced more occupational stress and less teacher effectiveness. Thus, emotional intelligence was found to be helpful in reducing occupational stress of teachers and enhancing their effectiveness in teaching.

The determinants of occupational stress as examined by Alam (2009), included, management role, relationship with others, workload pressure, role ambiguity, and performance pressure. The sample consisted of 300 university academicians from Klang Valley area in Malaysia. The results showed that workload pressure, role ambiguity, and performance pressure were the predictors of occupational stress. But managerial role and relationship with others had no significant direct effect on occupational stress. The results also showed significant negative relationship between occupational stress and job satisfaction.

To find out the causes of stress among teachers, Lath (2010), conducted a study on teachers of private and government schools. They were administered the Occupational Role questionnaire, a part of the Occupational stress inventory (OSI) by Osipow and Spokane (1987). The results revealed that teachers from different types of schools suffer stress in different ways. The analysis revealed that teachers working in government schools, particularly male teachers, experienced a little more stress as compared to their counterparts working in privately managed schools. Variables like age, gender, and experience played an important role in perceiving the amount of stress.

O’Lanre (2010), explored occupational stress among primary school teachers in south west, Nigeria. A total of 624 teachers were chosen as subjects using a multistage sampling technique, and a structured questionnaire was used to gather information from the subjects. The results revealed that the differences were significant only for age and gender. Majority of the teachers had headache as symptom of poor health and majority of them engage in watching TV as a strategy for coping with stress. The major source of stress for the subjects is the society. It was recommended among others that the teachers’ working condition should be improved by planning educational ergonomics, and of some social facilities such as: satellite TV, computer connected with Internet, and school curriculum should take into cognizance, sporting activities, especially for the teachers should be given a bit of knowledge in health education so as to be able to understand themselves and generate more coping techniques for occupational stress.
Nobile and McCormick (2005), investigated the relationships between job satisfaction and occupational stress as part of a larger study. The participants were the staff members of primary schools selected through stratified sampling. Factor analyses were used to identify underlying data structures. Nine job satisfaction and four occupational stress factors were extracted. Correlation and multiple regression analyses were utilized to investigate the hypothesized relationships. Moderate to strong correlations existed between most of the job satisfaction and occupational stress variables. However, multiple regressions revealed occupational stress to be the best predictor of only two job satisfaction variables. Occupational stress did, nevertheless, explain considerable variance in other facets of job satisfaction. The results hold implications for school systems and school administrators.

Shimaoka et al., (1998), made comparisons of general and local physical workloads between two groups of 58 Japanese and 15 Swedish nursery school teachers. Heart rate, number of steps, rating of perceived exertion (RPE), frequency and time expended with respect to trunk flexion, sitting/kneeling, and lifting/carrying loads of 1 kg or more were monitored during working hours. The average percentage heart rate increase in the maximal heart rate range was lower in the Japanese than in the Swedish teachers. These features of general and local workload in the Japanese teachers were typically observed among the teachers in charge of very young children (0-2 years). The Japanese teachers in charge of children aged 3-5 years, on the other hand, had similar levels of both general and local workload as the Swedish teachers in charge of classes comprising children of various ages (1-5 years). The physical workload measured in their study was not sufficient to explain the difference in the magnitude of musculoskeletal problems for nursery school teachers in the two countries.

Cheryle and Cary (1993), collected data through a questionnaire, from a random sample of 1790 teachers drawn from a cross-section of varied school types, sectors, and teaching grades. Univariate analysis of the results revealed that teachers, as compared with other highly stressed occupational groups, experienced lower job satisfaction and poorer mental health. It was discovered that the 'job pressure factors' of 'management'. Mental ill-health was predicted by a variety of job pressure and personal factors, but predominantly linked to job pressure from 'ambiguity of the teacher's role'. Intention to leave was found to be most highly related to mental ill-health in teachers.
Cooper and Kelly (1993), in their study assessed occupational stress amongst 2,638 head teachers of primary and secondary schools, together with principals/directors of further and higher education establishments, throughout the United Kingdom. It was found that as one moved from the further/higher education (FHE) level to secondary to primary sectors, the levels of job dissatisfaction and mental ill-health rose. In addition, it was found that, with the exception of primary schools, female head teachers in secondary and FHE seem to be suffering significantly greater job dissatisfaction than their male counterparts, although this does not translate itself into mental ill-health. Male head teachers, on the other hand, seem to suffer more mental ill-health than their female counterparts. And finally, the two main sources of occupational stress that appear in many of the multivariate analyses as predictors of job dissatisfaction and mental ill-health are 'work overload' and 'handling relationships with staff'.

Richardson (1989), investigated the relationship of occupational stress and certain demographic variables to job satisfaction among licensed professional counselors in Virginia. The survey instruments included the Minnesota Satisfaction Questionnaire as a measure of general job satisfaction and twenty subscales. The occupational Environment Scales measuring occupational stress and six subscales and a data form have been employed. Of the counselors participating, 48.5 percent indicated they experienced some occupational stress, but 78.5 percent indicated that they were satisfied with their present occupational stress. Although a negative relationship was found between overall occupational stress and job satisfaction, the stress resulting from work responsibility impacted positively with job satisfaction. As the score on the stress subscale responsibility increases, the score on general job satisfaction increased. Older, more experienced counselors indicated higher levels of job satisfaction.

Singh (2010), investigated the various factors causing occupational stress experienced by senior secondary school teachers. They were administered a comprehensive questionnaire which measured various factors of stress. The analysis showed that non-cooperation from the colleagues, hastiness to finish the work, unable to perform duty smoothly, unclear instructions and insufficient facilities, unclear expectations of higher authority, and having more workload in less time were the significant factors causing occupational stress among the teachers. The monotonous nature of work, ignorance of higher authority, and
violation of administrative processes and policies were factors also contributing towards occupational stress among teachers

2.2.5 Studies on teachers’ stress

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. 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).

Increasing attention has been given to understanding teacher stress to further study this alarming phenomenon (Blasé, 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 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; meaningful ways to lessen job related stress have not been discovered (Bacharach, Bauer, & Conley, 1986). It was found that teachers lower their level of job involvement as a result of experiencing stress which decrease teachers' job satisfaction.

According to Rees and Redferm (2000), stress should be considered both at the individual and the organizational level to understand it effectively. Educational organizations give services to society and engage so many personnel in it. As educational organizations are becoming important in these days, schools have to carry out some responsibilities.
Teachers are the first responsible people to educate children or youth. In Turkey, there are limited numbers of studies on teacher stress, symptoms of it, the effects of stress on teachers, and coping strategies of stress. Stress is recognized as the major single health concern of teachers. The study, using grounded theory, is attempting to identify the major stressor of high school teachers in Newfoundland, Canada. The interviews to date have identified recent systemic changes and curriculum changes, a negative work culture, work overload, student behaviour, and lack of administrative support as stressors. Teachers are dispirited and disillusioned. They attribute emotional and physical problems, and general ill-health to the stress they are feeling at work.

Several investigators discovered diverse causes of teacher stress and stressors in diverse circumstances that consist of students bad behaviours, regulation, instruction and control troubles, poor inspiration and motivations, intense workload and instant pressures (Sager, 1994) role conflict and ambiguity, incompatible colleague associations in supervision, and demands and disapproval from students, parents, and the wider group of people (Travers & Cooper, 1996). Previous studies have proven that teaching is considered as a most stressful job (Shirley & Kathy, 2002). In a globalized world, like other fields of work, teachers also encompass higher duties than before. Novelty in the ground of learning, language and internet, has transformed the teacher’s role. Teachers are not only transferors of information, but must have effective and empathic communications skills (Arnold, 1960).

Teachers are generally busy in numerous errands or formalities as curriculum development, assessment of students, lesson planning, and keeping students up-to-date in the current market (Shahin & Nasser, 2011). In addition, meetings with deans, parents, staff, administrative authorities, and learners affect psychologically as well as physically (Mousavi, 2007). All these issues make the teacher more legally responsible, supplementary puzzled, and questionably less sustained and maintained than prior to ever (Claxton, 1989). Retort of stressed person depends on outcome taking by colleagues as appreciation or thread (Lazarus & Folkman, 1984). Stress is a hassle that boost people to get chance, and manage particular resources to find the desired destiny (Cooper, Dewe & Driscoll, 2002). Stress can have both constructive and pessimistic consequence if not well coped (Stevenson & Harper, 2006).
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. Teacher stress is described as any characteristic of the school environment that poses a threat to the teacher (Sutton & Huberty, 1984). While these definitions are widely accepted, Guglielmi and Tatrow (1998), argue that there is no agreement on what stress is, as the term holds different meanings for different people. 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 (Blasé, 1982). The impact of teacher stress depends upon an individual’s social support, personality characteristics, and job satisfaction (Guglielmi & Tatrow, 1998).

Teacher stress on the other hand, is defined as experiences in teachers of unpleasant, negative emotions, such as anger, frustration, anxiety, depression and nervousness, resulting from some aspect of their work as teachers (Kyriacou, 2001). Teachers, nowadays, have not only to deal with so many different demands and pressures, emotional, physical, and administrative and management duties, but also to some inconsiderate parents’ demands and wants. Besides that, the large number of students in a classroom, packed timetable, uneven duties, uncomfortable working conditions, co-curriculum activities, meetings, in-house trainings, courses to attend extra classes, and the unnecessary amount of paperwork are some of the main contributions to the increased causes of stress among teachers.

Allison (2007), conducted a study with the purpose to identify the student behaviours associated with teacher stress, and determine the types of teacher behaviours that may elicit these stressful student behaviours. Students (n=186) and their teachers (n=77) completed a stressful student behaviour questionnaire, a teacher behaviour questionnaire, and a teacher stress survey. The results showed that student lack of effort in class was most strongly associated with teacher stress. In addition, teacher behaviours were correlated with students’ behaviours of coming to class unprepared.

Arikewuyo’s (2004), study provides empirical evidence for the management of stress by teachers of secondary schools in Nigeria. A total of 3466 teachers, drawn from secondary schools in Ogun State of Nigeria, returned their questionnaire for the study. The findings indicate that teachers frequently use the active behaviourl and inactive (escape) strategies in managing stress. Their feeling is that nothing probably can be challenged in
stressful situations. The teachers also expressed mixed feelings about the adoption of inactive behavioural strategies. While the majority of the teachers never engage in physical exercises or, say, watch films in order to manage any stressful situation, they prefer to keep away from any situation that could cause stress, as well as endeavouring to separate themselves from people who cause stressful situations.

Leung and Spector (2004), aimed at identifying the sources of stress and investigating their effects on job satisfaction and psychological distress among 106 university teachers (86 males and 20 females) from four tertiary institutes in Hong Kong. Another purpose of the study was to examine the moderating effect of locus of control on stressor-strain relationships. A factor analysis of the faculty stressors revealed six factors: recognition, perceived organizational practices, factors intrinsic to teaching, financial inadequacy, home/work interface, and new challenge emerged as major components. A source of step-wise multiple regressions demonstrated that the first four were best predictors of job satisfaction and the last two factors were the best predictors of psychological distress. Further, external locus of control was associated with low job satisfaction and psychological distress.

Yoon (2002), conducted a study to investigate whether or not teacher stress, negative effect, and self-efficacy predict the quality of student teacher relationships. The participants included 113 school teachers in a metropolitan area in the United States. A survey method was used to measure teacher perceptions in working with difficult students and their relationships with students. Negative teacher-student relationships were predicted by teacher stress. Significant correlations were found among negative effect, teacher stress, and negative relationships.

Dick and Wagner (2000), used standardized questionnaires measuring workload and mobbing as stressors on a sample of 356 school teachers. Physical symptoms as stress reactions and social support and self-efficacy as moderating variables were also measured through standardized questionnaire in their study I, whereas coping strategies, burnout, and absenteeism were assessed in study II. The structural equation modeling in study I revealed that the predications of the stress model hold true, workload and mobbing lead to stress reactions whereas principal support reduces the perception of workload and mobbing. These results were confirmed in study II and the model was enlarged by burnout and coping strategies. Coping attempts help to deal with stressful
situations, that is, to reduce the perceived threat of those situations. If coping mechanisms are inappropriate, stress occurs and leads to physiological and biochemical charges accompanied by psychosomatic and even chronic symptoms. Finally, the characteristics of the individual teacher influenced the process, it was concluded.

Troman (2000), in his study entitled "Teacher Stress in Low-Trust Society" noted that unsatisfactory social relationships with adults, for e.g., colleagues, principals, parents, and inspectors elicited hostile emotions from teachers and appeared to be a source of stress in teaching. The author examined why this should be the case. Using data from 148 school teachers, it was observed that intensification of work and government policies promoting managerialism in schools were the roots of the problem. While intensifications of teachers' work was certainly involved in eroding positive staff relationships, it was also changing the trust relations in high modernity that were shaping the social relations of low-trust schooling, and impacting negatively on the teachers' physical and emotional well-being and their professional relations.

Griffith and Steptoe (1999), aimed at assessing the association between teacher stress, psychological coping responses, and social support with the help of a questionnaire survey of 780 primary and secondary school teachers. In stepwise multiple regression, social support at work and the coping responses like behavioural disengagement and suppression of competing activities predicted occupational stress independently of age, gender, class size, occupational grade, and negative affectivity. High occupational stress was associated with low social support at work and greater use of coping by disengagement and suppression of competing activities. It was concluded that behavioural disengagement and suppression of competing activities were maladaptive responses in a teaching environment, and may actually contribute to occupational stress. Coping and social support, not only moderate the impact of stressors on the well being, but influence the appraisal of environmental demands as stressful.

Punch and Tuetteman (1996), investigated the relationship between support found in the work environment and amelioration of teacher stress in Western Australian secondary schools. The authors hypothesized that, while certain stressors may heighten levels of teacher distress, the effects may be offset somewhat by supportive relationships in the work environment, and by teachers being acknowledged for what they do. The four stressors identified in the study were: (1) inadequate access to facilities, (2) intrusion of
school related work into recreational time, (3) student misbehaviour, and (4) excessive social expectations. Potential avenues for remedy were cited as, 1) support received from colleagues, including principals, and (2) praise and recognition. For both males and females collegial support emerged as the strongest countervailing influence for the amelioration of distress, and the most significant resource for coping with student behaviour problems.

Boyle and Borg (1996), used causal modeling techniques to investigate into teacher stress. Based on a sample of 710 primary teachers, exploratory factor analysis produced a five-factor model of teacher stress, accounting for 65% of variance. To further explore the relationships, the authors found modeled links between the exogenous and endogenous variables. Student misbehaviour and workload emerged as the strongest predictors of stress and were entirely consistent with studies reported elsewhere. However, results for time/resource difficulties and professional recognition contradicted the findings of other researchers. Poor relations with colleagues failed to emerge as a direct predictor of stress in its own light, in contrast to result generally reported by other researchers. Their study, however, offered support for the notion of multiple sources of teacher stress.

Borg, Riding and Falzon (1991), investigated teacher stress, job satisfaction, absenteeism, career intention, career commitment, and self-image in a context which allowed many of the characteristics of an educational system to be incorporated in the design. A questionnaire survey of 545 teachers in Maltese secondary schools revealed that some of the demographic characteristics of the sample were related to self reported teacher stress, job satisfaction, and career commitment. The results also showed that teachers who reported greater stress were less satisfied with teaching, reported greater frequency of absences, and a greater number of total days absent, were more likely to leave teaching (career intention) and less likely to take up a teacher career again (career commitment). Further, 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 experienced by teachers directly influenced the quality of teacher work life.

Louden (1987), in a major Western Australian study sent General Health Questionnaire (GHQ) to a sample consisting of government teachers in the state. 20% of the teachers were found to be suffering from psychological distress whereas 9% suffered from severe psychological stress. Differences between respondents based on sex, age, geographical
region, teaching status, subject taught or level of qualification were not significant. The occupational stressors identified were correlated with level of distress, and grouped into categories of unacceptable student behaviour, time pressures, relationships with colleagues and the community, opportunities for alternative employment, and working conditions. Of these, relationships with colleagues and unacceptable student behaviour were found to be of particular importance.

In a survey conducted by Armes (1985), the head teacher came in for more criticism where out of 291 respondents, 60% found their head teacher to be a source of stress and only 40% found that the Head was a means of alleviating stress. Further, the study revealed that dissatisfaction with their salary caused 'some stress' for 45% teachers, 'considerable stress' for 18% teachers, and 27% teachers experienced 'no stress' arising from considerations of their salaries. Repetitive work and unchallenging tasks were also found to be sources of stress for teachers. Burden of work expressed in form of time spent doing school work in the evenings and at weekends was also found to be 'crushing' for school teachers. Adequate facilities for relaxation in terms of 'a break from working' and 'neuromuscular and mental relaxation' were suggested to alleviate the effects of stress upon physical and mental functions and upon the efficiency of performance.

Sorbom and Wallius (1985), adopted the Lazarus' stress model and attempted to test invariance in stress-strain relationship over time. In a longitudinal study they asked Swedish teachers to fill in questionnaires concerning coping strategies and social support, work load, mental health, physical well-being, and the quality of their sleep. The data were collected twice, at the beginning and at the end of a period of six months. Covariances between variables were analyzed, and relations were found between stress and strain. Relationships between stress and coping strategies and stress and social support, respectively were weak.

Shailaja and Sunagar (2012), conducted a study to know the relationship of teachers' stress. Stress Inventory for Teachers (SIT) is prepared by Sheeja (1999), and the Maslach Professional Burnout Inventory (MPBI) developed by Maslach et al. (1986) were used. About 400 secondary school teachers of Hubli-Dharwad Corporation area were selected by simple random sampling technique keeping in view their educational qualification and teaching experience. There was no significant relationship between teachers' stress and its dimensions and burnouts of teachers of secondary schools with 6-10 years of teaching
experience. There is no significant relationship between teachers' stress and its dimensions and burnouts of teachers of secondary schools with graduate degree. There is no significant relationship between teachers' stress and its dimensions and burnouts of teachers of secondary schools with post graduate degree. There is no significant relationship between teachers' stress and its dimensions and burnouts of teachers of Secondary schools with post graduate degree. There is no significant relationship between teachers' stress and its dimensions and burnouts of teachers of secondary schools with 11+ years of teaching experience.

Teachers not only have the stress of dealing with so many diverse children on a daily basis, but they are also charged with educating and helping to mould these children into productive members of society. With rules, regulations, guidelines, and performance expectations all around, teachers can experience very high levels of stress. The job is very demanding in that it has hardly any end. Quite often teachers must take their work home overnight or on the weekends in order to be prepared for the next class section. The traditional summer break that so many teachers once looked forward to has begun to disappear as well with most schools beginning to adopt block schedules which require nearly yearlong school sessions with no more than one nine week vacation built in.

Times have changed and the societies and cultures have drastically diversified, but the tasks of a teacher are primarily the same, which is the transfer of knowledge to the next generation. With change in cultural norms and traditions in the societies there has been a drastic change in the expectations from a teacher. Some of these changes have limited the measures which a teacher in the past could exercise in disciplining a student, and some have put additional burden on teachers in respect their preparation of lessons and adopting and maintaining their teaching styles. This is because most of the school systems prefer to maintain uniformity in all of their branches.

2.2.6 Degree of stress

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).

The degree of stress (Raschke, 1985; Balse, 1986; Hock & Roger 1996) which teachers experience is positively related to the degree which he/she perceives as a lack of control over a potentially threatening situation such as inability to meet the demands of students and a lack of adequate coping mechanisms. Schools are considered as a formal organization (Hoy & Miskel, 1987), and teachers are susceptible to organizational stress of role conflict and role ambiguity. Many researchers have identified sources of stress among post-secondary faculty members. Their findings have indicated that time pressures (Thompson & Dey, 1998) and high self-expectations (Smith et al., 1995) are the main sources of stress for teachers.

Ravichandran and Rajendran (2007), investigated the various sources of stress experienced by higher secondary teachers. A sample of 200 higher secondary teachers was randomly selected. They were administered the Teacher’s Stress Inventory developed by Rajendran (1998), which measures eight independent factors of sources of stress. The result of the one way ANOVA indicated that the personal variables: sex, age, educational levels, years of teaching experience, and types of school, play a significant role in the perception of various sources of stress related to the teaching profession.

Bertoch (1988) tested a prototype treatment developed to significantly reduce symptoms of stress among in-service teachers. The 30 participants selected for high stress levels were randomly assigned to treatment and control groups. The experimental treatment was
holistic, incorporating all processes previously found to be related to reducing teacher stress. At post-treatment, the treatment group averaged 1.02 standard deviations lower on the stress measures than the control group. Significant differences in the post-test means, favouring the experimental group, were found for 23 of the 39 variables measured on the three self-report instruments. As a group, the participants demonstrated substantially lower stress levels than the control group after the treatment, with a substantial decrease from their pre-treatment stress levels.

2.2.7 Studies on stress among physical education teachers

In India, the major reasons for experiencing stress among physical education teachers could be remuneration, low status and under participation. Even today, physical education teachers are paid less when compared to teachers who teach other subjects in the class rooms. Many a times the appointments are purely temporary, which adds to existing burden. Further, the physical education teachers are given additional responsibilities in their institutions, since they are ‘free’ during working hours. In fact, the workload will be more for them when compared to other teachers, as they have to come early and leave late from their respective institutes.

Again these physical education teachers significantly experience low status in their institute as well as outside the institute compared to other teachers. The physical education teacher’s job is usually considered as second grade job compared to academic teachers. Due to these there will be lesser job satisfaction among physical education teachers, which further increases their stress.

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.

Dealing with problems or difficulties in a calm and appropriate manner is commonly referred to as coping (www.dictionary.com, 2012). How a teacher copes with stress in the school environment affects the impact of stress on their psychological well-being and on physiological response (Griffith, Steptoe & Cropley, 1999).

Coping behaviors or resources come in the form of physical, psychological, social, or material factors and help teachers overcome job-related stressors and achieve their valued outcomes with students (Blasé, 1982). Common positive strategies teachers use to alleviate stress include exercise, social resources, avoidance, reading, hobbies, movement, and meditation (Gulwadi, 2006). These coping strategies used by teachers affect their outlook on the situation, thereby altering the perception of stress (Griffith, Steptoe, & Cropley, 1999). To alter the perception of stress, teachers may invoke inward or outward coping strategies. Inward strategies, such as concentrating on something narrow in the field of stimuli around oneself, include seeking stillness and focus. Outward strategies, such as exercise, involve seeking connections, distractions, and movement (Gulwadi, 2006)

Pehlivan (1993), conducted a study on teachers and inspectors to investigate sources of stress. The researcher found that lack of salary was the most serious stress factor for both groups. However, in this study, lack of salary was not reported as a very serious stressor. It was also reported that not being used abilities in work places because of lack of equipment, unsuitable environment and high number of pupils in each class. This finding was also supported by Brown and Ralph. This study reflected that tension (x=3.40; SD=0.85) and fatigue (x=3.20; SD=1.23) were main stress symptoms on physical educators. Generally, they have done administrative duties in many schools. They have also done their job physically and mentally. That may be why fatigue and tension were the main stress symptoms for physical educators. The effects of stress on performance of physical educators are seen as not to want to go to job and thinking leave the job. These
are seen moderately among physical educators. With regard to gender differences, the study reveals there was no significant difference between male and female physical educators in sources and symptoms of stress, and our results consistent with. The roles of physical educators on students' physiological, psychological and social development are important, so decreasing the effects of stress and improving the quality of their working lives are important for the community. It is necessary to be made organizational arrangements in a short time. Talking with a confidential person was reported the most used strategy to reduce stress. This may have been a cultural thing. In many studies done over Western Countries, as opposed to, more scientific and meaningful strategies have been used to reduce stress such as ensuring that; so that one understands the work one has to teach and prepare for the lessons to be taught. Owing to the relatively small sample size, the findings are suggestive, and should provide hypothesis to be pursued in future research. Studies for physical education teachers are needed. Controls for symptoms of stress and factors causing stress would be required to increase the physical and mental well being of teachers and give rise to quality of education at schools.

Reddy and Anuradha (2013), examined the occupational stress of teachers working at higher secondary level. Three Hundred and Twenty Seven higher secondary teachers from Vellore District in Tamil Nadu were chosen as sample, by using Simple Random Sampling Technique and administered with an Occupational Stress Rating Scale. To overcome occupational stress, the researchers have suggested some measures which could prove beneficial to teachers in coping with stress are: improve self esteem, build self confidence, work on building emotional intelligence competencies, develop a good sense of humour, practice yoga and meditation, exercise regularly, foster a supportive friend circle, cultivate hobbies, develop effective communication skills, and seek professional help, if necessary.

Singh and Kumar (2012), study was to analyse the occupational stress and job satisfaction among different faculties of Jawahar Navodaya Vidyalayas of India. Two hundred and forty teachers (120 male and 120 female teachers which consists 30 male and 30 female teachers belonging to each faculty namely physical education, Arts, Commerce, and Science) were randomly selected for the study. To measure job satisfaction and occupational stress of teachers a questionnaire of job satisfaction prepared and standardized by Dixit (1986) and a questionnaire for occupational stress prepared and
standardized by Rathod (2006) and Verma (1997) were selected as criterion variables. The collected data was analyzed and interpreted on the objectives of the study by using descriptive statistics i.e. Mean and Standard deviation. The data was also analyzed by using percentile technique of statistics. It was found that there is very low degree of Job satisfaction among and very much occupational stress among teachers of differences faculties of Jawahar Navodaya Vidyalayas of India.

In a study in Bahrain, Al-Khalefa (1999), found the major causes of stress for physical education teachers to be: work conditions; salaries, bonuses and allowances; status of physical education; supervision; school facilities; workload; career development. In summary, many causes of stress have been identified for teachers in general, including physical education teachers, although there are some causes specific to physical education teachers and some to teachers (including physical education teachers) in the Middle East. It would also be expected that there would be differences for other groups of teachers with different backgrounds and experiences which may result in them interacting differently with their environment.

Evans, Ramsey and Johnson (1986), analyzed the effect of intrinsic and extrinsic occupational stressors on 47 physical education teachers randomly selected from the Florida public schools. Perceived levels of stress were compared among these teachers when physical illness, psychological strain and absenteeism were functions. Results indicated that physical education teachers who experienced physical illness or psychological strain during the school years had significantly higher levels of both intrinsic and extrinsic job-related stress than the teachers who did not. Stress also appeared to be a significant factor among teachers who experienced excessive absenteeism from work.

According to Kumar, Shirotriya and Kumar (2013), physical education teachers are also ‘subject’ teachers. They should be qualified in their subject (P.E. & Sports Sciences) and should also be able to demonstrate the same kind of sportsmanship that they expect their students to imbibe. Job satisfaction and occupational stress are the two burning variables in human resource management researches. Physical education teacher’s job satisfaction and stress can have both economic and personal implications as it can lead to stress-related employee absenteeism, burnout and a negative impact on pupil outcomes.
Occupational stress and Job satisfaction both indicate physical education teacher’s appraisal towards the school and their work. Regular check up of physical education teachers occupational stress and job satisfaction are very essential to the continuing growth of Indian contingent rank in Next Olympic.

Awarad and Karve (2011), study is to compare the organizational climate, occupational stress and work motivation of physical education teachers working in different management of schools in Gulbarga. To achieve the purpose of the 93 physical education teachers aged 25 to 40 years, with at least one year experience in anyone of different management of schools in Gulbarga were selected for this study. The sample was selected randomly, 31 subjects each from government, govt. aided and unaided schools out 500 schools. The following criterion measures chosen for testing the hypothesis in the study, organizational climate is measured by organizational climate scale by Pethe, Chaudhari and Dhar (2001), Occupational stress is measured by occupational stress index by Srivastava and Singh (1981), Work motivation is measured by work motivation questionnaire by Agarwal (2008). The data is collected through mail as well as direct contact with the respondents. It is concluded that significant difference obtained in occupational stress of physical education teachers working in different management of schools in Gulbarga. Significant differences found on occupational stress of physical education teachers working in unaided and government schools. Un-aided schools teachers have better organizational climate than the aided and government school. Unaided schools teachers have higher occupational stress in comparison to the aided and government school. The government school teachers have better work motivation than the aided and unaided schools.

Singh and Valsaraj (2011), conducted a study on occupational stress of physical education teachers in different management of schools in Uttar Pradesh: a comparative study. The results of the study have shown significant occupational stress difference of physical education teachers in different management of school, unaided schools differ from government schools in occupational stress. It has been observed that unaided schools were noticeably affected by success/failure in terms of the job, potential psychological and situational conditions or job factors, which cause occupational stress than government schools. Occupational stress and burnout are associated with poor health in teachers.
According to Singh (2010), occupational stress among physical education teachers has become quite inevitable these days due to manifold increase in job complexities and challenges. The expectations of the society towards physical education teachers are very high in the sense that they are looked upon as the only leaders who can protect and save general fitness of the sedentary people in the machine age. With the change in the concept of the subject, a physical education teacher has to concentrate upon success factors rather than think about failures in order to achieve proper results. However, the status of physical education teacher has deteriorated over the past few decades due to more than one reason.

Singh, Sharma and Kaur (2009), made to compare job satisfaction among physical education teachers working in different types of schools such as government, private and public schools in the state of Haryana. It was hypothesized that there would be significant difference among government private and public school physical education teachers as regards to their job satisfaction. In order to achieve the objective of the study, Job Satisfaction Scale (JSS) by developed by Singh and Sharma was administered on a sample of total 300 physical education teachers working in the state of Haryana. Out of these, the teachers working in government schools numbered 116 whereas from private and public school category, 92 teachers each were taken for the purpose of the study. Results of the study showed that significant differences in job satisfaction existed among the three categories of the teachers. It was found that government school physical education teachers differed significantly from their counterparts in public schools whereas this difference was not found to be significant between government and private school teachers and also between private and public school physical education teachers.

Al- Mohannadi and Susan Capel (2007), conducted a study on physical education teachers in Qatar. The purpose of this study was to identify causes of stress for physical education teachers in Qatar at the beginning and end of the school year as well as any changes over the course of the year. A second purpose was to try to explain any differences in causes of stress according to: gender, nationality, type of school, and amount of experience. Results showed that there were different causes of stress for different groups of teachers which could be related to different backgrounds and experiences and different roles and responsibilities in society as a result of different cultural and social expectations and environmental factors.
Akindutire (2006), in his study examined the role conflict and stress among physical education teachers working in Nigerian senior secondary schools. Date were collected through a self structured questionnaire, from a sample of 300 (190 male and 110 female) Physical Education teachers handling physical education programmes in their respective schools. As a part of its objectives, the study examined:

- The nature of legitimate and unrelated roles performed by the Physical Education teachers;
- Reasons for performing such unrelated roles;
- The level of conflict exhibited in role performance; and
- The consequences of role conflict.

The results drawn on the basis of percentages mean scores and t-test revealed that teaching and coaching roles were ranked highest in terms of performance by the secondary school physical education teachers. A high percentage of teachers were performing other roles quite unrelated to physical education role, which could be considered as unhealthy for the improvement of Physical Education programmes in schools. There were significant differences in the level of conflict in their role performance using sex and qualification as determining factors, whereas no significant difference was recorded in case of teaching-experience variable. Among the reasons why the physical education teachers had to perform unrelated roles were inadequacies of facilities to run physical education programme and lack of interest on the part of the school principals whose philosophy has always an impact on implementation of physical education programmes. The study further concluded that the consequences of role conflict may be stress and frustrations which may have further far-reaching effects on the behavior and overall personality of a person, including the physical educator.

Rathod (2006), study on job-stress of physical education teachers indicated inclination towards 'moderate occupational stress'. The graduate only teachers, teachers working in local body schools, teachers working in girls only schools expressed more occupational stress. The older aged physical education teachers expressed more occupational stress. The teachers with lesser experience and highly experienced had expressed greater occupational stress.
Capel (1997), questioned student Physical Education teachers following first and second teaching practices on their levels and sources of anxiety. Evaluation apprehension emerged as the stressor in both practices, although it declined in the second teaching practice. It was suggested that stress can be reduced by exposure and positive experiences of observation feedback.

Verma (1997), investigated the occupational stress and job satisfaction of Physical Education Teachers working in govt., private and public schools of U.T. Chandigarh. He found significant difference between Physical Education teachers working in govt. and public schools in their occupational stress and job satisfaction. Physical Education teachers working in govt. and private schools were also found to be significantly different in their occupational stress and job satisfaction.

Mohammed (2000), and Murad (1997), found that causes of stress for physical education teachers in Egypt include: pupils’ behavior; problems related to the curriculum; school facilities; workload; time pressure; role conflict; work routine; low supervision; the relationship between the physical education teacher and school administration; lack of support from the school administration; lack of appreciation shown by school administration and parents; relations with colleagues; the profession’s stress itself; lack of professional satisfaction; low status of physical education teaching; societal attitude toward physical education; low salary/ inadequate income from teaching. In a study in Bahrain, Al-Khalefa (1999), found the major causes of stress for physical education teachers to be: work conditions; salaries, bonuses and allowances; status of physical education; supervision; school facilities; workload; career development.

Reynolds and Swan (1991), aimed to investigate physical education teachers' orientation towards teaching on the basis of a theory of organizational socialization. They compared these orientations with lesson objectives and the methods by which teachers coped with their school environments. Ten Physical Education teachers were selected out of which five were identified as innovators and five as custodial or non-innovative teachers. The results of this exploratory study indicated some support from the organizational theory in the career patterns of innovative teachers which significantly differed from the custodial physical educators. For example, the custodial teachers had experienced very stable career histories and had shown little inclination for study leave or other substantive
breaks from teaching. The analysis also indicated links between lesson objectives and coping behavior, while the custodial teachers tended to adjust their ideas to match those of the schools, the innovators were more determined to change decisions or policies with which they disagreed.

Tsigilis, (2006), examined whether physical education teachers working in primary and secondary schools experience the same burnout levels. Four hundred and thirty seven full-time Greek physical education teachers from primary and secondary public schools filled in the “educator’s” version of Maslach Burnout Inventory. Two hundred and seven where teaching in primary schools and 230 in secondary. Multivariate analysis of variance showed that physical education teachers working in the primary schools reported significantly and meaningfully higher levels on the core burnout dimension, namely emotional exhaustion” in comparison to their colleagues in the secondary schools. Moreover, the strength of association among the three burnout components was more prominent in primary physical educators than in secondary. The study indicated that the education level in which physical education teachers are working represents an important job characteristic that influences burnout levels and should be taken into consideration when this syndrome is examined, at least within the Greek educational system.

Konukman, Agbuga and Erdogan (2010), found stress to be associated with role conflict. The study revealed that teaching and coaching are two different occupational roles, each having specific stress and burnout problems. These two different roles when performed together result into role conflict and thus occupational stress among Physical Education teachers who also worked as coaches.

Alay & Koçak (1999), conducted a study to examine the sources and the symptoms of stress among selected elementary physical education teachers in Ankara. The second purpose was to identify the methods, which was used to cope with stress. The third purpose of this study was to explore the relationship between stress and performance of physical education teachers. A 78-item questionnaire was distributed to 39 elementary physical educators. Results about sources of organizational stress revealed that lack of educational equipment, not to be use the abilities in the job and not to get the equivalent of work were mainly stress sources of physical educators. The results of this study also indicated that fatigue and tension were main stress symptoms of physical educators.
Physical education teachers reported that talking with a friend is mostly used method to cope with stress among them.

Feigin, Talmor and Erlich (2005), examined the relationship between inclusion and burnout in Physical Education teaching. Data collected from a sample of elementary school Physical Education teachers from all the six districts of Israel revealed that the school grounds and sports facilities were not adjusted for students with special needs; it took too much time for these students to be diagnosed and receive special treatment, there were difficulties in assessing these students, maintaining their safety, using special teaching methods to include them in classes and reporting to their parents. Results of the regression analysis did not support the hypothesis that teachers’ personal resources and workload were related to burnout, they did, however, support the hypotheses that the number of special education students in class was positively related to burnout; the amount of help the teacher received in treating such students was negatively related to burnout; the more the teachers felt that the structural and the social dimensions at the workplace were incongruent with their work, the more they were burned out.

Lee et al. (2006), conducted a study on occupational stress and burnout among Korean secondary physical education teachers: testing the job demands-control-support model. There are eleven latent variables. Six latent variables related to the JDCS model were classified as exogenous variables, while five latent variables related to burnout and its outcome were treated as endogenous variables in the model. A total of 399 Korean secondary PE teachers responded, giving an overall response rate of 80%. The investigation of burnout among Korean secondary PE teachers indicated that they scored significantly lower on emotional exhaustion and depersonalization and higher on diminished personal accomplishment than the norms for the U.S. teachers. The results of the data analysis for testing the hypothesized model of burnout revealed that of 16 paths specified in the hypothesized model, 8 were found to be statistically significant for Korean secondary physical education teachers. These paths reflected the impact of

- Role ambiguity, work overload, and role conflict on emotional exhaustion;
- Emotional exhaustion on depersonalization;
- Peer support and depersonalization on personal accomplishment;
- Personal accomplishment on occupational commitment; and
- Personal accomplishment on job satisfaction.
Three paths not specified a priori (supervisory support occupational commitment; peer support occupational commitment; peer support job satisfaction) proved to be essential components of the causal structure because they were added to the model. Unexpectedly, job demand stressors of role ambiguity, work overload, and role conflict were positively related to the burnout dimension of emotional exhaustion when job control and social support were high.

Pal (2001), in his study attempted to examine the occupational stress, job satisfaction and adjustment among 140 Physical Education teachers (79 male and 61 female). The study concluded that there was a significant difference among Physical Education teachers working in different types of schools in their occupational stress, job satisfaction and a number of adjustment variables. No significant difference was observed between male and female Physical Education teachers working in government and private schools whereas, this difference was significant in teachers working in public schools in four of the adjustment variables namely socio-psycho, professional, personal life and overall adjustment variables. He also found significant positive relationship of occupational stress with job satisfaction and three of adjustment variables. Similarly, significant positive relationship of job satisfaction was also observed with four of the adjustment variables.

Sharma (2000), conducted a comparative study on 110 male college physical education teachers of Himachal Pradesh, Punjab and Union Territory Chandigarh in occupational stress, job satisfaction and adjustment variables. The study revealed that Physical Education teachers of Himachal Pradesh state experienced more occupational stress than their counterparts in Punjab state and Union Territory Chandigarh. However, no significant difference was observed in their academic and general environment, professional relationship and personal life adjustments. But socio-psycho-physical and financial adjustment of Physical Education teachers working in Punjab and Chandigarh were found better than teachers working in the colleges of Himachal Pradesh. Teachers of Physical Education working in Punjab and Chandigarh were found overall better adjusted than the teachers working in the state Himachal Pradesh.

Cheng (1997), attempted to understand the relationship among occupational stress, coping strategies and burnout for elementary school Physical Education teachers in Changhua
County. He used documentary analysis, questionnaires and interviews to collect the research data from 329 teachers and the mean scores of teachers’ occupational stress and coping strategies were found to be above 3 on 5-point scale, while the mean score of teachers’ burnout was found to be below 3. Significant differences among the demographic variables of teachers’ occupational stress and coping strategies were also found. However, no significant differences among the demographic variables of teachers’ burnout were noticed. Overall, teachers’ occupational stress and coping strategies had a positive correlation whereas teachers’ coping strategies and burnout had a negative correlation, and so did the teachers’ occupational stress and burnout.

2.2.8 Studies on coping patterns

Teaching whether traditional or physical education, has now become a very demanding occupation with a lot of stresses for a teacher who has many deadlines to meet and various responsibilities to shoulder besides teaching a child what are in a text book. Teaching has been identified as one of the most stressful professions today. The reasons for that are quite similar to other stressful occupations in the world. In a survey assessing the stress levels of various jobs by the health and safety executive, teaching came out top. The report, The Scale of Occupational Stress, in a further analysis of the impact of demographic factors and type of job, published in 2000, found that 41.5% of teachers reported themselves 'highly stressed', 58.5% came into a 'low stress' category, while 36% of the teachers felt the effects of stress all or most of the time. This is indeed an alarming state and visibly also the biggest reason for school teachers quitting at a very high percentage or seeking professional help to fight back stress. Some of the studies on coping with the stress have been delineated below.

Konukman, Agbuga and Erdogan (2010) found stress to be associated with role conflict. The study revealed that teaching and coaching are two different occupational roles, each having specific stress and burnout problems. These two different roles, when performed together, result into role conflict, and thus occupational stress among physical education teachers who also coach.

Kyriacou (1987), reported that "studies worldwide typically indicate that a large proportion of teachers report experiencing stress or burnout. School-teachers reported one
of the highest levels of occupational stresses”. Many studies stated that pupil recalcitrance and excessive demands on teachers' time were serious stressor for teachers

Teacher stress is closely linked to strain and burnout. Strain is any unpleasant behavioural, 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 behavioural 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. Behavioural dysfunction explains any change in normal behaviour 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 (Blasé, 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).

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 (Blasé, 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).

Talmor, Reiter and Feigin (2005), aimed at identifying the environmental factors that relate to the work of regular school teachers who had students with special needs in their classroom, and to find out the correlation between these factors and teacher burnout. A total 330 primary school teachers filled in a questionnaire that had three parts : (1) personal background data, (2) the Friedman's burnout questionnaire, and (3) environmental features typical of the work of school teachers that include students with special needs in their classroom, in four areas : psychological features, organizational, structural, and social. The results showed that the background data that related
significantly to burnout was teachers' attitudes towards inclusion. The more positive the attitude was, the more the teacher experienced burnout in the category of self-fulfilment.

Chan (1997), investigated the relationships among teacher stressors, active and passive coping strategies, and psychological distress in a sample of 412 Chinese secondary school teachers in Hong Kong. A direct effect, or stress-distress, model and a mediational, or stress-coping, model were postulated and tested with structural equation modeling procedures. For comparison, a direct-and-mediational model and a moderated effect model were also fitted to the data. The results indicated that the mediational model with coping strategies mediating the effects of stressors on psychological distress represented an adequate fit to the data. Implications for the role of active and passive coping strategies in mitigating the effects of stressors on psychological distress and for teacher stress management are discussed.

Starnaman and Miller (1992), aimed explicitly at developing and testing causal relationships of stress in teaching. They questioned 182 American teachers about burnout using the Maslach Burnout Inventory (Maslach & Jackson, 1981). Principal support, workload, role ambiguity and role conflict were also studied. Contrary to expectations, a positive relation between principal support and depersonalization emerged, i.e., teachers who felt well supported by their principals had more negative attitudes about the students than teachers who perceived lower levels of support. Workload occurred as a major source of stress or emotional exhaustion. Role conflict and role ambiguity were good predictors of burnout, and principal support led to less role conflict and role ambiguity, were the conclusions.

Tatar and Horenczyk (2003) put out 'Diversity related burnout' as a concept that can add to the understanding of the negative impact of daily coping with culturally diverse students on teachers. A Principal Component Analysis, based on the responses of 280 teachers working at 30 Israeli schools, showed that diversity - related burnout is empirically distinguishable from, even though correlated with, the more traditional notion of teacher burnout. The results also revealed that diversity - related burnout is predicted by variables related to teacher's background, to the degree of school cultural heterogeneity, and to the aspects of the school organizational culture related to multiculturalism as perceived by the teacher. The highest levels of diversity related
Burnout were found among teachers categorized as assimilator, and who worked in schools perceived by them also to be assimilations.

A study on stress and burnout in rural and urban secondary school teachers was conducted by Millicent and Joanne (1999). The sources of stress and symptoms of burnout were examined in 51 rural and 46 urban secondary school teachers from 11 school systems in Georgia and North Carolina. Urban school teachers experienced significantly more stress from poor working conditions and poor staff relations than did rural school teachers. Stress from pupil misbehavior and time pressures was significantly greater than stress from poor working conditions and poor staff relations for both rural and urban school teachers. Poor working conditions and time pressures predicted burnout for rural school teachers; pupil misbehaviour and poor working conditions predicted burnout for urban school teachers. The results were discussed in relation to designing effective programmes to prevent the negative effects of stress and burnout.

In recent years, the issue of burnout has received considerable research attention. A plethora of studies on burnout have consistently documented that this phenomenon results in significant consequences, both at work and in family life (Hellesøy et al., 2000). For example, burnout has been associated with job turnover, absenteeism, low morale, and reduced feelings of job satisfaction for those suffering it. Among the various definitions that researchers have suggested for the comprehension of the burnout phenomenon, Maslach, Schaufeli and Leiter, (2001), approach seems to be accepted by majority of the researchers. These authors conceptualized burnout as “… a tridimensional syndrome characterized by emotional exhaustion, cynicism (depersonalization), and reduced efficacy (reduced personal accomplishment)” (p.399).

Burnout has mainly been associated with the helping professions, such as education, health, and social services (Koustitos & Tsigilis, 2005). As far as teaching is concerned, it has been characterized as a profession very susceptible to burnout (Maslach et al., 2001). In fact, Maslach et al. (2001) reported that teachers have the highest level of emotional exhaustion, whereas the other two components are close to average. The importance of burnout syndrome in the educational setting is even more emphasized, because apart from affecting the mental, psychosomatic, and social health of educators, it also decrease the quality of teaching and work performance, which in turn may negatively
influence students’ academical achievement (Blandford, 2000). Maslach and Jackson (1986) recognizing the deleterious effects of burned-out teachers on themselves, their students, and finally on the learning process, and the importance of studying burnout phenomenon in the educational environment developed an Educators version of the Maslach Burnout Inventory. Numerous researchers use the MBI Educators version for the assessment of burnout phenomenon in various education levels (elementary, intermediate, secondary) across different cultural contexts such as North America (Boles et al., 2000), Canada (Byrne, 1991), Dutch (Schaufeli et al., 1994), Greece (Kantas & Vassilaki, 1996), and Cyprus (Kokkinos, 2006). The results of the above data seem to indicate that teachers working in European countries experience lower levels of burnout in comparison to their colleagues in Northern America (Kantas & Vassilaki, 1996). In particular, Van Horn et al. (1997) found that Dutch teachers had lower levels of emotional exhaustion and depersonalization than their Canadian peers.

Similar results were found when Greek teachers were compared to a US normative teachers sample (Koustelios, 2001). Finally, the Greek secondary teachers reported lower levels of burnout in relation to their European colleagues (Pomaki & Anagnostopoulou, 2003). Various studies have been conducted to investigate the influence of background variables such as gender, age, teaching experience on educators burnout scores (Antoniou et al., 2006). However, Maslach (1999) pointed out that job factors are more strongly related to burnout syndrome than background characteristics. Indeed characteristics of the work setting are likely to affect how employees felt about their job and whether they experience burnout. For example, in a recent study it was found that the domain in which early educators worked, namely, public or private, affected their perceived levels of emotional exhaustion (Tsigilis et al., 2006). An important job factor in the teaching profession, which received little attention, is whether teachers are working in primary or secondary education, especially for physical education teachers (Koustelios & Tsigilis, 2005).

The results of the few existing studies are far from conclusive. In particular, certain authors suggested that burnout is more prevalent among secondary school teachers than among primary (Schwab et al., 1986). Other studies reported that secondary teachers did not differ from primary teachers in the core burnout dimension, namely, emotional exhaustion (Byrne, 1991). Finally, Tatar and Horenczyk (2003) found that Israeli teachers
working in primary schools were more burned-out than their counterparts in secondary. Moreover, Kokkinos (2006) reported that primary Greek Cyprus teachers experience higher emotional exhaustion and lower personal accomplishment levels than their secondary peers. The results of the above mentioned studies clearly indicate the need for additional research for better understanding the different burnout patterns among the two education levels.

Ling (1995), reviews the different conceptualizations of teacher stress and burnout, and agrees that the interactional approach proposed by Dunham (1992), is more constructive. The author goes on to review the research literature on prevalence, sources, and effects of occupational stress among schoolteachers in other countries and in Hong Kong. Research findings on the coping strategies that teachers use to tackle stress are also reviewed. The author identifies policy changes that can potentially reduce levels of stress among Hong Kong teachers. Specifically, unresolved issues relating to teacher stress in the light of the reports of the Education Commission are discussed. They include: medium of instruction, common-core curriculum, allocation of Form 1 places, and behavioural problems in classrooms. Based on a qualitative costs and benefits analysis, the author concludes the paper by proposing the expansion of educational psychology services in Hong Kong as a targeted alternative for reducing teacher stress.

Friedman (1991), examined personal and organizational factors associated with high and low teacher burnout, with a particular emphasis on environmental variables. The findings of the study revealed four major school variables in high burnout schools, including: (1) the pressure of measurable goal achievement behaviours imposed by school management, (2) distrust of teachers' professionalism, (3) a school culture which was perceived as circumscribed, and (4) an unpleasant physical environment. For teachers in high burnout schools, the effect on professional functioning included a decline in teaching, performance, emotional and physical exhaustion, low commitment to teaching goals, absenteeism, and early retirement. Friedman in this study also discussed the influence of teacher burnout on students, citing exaggerated behavioural rigidity and inflexibility towards students, reduced expectations for student effort, and low frustration tolerance within the classroom. In essence, the study described the psychological and behavioural manifestations of work stress and implicitly identified the direction of effect as 'teacher to student'.
Hipps and Smith (1991), conducted a study with the purpose to determine the amount of variance in burnout and job satisfaction in public school teachers and principals which could be accounted for by stress related to the state's performance-based accreditation standards, to examine the relationship between stress related to state standards and the age and gender of the educators, and to develop measures of educator occupational stress common to both teachers and principals, and stress related to the state performance based accreditation standards. The surveys were sent to teachers (N=445) and principals (N=128). Responses were received from 219 teachers and 58 principals. A cross validation study of non-respondents yielded usable responses from 13 additional teachers and 7 principals. Five factors describing the dimensions of education stress were identified: (1) Job overload, (2) Subordinate super-ordinate relationships, (3) Relationships with students, (4) Relationships with peers, and (5) Salary and compensation. The results of the study suggested that the educators were experiencing a significant amount of stress related to their everyday job situations and to performance - based accreditation standards, and that this stress was mediated by locus of control.

2.2.9 Studies on coping patterns among physical education teachers

The purpose of this study was to examine whether physical education teachers experience the same burnout levels between two different educational levels. Among teachers from various disciplines, the present study was focused on physical educators for two reasons: (a) In the Greek educational system, physical education lessons are delivered only by qualified physical education teachers in both primary and secondary schools. Thus, a comparison of burnout between the two education levels is meaningful. (b) On the other hand, physical education teachers’ working conditions are far from similar in comparison to other school-based teachers. Physical education classes heavily depend on equipment and facilities and are mainly conducted outdoors on tracks, courts, or school-yards which results in increased problems for maintaining class discipline and demands constant alertness for students safety and security. The physical education teachers have a dual role, to teach and to coach, and they are frequently obliged to teach under different weather conditions (heat and cold), away from the classroom shelter. Therefore, physical educators have unique working characteristics in relation to teachers from other disciplines, and hence, differentiate burnout sources which might lead to different burnout patterns (Koustelios & Tsigilis, 2005).
Several explanations have been provided for the low burnout levels of physical education teachers. Specifically, it has been argued that the diminished place of the physical education in school hierarchy in comparison to other subjects, the low expectations of physical education, and the increased levels of autonomy during realization of the physical education classes, might be responsible for the observed low burnout scores (Koustelios & Tsigilis, 2005). Moreover, in a recent study by Antoniou et al. (2006), it was found that the major stressors influencing Greek teacher’s burnout are overcrowded classrooms, student’s lack of motivation, poor achievement, and disciplinary problems. These sources of stress might have a low impact on physical education teachers, since the overcrowded classrooms are spread in the school yard or in the gym and most of the students are highly motivated to participate in the physical education lessons. In addition, the low expectations from the physical education lessons combined with the fact that in some cases physical education grade is excluded from the calculation of the average achievement grade decreases the importance of achievement.

The comparison of the three burnout dimensions showed that physical education teachers who teach in primary schools experience higher levels of emotional exhaustion and lower levels of personal accomplishment than their counterparts working in secondary schools. However, the eta-square value regarding the personal accomplishment was very small, suggesting trivial differences and they are not interpreted. On the other hand, differences in the emotional exhaustion dimension were both statistically significant as well as meaningful as indicated by the effect size value (value = .048). It is worth noting that emotional exhaustion is regarded as the core and most robust element of the burnout syndrome (Rohland et al., 2004). It develops independently from the other two burnout components and predicts personal accomplishment and depersonalization (Lee & Ashforth, 1993).

Thus, it is not surprising that several studies used emotional exhaustion as the central measure of burnout phenomenon (Tsigilis et al., 2006). Although it is early for final conclusions regarding the different levels of emotional exhaustion experienced by physical educators in primary and secondary schools two possible explanations can be offered. The first one can be attributed to the different working conditions which exist across the two education levels. According to the Greek education system, educators in primary schools teach more hours per week (21-24) than their colleagues in the secondary
(16-21). On the other hand, the existing national curriculum for physical education is more demanding in the primary than in the secondary grade. For example, primary physical education teachers are expected to teach a variety of activities (e.g., elements of movement, fundamental motor skills, and traditional dances) and sport skills (e.g., track and field, basketball, and volleyball). Thus, for these educators the purpose of their work is to help students to learn and is more likely to be emotionally involved. In contrast, the role of the secondary physical educators, especially in the last grades, is to establish the acquired skills by organizing games or matches and supervising them.

Finally, the inherent increased mobility of primary students requires high organization of the class, constant alertness by the physical education teachers, and increased responsibility for the adoption of the correct safety measures. The above described different working environment between the two education levels may lead to increased working load and in high personal and emotional implication for physical educators working in the primary schools than their peers in the secondary resulting in higher levels of emotional exhaustion. The second explanation might be related to specific background characteristics of the participants, namely their age and teaching experience. The majority of international and Greek research evidence suggests that burnout is more pronounced in younger employees or people newer to the profession (Antoniou et al., 2006). It has been argued that the first experiences of burnout may encounter as early as the student-teaching (Gold, 1985). During the initial stages of teaching educators accustomed with the habits of their profession and develop adaptive or maladaptive coping skills to overcome the occupational stress (Gold, 1985; Greer & Greer, 1992). In the present study, primary physical educators were younger and had lower teaching experience than their secondary peers.

2.3 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 programmes and coping mechanisms that can be made within the organizational structure of schools and 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.

From the review of literature given above regarding the studies on occupational stress and
coping pattern among teachers, it may be said that many studies have investigated
different aspects of these variables in teaching as well as other types of jobs. Some studies
have attempted to find out causes/sources of occupational stress among teachers in
general and physical education teachers in particular, whereas some studies have clearly
mentioned that role conflict, role ambiguity, inadequate relationships, limited promotional
opportunities significantly relate to teachers’ stress/dissatisfaction. Some researchers
have also studied the impact of occupational stress/dissatisfaction on health, morale,
productivity and efficiency of teachers’ along with studying the coping
strategies/techniques to combat occupational stress. The comparative studies on
occupational stress, job satisfaction and adjustment on the basis of gender, age,
educational qualifications, teaching experience, etc. have also been attempted to be
probed by some researchers, besides studying the interrelationship among occupational
stress, job satisfaction, and various sub-variables of adjustment among teachers.

Stressors are always present in the profession of teaching, which suggests that teachers
should learn techniques to manage stress to remain as effective teachers. One such
method suggests a simple ABC stress management model which recommends first
acknowledgement of the stress, second modification of behaviour, and finally
communication with students and other staff. Just as it is with many challenges in life, it
is better for teachers to be proactive, rather than reactive, with the management of stress.
A widely recognized proactive stress management method is to maintain a healthy
physical state through regular exercise, a nutritional diet, and good sleep. Another well
recognized proactive method of combating stress is to maintain a strong mental state:
intellectually, emotionally, and spiritually.