

THE RELATIONSHIP BETWEEN SEX AND OTHER
CHARACTERISTICS TO TEACHER STRESS AND
COPING STRATEGIES: THE CASE OF WESTERN
ZONE ELEMENTARY SCHOOL
TEACHERS OF TIGRAY

BY
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ABSTRACT

This study investigated the relationship of sex, age and teaching experience to teacher stress and teachers' coping strategies as well as sex difference on teacher stress and coping strategies. The study involved a random sample of 200 school teachers (100 Males and 100 Females) in 8 elementary schools of Western Zone Tigray. Overall the results suggested that a considerable portion of elementary school teachers (about one-fourth) in the present study rate their profession as very stressful or moderately stressful. Regression analysis further showed that teacher characteristics such as teaching experience, and sex were predictive of work-related teachers stress. In addition, experience and age of teachers were identified as relatively more important characteristics in explaining teachers' coping strategies. Age of teachers, however, was related negatively to teachers' coping strategies. Furthermore, female teachers appear to experience more stress reactions to pupil misbehavior and time pressures than male teachers. On the other hand, causes of stress for male teachers seem to arise mainly from poor school ethos. Contrary to cultural stereotypes, there were no significant sex differences in employing emotion-focused and/or problem-focused coping strategies between male and female subjects. The discussion focused on a comparison of the findings with previous findings. The implications of the findings for stress prevention among school teachers are also identified.

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CHAPTER ONE

INTRODUCTION

1.1. Background of the Problem

Concerns regarding stress and coping among school teachers has been raised for over 40 years (Turk, Meeks and Turk, 1982). In the mid-1970's studies of occupational stress and burnout amongst school teachers were generally few and far between (Kyriacou, 1987). In the decade since then, the number of studies reported has mushroomed, and the international concern with teacher stress is reflected in recent studies conducted in countries like the UK (e.g., Kyriacou and Pratt, 1985), the United States (e.g., Farber, 1984), Israel (e.g., Kremer and Hofman, 1985) and Australia (e.g., Docking, 1985). Indeed it has also featured prominently in a recent report on teachers' working condition published by the International Labour Organization (1981).

The phrase 'teacher stress' has been defined as the experience by teachers of unpleasant, negative emotions and distress that exist when the problems confronting teachers threaten their well-being and surpass their ability to resolve these problems (Kyriacou, 1980; Kyriacou and Sutcliffe, 1978a; Lazarus, 1974).

Teaching has been identified as a particularly stressful occupation (Cacha, 1981 and Landsman, 1978). Negative aspects of the job such as disciplinary problems, student apathy, overcrowded classrooms, involuntary transfers, excessive paperwork, inadequate salaries, demanding or unsupporting parents and lack of administrative support are among the stressors that confront teachers. As a result of these stressful aspects of teaching, stress among teachers occur, expressed in different forms: physical (e.g. headaches, peptic ulcers) psychological (e.g., depression, anger) and behavioral (e.g., deterioration in work performance, absenteeism).

Teacher stress is thought to be one reason for the increase in the number of competent teachers who are leaving the classroom for alternate careers (Cunningham, 1982; Aklilu 1967).

Empirical studies of teacher stress have attempted to identify the teacher characteristics that are associated with higher stress levels. Findings have indicated that age, sex and length of teaching experience are significant predictors of scores on the Maslach Burnout Inventory (Anderson and Iwanicki, 1984; Beck and Gargiulo, 1983; Crane and Iwanicki, 1983).

A study by Russell (1987) indicated that greater emotional exhaustion was reported by younger teachers. More negative attitude toward students (depersonalization) were reported by male and secondary teachers. In addition a greater sense of personal accomplishment was reported by elementary school teachers.

Using his teacher stress inventory Radloff (1977) 76% of the teachers, both sexes described their personal level of stress at their school site as moderate or higher. Several other researchers including Roderic (1996), Liberman and Miller (1978) and Kelly (1976) identified several stressful events that are related to sex. Female primary school teachers attributed most of their stress to the routine of the school day and amount of time spent in non-instructional activities, whereas, those male teachers attributed to class size, low salaries, discipline problems and mixed ability grouping.

The level of stress a person experiences, and perhaps the extent to which deleterious effects occur depends on how and how well he copes in stressful situation. Although the importance of coping is acknowledged in theoretical research (Lazarus and Folkman, 1984); empirical studies of coping related to work setting are relatively few.

Dunham (1980) Kyriacou and Sutcliffe (1978b) and Pratt (1978) have investigated various aspects of occupational stress among school teachers. Little attention, however, has been paid to how teachers actually attempt to cope with stress.

Social support has been identified as resource that enables individuals to cope with stress (House, 1981). According to the moderating hypothesis, individuals who have supportive social relationships are able to rely on others to aid them in dealing with stressful situations. As a result, stress does not have negative effects on their physical and psychological health. On the other hand, individuals who lack supportive social relationships are vulnerable to the effect of stress (Russell, 1987).

Various writers (Kirk and Walter, 1981; Moracco and McFadden, 1982; Paine, 1981) have suggested that increasing the social supports available to teachers may be useful strategy for preventing teacher stress and burnout. However, empirical evidence concerning the impact of social support on stress and burnout among school teachers is very limited. In one case (Zable and Zabel, 1982) it was reported that special education teachers who perceived greater administrative, peer, and parental support were less burnedout.

Research with both primary and secondary teachers Fontana and Abouserie (1993) found that men were more likely to depend on their spouse for emotional support, nurturance and interest to social interaction. Women on the other hand, were more likely to cope by searching for social support, which in turn facilitates the stressful process. Male teachers, however, remained significantly more depressed than females by showing sign of withdrawing from others and feeling of more remote and apart from friends.

Capline *et.al* (1975) studied 23 different occupations. Findings have indicated that no sex and age difference in the ways of coping.

Previous studies conducted in Ethiopia, though mostly unsupported by empirical evidence (See the review by Ayalew, 1983) signify that teachers working conditions and life conditions are below the required level. Periodic curriculum changes, for which teachers are not psychologically ready to accept and implement, mismatch between salary increments and inflated cost of living, unpromising promotion prospects and various other factors exacerbate teachers' problems.

In a nation wide survey on problems of teachers (Ayalew, 1983), the investigator reported nineteen sources of problems that are concerns of teachers. These include:

- Inadequate pay
- poor career promotion
- unfair disciplinary measures
- disruptive pupils
- lack of opportunity for further study
- problems of residence
- low status of the teaching profession
- problems with performance evaluation

Though it is difficult to ascertain that the mere existence of problems invariably produces stress, the study suggests that the working conditions of teachers are not supportive.

In general many of the domestic reports on teachers (Ayalew, 1983; Aklilu, 1967; MOE, 1982, 1973; Tigray Education Bureau, 1997), and the teaching profession do not show whether or not work related problems teachers encounter in schools have relationships with severe psychological or behavioral reactions.

1.2 Statement of the Problem

Adequate attention to education is of paramount importance to lay down a good base for secondary education (Woodwill, 1996). The working condition of teachers, from this perspective, is a case to be examined because they lay the foundation for the better academic achievement of each child.

Teachers could have several stressful situations closely related to their job. Examples of these occupation-related stressful situations are work-load, students misbehavior and incompatible pay for duties and responsibilities they shouldered plus other closely related factors in the profession.

Hence, the purpose of this study is to identify those aspects of the school environment likely to cause stress to teachers. In other words, it focuses on evaluating the severity of the events in the school. Accordingly, the study will attempt to answer the following questions:

1. Are there differences among elementary school teachers with respect to sources of stress on the basis of sex, age and years of experience?
2. Are there differences between male and female teachers in elementary schools in their coping strategies when they encounter stressful events?
3. How do sex, age and experience relate to teacher stress and teachers' coping strategies?

1.3 Objective of the Study

In light of the aforementioned questions, the objectives of the study focuses on the following:

To:

- identify the sources of stress and coping mechanisms in the area under study and suggest strategies that help minimize or manage the stress.
- examine the relationship between sex and other characteristics on perceived teacher stress.
- analyze the degree of relationship between coping strategies and teachers sex, age and years of service.

1.4 Operational Definition of Terms

1. Stress:- both the unpleasant feeling of a person of being subjected to noxious stimulation, the source of stress (stressors) and the physical and psychological consequences of stress (Lazarus, 1978).
2. Teacher stress: the experience by teachers of unpleasant emotion, such as tension, frustration, anxiety, anger and depression resulting from aspects of his/her works as a teacher (Kyriacou and Sutcliffe 1978a).
3. Coping strategies: behavioral techniques of individuals that allow them to withstand or reduce the amount of stress experienced in a given situation (Lazarus,1978)

1.5 Significance of the Study

Many educators would agree that teaching was and is one of the most fulfilling and challenging career in the world. Concern for maintaining the quality of education is increasingly voiced in our society. On the other hand there are a host of social and psychological factors that hamper the realization of this standard. Present day condition such as the shortage of

educated people, the rapid expansion of knowledge, our changed patterns of living and the greater need for the cultivation of human resources have emphasized the need for more efficient teachers that determine the quality of teaching.

This requires the identification of factors which impair teachers performance. It is by studying these factors that we can come up with adequate plan of intervention. So the study about teacher stress would help to uncover factors that account for high rate of teacher resignation and job dissatisfaction with present condition of teaching in Ethiopia (Ayalew, 1983).

1.6 Justification of the Study

There are lots of factors that are believed to influence teachers' working conditions in the elementary schools. Teachers in the elementary schools, unlike their colleagues in the secondary schools or beyond, are working with kids who need all kinds of treatments from teaching to care taking. This makes sense, because normally the older children, the better they are able to take responsibility for their work and the more resilient they are in relationship with adults (Fontana, 1986).

Therefore, other than the payment and poor working conditions that teachers in general often complain about, those in the elementary schools have got the additional burden in cultivating and shaping the overall development of the children.

On top of these, teachers face situation-specific problems. For instance, the subjects of the present study are from the Western Zone of Tigray, which is a breeding ground for mosquitoes. Transportation problems is another source of stress which affects the daily life of the teachers.

1.7 Delimitation of the Study

The study is limited to one zone teachers. Also, the study is based on self-report information.

CHAPTER TWO

REVIEW OF LITERATURE

The review deals with the theoretical background of stress and coping, the source of teacher stress, the relationship of sex and other characteristics to teacher stress and teachers' coping strategies.

2.1 Theoretical Background

2.1.1 The Concept of Stress

Stress is a concept that subsumes a number of different components, including an objective or perceived stimulus (the stressors) which precedes and evokes a stress response; cognitive and perceptual factors that influence how a person responds to a given stressor; stable individual differences in how well a person copes with stress; physiological responses to stress; and overt changes in behavior (Folkman, Lazarus, Gruen and Delangis, 1986 and Selye, 1976).

The word stress can be traced to the Latin words "strictus", which means "tight" or "narrow" and "stringer" which means "to tighten". These root words refer to the internal feelings of constriction many feel under stress. However, early usage of the term stress referred not so much to internal events as to the stressful world of external situations (Cox, 1978).

Stress in human beings has been defined in a number of ways but essentially it is a demand made upon the adaptive capacities of the mind and body (Fontana, 1989). This definition implies that:-

- stress in it self is neither good nor bad
- it becomes so as an indirect consequence of the strength of the stressor and as a direct consequence of our psycho/physical power of resistance.

Thus some stressors are exciting challenges, and others are devastating pressures. Similarly, while some individuals can cope with many stressors, others are overwhelmed by them.

2.1.2 Theories of Stress and Coping

One interesting conception theory of psychological stress and coping is the model developed by Lazarus and his colleagues over a number of years (e.g., Coyne & Lazarus, 1980; Lazarus, Averill and Opton, 1970). Psychological stress refers to a particular kind of relationship between person and environment (Lazarus, 1966).

The stress relationship is one in which demands tax or exceed the person's resources. The unit of analysis is an on going transaction or encounter, which is appraised by the person as involving harm, the threat of harm or a positive, optimistic, mobilized and eager attitude about overcoming obstacles, which Lazarus called challenge. Once a person has appraised a transaction as stressful, coping processes are brought in to play to manage the troubled person-environment relationship, and hence the kind and intensity of the stress reaction. Various coping options are evaluated, such as altering the situation, accepting it, seeking more information, or holding back from acting impulsively and in a counter productive way (Lazarus and Folkman, 1984, 1987).

Transaction implies that stress is neither in the environmental input nor in the person, but reflects the conjunction of a person with certain motives and beliefs (personal agendas) with an environment whose characteristics pose harm, threat or challenges depending on the person characteristics (Lazarus, 1980).

Transaction also implies process. The stress relationship is not static but is constantly changing as a result of the continual interplay between the person and the environment. For example, in problem-focused coping, the actual terms of the relationship are changed, which in turn affects the appraisal. In emotion-focused coping, what is attended to may be changed, or its meaning is changed as when the person denies, or distances from the threat, which in turn also affects the appraisal. In effect stress is a multivariate process involving inputs, outputs, and the mediating activities of appraisal and coping; there is a constant feedback from on going events, based on changes in the person environment, how it is coped with and, therefore, appraised (Folkman and Lazarus, 1988).

2.1.3 The Concept of Teacher Stress

Although the term 'Occupational Stress' has been widely used (e.g., Cooper and Marshall, 1976; Ferguson, 1973), there appears to be little consensus as to how the term should be defined, nor as to which model of occupational stress should be employed. The proliferation of similar terms such as 'work stress' (Warr and Wall, 1975); 'industrial stress' (Buzzard, 1973); 'organization stress' (Miles, 1976); 'job stress' (Caplin, Cobb and French 1975); 'job pressure' (Buck, 1972) and 'job strain' (Singer, 1975) only serve to add to the conceptual confusion regarding this area of investigation.

Nevertheless, two common usages of the term stress may be clearly distinguished (Cox, 1975; McGrath, 1970). The first defines stress in terms of the stimulus characteristics of the environment, and essentially conceptualizes stress as pressure exerted by the environment on an individual. The second defines stress in terms of a state or response pattern displayed by an individual, and essentially conceptualises stress as something that happens within the individual.

The first usage, that of stress as pressure exerted by the environment, has been labeled the engineering model (Cox, 1975; Hinkle, 1974) and was utilized by Cooper and Marshall (1976), who defined occupational stress as negative environmental factors or stressors (e.g., work overload, role conflict/ambiguity, poor working condition) associated with a particular job. The second usage, that of stress as the state of the individual has been labeled the physiological model (Cox, 1975).

Definitions that conceptualise stress as the result of an imbalance or discrepancy between demands and ability have been labeled transactional models of stress (Cox, 1975) since they focus on the interaction between the individual and his environment to determine whether stress will occur.

Warr and Wall (1975) have used the term stress to refer to a state of the individual, and have defined occupational (work) stress in terms of the teacher's experience of tension, anxiety, fear, discomfort and associated psychological disorder, resulting from aspects of the work situation, which depart from the optimum (e.g., too little or too much work).

Warr and Wall (1975) further argued that the conceptualization of stress as an affective reaction of the individual is most in line with common usage. Furthermore, the engineering model appears to be inappropriate to a model of stress where the perception of and appraisal of the stimulus characteristics of the environment plays an important part. As such, in presenting a model of teacher stress here, it is the usage of stress as an affective reaction of the individual that will be employed.

2.1.4 A Model of Teacher Stress

In comparing and contrasting the models of stress that are in current usage (e.g., Cooper & Marshall, 1976; Warr and Wall, 1975 Wild and Hanes, 1976), it is really apparent that although terms may be used differently, the

underlying models are very similar and may be reducible to each other. The model of teacher stress presented here is an attempt to present a model that incorporates the current approaches to stress.

Rather than starting with the source of stress (stressors) at work, the model distinguishes between potential occupational stressors (Fig.1 Box 1) and actual occupational stressors (Box 3). Potential occupational stressors are objective aspects of a teacher's job (such as too much work, or high noise levels) which may result in teacher stress (Fig. 1 Box 5) occurring. Potential occupational stressors will only result in teacher stress if they are first perceived by the teacher to constitute a threat to his self-esteem or well-being (Box 2). Firstly, the teacher may feel he is unable to meet or cope, with the demands placed on him, and such failure has important consequences for him. Or secondly, the demands placed on the teacher may conflict with his higher order needs (Beehr, Walsh, and Taber, 1976).

The appraisal made by a teacher of the demands made up on him will depend on the interaction between the teacher's individual characteristics (Fig.1 Box 7) and the teacher's perception of the demands made up on him. The individual characteristics that may be of primary importance include biographic traits (e.g., sex, age and teaching experience), personality traits (e.g. anxiety-proneness, flexibility-rigidity) higher order needs (e.g., need for self-actualization) ability to meet or cope with the demands, and the teacher's beliefs- attitudes values system. It should be noted however, that it is the teacher's perception of his own ability to meet or cope with the demands placed on him rather than his actual ability that will determine his appraisal.

Research else where (Lefcourt, 1976 cited in Kyriacou, and Sutcliffe 1978a) has indicated that people differ in the degree to which they perceive themselves to have control over their environment. Lazarus (1966) has argued that such difference may partly explain individual differences in appraisal between people of similar objective ability to meet the demands

made up on them. Indeed, it has been argued (Averill, 1973) that perceived lack of control is a necessary condition for stress to occur. The appraisal may also be affected by potential stressors (such as life crises or ill-health) that are not specifically aspects of the job. Such stressors have been termed potential non-occupational stressors (Fig. 1, Box 8).

A distinction is also made between potential stressors that are essentially psychological (e.g. demands for high quality work, poor relationship with colleagues) and those which are essentially physical (e.g., dashing between classes, high noise levels), whilst recognizing that some potential occupational stressors (e.g., marking numerous exam papers) may be a mixture of the two. However, it is argued here that potential physical stressors, as well as potential psychological stressors, may only lead to teacher stress when the individual teacher perceives a threat to his self-esteem or well-being (Lazarus, 1974; Mason, 1971). Potential occupational stressors that have been appraised as constituting a threat have been termed actual occupational stressors (Fig.1, Box 3). Actual occupational stressors are conceptualised as a subset of potential occupational stressors, not what potential occupational stressors become. In other words, actual occupational stressors are still firmly located in the teacher's environment but are perceived differently from the remainder of the set of potential occupational stressors.

Coping mechanisms (Fig 1, Box 4) are introduced to deal with actual occupational stressors by the individual i.e., to deal with that subset of potential occupational stressors that constitute a threat to the teachers self-

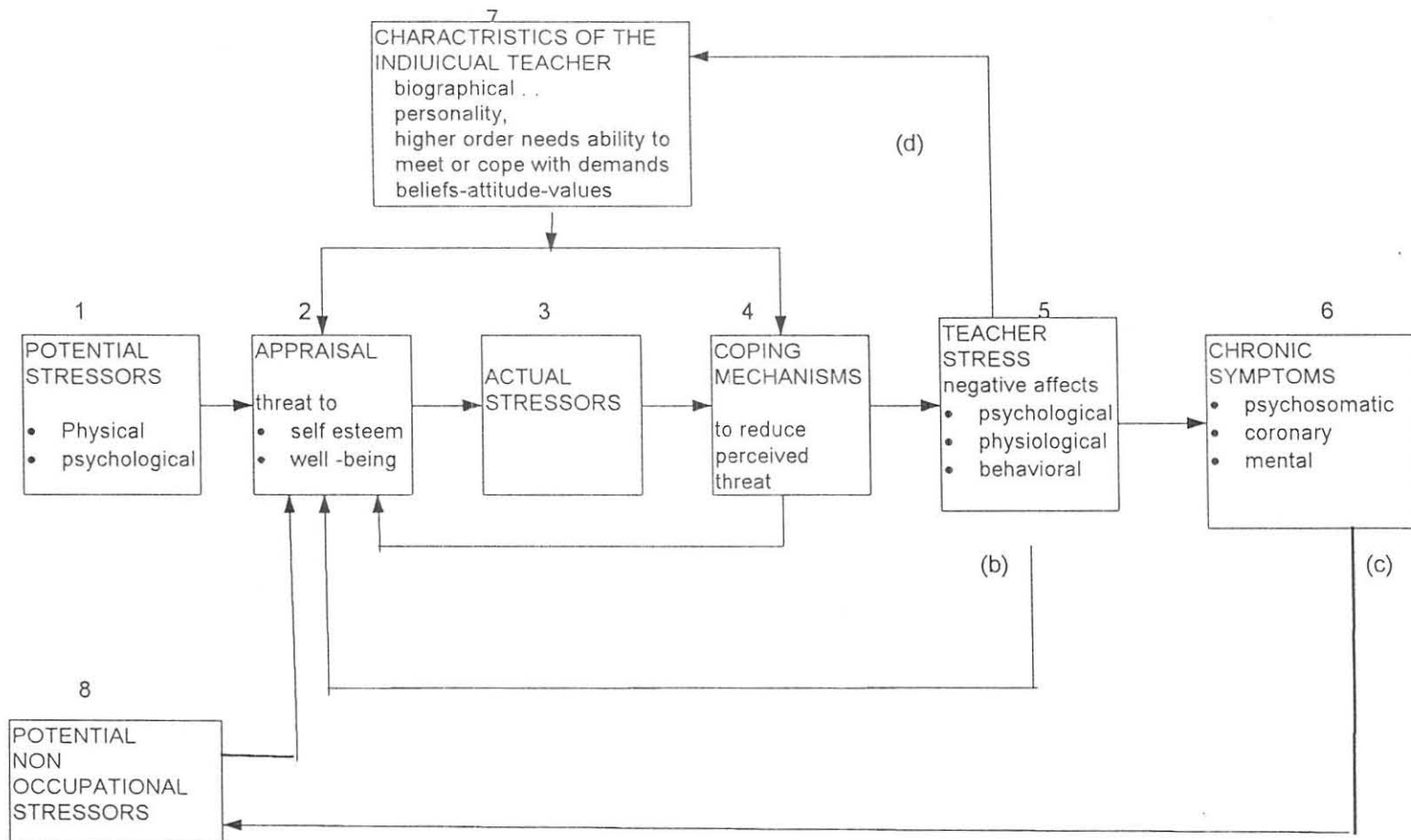


Figure 1. A model of teacher stress.

esteem or well-being. Coping mechanisms are also partly determined by the teacher's individual characteristics (Kyriacou, 1980).

2.2 Teacher Stress : the Concern, Sources and Measurements

2.2.1 The Concern with Teacher Stress

The international concern with teacher stress and burnout stems from

- the mounting evidence that prolonged occupational stress can lead to both mental and physical ill-health,
- a general concern to improve the quality of teacher's working lives and
- a concern that stress and burnout may significantly impair the working relationship a teacher has with his pupils and the quality of teaching and commitment he is able to display (Kyriacou, 1987).

There has also been a recent increase in the number of teachers claiming early retirement pensions on grounds of ill-health precipitated by stress and attempts of teacher unions to include an element in their salary claim to cover stress (Farber, 1984).

2.2.2 Stress Related to the Teaching Profession

McGrath (1970) hypothesized that there are six possible sources of teacher stress in school setting. These are task based stress, role based stress, stress intrinsic to the behavior setting, stress arising from the physical environment, stress arising from the social environment, and stress within the person system. Similarly, Kahan, Wolfe, Quinn, Sioek, and Rosenthal (1964) defined three separate dimensions of perceived job related stress: ambiguity, conflict and overload. Most other research on job-related stress

have indicated that there is a plethora of analytically independent sources of stress or stressors.

In fact, all teachers experience stress to some degree and this stress is the product of the individuals' interaction with their environment. Any discussion of stress must address the teaching environment, the schools, the education system, and their social and political contexts (Cole, and Walker cited in Fisher 1994).

Kyriacou (1997) reported seven areas which are commonly reported to be the main source of stress that affect teachers: pupils who misbehave, pupils with poor attitude towards work, poor working conditions, inadequate salary, poor school ethos, status of the profession, and coping with change.

Most people unfamiliar with the literature may expect disruptive pupils to be the main sources of stress (Galloway *et.al*, 1982). As such it is surprising to find that pupils' poor attitudes towards work, and work overload, have been generally found to be the main sources of stress, and not disruptive behavior by pupils per se (Laslett and Smith, 1984).

Occupational stress according to Levi (1979) arises from divergence between the teacher's work needs, values, expectations, job demands and the ability of the worker to meet these demands. Stress also occurs particularly in teachers lives when emotional demands surpass an individual's ability to cope (Milstein, 1984). Caplan (1990) and his colleagues studied other sources of job stress, including work load, role conflict; poor relationship between workers and their peers, supervisors and subordinates; and lack of subjective fit between person and environment, in a number of occupations. They found that these stressors predicated job dissatisfaction, psychological symptoms such as headaches, and various risk factors in coronary heart disease.

Farber (1984) suggested that stress can stem from low salaries, discipline problems, over sized classes, shortage of available support staff, lack of opportunities for promotion, excessive paperwork, lack of administrative support and feeling that people are unconcerned about teachers and schools .

Borg *et. al* (1993) found a 4-factor solution of teacher stress among 710 elementary school teachers. A simple regression model provided the most parsimonious fit to the data, where in workload and student misbehavior accounted for most of the variance in predicting teaching stress.

French and Nancy (1993) examined the relationship between 223 elementary teacher's perception of class size as stressful circumstance and the pupil-teacher ratio (PTRs) in their elementary schools. No subject in schools with PTRs below 15.1 reported high level of stress associated with class size.

Sheng-yu (1989) investigated the relationship between stress and burnout in 88 elementary and 119 junior high school teachers of both sexes using a teacher burnout inventory and a teacher stress questionnaire. Results showed that 6 stress factors could be combined as powerful predictors for teacher stress. For elementary school teachers stress of personal development effectively predicted emotional exhaustion and depersonalization. For junior high school teachers, stress of role strain and work over load were the most powerful predictors for emotional exhaustion.

2.2.3 Personality Factors and Teacher Stress

A number of studies have sought to explore the relationship between teacher personality and stress (Dunham, 1984). Two factors have made such research difficult. First, the teachers are in part a self-selecting group of those who chose to enter the profession, and secondly, that those teachers

currently in post represent a survival population of those who have remained as a result of a complex set of factors (Kyriacou, 1987).

Biographical characteristics such as sex, age length of teaching experience and post held in the school have received a great deal of attention. Overall such differences do not appear to be related to stress and burnout in a consistent manner (Kyriacou and Sutcliffe, 1986; Laughlin, 1984). Nevertheless such biographical characteristics are certainly important regarding to source of stress reported, and in moderating the association between other variables.

Given the importance of teacher's perception of threat and control regarding the experience of stress, the personality dimension of 'locus of control' has been widely explored. This dimension refers to a continuum ranging from those who believe that things in one's life are largely within one's control and those who believe they are generally outside one's control and primarily influenced by luck, fate or powerful others. There is some evidence to indicate that teachers with a belief in external locus of control report more stress and may be more stress-prone (McIntyre, 1984; Kyriacou and Sutcliffe, 1974).

Research with both primary and secondary teachers (Fontana and Abouserie, 1993) demonstrates a strong correlation between neuroticism and high stress levels in teachers, and also between introversion and stress (particularly in male teachers). These findings indicated that in occupations like teaching a general tendency towards anxiety renders one especially vulnerable. They also suggested that introverts find the classroom environments involving, as it does, social interaction, activity, constant change, noise and a wide range of stimuli, more stressful than do extroverts.

2.2.4 Measuring the Extent of Teacher Stress

Attempts to estimate how wide spread and how severe teacher stress and burnout are have been plagued with problems of measurement . Subjective measures using self-report of teacher's emotional state and feelings about his job have been widely used (Hiebert and Farber, 1984). These can take the form of a single item question with a response scale, and index based on several such items or a score based on averaging the severity of sources of stress reported. Widely used examples of these include the following: Kyriacou and Sutcliffe's (1978b) single question. 'In general, how stressful do you find being a teacher ?' used with a five-point response scale labeled from 'not at all stressful' (scored 0) to 'extremely stressful' (scored 4).

The Maslach Burnout Inventory (MBI), which comprises 22 items giving three sub-scales 'emotional exhaustion,' 'depersonalization' and 'personal accomplishment' (Maslach and Jackson, 1981); and Pratt's (1974). Teacher Event Stress Inventory (TESI) based on 46 sources of stress. A large number of such instruments have now been developed (e.g., Farber, 1984; Fimian, 1984; Kremer and Hofman, 1985). In addition, general measures of anxiety state have also been widely used in studies of teachers. Interestingly interview data have been somewhat unsuccessful as a basis for such studies.

Physiological measures have also been widely employed, involving for example monitoring heart rate and the analysis of urine, as have behavioral measures based on one or more indices such as stuttering, facial expression, resigning from teaching and absenteeism (Kyriacou, 1987).

2.2.5 Teacher Stress and Performance

Stress can either help or hinder job performance depending on its amount. At very low levels of stress, job challenges are absent, and performance tends to be low. As stress increases, performance tends to increase because

stress help an individual activate physiological and psychological resources to meet job requirement (Ornstein 1997).

Similarly the inverted-U hypothesis has been accepted as describing the relationship between stress and performance. This hypothesis claims that, up to a point, stress serves to arouse a person and increase attention to the job, thus improving performance. Beyond that optimum level of stress, however, performance falls off (Ivancevich and Matteson, 1980).

Schools by their very nature, are fertile grounds for conflict. The conflict that occur frequently result in stress for students, principals and particularly for teachers (Ornstein 1997). Hence if teachers repeatedly manifest stress symptoms, it is possible to assume that motivation will be depleted and this in turn may impair the teaching learning process.

Gmelch (1983) indicated that when teachers are under challenged or under stimulated productivity becomes low. In effect they rust-out from teaching the same classes for the past decade and suffer from boredom, fatigue, and dissatisfaction with their profession.

Gmelch and Lourich (1985) found also from a study of professors across a country, when they experience moderate stress, they function at peak performance, whether they are teaching, providing service, or engaging in scholarship.

Stress is not something to be avoided. Even while we are asleep, the heart rate, the respiratory apparatus and many other organs continue to function. "Complete freedom from stress is death" . It is therefore an essential part of life. And some amount of stress is exercised by any normal individual (Wangberg, 1982, Scaro 1981).

2.3 The Relationship between Sex and Other Characteristics to Teacher Stress

2.3.1 The Relationship of Sex to Teacher Stress

Empirical studies show that male and female teachers rate in stressful events in the school quite differently. Kyriacou and Sutcliffe (1978b), for instance, employed a number of t-tests to see if there were any differences between female and male teachers in their ratings of 51 sources of stress. The analysis revealed that female teachers reported greater level of stress due to items related to pupils misbehavior (Factor 1). The same statistical procedure indicated that administrative problems and too much paperwork were the major source of stress for male teachers. For the sex by age interaction female teachers aged 45 or more found 'low status of the teaching profession' as less stressful than their colleagues.

Regarding elementary school teachers, Laughlin (1984) investigated the level of stress associated with the sexes. Multiple regression analysis revealed significant main effect difference ($F(1, 492)=5.14; P< 0.05$); where female teachers reported greater level of stress than males. The researcher explained this difference in terms of home responsibilities that female teachers would carry in addition to their career.

It was further pointed out that female teachers reported more stress from pupils misbehavior than did male teachers ($F(1, 492)= 13.14, P< 0.01$). The finding is comparable to the findings by Kyriacou and Sutcliffe, 1978b) though different statistical procedures are employed in the two studies. On the other hand, male teachers reported greater level of stress from curriculum demands. The explanation given to this difference is that women tend to be more adaptable than men to frequent changes taking place (Woodhouse , 1985).

Other studies also provide evidence about the relationship between stress and sex of teachers. Schwab and Iwanicki (1983) using the Maslach Burnout Inventory (MBI) reported the result of a study conducted on 469 regular and special class elementary teachers. Male teachers showed a more negative attitude toward their students than females. An investigation by Borg *et al.*, (1991) on the level of stress associated with the four extracted factors (pupils misbehavior, time pressures, professional recognition needs, poor relationship) findings revealed that, male teachers felt greater stress due to 'professional recognition needs'. In contrast, female teachers reported more stress due to 'pupil misbehavior and time resource difficulties'.

Payne and Furnham (1987) extracted 8 factors from a 36 item stressors based on data from a sample of 444 elementary teachers. Significant sex differences were observed for the two main factors; 'time management' and 'student behavior'; female teachers reported significantly greater stress than males. A study by Wyly & Frusher (1990) on rural elementary teachers revealed that over sized classes were extremely applicable to female teachers whereas earning low salaries were particularly felt by male teachers.

Bashford (1982) asked 40 male and 40 female elementary teachers (40-60 years) to rate their response to a question about teacher stress. The results indicated a significant sex-role difference on job stress, but no sex or age difference on job stress were found. Higher amount of stress were detected in the masculine and androgynous ones.

Though the factor pupil misbehavior appeared to be major source of stress for female teachers in the above studies, it would be gross conclusion to claim that female teachers are less effective in classroom management techniques than their male colleagues. In fact as Borg *et.al* (1991) explained, the severity of the stressors for female teachers might be the result of the less autocratic behavior of female teachers in the classroom.

Russell and *et.al* (1987) employed regression analysis to examine the relationship between teacher characteristics, number of stressful events and burnout scores from the MBI. The variable "age" strongly predicted a number of stressful events where greater number of job related stressors were reported by younger teachers.

Kearney and Sinclair (1978) point out that the only category where age had a significant relationship was in regard to viewing discipline problems as a stressor. Seventy two per cent of those teachers under the age of 40 considered discipline problems to be an applicable or extremely applicable stressor. Perhaps this is because teachers have not been in the field long enough to find a personal, pragmatic approach to discipline problems.

2.3.3 The Relationship of Years of Service to Teacher Stress.

Several researchers (Barkun, Biatek, and Yugi quoted in Russell, 1987) have shown that past experience (either in the form of familiarity with the situation due to past exposure or in the form of practice and training to cope with the situation) can significantly alter the level of subjectively experienced stress and change reactions to that stress. However, Jonathan (1994) conclude that beginning teachers often experience as much if not more stress as experienced teachers do. Fimian (1984) also confirmed that beginning teachers are just as likely to burnout or leave teaching as any one.

Schlechty and Vance (1983) found that between 40% and 50% of beginning teachers leave teaching within seven years. They said that nearly 75% of those who leave teaching within 7 years do so in the first 4 years. Although Schlechty and Vance did not deal specifically with the concept of teacher stress and burnout (TSB) in their research, their discussion suggested that symptoms of TSB played a role in the turnover.

2.4.2 Types of Coping Strategies

According to Kyriacou (1987) and Long (1988), there are three main types of strategies for coping with teacher stress: palliative or emotion-focused, direct action or problem-focused, and preventive. Preventive coping strategies are aimed at promoting one's wellness and reducing the likelihood of potential problem. It is believed that a preventive coping strategy is the most effective strategy because it helps one avoid or deal with a situation before it becomes unmanageable.

According to Long (1988), palliative, or emotion-focused coping strategies are most useful when the individual believes that nothing can be done to change the situation. According to Billings and Moos (1981), problem-focused, or direct action, is considered to be the more effective of the two coping strategies that one can implement when prevention is no longer feasible. The problem-focused coping is aimed at solving an existing problem by changing either one's own behavior, the situation or both (Long, 1988).

Another line of research by Kyriacou and Sutcliffe (1979) identified the most frequently used coping actions of elementary and secondary school teacher's which were labeled as "express feelings and seek support", "take considered actions" and "think of other things".

2.4.3 Functions of Coping

In order to evaluate coping, one must have an idea about what coping is supposed to do, that is, what function it serves. Coping functions have been conceptualized in many ways, depending in part on the theoretical context and/or concern with a particular type of stressor. For example when coping is conceptualized in terms of defense mechanisms (e.g. Menninger, 1963), its major function is the reduction of tension and the restoration of equilibrium.

Decision making models of coping (e.g. Janis and Mann, 1977) focus on its being directed at seeking and evaluating information. If the concern is coping with occupational stress, major coping functions include the reducing of harmful environmental conditions, the tolerance of or adjustment to negative events and realities, and the maintenance of a positive self-image, emotional-equilibrium, and satisfying relationships with others (Cohen and Lazarus, 1979; review in Moos, 1972).

Many discussions of coping reveal a concern with two major overriding functions, namely, coping that is directed at managing or altering the sources of stress, i.e. the problem, and coping that is directed at regulating emotional response to the problem. These two major functions have been noted, for instance, by George (1974); Kahn, Wolf, Quinn and Snoek (1964); Mechanic (1962), Murphy (1974), and are implicit in models suggested by Mechanic (1974), Pearlin and Schooler (1978) and White (1974). In the formulation presented here, coping that is directed at managing or altering the problem is called problem-focused coping, and coping that is directed at managing or reducing emotional distress is called emotion focused coping (Folkman and Lazarus, 1980).

Problem and emotion-focused coping include both cognitive and behavioral strategies. Problem-focused coping for example includes strategies directed at analyzing the situation and strategies involving action. Similarly, emotion-focused coping includes cognitive strategies such as looking on the bright side of the things as well as behavioral strategies such as seeking emotional support. In this formulation no strategy is considered inherently better or worse than any other (Folkman, 1987).

2.4.4 Measurement of Coping

In recent years conviction has grown that it is how individuals cope with stress, not stress per se, that influences their psychological well-being, social

functioning, and somatic health. Despite increased interest in coping, empirical research has been limited until recently by lack of suitable assessment techniques (Lazarus and Folkman 1984).

Measurement of coping is difficult and several approaches in which the concern is with personality disposition that influence coping responses. Examples of frequently used trait measures of coping included Byrnes' (1964) repression-sensitization scale, Goldstein's (1959) sentence completion test Dewe and Kyriacou (1978) 'Coping actions' and defense mechanisms inventory by Gleser and Ihilevich (1969).

The Ways of Coping Questionnaire assesses thoughts and actions individuals use to cope with stressful encounters of everyday living. It is derived from a cognitive phenomenological theory of stress and coping that is articulated in stress, appraisal, and coping (Lazarus and Folkman, 1984). The questionnaire is conceived as an evolving strategy for measurement rather than, strictly speaking, a test.

2.4.5 The Relationship between Sex and Age to Coping

2.4.5.1 The Relationship of Sex to Coping

A number of studies have surveyed that actions teachers take in order to cope with stress (Dewe, 1985; Dunham, 1983; Kyriacou, 1980). Kyriacou (1980) used factor analysis to group coping actions in to three categories labeled "express feelings and seek support", "take considered action", and "think of other things". He found that the most frequently used actions reported by a sample of comprehensive high school teachers in England were "try to keep things in perspective", "try to avoid confrontations" and "try to relax after work".

Dewe (1985) in a study of primary school teachers in New Zealand used factor analysis to identify five categories of coping strategies common for both sexes which he labeled "attempts to rid the situation", "rational task-oriented behavior", "adopt a conservative approach to teaching", "utilizing colleague support" and "putting things in to perspective".

To date, the available literature provides only flawed evidence regarding sex differences in coping patterns. The theory that women tend to react to problematic situations via emotional expressiveness and that men more often act on their environment instrumentally through constructive or destructive means is popularly accepted by Bakan (1960), Erikson (1968), Freud (1933) and Gutman (1965). Clinical and developmental evidence further indicated that there is sex-role stereotypes of female expressiveness and male instrumentality (Kitchen and Smith, 1975).

In their studies of elementary school teachers Dewe and Williams (1979) cited evidence that men are thought to emphasize instrumental, analytic, problem-solving skills, and that women are socialized to be more emotionally sensitive, expressive and dependent than their counterpart.

Similarly in a study of elementary and secondary school teachers in rural area (Wyly and Frusher, 1990) the coping strategies chosen by teachers tended to be self-directed and active strategies at getting away from the classroom. Exercise was chosen by 55% of the teachers as the most useful coping strategy. Talking to a friend was the most useful coping strategy (46%), with taking action as the third choice (45%), followed by getting away from it at all (44%). This result supports Lazarus (1975) who found similar coping strategies by teachers.

Some investigators have examined coping strategies that may off-set the harmful effects of life stress (Lazarus & Folkman, 1984; Moos, 1984). Among elementary school teachers, experiencing high life stress, Kobasa (1984)

found out for both sexes that those who used fewer avoidance coping strategies attempts to deny, minimize or get away from the stressful situation show less symptoms of psychological and physical strain than those who engaged in avoidance coping.

For example, Kobasa (1979) has shown sex difference in coping using a survey with a representative of elementary school teacher respondents which were grouped in to a distressed and a stress resistant. As compared to individuals who showed depressed mood or physical symptoms under stress, subjects who adapted to life stress with little physical or psychological strain were more easy-going and less inclined to use avoidance coping, such as keeping their feeling of strain bottled-up or expressing them antagonistically. In addition in the resistant group, men were self-confident and women had qualitatively better social support in their family settings.

Furthermore, Stone and Neale (1984) using an open-ended response format to assess appraisal of and coping with daily events found that male teachers were more likely to take direct action than were females, who are more likely to use distraction, relaxation, religion and other coping strategies. In contrast, Folkman and Lazarus (1980) interviewed 100 normal adults in a monthly basis in their use of emotion-focused coping behavior. On the whole these findings albeit mixed suggest that normal men and women may use coping strategies consistent with instrumentality and expressiveness, respectively.

Pearline and Schooler (1978) in the study of elementary teachers reported that men used efficacious coping responses more frequently than women did. Responses that women used more often resulted in poor outcomes. They suggested that these difference may be due to difference between the sexes in socialization, power and role obligation and constraints.

In the discussion of coping with stress increasing recognition has been paid to the importance of social support with in the school from colleagues, and to

some extent at home from one's family or friends (Fletcher and Payne, 1982; Kyriacou, 1981). Unfortunately the culture of the school and reluctance to admit to colleagues that one is having difficulties often means that many elementary school teachers are unable to make use of such support.

2.4.5.2 The Relationship of Age to Coping

In their studies on younger and older subjects. Folkman and Lazarus (1988) found differences among adults by age that younger subjects employed more positive reappraisal. In the old group, people used more social support. Positive reappraisal seemed to create more fear and worries on the older group, older people are also said to be passive and less flexible in their coping strategies.

Similarly Folkman (1987) studied two cohorts with an average age of approximately 41 and 68. Clear age difference in coping were found. The younger group used more active, problem-focused forms of coping (e.g. confrontative coping, planful problem solving and seeking social support) than the older group did, whereas the older group used more passive, emotion-focused forms of coping (distancing, acceptance of responsibility and positive reappraisal) than the younger group did.

Folkman, Lazarus, Dunkel-Schetter, DeLongis, and Gruen (1986) studied stress and coping in a field with a sample of 35-45 year old men and women and obtained data through careful interview on the most stressful experience each month for five months. They found that patterns of coping varied in the same person from one stressful experience to another.

Evidence of age difference in coping strategy has also been reported in a study by Folkman and Lazarus (1980) that involved (100 men and women age 45-64) and a 68- item checklist. Their findings showed that both problem-focused and emotion focused coping were used in over 98 % of the

episode. However, McCare (1982) used the ways of Coping Checklist and an additional 50 items to examine the effect of age differences in the use of 28 coping mechanisms in the community sample of men and women. He found that, after controlling for type of stress (challenge, loss, or threat) older and younger subjects generally coped in similar ways.

Finally Pratt (1978) surveyed that the younger people would be expected to have coping style characterized by taking greater personal responsibility for solving their problems and to be more effective in solving them than persons, older in their age.

2.5 Summary of Review Literature

The review focused on theoretical background of stress and coping (the stress concept, theories of stress and coping, the concept of teacher stress and a model of teacher stress), the source of teacher stress the relationship of sex and other characteristics to teacher stress and the relationship of sex and age to teachers' coping strategies.

Research on occupational stress among elementary school teachers is in an early stage of development. A definition and a model of teacher stress is presented that attempts to incorporate the current approach with occupational stress generally. Teacher stress is essentially conceptualized as a response syndrome of negative affects (such as anger or depression) mediated by an appraisal of threat to the teacher's self-esteem or well-being and by coping mechanisms activated to reduce the perceived threat. This conceptualisation is developed with respect to a model of teacher stress, which enables meaningful research in to teacher stress.

It is generally accepted that almost all teachers experience some stress from time to time from their work. Teachers have their own unique profiles concerning the cause them stress. However, in general, there are seven

demographic characteristics, "Wereda" and school breakdown of the teachers sampled (See Appendix C and D).

The teaching areas of the subjects included English, Mathematics, Tigrigna, Amharic, Science, Social Science, Music, Physical Education, and Art. The mean age for male teachers was 37.3 and for female it was 35.1 (SD 7.4 and 8.7 respectively). The mean years of service was 15.2 for males and 14.2 for female teachers.

3.2 Variables Included in the Study

On the basis of theoretical assumptions and previous investigations a number of variables that are related to teacher stress and coping strategies were included in this study. Stress and coping strategy were used as dependent variables. Also sex, age and years of teaching experience were considered as independent variables when

- (a) stress was treated as dependent variable
- (b) coping strategy was treated as dependent variable

3.3 Instruments

The following instruments were used to measure the aforementioned characteristics. In this case attempts were made to use measures that had been designed for use in school settings.

3.3.1 The Source of Teacher Stress Scale (STSS)

This questionnaire was initially developed by Kyriacou and Sutcliffe (1978b). Kyriacou has reported a high reliability index i.e., a Cronbach alpha of 0.86, for the scale. It has 5 sub-scales namely pupils misbehavior, poor working conditions, time pressures, poor school ethos and evaluation related issue. A total of 60 items are included in this questionnaire. The

areas which are commonly reported to be the main sources of stress which affect teachers. These include pupils who misbehave, pupils with poor attitude towards work, poor working conditions, inadequate salary, poor school ethos, status of the profession and coping with change.

Pattern and expression of occupational stress appeared to vary with age and sex. Sex difference must be interpreted with in cultural settings. Female teachers appear to be more concerned with households affairs and studies while male teachers concentrate more on career, family responsibility and social interaction with peers. Male teachers also seem to face more stressful life events and they may be at greater risk for stress.

The review also included studies that investigated sex and age difference in coping strategies. Most of the studies are consistent with the theory that female teachers tend to react to problematic situations via emotional expressiveness and male teachers more often act on their environment instrumentally. The way in which age and experience relate to coping strategies among elementary school teachers has not apparently been sufficiently explored.

CHAPTER THREE

METHODOLOGY AND DESIGN OF THE STUDY

This section includes a description of subjects of the study, the sampling technique, the instruments used and the procedures followed in data collection and analysis.

3.1 Subjects

A. Fifty randomly selected elementary school teachers (25 males and 25 females) from three elementary schools of the Western Zone of Tigray participated in the pilot study. The average age of subjects was 40.7 (SD 5.9 with a range from 24 to 49), and the average teaching experience was 21 years (SD 6.3, range 4 to 25). They were all trained to teach grades 1-4. For the pilot study the 50 elementary school teachers were selected from three schools using a random sampling technique after a list of their names was secured from each school. The sample schools had a total of 65 teachers out of whom 36 were male and 29 female.

B. Two hundred twenty respondents (110 male and 110 female) participated in the main study. They were drawn from 8 elementary schools involving four easily accessible districts of primarily rural areas from the zone. The main study was conducted on a random sample of 220 elementary school teachers (110 male and 110 females) from four districts of Western Zone of Tigray. Firstly, the sample districts from which the sample population was drawn were determined on the basis of accessibility and proximity to the zonal town. After identifying the sample areas the elementary schools of the four districts were again listed alphabetically and 8 elementary schools (2 schools from each district or "Wereda" were randomly selected for the study). Through a random sampling technique 220 teachers (110 male and 110 female) were selected as a target population for the present study. For

items are designed for a 5-point likert scale ranging from non-stressful '1' to extremely stressful '5'. Examples of the items included in this instrument are "Lack of time to prepare lessons", "Low status of the teaching profession", "Disrupting classes" and "Disrespecting pupils". (See Appendix A).

3.3.2 The Teachers' Coping Strategy Scale (TCSS).

This questionnaire was also developed by Kyriacou (1980). The reliability reported by the author for this instrument was a Cronbach alpha of 0.88. It has 3 sub-scales. These are "Express feelings and seek support", "Take considered actions", and "Think of other things". The scale was largely derived from a study of coping with occupational stress among workers. It is a five-point response scale, labeled "always", "usually", "sometimes", "rarely" and "never" (scored from five to one respectively) so that respondents could indicate the frequency with which they used each strategy. The scales are straightforward and quick to complete and afford a basis for the study of the prevalence of the stressors and coping strategies.

The teacher stress and coping strategies scales were translated from English to Tigrigna. Two Tigrigna lecturers from the Tigrigna unit of Addis Ababa University evaluated and approved the appropriateness of the translation. Furthermore, each item in the questionnaire was reviewed by the Tigrigna panel from the Curriculum and Research Department of Tigray (2 experts). These experts mainly focused on terminologies (e.g., for terms like stress, coping strategies, behavior, values, noisy pupils and rationalize) and grammar.

In an effort to verify the completeness of the instruments an attempt was also made to translate the Tigrigna version back in to in English by an instructor from the Foreign Language and Literature Department of Addis Ababa University. For that purpose, discussions between the English language expert and the investigator were made to obtain the highest possible degree

of translation equivalence. Only four items (1,12,13 and 36) from the Teacher Stress Scales and two items (4 and 32) from the Teachers' Coping Strategies Scale were found to be reworded either for clarity or to fit the situation here in Ethiopia.

A pilot was then carried out to improve the items. On the basis of item analysis, items that had the lowest item reliability indices were revised and improved to ensure clarity after the pilot test. These were items 1,3,4,24 and 47 from the Source of Teacher Stress Scale and items 4,7,12, and 26 from the Teachers Coping Strategy Scale (See Appendix B). Finally, a total of 94 items were administered in the main study (See Appendix A).

3.3.3 Stress and Coping Scale Factor Description

There were 4 teacher stress factors identified from prior analysis by Kyriacou (1978b). They have low to moderate positive correlation with the sources of teacher stress scale and the r ranges from 0.19 to.83, $P=.001$ indicating that even the weakest correlation was significant. A fifth dimension i.e., items regarding teacher evaluation were developed by the investigator on the basis of the information obtained from the interviewees during the pilot test. The four factors and the additional dimension are as follows.

A. Stress Categories

1. Pupil Misbehavior: reflects the extent to which difficulties from noisy, over-active children, too abusive, insolent and violent pupils (e.g., quarreling, disrespecting teachers, coming to class late, poor motivation to learn, not doing class work, disobeying rules and leaving the classroom with out permission).
2. Poor Working Conditions: represents a negative feature of the work environment that impinges on the individual (e.g. lack of opportunity to

of translation equivalence. Only four items (1,12,13 and 36) from the Teacher Stress Scales and two items (4 and 32) from the Teachers' Coping Strategies Scale were found to be reworded either for clarity or to fit the situation here in Ethiopia.

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2. Poor Working Conditions: represents a negative feature of the work environment that impinges on the individual (e.g. lack of opportunity to

participate in decision making, lack of recognition for the extra or good work they do, lack of promotion or advancement opportunities, inadequate and inconsistent administration and lack of resources).

3. Time Pressures (work overload); addresses the 'balancing act' aspects of the job that teachers under stress face often. This encompasses having work load, that is big, feeling pressures by the work that they have to do, having a work day pace that is too fast, and too much paperwork on the job.
4. Poor School Ethos: represents common set of values, beliefs and ways of doing things found in a particular classroom or school systems (e.g., student - teacher relationships, relationship with parents, unit leaders, staff, school administrator, clique formation, and attitude and opinions).
5. Performance Evaluation: deals with the usefulness / effectiveness of the currently used performance evaluation (e.g. evaluation forms) for teachers.

B. Coping Strategy

1. **"Express feelings and seek support"**(emotion-focused coping) focused on the regulation of stressful emotions (e.g., doing enjoyable things at evenings, avoiding particularly stressful work situation, searching a shoulder to lean on, walking away from a child who is a trouble maker).
2. **"Take considered actions"** (problem focused-coping) involves planning and thinking out a solution, problem solving and decision making(e.g., attempt to change a source of stress that is beyond the teacher's control, try to see things in perspective, transferring a trouble maker child to another class).

3. **"Think of other things"** (defensive strategy) an array of ways in which teachers act or cope in the face of stress (e.g., intellectualization, denial and trying to see the bright side of the situation).

sex, age and
independent variable
was examined.

3.4 Data Collection Procedure

significance of

In the pilot study, fifty elementary school teachers (25 males and 25 females) completed the questionnaire individually in their free time. Out of the 50 respondents in the pilot 46, (22 males and 24 females) provided usable data. In the main study the questionnaires were distributed to the 220 respondents to be filled-in individually in 55 minutes. The data were collected towards the end of the 1997/98 first semester by the investigator, with due regard to anonymity and confidentiality. Out of these only the 200 questionnaires (i.e., 90.91 per cent) were complete and usable. Questionnaires from 20 respondents who did not complete every item on the scale were discarded from the main study.

3.5 Methods of Data Analysis

Descriptive statistics were first scanned. Then multiple regression analysis were performed to determine the effect of the independent variables. Also, in order to determine which predictor variables accounted meaningfully and considerably to the variation in the dependent variable, stepwise multiple regression analyses were done. T-tests were also run to see the group mean differences for the categories of stress and coping strategies.

The main statistical analysis were:-

- a) Teacher stress was predicted using sex, age and experience of the teachers, and the contribution of each independent variable to the variation in teacher stress was examined.

CHAPTER FOUR

RESULTS AND DISCUSSION

The major aspects of the description of the results shall be: descriptive statistics on all measures of stress and coping, data on correlation of teacher stress and coping strategies, predictors of teachers stress and predictors of teachers' coping strategies. The discussion part shall focus on an interpretation of the results.

4.1 Results

Out of the 220 selected respondents, 200 respondents (100 males and 100 females) fully participated in the study. The average age of the male and female respondents was 37.3 and 35.1 years respectively.

4.1.1 Descriptive Information

Descriptive data about sex, age and years of service of the respondents as well as their scores on stress and coping strategies are as follows.

Table 1 Teacher Stress and Coping Strategies Means and Standard Deviations for the Total sample and Demographic Sub-Groups.

Demographic Characteristics	Category	N	Means		SD	
			Stress*	Coping**	Stress	Coping
Sex	M	100	202.1	109.12	41.61	22.45
	F	100	186.43	110.77	43.43	18.45
Age *** (in years)	≤30	58	200.3	104.18	42.7	20.68
	31-44	110	179.6	112.1	42.6	19.27
	≥45	32	200	113.0	40.6	22.67
Experience *** (in years)	1 - 4	25	202.7	98.95	26.4	18.43
	5 - 9	34	169.9	108.44	48.0	21.5
	≥10	141	182.64	111.0	41.5	20.17
Total	—	200	194.3	111.95	43.1	20.45

* Maximum possible score 300

** Maximum possible score 165

*** The age and experience classification is generally based on Kyriacou's (1978b) study.

As shown in Table 1, male teachers reported relatively high level of stress than did females. Similarly general feelings of stress seemed prevalent among

teachers of age ≤ 30 and ≥ 45 than among teachers with in the (31-44) age range. Also, teachers having moderate experience (i.e., 5-9 years), expressed the least amount of stress compared to beginning and teachers with considerable teaching experience.

Regarding the coping strategies that the mean scores for the older and experienced teachers were found to be higher than the mean values for the younger and less experienced teachers. Furthermore, the mean coping score for the female teachers (\bar{x} = 110.8) is again slightly higher than the mean value of male teachers (\bar{x} = 109.12). Similarly teachers' view about their profession was also computed

Percentage distribution, means of the perception of the school teachers for their profession in general is presented following:

Table 2 Attitude towards Teaching as a Source of Stress: Distribution of Responses and Means for the Total Sample and Demographic Sub-groups.

Group	N	Attitude					Mean
		Not stressful	Mildly stressful	Moderately stressful	Very stressful	Extremely stressful	Score
Total (All subjects)	200	4.5	19.0	26.5	27.0	23.0	3.45
Sex groups							
Male	100	2.5	8.0	14.5	11.5	13.5	1.76
Female	100	2.0	11	12	15.5	9.5	1.69
Age groups							
≥ 30	58	2	6	6	10	5	0.97
31-44	110	4	7	14	15.5	14.5	1.95
≥ 45	32	2	2.5	5	1.5	5	0.53
Experience groups							
1-4	25	3	2	3.5	1	3	.365
5-9	34	2.5	5.5	4.5	3.5	1	0.46
≥10	141	12	10.5	15	19	14	2.24

According to Table 2, approximately 27 per cent of the teachers rated the teaching profession as either very stressful or moderately stressful and 23 per cent as extremely stressful. In addition generally, compared to female teachers, male teachers found teaching as a greater source of stress. Similarly compared to other age groups teachers of age 31-44 viewed the profession as more serious source of stress.

4.1.1.1 Relationship between Potential Predictors and Stress

Statistically significant correlations were obtained between teacher stress and the predictor variables (Table 3)

Table 3 Inter-Correlation among Predictor Variables and Teacher Stress

No.	Variables	1	2	3	4
1	Sex	–			
2	Age	.110	–		
3	Experience	.090	.670*	–	
4	Teacher Stress	.182*	.183*	.243*	–

* (P < .05)

4.1.1.2 Relationship between Potential Predictors and Coping

The inter-correlation among predictor variables and teachers' ways of coping is displayed below.

Table 4 Inter-Correlation among Predictor Variables and Coping Strategy of Teachers

No.	Variables	1	2	3	4
1	Sex	–			
2	Age	.145*	–		
3	Experience	.061	.0838*	–	
4	Coping	.040	-.161*	.25*	–

*($P < .05$)

According to Table 4 among the predictor variables age and experience correlated significantly with teachers coping strategies. Furthermore, age of teachers was inversely related with teachers' coping. Generally the variables showed a weak relationship.

4.1.1.3 Results concerning Stress

Results of mean of stressors are presented in order as follows:

Table 5 Means and SD associated with different Categories of Stress.

Categories of Teachers Stress	N	Mean	S.D
Poor working conditions	200	54.53	13.31
Pupil misbehavior	200	46.89	10.65
Time pressures	200	42.14	11.33
Evaluation related issue	200	29.16	8.58
Poor school ethos	200	21.87	6.28

As indicated in the above Table 5 "Poor working condition" has the maximum mean while "Poor school ethos" has the minimum from the overall categories

of stress. This suggests that teachers appear to find the working conditions and pupils misbehavior as the most serious source of stress.

4.1.1.4 Results concerning Coping

The table below shows the means, the standard deviations and number of cases of respondents in the categories of coping.

Table 6 Mean and SD associated with Different Categories of Coping

Categories of Teachers' Coping	N	Mean	SD
Express feelings and seek support	200	56.79	10.2
Take considered actions	200	33.01	7.21
Think of other things	200	26.15	5.38

With regard to the categories of coping emotion-focused coping strategy was reported more frequently than problem-focused and the defensive style respectively. This might explain that in most cases teachers' attention is focused on tension reduction rather than altering the source of stress through direct action.

4.1.1.5 Sex differences in Stress and Coping

Significant mean differences of male and female teachers per stress categories are displayed below.

Table 7 Means and Standard Deviation Differences for Categories of Stress responses by Male and Female Teachers

Stress categories	Male (N=100)	Female (N=100)	SD of Difference	t	P
Poor working condition	56.53	52.83	0.149	-2.14	.612
Pupil misbehavior	45.59	48.19	0.014	-2.28	.024*
Time pressure	40.16	44.11	0.484	-2.54	.012*
Poor school ethos	22.91	20.83	0.424	-2.39	.018*
Evaluation related issues	30.08	28.24	0.961	-1.52	.130

*(P<.05)

The results summarized in Table 7 show that pupil misbehavior, time pressures, and Poor school ethos have as different weights as sources of stress for the two sexes. Pupil misbehavior and time pressures appeared to pose greater problems to female teachers than to male teachers. The reverse was true for poor school ethos.

The corresponding analysis pertaining to categories of coping was as follows.

Table 8 Mean Values and Sex difference for the Categories of Coping

Categories	Male (N=100)	Female (N=100)	SD of Difference	t	P
Express feelings and seek support	50.49	51.80	1.58	.43	.671
Take considered action	33.32	32.69	0.69	.62	.538
Think of other things	25.94	26.35	0.68	.54	.591

*(P>.05)

Table 8 Suggests that the coping methods of men and women are generally similar. This means that male and female teachers did not show difference in the utilization of various coping strategies.

4.1.2 Regression Analysis Concerning Stress

Teacher stress was regressed on sex and other teacher characteristics namely age and experience of teachers. Results of the multiple regression analysis is given in (Table 9)

Table 9 Summary of Multiple Regression Analysis on Teacher Stress

Variables	B	S.EB	Beta	T	Sig T
Experience	12.54	5.812	.200	2.16	.0323*
Sex	12.91	5.96	.149	2.16	.0316*
Age	2.73	6.11	.042	.453	.651
Multiple R	.288				
R square	.083				

* (P<.05)

The beta weights in Table 9 suggest that experience and sex of teachers have a reliable contribution to the variation of teacher stress. Age of teachers, however, did not make a significant contribution in predicting teacher stress. Table 9 also indicated that the variables together reliably accounted for 8.3 per cent of the variation in teacher stress.

In order to isolate the predictor variable that has a significant contribution and to determine the magnitude of their unique contribution in explaining teacher stress a subsequent step wise analysis gave the following results.

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In order to isolate the predictor variable that has a significant contribution and to determine the magnitude of their unique contribution in explaining teacher stress a subsequent step wise analysis gave the following results.

Table 10 Summary of Step wise Regression Analysis on Teacher Stress.

Step No.	Variables Entered	Multiple		Change in R square	F value
		R	R square		
1	Experience	.243	.0589	–	12.27
2	Sex	.286	.0820	0.0231	8.698

The step wise regression analysis confirmed that only experience and sex of teachers help to account for the variation in teacher stress. Experience alone accounted for 5.9 per cent of the variance of teacher stress whereas sex explained for about 2.3 per cent of the variance in teacher stress. The two variables, additively, accounted for about 8.2 per cent of the variance of teacher stress.

4.1.3 Regression Analysis Concerning Coping Strategies

Teachers coping strategy was regressed on teachers sex, age and experience respectively. The results of multiple regression analysis follows:

Table 11 Summary of Multiple Regression Analysis on Teachers' Coping Strategies.

Variables	B	S.E B	Beta	T
Age	-.677	.320	-.266	-2.11*
Sex	.344	1.69	.014	.839
Experience	1.33	.358	.467	3.715*
Multiple R	.285			
R square	.081			

* (P < .05)

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* (P < .05)

As Table 11 indicated age and experience showed a significant contribution to the variation in teachers' coping strategies. Age of teachers has a negative contribution to the variance of teachers' coping strategies. Also the variables together accounted for 8.1 per cent of the variance in coping strategies.

The data were also subjected to step wise analysis, and the following results were obtained.

Table 12 Summary of Step wise Regression regarding Coping Strategies.

Step No.	Variables Entered	Multiple		Change in R square	F value
		R	R square		
1	Experience	.245	.060	—	12.62
2	Age	.283	.080	0.02	8.69

* (P<.05)

As shown in Table 12 only two predictor variables namely, experience and age of teachers were retained in the equation as essential contributors to the variation in teachers coping. Experience contributed the largest proportion in explaining teachers' coping strategies while age contributed the second largest portion. As a group, the two variables accounted for 8 per cent in the variance of coping.

4.2 Discussion

The purpose of this study was to see if:

- a) there are differences among elementary school teachers with respect to sources of stress on the basis of sex, age and experience.

- b) there are differences between male and female teachers in elementary schools in their coping strategies when they encounter stressful events.
- c) the independent variables (sex, age, and experience of teachers) interact to explain the dependent variables.

The discussion of this study focuses on the aforementioned major issues.

4.2.1 Sources of Stress and Strategies of Coping

Concerning the total stress scores it was found that male teachers scored higher on the general stress levels indicating that males feel more job-related stress than did females. Perhaps this is because male teachers shoulder more social responsibility apart from their job. Hence, male teachers face more stressful events and may be at greater risk for stress. This so often in turn leads to physical and psychological problems the detrimental effect of which is, absenteeism, job dissatisfaction, decline in work performance and loss of concern for teaching. Evidence from other studies substantiate this finding. For example Cooper (1993) who assessed occupational stress amongst 263 primary teachers together with directors found out that male teachers experienced significantly greater job related stress than did females. Their two main sources of occupational stress were work overload and handling relationships with staff.

In relation to coping, this study revealed that females scored higher on measures of coping strategies than men did. This implies that female teachers make use of more coping strategies in the face of stressful events than their counterparts. In support of this findings Burke (1990) compared the coping strategies of 227 female and 243 male school teachers and found that women scored higher in existential coping. Positive thinking and carefree attitude

were frequently mentioned coping mechanisms. The sex of teachers may make a difference in terms of job stress Pearlman and Schooler (1978), for instance, reported that females were better able to use coping strategies to reduce the impact of work stressors.

With respect to the age difference in the elementary teachers it was found out that young and older teachers (age ≤ 30 and ≥ 44 respectively) experience similar degree of stress. The possible explanation as to how older teachers were stressed as the young ones is that these people are approaching to retirement, thus have had several stressful events in life, they may also be bored of the deteriorating physique and strength as they have been teaching for a long period of time making them liable to diseases of different kinds such as hypertension, gastrics and asthmatic cases which all place them under stress.

On the other hand, it appears acceptable for the young teachers to face some stress in a sense that they are strange and less skilled at the start for careers and possibly could suffer from subsequent frustrations and dissatisfaction from teaching. But middle aged groups (31-44) felt minimum stresses, this is due to familiarity with the work-related situation and endurance to the consequences of stress that helped this group to be in a better position to manage teaching induced stress therefore, may remain less affected.

The above finding is partly consistent with the finding by Kari (1995) who stated that a greater number of stressful events had been reported by younger teachers. By way of explanation Chapman (1982) suggested that older individuals may be reticent to admit stressful situations particularly those involving interpersonal conflicts.

4.2.2 Predictors of Teacher Stress

In this study all predictors have correlated significantly with teacher stress. However, further analysis showed that only experience and sex have independent significant contributions in predicting teacher stress. In general the variable age did not significantly influence the manner in which teachers perceive stressful events arising from aspects of their job.

The above findings are consistent with a number of studies such as studies by Anderson and Iwanicki (1984) who found that the numbers of years in teaching and sex of teachers were predictive of stress and burnout scores, where overall, the predictive variables explained from 8.6% to 19.3% of the variance in teacher stress scores. Support has also been found from Malik (1991) that among the teachers' characteristics related to stress were sex, experience and marital status.

Generally, a number of variables (not just two) seem to be needed to explain teacher stress because the predictors considered in present study explained less than 10 per cent of the variation in stress. In this regard, relevant variables for consideration include marital status, subject and grade taught, qualification, income, role characteristics and personality variables such as locus of control, task motivation, leader behavior, group cohesiveness, self-esteem and self-concept.

In support of this argument Mischel (1978) asserted that personality factors by and large determine in effecting stress and coping reactions. Kyriacou and Sutcliffe (1978b) reported also that such biographical characteristics are certainly important regarding the source of stress.

4.2.3 Predictors of Teachers Coping Strategies and the Teachers Attitude towards Teaching

Age and experience showed relatively weak but significant correlation with teacher coping strategies. However, age was found to correlate inversely with teachers' coping strategies. In a related prior investigation, McCare (1982), who evaluated the relationship between age and coping in two studies of social service agencies in which the majority of the subjects (84%) were involved primarily in direct service or teaching rather than administration has found that age was positively and significantly associated with problem-focused coping but inversely related with denial.

In this study "Sex" of teachers did not feature as important variable in explaining teachers-coping strategies. The overall amount of variance accounted by experience and age of teachers did not surpass 10%. In fact a large portion of the explained variance in coping was due to experience. This suggest that experience by virtue of exposure and familiarity to the work situation, greatly affects the way how teachers cope with teaching related stress and changes. This finding is also in line with another finding (Cockburn, 1996) involving 335 primary school teachers. In that study, 89% of the subjects reported that they acquired at least some strategies through their own experience in dealing with difficulties. Similar evidence is also available in other studies (Caplan, 1990; Kyriacou and Sutcliffe, 1978b and Okebukola, 1992).

Regarding "age" as a predictor of coping ability the finding implies that as the age of the individuals increases the strength and capacity of the teachers to cope with stressful events decrease. A regression analysis by Russell (1987) indicated that a very weak relationship was found between teachers characteristics (i.e., marital status, age, social support, education level,

experience) and reports of coping strategies, accounting for 6% of the variance in coping score. The only predictor variable that was significantly related to ways of coping was age and a greater number of job-related stress was reported by young teachers.

With respect to the attitude of the teachers towards teaching in the present study, about 27% of the 200 teachers in the sample of 8 elementary schools from the zone reported that being a teacher (their profession) is very stressful or moderately stressful. To the extent that self-reported teacher stress can be considered a measure of teacher stress, this result suggested that about considerable portion of the teachers in the study area are experiencing substantial amount of stress.

Free response items were also prepared as important part of the instrument in order to explore the un-reached factors that still induce stress for teachers in addition to the items included in the questionnaire. From the responses about 36%, 33% and 31% of respondents specified the following problems in their order of importance.

- low salary
- problems dealing with the self-contained class and
- poor promotion opportunities

As a matter of fact inspection of the item means would appear to correspond to the list of the problems cited above that low salary ($\bar{x}=2.46$) and poor job opportunity or move ups ($\bar{x}=2.40$) respectively. It can be deduced from the results that teachers who viewed their profession as source of stress are more likely to be thinking about leaving teaching. The reasons for this could be the present conditions of work, low salary scale (that teachers are by no means well paid in Ethiopia), ineffective school inspectors, the status given to teachers as highly important issue affecting the moral of the majority of teachers.

Interestingly, another study has also indicated that (Kyriacou and Sutcliffe, 1978b) about 20 per cent of 257 teachers in a sample of 16 medium sized elementary schools in England found the teaching profession as either very stressful or extremely stressful.

4.2.4 Sex differences for the Categories of Stress

Considering all stressors the results of male and female subjects showed significant sex differences. Females for example, were more stressed by those factors like pupils misbehavior, and time pressures, while males reported greater number of stressful events with regard to poor school ethos. It is worth considering the different categories of stress separately.

4.2.4.1 Poor Working Conditions

Poor working conditions include such problems such as inadequate resources, the school climate, degree of decision making participation, professional developments and inadequate salary. Though the result was not statistically significant male teachers reported more stress in connection with the existing working condition. Generally a good deal of the literature indicates that the most frequently cited sources of stress for teachers and major reason for leaving the profession include those that are related to salary, status, equipment and some stress caused by the many intensive interaction in which teachers are involved each day.

“ . . . the question of teachers' status seems to be of significance, since it can be assumed that the influence of occupational position on the teacher is fundamental in that it affects who will enter the occupation and who will remain” (Jonathan, 1994 PP203)

Suitable physical environment, adequate pay, sufficient equipment appreciation of and support for teachers are important factors that make teaching a pleasant profession. One would need only to visit some of the schools in the study area with their squalor, dilapidated buildings, leaking roofs

and jigger-infested floors to perceive that the working condition is far from adequate.

In a related discussion, Ludwing (1991) argues that teacher stress is caused by lack of social recognition of teachers, large class size lack of resources, limited promotion opportunities, lack of support and ineffective communications. According to the information from Primary School and Kindergarten Education Division (REB Tigray, 1997) it is due to this kinds of factors that an average of 250 newly trained elementary school teachers resigned from their posts last year looking for other jobs with better pay and better opportunities for advancement.

4.2.4.2 Pupils Misbehavior

Female teachers reported more stress associated with "Pupils Misbehavior" and the problem of maintaining classroom discipline is apparently very frustrating to them. Presumably one possible explanation could be female teachers are less effective in classroom management techniques than their male colleagues. The problem of pupils misbehavior does not only mean physical violence it rather includes a range of behaviors like pupils who refuse to work as directed by their teachers and manifesting poor attitude towards learning plus the use of open assault towards a teacher and other students.

Earlier studies (Kyriacou and Sutcliffe, 1978b) have indicated that there are differences between male and female teachers in their perception of stressful events in school. Research findings repeatedly show, for example, that female teachers reported greater level of stress due to items related to pupils misbehavior and workload. Similarly Wilyly and Frusher (1990) and Turk *et.al* (1986) have reported pupils misbehavior to be a major problem among female teachers. A plausible explanation about the severity of the stressor for female teachers is the less autocratic behavior of female teachers in classroom (Borg

et.al , 1990). The findings of the present study suggested that this problem is also a major concern for female teachers in the area under study.

4.2.4.3 Time Pressures

The third stress category included such problems as having too much work to do and not enough time to do it at a satisfactorily level. Male and female teachers significantly differed with respect to the felt impact of time pressure. More specifically, it appeared that female teachers do find time pressures a greater source of stress than do their male counterparts. There is some evidence that females are more prone to the effects of workload, time pressure, students and classroom conditions and this difference is explained in terms of the household responsibility and maternity that female teachers would carry in addition to their career. Researchers who advance this view are Farber, 1984; Wyly and Frusher, 1990 and Smith, 1992.

4.2.4.4 Poor School Ethos

Some teachers reported that they work in schools where conflicts between staff occur frequently. The results indicated revealed a significant sex difference between male and female teachers in which male respondents reported higher stress levels due to poor school ethos than did female respondents.

Cacha (1981) and Russell (1987) have also found that male respondents were more prone to stresses by these problems of school ethos. The fact that problems of school ethos was a more serious source of stress for the male teachers implies that males are liable to poor staff relationships, conflicts and interpersonal relationships. A major explanation for this is that females have a good base in the social support system such as mobilizing their psychological resources and obtaining information for mastering strain is a piece of evidence provided (Wyly and Frusher, 1990).

Another line of research by Russell (1987) discussed on the forms of support that should be provided to teachers these are reassurance of worth, social support intervention program to prevent stress, and valued supervisory and administrative recognition.

4.2.4.5 Evaluation Related Issues

There was no significant difference between male and female teachers about their views concerning the new evaluation procedure of the Ministry of Education

The conditions for promotion, the career structure, the inspection and transfer system, the demands on the teacher and the performance evaluation criteria are all found to be frustrating to the teachers (REB Tigray, 1997).

According to many of the teachers (85%) of the sample population the currently used evaluation form appears to be unrelated from the teaching-learning activity. In the process of the evaluation, the parents committee, students and administrators are involved as evaluators. The knowledge of these groups about evaluations of teaching is likely to be questioned. In that case, their evaluation is essentially a matter of subjective perception rather than objective. More stress perception by the performance evaluation though statistically not significant is observed among the male subjects.

As the writer of this paper has come to understand from informal discussion held with approximately 20 teachers the teachers face many problems in connection to the present evaluation criteria. For example, they said that there are a number of items that demand the teachers outside teaching with out their consent. Therefore, this fact gives some clues that the instrument should be reworked by test experts who have ideas about constructing real measuring items and should be tested for its validity and reliability from time to time.

In this regard Ayalew (1983) asserted that where any kind of assessment of the teachers work is required such assessment should be objective and should be made known to the teachers. Teachers should also have the right to appeal against assessment which they assume to be unjustified.

4.2.5 Sex Difference Regarding the Categories of Coping

In the literature of conventional wisdom Bakan (1966) said that men are more instrumental and analytic in employing coping strategies, while females are expressive, more emotionally sensitive and dependent. But recently, this idea has become controversial (Folkman and Lazarus, 1980). The present results did not show significant differences between the two sexes in employing different ways of coping.

This might be due to the homogeneity of the events grouped with in the stress categories ranging from minor concerns about misbehavior to about financial security . In general male and female subjects did not differed in the way they appraised the events. Therefore, the results offer relatively no confirmation for the sex differences that conventional wisdom lead us to expect.

Though statistically not significant female teachers, however, scored slightly higher than the males on emotion-focused coping. On the other hand, males scored a little higher than females on problem-focused coping.

Overall the, findings regarding sex differences in coping method is consistent with the findings by Folkman (1982) and Lazarus (1980). In those studies, the coping responses of men and women were generally found to be similar, although women made frequent use of emotional-discharge coping.

The most puzzling sex difference was the finding that men used more problem focused coping longer than women in situations that had to be accepted.

Perhaps men persevere in problem-focused coping longer than women before deciding that nothing can be done, and even when nothing can be done, may be disposed to think about the problem more than women. In other words, the important point is that women and men do not differ in their use of emotion-focused coping with in similar contexts of living and tasks, but they do differ in contexts in which their stressful encounters occur (Pearlin and Schooler, 1978).

CHAPTER FIVE

SUMMARY, CONCLUSION AND IMPLICATIONS

5.1 SUMMARY

The objective of the present study were

1. To examine if there are differences among elementary school teachers with respect to sources of stress on the basis of sex, age and experience
2. To examine the difference between male and female teachers in elementary schools in their coping strategies when they encounter stressful events.
3. To relate teachers stress and teachers coping strategies with teaches' sex, age and experience as a teacher.

After a pilot study, 200 elementary school teachers (100 males and 100 females) responded to the scales regarding the sources of teacher stress and coping strategies. The analysis was performed at four main levels. Firstly, means, standard deviations and percentages were computed to examine the degree of stress perceived by teachers of different sex, age and experience. Secondly, teacher stress was regressed on sex, teachers' age and experience. Thirdly, teachers' coping strategies was also regressed on teachers sex ,age and experience. Lastly, sex differences on the categories of teachers stress and coping-up strategies were compared using T-test.

The results indicated that about one-fourth of the respondents find teaching moderately or highly stressful. In addition, male teachers score higher in the teacher stress measures than females. Those teachers with high experience

and middle-age teachers (i.e., teachers of age 31-44 years) reported less stress levels than the younger and novice teachers. However, female teachers scored higher than the males on the coping measures. In addition beginning and younger teachers scored less on the coping measures than the older and experienced teachers.

The results of the study also revealed that teacher experience and sex had reliable contributions towards explaining teacher stress. This means that experience, sex, and age as characteristic of teachers found to be related to the amount of stress reported by teachers. Age of teachers did not have any contribution towards the predication of teacher stress independently or as a group.

Regarding the relationship between coping and the independent variables, "experience" and "age" were found to be significantly related to coping. The result also indicated that the variance in teachers' coping scores can partly be explained by the experience and age of teachers. Age, however, predicted teachers' coping strategy inversely. "Sex" of teachers on the other hand did not make any contribution to the prediction of teachers' coping strategies.

Significant differences were observed between the two sexes in their perception of pupil misbehavior, time pressures and poor school ethos as stressors respectively. Pupil misbehavior and time pressures were more stressful in the case of female teachers. Poor school ethos were more stressful in the case of male teachers. There were no reliable sex difference on the categories of poor working conditions and evaluation related issues.

Contrary to the widely held view that men use frequently problem-focused coping and women use more emotion-focused coping in the area of work, no significant sex differences were found in the present study in the respondents' coping responses to the teaching-related stresses.

5.2 CONCLUSIONS

Based on the above major findings, one may arrive at the following conclusion.

1. Teacher stress appears to be closely related with other demographic characteristics such as experience age and sex of teachers
2. The experience and sex of the elementary school teachers were found to be predictive of teacher stress which is identical to that reported by pervious research (Anderson and Iwanicki, 1984).
3. Also, it appears that a good prediction of teacher coping strategies is achieved by using the variable experience. In other words, teachers coping strategies are probably influenced by their experience substantially.
4. Male and female respondents of the present study were found to be significantly different in their perception of some stressors namely pupil misbehavior, time pressures and poor school ethos.
5. There does not seem to be any difference between the sexes in the utilization of the different coping actions.
6. It seems that male teachers have higher mean stress score than females and vice versa for the coping strategies score.

5.3 IMPLICATIONS

Findings of the study have implication for future research, as well as, for the teacher and school systems.

1. What can teachers do to cope with their own stress?

Teachers need to ensure they are not causing themselves unnecessary stress by having unrealistic expectations about themselves and what they can achieve. They also need to ensure they are not causing themselves unnecessary problems by having unsound working practices such as setting too much home work at once, leaving lesson preparation, marking to the last minute and too readily agreeing to do things for colleagues which involve too much extra work or fixing unrealistic dead lines. Compatible to this Kyriacou (1997) had to say that

*“ . . . developing effective time management skills is probably the most important thing a teacher can do to minimise stress”
PP 26-27*

Teachers will also be in a better position to cope with changes in their working practices if they can spend sometime up -dating their profession skills (both in side the classroom and outside) before the changes are implemented. All teachers need to remember that they must look after their own health and happiness first if they want to be in a position to help others.

2. What can Schools and others do?

Schools need to think about their working practices to ensure that teachers are not faced with workloads and problems that could be avoided by better school organization, planning and supervision, problems and concerns should be expressed and dealt with effectively. Congruent with this Kyriacou (1997) for example, suggested that schools should avoid too many extra demands (such as parents day, sport days, tutorial classes and staff

meetings) occurring at the same time. Changes need to be well thought out a head of time and staff need to have adequate time to prepare for the changes.

Schools also need to develop a mutually supportive atmosphere and a sense of camaraderie amongst staff. A high level of social support towards each other and a sense of the staff working together is the best feature of school which can minimise stress (Kyriacou, 1997).

An important contributing factor to teacher stress is "Pupil misbehavior". Particularly this factor appeared as more pressing problem for female teachers. As a strategy then the teachers need additional knowledge on how to deal with misbehaving children and peer influences. Hence organizing training programs through workshops, conferences and seminars in how to manage classroom effectively is useful for this group.

Equally important is students should be taught morale and civic education integrated with the school subjects from early in their schooling. This would have positive impacts in helping students become well disciplined and develop good manners which ultimately results in reducing or overcoming stress and possibly burnout on teachers.

The working condition of teachers also needs to be given high attention because with out adequate salary, medical and transport facilities and favorable school environment teachers job satisfaction can not be met. Schools with libraries, offices, lounges and equipment all encourage heightened mood to work, and teachers can be motivated to exert efforts in improving the quality of education with their capacities and potentialities. In relation to this donors (both local and foreign) can be invited to contribute in the effort made to improve the present conditions of the schools.

Finally the financial condition of teachers is worth considering. In order to bridge the gap between the ever increasing living condition and income level of teachers, concerned bodies (MOE) should take in to account to adjust the level of salary in accordance with the importance of the work, level of education and the skill involved. It seems plausible that if teachers are satisfied with their salaries and working conditions they persist in their work.

3. Direction for Future Research

Teaching is stressful. It is generally accepted that almost all teachers experience some stress from time to time resulting from their work. There are multiple factors concerning the nature and causes of teacher stress to mention but a few, personality variables, socio economic status (income level), educational level, biographical characteristics, marital status, the position held in school, grade level taught, political events, managerial and organizational practices are some of them. In addition, working conditions, climate in the classroom, status of the profession and resources are some other factors that need to be considered.

The present study has, however, considered the biographical characteristics (i.e., sex, age and experience of the teachers) as correlates of teacher stress and coping strategies. All the independent variables considered combined contributed only about 8% of the variance for the prediction of the dependent variables. Seen from this perspective it is quite imperative if future research in the area considers more variables related to stress and coping with greater sample size to achieve better prediction of the dependent variables, and there by effectively control work-related problems affecting teachers.

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APPENDICES

APENDIX A

The questionnaire used in the study

ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

Questionnaire to be filled out by elementary school teachers

This questionnaire is designed to collect information for a study on elementary school teacher's work-related stress and how they cope to. Your genuine response would highly help in making this study a success. CONFIDENTIALITY of your responses are secured. No name is required and there are no wrong answers. What ever you answer is considered right; so feel FREE and give your true feelings on each item. N.B. be sure that all your choices are directly across from the items that correspond to.

Thank you in advance.

Part I

General Information

Please write in full or make a tick mark (✓) when ever appropriate.

1. Age _____

2. Sex

2.1 M

2.2 F

3. Years of teaching experience _____

4. Present school experience _____

Part II

As a teacher, how great a source of stress are these factors to you? Each item has a response scale of 1-5. Please encircle your choice according to the values the numbers represent.

- 1- No stress
- 2- Mild stress
- 3- Moderate stress
- 4- Much stress
- 5- Extreme Stress

No	Source of teacher stress	no stress	mild stress	moderate stress	much stress	extreme stress
1	Administrative works	1	2	3	4	5
2	Lack of time to prepare lessons	1	2	3	4	5
3	Punishing pupils	1	2	3	4	5
4	Constant monitoring of pupils' behavior	1	2	3	4	5
5	Too much work to do	1	2	3	4	5
6	Pace of school day is too fast	1	2	3	4	5
7	Not enough time to do the work	1	2	3	4	5
8	Lack of time for marking	1	2	3	4	5
9	Poorly motivated pupils	1	2	3	4	5
10	Lack of recognition of extra work	1	2	3	4	5
11	Difficult classes	1	2	3	4	5
12	Trying to up hold/maintain values and standards	1	2	3	4	5
13	Schools too large	1	2	3	4	5
14	Responsibility for pupils (e.g., exam success)	1	2	3	4	5

No	Source of teacher stress	no stress	mild stress	moderate stress	much stress	extreme stress
15	Inadequate disciplinary policy of schools.	1	2	3	4	5
16	Pupils' poor attitude to work	1	2	3	4	5
17	Low status of the teaching profession.	1	2	3	4	5
18	Lack of consensus on minimum standards.	1	2	3	4	5
19	Attitude and behavior of some other teachers	1	2	3	4	5
20	pupils non-acceptance of teacher's authority	1	2	3	4	5
21	Lack of time for further study	1	2	3	4	5
22	Shortage of equipment	1	2	3	4	5
23	Inadequate disciplinary sanctions available	1	2	3	4	5
24	Lack of effective consultation	1	2	3	4	5
25	Non-exam final year pupils	1	2	3	4	5
26	Pupils general misbehavior	1	2	3	4	5
27	Lack of recognition for good teaching	1	2	3	4	5
28	Groups of too wide an ability	1	2	3	4	5
29	Noisy pupils	1	2	3	4	5
30	Maintaining class discipline	1	2	3	4	5
31	Poor facilities	1	2	3	4	5
32	Inadequate salary	1	2	3	4	5
33	No time to relax between lessons	1	2	3	4	5
34	Poor promotion opportunities	1	2	3	4	5
35	Individual pupils who continuously misbehave	1	2	3	4	5
36	Too much paper work	1	2	3	4	5

No	Source of teacher stress	no stress	mild stress	moderate stress	much stress	extreme stress
37	Lack of time to spend with individual pupils	1	2	3	4	5
38	Covering lessons for absent teachers	1	2	3	4	5
39	Pupils who show a lack of interest	1	2	3	4	5
40	Demands on after school time	1	2	3	4	5
41	Difficult behavior problems	1	2	3	4	5
42	Pupils' impolite behavior or cheek	1	2	3	4	5
43	Lack of participation in decision making	1	2	3	4	5
44	Large classes	1	2	3	4	5
45	Generally high noise level	1	2	3	4	5
46	Supervisory duties (e.g., play ground)	1	2	3	4	5
47	Mixed ability group	1	2	3	4	5
48	Attitude and behavior of the headmaster	1	2	3	4	5
49	Too many periods actually teaching	1	2	3	4	5
50	Poor career structure	1	2	3	4	5
51	Pupils' general low ability	1	2	3	4	5
52	The currently used measures of teacher competency is not fair and adequate	1	2	3	4	5
53	Inadequacy of primary school pupils to assess their teachers	1	2	3	4	5

No	Source of teacher stress	no stress	mild stress	moderate stress	much stress	extreme stress
54	The criteria in the new evaluation form of teachers are unrelated from teaching-learning process	1	2	3	4	5
55	Ratings of teacher effectiveness made by supervisors, administrators are not adequate	1	2	3	4	5
56	The evaluative process some times fosters clique formation	1	2	3	4	5
57	The contacts made between teachers and pupils pave a way for academically weak pupils to attack their teachers	1	2	3	4	5
58	Mostly the evaluations made on regular meetings focuses on individuals instead of on work-related problems	1	2	3	4	5
59	The inadequacy of the present inspection system	1	2	3	4	5
60	Evaluation is mostly used as a means of tit for tat	1	2	3	4	5

Part III

In this section, possible coping strategies are stated please consider each statement listed below and indicate how frequently you use such strategies or actions to cope with stress in work. Each item has a response scale of 1-5

5= always

4= usually

3= sometimes

2= rarely

1= never

No	Teachers coping strategies	Always	Usually	Sometime	rarely	never
1	Throw your self in to work and work harder and longer	5	4	3	2	1
2	Become more involved in life at home	5	4	3	2	1
3	Get rid of the tension by expressing some irritability and frustration to your self	5	4	3	2	1
4	Let people know exactly where you stand	5	4	3	2	1
5	Leave the problem and try to solve it later by taking it through at home	5	4	3	2	1
6	Express your irritation to colleagues at work just to be able to let off steam	5	4	3	2	1
7	try to relax after work	5	4	3	2	1
8	Consider a range of plans for handling the source of stress-set priorities	5	4	3	2	1

No	Teachers coping strategies	Always	Usually	Sometime	rarely	never
9	Think objectively about the situation and keep your feelings under control	5	4	3	2	1
10	Try to get advice and suggestions from someone at work	5	4	3	2	1
11	Try to see the humor of the situation	5	4	3	2	1
12	Make a concerted effort to enjoy your self with some pleasurable activity after work	5	4	3	2	1
13	Try to find out more about the sources of stress- seek out additional information	5	4	3	2	1
14	Try to keep things in perspective	5	4	3	2	1
15	Try to avoid confrontations	5	4	3	2	1
16	Do nothing and carry on as usual	5	4	3	2	1
17	Try to reduce the tension by after work physical activity	5	4	3	2	1
18	Become more involved in after work activity outside home	5	4	3	2	1
19	Think of good things in the future	5	4	3	2	1
20	Try to nip potential sources of stress in the bud	5	4	3	2	1
21	Try not to worry or think about it	5	4	3	2	1
22	Talk about problems with spouse or someone else after work	5	4	3	2	1
23	Make sure people are aware you are doing your best	5	4	3	2	1
24	Try to reassure yourself every thing is going to work out alright	5	4	3	2	1

No	Teachers coping strategies	Always	Usually	Sometime	rarely	never
25	Express your feelings and frustrations to others so that you can think rationally about the problems	5	4	3	2	1
26	Take a day off to recover	5	4	3	2	1
27	Talk about the situation with someone at work	5	4	3	2	1
28	Stand back and rationalize the situation	5	4	3	2	1
29	take some extra work home and work on it there	5	4	3	2	1
30	Don't let the problem go until you have solved it or reconciled it satisfactorily	5	4	3	2	1
31	Try to take some immediate action on the basis of your present understanding of the situation	5	4	3	2	1
32	Try to forget work when day is finished					
33	Just let the feeling wear off	5	4	3	2	1

Part IV

In general how stressful do find being a teacher ?

Not at all stressful	Mildly stressful	Moderately stressful	Very stressful	Extremely stressful
1	2	3	4	5

Part V

Please list any other problems with their solutions which you think of are additional sources of stress ?

Problems

Solutions

1. _____

1. _____

2. _____

2. _____

3. _____

3. _____

APPENDIX B

Psychometrical Data of the Scales

No	Source of Teacher Stress	Test item Correlation	SD of the item	Item Reliability index
1	Administrative work	0.0737	1.3930	0.238*
2	Lack of time to prepare lessons	0.4586	1.4408	0.661
3	Constant monitoring of pupils	0.2567	1.2269	0.315*
4	Punishing pupils	0.2428	0.9822	0.238*
5	Too much work to do	0.5514	1.2876	0.710
6	Pace of school day is too fast	0.5677	1.2687	0.720
7	Lack of time for marking	0.4497	1.2303	0.553
8	Lack of recognition for extra work	0.6232	1.2544	0.782
9	Not enough time to do the work	0.4415	1.2856	0.568
10	Poorly motivated pupils	0.5871	1.2105	0.711
11	Difficult classes	0.6511	1.2047	0.784
12	Trying to uphold / maintain values and standards	0.3435	1.3907	0.4775
13	Responsibility for pupils (e.g., exam success)	0.5690	1.5300	0.871
14	School too large	0.2422	1.4639	0.355
15	In adequate disciplinary policy of school	0.2572	1.4100	0.3626
16	Pupils poor attitude to work	0.6914	1.3000	0.898
17	Low status of the teaching profession	0.7202	1.1781	0.848
18	Lack of consensus on minimum standards	0.4216	1.3200	0.5565
19	Attitude and behavior of some other teacher	0.4430	1.4900	0.6601
20	Lack of time for further study	0.3493	1.2908	0.4510
21	Pupils non acceptance of teachers authority	0.4576	1.2908	0.573
22	Shortage of equipment	0.5118	1.3721	0.702
23	In adequate disciplinary sanctions	0.6135	1.1666	0.716
24	Lack of effective consultation	0.2456	1.2682	0.311*
25	Non-exam final year pupils	0.4909	1.3956	0.685
26	Pupils general misbehavior	0.7132	1.2643	0.902
27	Lack of recognition for good teaching	0.3623	1.3657	0.495
28	Groups of too wide an ability	0.5491	1.0024	0.550
29	Noisy pupils	0.7119	1.1666	0.831
30	Maintaining class disciplines	0.6702	1.3793	0.924
31	Poor facilities	0.2582	1.3500	0.3507
32	Inadequate salary	0.3281	1.4096	0.462
33	No time to relax between classes	0.4227	1.4019	0.592

34	Poor promotion opportunities	0.4316	1.3593	0.593
35	Individual pupils who continually misbehave	0.4447	1.1721	0.521
36	Too much paper work	0.5201	1.3239	0.686
37	Lack of time to spend with individual pupils	0.5524	1.2420	0.686
38	Covering lessons for absent teachers	0.3199	1.2332	0.395
39	Pupils who show lack of interest	0.6376	1.0732	0.684
40	Demands on after school work	0.3557	1.4548	0.808
41	Difficult behavior problems	0.5557	1.5910	0.884
42	Pupils impolite behavior or cheek	0.4047	1.3937	0.564
43	Lack of participation in decision making	0.3059	1.2856	0.393
44	Large classes	0.4347	1.3641	0.593
45	Generally high noise level	0.5917	1.1773	0.697
46	Supervisory duties (e.g., play ground, school meals)	0.4940	1.1748	0.580
47	mixed ability group	0.3038	1.0948	0.333*
48	Attitude and behavior of the head-master	0.4332	1.5900	0.687
49	Too many periods actually teaching	0.4559	1.3929	0.635
50	Poor career structure	0.2785	1.3151	0.366
51	pupils general low ability	0.5704	1.2049	0.687

* items revised and improved for the main study

No	Teachers Coping Strategies	Test item Correlation	SD of the item	Item Reliability index
1	Throw yourself in to work and work harder and longer	0.2333	1.3477	0.314
2	Become more involved in life at home	0.3325	1.3924	0.463
3	Get rid of tension by expressing some irritability and frustration to yourself	0.3135	1.2216	0.383
4	Let pupil know exactly where you stand	0.4304	1.3151	0.136*
5	Leave the problem and try to solve it later by taking it through at home	0.2414	1.1327	0.273
6	Express your irritations to colleagues at home just to be able to let off steam	0.6034	1.3599	0.821
7	Try to relax after work	0.1709	1.2379	0.212*
8	Consider a range of plan for handling the sources of stress-set priorities	0.5289	1.2557	0.664
9	Think objectively about the situation and keep your feelings under control	0.6606	1.3290	0.878
10	Try to get advice & suggestions from someone	0.6875	1.3328	0.916
11	Try to see the humor of the situation	0.3776	0.2949	0.111
12	Make a concerted (planned) effort to enjoy yourself with some pleasurable activity	0.2358	1.2464	0.293*
13	Try to find more about the sources of stress & seek out additional information	0.6225	1.0616	0.661
14	Try to keep things in perspective	0.7054	1.2041	0.849
15	Try to avoid confrontations	0.5443	1.4082	0.765
16	Do nothing and carry as usual	0.3131	1.3415	0.420
17	Try to reduce the tension by after work physical activity	0.3780	1.2428	0.470
18	Become more involved in after work outside home	0.4396	1.2735	0.560
19	Think of good things in the future	0.5858	1.1155	0.653
20	Try to nip potential sources of stress in the bud	0.5285	1.2773	0.675
21	Try not to worry or think about the situation	0.5543	1.3579	0.753
22	Talk about problems with spouse or someone else after work	0.4646	1.2245	0.569
23	Make sure people are aware of your are doing your best	0.3710	1.0788	0.400
24	Try to reassure yourself every thing is going to work alright	0.7244	1.0788	0.781
25	Express yourself feeling and frustrations to other so that you can	0.2285	1.1664	0.267

	think rationally about the problem			
26	Take a day off to recover	0.0951	1.3470	0.128*
27	Talk about the situation with someone at work	0.4391	1.2176	0.535
28	Stand back and rationalize the situation	0.4184	1.5536	0.650
29	Take some extra work and work on it there	0.5732	1.1106	0.637
30	Do not let the problem go until you have solve it or reconciled is satisfactory	0.5339	1.1657	0.622
31	Try to take some immediate action on the basis of your present understanding	0.2838	1.3239	0.376
32	Try to forget work when day is finished	0..3710	0.9563	0.355
33	Just let the feeling wear off	0.0841	0.7382	0.062

APPENDIX C

Personal information on sex, age and experience of teachers.

Category	Classification	No. of cases	Per cent
Sex	Male	100	50
	Female	100	50
Age	≥ 30	58	29
	31-44	110	55
	≥ 45	32	16
Experience	1- 4	25	12.5
	5- 9	34	17.0
	≥ 10	141	70.5
	Total	200	100
Educational level 12 + T. T. I			

The ratio of male and female respondents was equal i.e. 1:1. Fifty-five per cent of the respondents were between the ages of 31-44, while less than 20% were 45 years old or more. This indicates that a middle age teaching population considering a retirement age of 55 in Ethiopia.

APPENDIX D

The Sample Breakdown by “Weredas” and Elementary Schools of the
Sampled Teachers

No	Wereda	Elementary schools	M	F	Total
1	A. Tsimbla	Endabaguna	15	15	30
		Adigebru	12	16	28
2	L. Adiabo	Adidaero	11	10	21
		Adikelte	10	9	19
3	M. Zana	Selekleka	20	19	39
		Adibearege	5	9	14
4	T.Koraro	Tsehaye	24	20	44
		Adikentibay	13	12	25
	Total	8	110	110	220

APPENDIX E

Reliabilities of the Scales and Sub scales in the Pilot Study

Scales	N	S.D	Cronbach Alpha	No of items
Source of teachers stress	46	5.45	0.835	51
Students misbehavior	46	12.00	0.874	17
Poor working conditions	46	8.67	0.743	14
Tim pressures	46	9.59	0.808	13
Poor school ethos	46	6.57	.663	7
Teachers coping strategies	46	7.07	0.918	33
Express feeling and seek support	46	10.12	0.812	15
Take considered actions	46	7.24	0.787	10
Think of other things	46	4.48	.626	8

Reliabilities of the Scales and Sub-Scales in the Main Study

Scales	N	S.D	Cronbach Alpha	No. of items
Source of teacher stress	200	12.87	0.851	60
Student misbehavior	200	9.16	0.808	17
Poor Working conditions	200	5.79	0.835	14
Tim pressures	200	7.02	0.869	13
poor school ethos	200	5.14	0.743	7
Evaluation related issues	200	6.818	0.836	9
Teachers Coping strategies	200	8.97	0.898	33
Express feelings and Seek support	200	10.117	0.8172	15
Take considered actions	200	7.205	0.773	10
Think of other things	200	5.38	0.590	8

DECLARATION

I here by declare that this thesis is my original work. All relevant sources used for the thesis are duly acknowledged.

Name : Hagos Zeray

Signature:



Handwritten signature of Hagos Zeray, written in black ink, positioned above a horizontal line. Below the signature, the date '27/6/98' is written in black ink.

Place: Department of Psychology, Addis Ababa University,
Addis Ababa.

Date of Submission May, 1998.