

**SOURCES AND PATTERNS OF STRESS AMONG
TEACHERS: THE CASE OF LUSAKA SECONDARY
SCHOOLS**

By

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DEDICATION

This study is dedicated to teachers, lecturers and other academic professionals, at all levels of teaching who have lost their lives or are suffering ill health due to stress in learning institutions in Zambia, in Africa as a whole, and in other parts of the developing world where occupational stress is generally unchecked, and unrecognised as a factor in most illnesses and deaths. I also dedicate this study to my father, Peter Monze Namangala who died in 1998. He lived with faith, hope, and optimism. He died with grace, dignity and peace!

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AUTHOR'S DECLARATION

This dissertation of PHANWELL NAMANGALA is approved as fulfilling part of the requirements for the Award of the degree of Master of Education in Educational Psychology by the University of Zambia.

I, Phanwell Himulambo Namangala do solemnly declare that this dissertation represents my own work and that it has not previously been submitted for a degree at this or another University.

Signature: 

Date: 09 - 10 - 2002

APPROVAL

This dissertation of PHANWELL NAMANGALA is approved as fulfilling part of the requirements for the Award of the degree of Master of Education in Educational Psychology by the University of Zambia.

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No one ever undertakes a study “all by oneself”, and in my case this is particularly true. The study has come to be, not through my ideas alone, but through the inspiration of other people’s work in the area of occupational stress. It results from personal experience of occupational stress as a secondary school teacher in Lusaka. It also comes as a result of attending various teachers’ meetings and talking with individual teachers about stressful experiences in the profession.

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ABSTRACT

Occupational stress has been described as an epidemic in that it is affecting every occupation, profession and work place around the globe (UN Report, 1998).

The sources, patterns and other issues pertaining to occupational stress in organisations and work environments have recently attracted the interest of administrators, human resources management practitioners and researchers from various disciplines. This interest, *inter alia*, may have been motivated by findings which have associated stress at work with workers' poor physical and mental well-being, dissatisfaction with life and work, as well as low labour productivity.

The study examined occupational stress as it occurs among secondary school teachers, as a selected category of workers, in Lusaka region. In particular, the study aimed at identifying the sources of teachers' stress, its patterns and the coping strategies used by teachers. Further, the study investigated the awareness of educational authorities of the problem of occupational stress among teachers.

The study used a randomly selected sample of 187 secondary school teachers drawn from both public and private secondary schools around Lusaka urban and peri-urban. The main instrument used for data collection was a Teacher Stress Index Questionnaire (TSIQ) designed to elicit information about stress experienced on the job.

The findings show that the major sources of occupational stress among teachers are poor conditions of service and work situations. Teaching and teaching-related activities emerged as the lowest source of occupational stress among the study sample.

It was revealed that demographic factors such as gender, years of experience, qualifications and status, influenced respondents' perception of occupational stress.

The results also made an interesting revelation that environmental stressors in urban schools contributed greatly to the total occupational stress experienced by teachers. Principal among these were extremes of temperature and destructive noise from certain neighbourhoods. One of the important observations made in this study was that of a possible nexus between occupational stress and infringement of workers' rights. In this regard it was observed that a good deal of job stress could be avoided if workers paid attention to their general as well as job-related rights. Most importantly, the study established that the major sources of stress among teachers were poor conditions of service and work situations.

The coping strategies identified were collapsed into two categories. These were adaptive and maladaptive coping strategies. Adaptive coping included strategies such as seeking support from superiors, prioritizing workload, recognising limitations and talking to friends and close colleagues. On the other hand the major maladaptive strategies that emerged included denial, taking on more than can be handled, working long and irregular hours and avoiding discussing stressful experiences. The fact that maladaptive coping strategies emerged as the most frequently used was interpreted as indicating that the level of stress experienced by the teachers was extremely high, and that it was over-taxing the teachers' coping resources.

In summary, with regards to coping strategies, it was discovered that teachers of different personal characteristics dealt with stress differently. The two major coping strategies used were adaptive and maladaptive coping strategies.

The study also revealed that teachers were not receiving any assistance from the Ministry of Education to help them cope with the severe occupational stress they are facing.

On the basis of the findings, some conclusions were drawn and some suggestions for further research of the phenomenon were given. In addition recommendations were made in the light of the findings.

Finally it must be pointed out that although the study focused on teachers as a particular category of workers, the issues addressed and the principles generated have relevance to a wide spectrum of occupations and organisations.

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CHAPTER ONE

INTRODUCTION

BACKGROUND

Work provides income which enables individuals to purchase material goods essential for their survival and comfort. It also provides purposeful physical and mental activities. Self-esteem and feelings of competence may be enhanced by the work one does. In addition, work can meet some social needs by providing opportunities for social contact. However, most work places subject workers to serious health hazards such as occupational diseases. These are job-induced disturbances of the normal functioning of the body or a person's mental and emotional capacities. Common occupational diseases include impaired hearing, from exposure to noisy machines and silicosis, from breathing silica dust. Excessive and prolonged job stress which has become recognised as a serious problem in many contemporary organisations, can also be considered an occupational disease (French, 1994).

According to Bratton et al. (1994), currently, the occupational health problems receiving special attention in contemporary organisations include industrial accidents, job stress, AIDS, as well as drug and alcohol abuse. Of these occupational health problems, job stress has been cited as the most pervasive (Bratton et al., 1994). Recently, a research organisation based in the United Kingdom, the Health and Safety Executive (HSE), also found job stress as one of the most common type of occupational ill health (British Business Magazine July – November 2001).

Unlike accidents and injuries which are of most concern in the construction, manufacturing and transportation industries, job stress can be a problem in any kind of job, whether it be blue-collar, clerical, managerial or professional (Bratton et al., 1994). The work environment therefore contains stressors that seem to outstrip an individual's capacity to adapt to them. These typically involve heavy workload, long working hours, slave wages, lack of job security and so on. Munchinsky (1993:82) also observed that "the major sources of stress for most adults stem from

work situations.” Similarly, Steers and Black (1994) observed that an individual's occupation is the major source of the general stress he or she experiences.

In recent years research has reported serious problems of job stress in work places. Authoritative medical opinion in the United States and Britain has gone on record to the effect that 80 percent of all patients currently being treated by doctors in general practice are suffering from conditions which have their origins in unrelieved job stress (Steers and Black, 1994). For example, a 1998 survey in the United Kingdom found that eight out of ten managers believed that over 70 percent of workers in every organisation were afflicted by stress (British Business Magazine, October – December, 1998).

Recently, the Health and Safety Executive (HSE) reported that about 500,000 people were suffering from work-related stress or depression in the United Kingdom, and that nearly 150,000 workers had taken at least a month off sick because of stress-related illness (British Business Magazine, July – November 2001).

In America, James and Campbell (1999) reported that mental stress is increasingly a reason for illness, and in 1996, it accounted for 11 percent of workers' absence. This represented a 100 percent increase over the previous year. Thus, a September, 1998 Nation's Business article referred to job stress as “the number one health problem in the United States” (James and Campbell, 1999:102).

The problem is not limited to the western world. The United Nations recently referred to job stress as “the 20th century disease,” indicating that it had permeated almost every occupation around the globe, and was so severe and pervasive that it had reached the proportions of a “global epidemic” (Jones and Barbet, 1995, in Luthans, 1995). Indeed surveys in both developed and developing countries indicate that widespread stress is adversely affecting more and more people in working places (WHO Report 2000 on BBC). Even in Japan, job stress is a major problem. The Japanese term for job stress is Karoshi. It refers to sudden death by a heart attack or stroke triggered by work pressure. It has been estimated that Karoshi (Job stress) kills 10,000 Japanese each year (Stephens, 1998).

In Zambia there is lack of empirical evidence about the existence of the problem. However, there are facts suggesting that job stress is a serious, though

ignored, problem in the country. Zambian teachers, for example, are subjected to very demanding work, and the working environment in most schools is very poor. Above all, high teacher turnover, absenteeism, alcohol consumption, morbidity and mortality rates reported in Zambian schools (MOE, 1999; MOE, 2001) may be manifestations of excessive and prolonged job stress.

The facts just cited demonstrate that occupational stress is a serious problem in work places the world over. Occupational stress is defined as an adaptive response to an excessive external situation that results in physical, psychological and behavioural deviations for organisational participants (Luthans, 1995). The reasons for current global concern about occupational stress is that it leads to health problems, counter productive behaviour and poor performance, among workers. In other words stress is significant for both its human and economic costs.

Teaching and other human-service professions such as nursing, policing and so forth have been identified as among the most stressful professions (British Business Magazine, July – November 2001). Fontana (1998) described teaching in particular as being, by its nature, a stressful profession. A United Nations report (1995) also said “today’s teachers are high amongst over-stressed professionals.” Secondary school teaching is reportedly more stressful than primary or nursery teaching.

STATEMENT OF THE PROBLEM

Concern over occupational stress in the teaching profession remains very limited. This may be attributed to a number of reasons. In the first place, there is lack of coverage of occupational stress in teaching in the press and other professional fora. Where it is made, it is of a casual and general nature.

Any reference to job-related stress in the teaching profession will, therefore, largely be conjectural because the most frequently cited causes of stress among workers such as shift-working, industrial accidents, retrenchments and job insecurity are not common-place in educational organisations.

In addition, much of what has been said on the subject of stress in the teaching profession has not been substantiated through systematic empirical

research (Mambwe, 1996). This is notwithstanding the fact that studies in the west have consistently indicated that there is high prevalence of stress in teaching such that teachers have been rated high amongst over-stressed professionals (UN Report, 1990).

In Zambia the potential for occupational stress in the teaching fraternity has been aggravated by certain significant developments in the education system. These include over enrolment, limitation in sanctions teachers can use against pupils who misbehave, introduction of double sessions (Academic production unit), inadequate teaching resources and declining conditions of service (J C T R, 1999). This situation prevailing in the Zambian primary and secondary school educational system has given rise to teaching and employment conditions which have implications for occupational stress in teaching.

The possibility of high levels of chronic job stress existing in the teaching fraternity in Zambia is enhanced by the preponderance, in recent years, of behaviour patterns consistent with outcomes of severe stress. For instance, in most schools country wide, teachers' morale has been reported to have reached its all-time low in recent years (J C T R, March 2000). Thus, teachers have tended to become less effective in their work. This can be seen from generally poor results from most schools (MOE, 2000). Absenteeism has also been reported to be rife among Zambian teachers. Above all, high teacher turnover, morbidity and mortality rates have been reported in a number of media and at different fora. In particular death, among teachers of all ages, has robbed the Ministry of its investment in human resources.

Against the above background there is pressing need to undertake a study of this magnitude in order to generate empirical data on the sources, nature, and extent of the phenomenon of job stress among secondary school teachers in Zambia.

PURPOSE OF THE STUDY

The purpose of the study was to examine occupational stress as it occurs among secondary school teachers, as a selected category of workers, in Lusaka region. In particular, the study aimed at identifying the sources of teacher stress, its

patterns and the coping strategies used by teachers. Further, the study aimed at investigating the awareness of educational authorities of the problem of occupational stress among teachers. Such information can form the basis for successful management and alleviation of the problem. In this way, learning outcomes can be enhanced.

It should be remembered that there are various categories of stress. The main ones being acute, traumatic and chronic stress. The current study focused on chronic stress. Chronic stress differs from acute and traumatic stress in that it is more stable and prolonged. Consequently, its effects are significantly different from those of the other categories of stress.

It should also be noted that although stress can be experienced in different aspects of life, the study mainly concerned itself with the stress that is related to the job and the work setting. In other words, the study limited its scope to things that happen inside the work organisation in its analysis of stress.

OBJECTIVES OF THE STUDY

The objectives of the this study were as follows:

- (i) To determine sources of occupational stress among secondary school teachers .
- (ii) To determine patterns of stress among different categories of teachers.
- (iii) To identify and examine coping strategies adapted by the teachers.
- (iv) To assess the position of educational authorities and policy makers with regard to occupational stress among teachers.

RESEARCH QUESTIONS

The major research questions that were pursued in this study were as follows:

- (i) What are the major sources of stress among secondary school teachers in Lusaka?
- (ii) How does stress manifest itself among different categories of teachers?
- (iii) What coping strategies have secondary school teachers in Lusaka adopted?

- (iv) What is the position of educational authorities and policy makers with regards to occupational stress among teachers?

SIGNIFICANCE OF THE STUDY

This study examines sources and patterns of occupational stress among secondary school teachers in Lusaka region. In addition, it examines the coping strategies adopted by the teachers. Such data is important because once facts about occupational stress among teachers are established, decisions by policy makers and teachers themselves about suitable courses of action may be possible. Appropriate course of action may in turn lead to alleviation and prevention of stress among teachers. This would subsequently improve the general welfare of teachers, leading to quality education and desirable student outcome.

In addition, this study may create greater awareness in Zambia about occupational stress. With a proper understanding of stress and its manifestation, it should be possible for the vast majority of individuals and organisations to cope with stress successfully.

This study is also important in that it may assist in generating research interest in the subject of occupational stress. Occupational stress has important implications for workers' physical well-being, mental health, satisfaction with life and work as well as labour productivity (Journal of Cross Cultural Psychology v8, 1987).

In short, the significance of this study is predicated on the premise that job stress negatively affects teachers health status and that this has ramifications on the intellectual, social and emotional development of pupils. Consequently, job stress would have long term disastrous impact on the nation's human resources if left unrelated in the teaching profession. It is therefore important to find its sources, levels, patterns among secondary school teachers in order to determine ways of alleviating it.

LIMITATIONS OF THE STUDY

This study faced three major limitations. The first concerned the meaning of the term stress itself which has been described as one of the most imprecise words in the scientific dictionary (Cooper and Payne, 1998). Thus, one of the problems in

studying stress is the difficulty scientists have in defining it. This study had its full share of this impediment. However, an attempt was made to overcome this difficulty by defining stress operationally.

The second limitation was the difficulty of pinpointing the causes of stress with certainty. This is because a variety of dissimilar situations are capable of producing stress. Therefore it is quite difficult to isolate a single factor as the sole cause in a given situation.

Another important limitation was the use of self-report to measure stress. Since Freud's psychoanalytic discovery of the unconscious, psychologists have tended not to trust self-report as a method of assessing an individual's experiences. This is based on the view that individuals may themselves be unaware of their own motives. In addition, they may be inhibited from revealing their experiences directly. Nevertheless self-report has continued to be relied upon as a valid method of assessing individual experiences where alternative methods are not available (Lazarus 1984).

In view of the possible short-comings of this method of research, the main questionnaire for self-reported stress was supplemented by a behavioural observation schedule of teachers in diverse situations of their work environment.

OPERATIONAL DEFINITIONS

In this study the following concepts or terms have been conceptualised as follows:

(i) Stress

Most definitions of stress recognise the individual and the environment in terms of a stimulus interaction, a response interaction, or a stimulus –response interaction. In terms of stimulus, stress is viewed as the force acting on the individual resulting in a response of strain, where strain is pressure. From a response perspective, stress is seen as the physiological or psychological response of an individual to an environmental stressor, where a stressor is a potentially harmful external event or situation. On the

other hand, the stimulus-response view regards stress as the consequence of the interaction between an environmental stimulus and the individual.

Viewed as more than either a stimulus or a response, stress is the result of a unique interaction between stimulus conditions in the environment and the individual's predisposition to respond in a particular way.

Each of the above views offers important insights into what constitutes stress. Consequently, in developing a working definition of stress we borrowed ideas from each of the views.

The term stress in this study is therefore used to refer to conditions, situations or events which interfere with the psychological and holistic well-being of an individual on a chronic basis.

Historically, and somewhat inevitably, stress is conceptualised as unpleasant, aversive and as resulting in reduced adaptability and efficiency. In other words, while stress has a helpful side, it is most often thought of as a harmful part of life. This view of stress is maintained throughout this study.

(ii) *Job/Occupational Stress*

"Job stress" and "occupational stress" are used interchangeably in the study to refer to the phenomenon of stress pertaining to the work setting. It is in that setting that management can use some of the approaches of a preventive nature. Job stress therefore is used here to refer to an adaptive response to an external situation that results in physical, psychological, and/or behavioural deviations for organisational participants.

This study thus views occupational stress as an adaptive response moderated by individual differences, that is a consequence of any action, situation, or event that places special demands upon a person. "Special" here refers to unusual, out of the ordinary, physically threatening, or outside an individual's usual set of behaviour.

The great majority of our responses to stimuli in the work environment do not require adaptation, and so are not really potential sources of job stress. These were thus not of any interest to this study. Hence the definition's emphasis on adaptive responses.

(iii) **Sources of Stress**

Sources of stress are also known as stressors. In this study stressors or sources of stress refer to job-factors of an occupation or working environment which create frustration, anxiety, tension and pressure in workers on a regular basis. These emotional and psychological states lead to an experience of stress in an individual. In the teacher's work place, sources of stress may include classroom as well as out-of-classroom factors such as lack of teaching resources, work overload and inadequate pay systems.

(iv) **Patterns of Stress**

Patterns of stress in this study refer to differentiated manifestation of stress among different categories of teachers. Sources of stress experiences as well as coping strategies thereof vary from person to person, group to group as well as class to class. So, these patterns are the ways in which these sources and consequences of stress are manifested among individuals. For example, one category of teachers, say female teachers, may be affected most by a particular set of stressors (stress inducing factors) while another category of teachers within the same school may be vulnerable to yet another set of stressors. Many factors may contribute to these differences. These include personality, motivation, being able or ill-equipped to deal with problems in a particular expertise as well as demographic variables (Luthans, 1995).

(v) **Coping Strategies**

Behaviours, cognitions, perceptions and other internal and external resources which are engaged/employed as coping measures when dealing with job stressors.

CONCEPTUAL FRAMEWORKS

This study is grounded on two conceptual frameworks: a model of organisational stress and the cognitive appraisal theory.

A MODEL OF ORGANISATIONAL STRESS

In this model, Luthans (1995) suggests that although the organisation is made up of groups and individuals, there are also more macro-level dimensions, unique to the organisation, that contain potential stressors. These macro-level stressors can be categorised into administrative policies and strategies, organisational structure and design, organisational processes, and working conditions. See figure 1 on page 11 which illustrates Luthan's model of organisational stress. In essence, the model underscores the view that the sources of stress in work places are many. In this way it guides the current study.

He recognises potential stressors in organisations as coming from both outside and from within the organisation. His model however, focuses on stress antecedents which are associated with the organisation itself.

The model also suggests that as organisations dramatically change to meet the environmental challenges such as globalisation, information technology explosion, quality obsession, and diversity, there are more and more accompanying stressors for individual employees in their jobs.

FIGURE 1: MACRO-LEVEL ORGANISATIONAL STRESS

ADMINISTRATIVE POLICIES AND STRATEGIES

- Downsizing
- Competitive pressures
- Merit pay plans
- Rotating work shifts
- Bureaucratic rules
- Advanced technology

ORGANISATIONAL STRUCTURE AND DESIGN

- Centralisation and formalisation
- Line-staff conflicts
- Specialisation
- Role ambiguity and conflict
- No opportunity for promotion
- Restrictive, untrusting culture

ORGANISATIONAL PROCESSES

- Tight controls
- Only downward communication
- Little performance feedback
- Centralised decision making
- Lack of participation in decisions
- Punitive appraisal systems

WORKING CONDITIONS

- Crowded work area
- Noise, heat, or cold
- Polluted air
- Strong odor
- Unsafe, dangerous conditions
- Poor lighting
- Physical or mental strain
- Toxic chemicals or radiation

JOB STRESS

Source: Luthans (1995, 300)

THE COGNITIVE APPRAISAL THEORY

This theory is associated with Lazarus (1971). The theory portrays stress as any demands which tax the system, be it a physiological, social or psychological system and the response of that system. According to this theory the individual's reaction to potential stressors depends on how the individual consciously or unconsciously interprets or appraises the significance of a harmful, threatening or challenging situation.

In emphasising the individual nature of the phenomenon of stress, the theory places considerable importance on the idea that different stressors will have different meanings for individuals in line with the latter's particular circumstances and past experiences. Thus, on the basis of this theory, we would expect different subcategories of teachers such as male and female, experienced and newly recruited, and rural based and urban based to be affected differently by the same stress factors. This theory is important in this study because it helps in understanding how patterns of occupational stress arise in a given population.

ORGANISATION OF THE STUDY

Chapter One of the dissertation comprises the background, statement of the problem, purpose, objectives, research questions, significance and limitations of the study. In addition, it consists of operational definitions of the constructs under study.

Chapter Two consists of the literature review which is presented in accordance with the following sub-headings: Sources of occupational stress, patterns of stress, coping strategies, level of awareness of occupational stress among educational authorities, and the summary of the reviewed literature.

Chapter Three discusses the data gathering methods. It first describes the pilot study. This is followed by a description of the final study which consists of the study design, the population, sample and sampling procedure, and data collection. Chapter Four is dedicated to the presentation of the results while Chapter Five discusses the results of the study.

Finally, Chapter Six constitutes a summary, conclusion, recommendations as well as suggestions for further research.

CHAPTER TWO

LITERATURE REVIEW

This chapter reviews relevant literature on the subject of occupational stress in academia. The literature review will be presented according to the following sub-headings: Sources of occupational stress in the teaching profession, demographic patterns of occupational stress, stress coping strategies, and organisational awareness of the problem of occupational stress.

SOURCES OF OCCUPATIONAL STRESS IN THE TEACHING PROFESSION

According to the literature reviewed, sources of occupational stress have been studied at global, inter-organisational and intra-organisational levels. At a global level the focus has been to establish sources of occupational stress for a particular category of job holders across nations. At interorganisational level, the attempt has been to try to identify sources of stress that cut across organisations within a given socio-cultural setting. And at intra-organisational level, researchers have sought to clearly identify sources of stress peculiar to the conditions prevailing in individual organisations. This is the level at which this current study will investigate the sources and patterns of stress. It is believed that this approach provides the necessary information for designing effective stress management strategies for organisational participants.

Studies dealing with stress in academia only began in the early 1970s (Journal of Cross Cultural Psychology, 1987). They tended to focus mainly on the identification of the sources of stress common in this domain. For example, Eckert and William (1972) found that routine duties, long hours, poor facilities, friction among faculty members, and administrative red tape were the prevalent sources of stress. A major weakness of this study was that it used the “absenteeism figure”, the percentage of staff absent from work on any given day, to measure stress. Logically, however, one cannot deduce that the organisation with high absenteeism is necessarily stressed. Certain organisations are more prone to absenteeism, through injury for example. In fact, many companies suffer from ‘presenteeism’

(Copper et al, 1981), the presence of disaffected or exhausted workers of no more benefit to an organisation than absentees.

Landsmann (1978) undertook a study of stress among teachers with the cooperation of the American Health Association. He published a questionnaire in a popular educational magazine. Of the nine thousand teachers who responded to the poll, 84% said health hazards existed in teaching (Zanden, 1984). The questions that elicited open-ended answers identified stress as the most common health problem. Further, teachers reported that tension and pressure arose from large class sizes, the lack of teaching materials, an increase in disciplinary problems, public pressure on teachers, and schedules that permitted few or no breaks. A significant number of teachers also cited the current trend to make the schools, and hence teachers, the major problem-solving agents of society as a factor contributing to increasing stress. One teacher observed:

We are asked to assume broad roles, yet we are more and more criticized by the public. Areas once covered by the family and church such as sex education, moral education, are now plopped on the teachers' lap. The same parents who are demanding that teachers go back to the basics (reading and maths) also want us to teach the right from wrong. To do all these things without support is frustrating and demanding. It is no wonder more and more experienced teachers are leaving the profession (Zanden, 1984:483).

Another similar study, cited by Zanden (1984), analysed physical environment and taking lunch as particular sources of stress among teachers. Only 25% of the sample either bought lunch from school cafeteria or brought their own lunch. The rest skipped lunch. With regard to the physical environment, teachers complained about the temperature in the classrooms, noise in the neighbourhood and poor state of some of the classrooms.

The two studies above have methodological flaws. Their major weakness is that they employed inadequate sampling procedures. For example, the use of unrestrictive sampling procedure meant that the study had no control over who to participate so as to ensure a representative sample. Moreover, conditions under which the participants responded were not controlled to ensure uniformity. These could have negatively influenced the outcome of the study.

Koester and Clark (1980) reported that lack of time for professional updating, shortage of funds, and bureaucratic tedium were the most frequent stressors. On the other hand, the study undertaken by Melendez and de Guzman (1982) found that the three sources of stress, which were of highest concern in the teaching fraternity, were faculty apathy, student apathy and work overload.

In 1983 and 1984, Gmelch and his colleagues conducted an in-depth study of the sources of faculty stress in teaching, research, and service. Additionally, they sought to identify differences in stress sources and reactions among faculty members, subdivided according to their academic disciplines, rank, tenure, age, gender and marital status. The study singled out ten main stressors afflicting the study population. These included time pressure, inadequate teaching resources, pressure to keep abreast with developments in one's field of specialty, inadequate salary and so on. Although the level of teaching which was focused by the study was higher than that of the current study, its findings are generally relevant to different levels of teaching. Besides, Gmelch's study is significant because it was the first most extensive study on stress in academia (Journal of Cross Cultural Psychology 1987).

Gmelch's study was partially replicated in Israel by Keinan and Perlberg (1987). They undertook to study sources and patterns of occupational stress experienced by Israeli faculty members. Following Gmelch's lead, they focused attention on the top ten stressors. These included dissatisfaction with career progression, conflicting duties, work over-load and so on.

Among the first studies of teaching professionals to deviate from exclusively investigating sources of stress was one conducted by Peter and Mayfield (1982). In addition to investigating sources of stress among academic professionals in America, Peter and Mayfield included the dimension of reactions to stress. Half of the 200 faculty members they interviewed complained of burnout and frustration due to heavy teaching loads, elaborate assessment methods, and insufficient time to spend with their families.

A study more relevant to the current one in terms of sample and socio-cultural setting was one conducted in Zimbabwe by Nhundu (1999). This study confirmed the findings of studies done in non-African cultures. It would therefore

seem that certain sources of stress in the teaching profession cut across cultures. Nhundu's focus was on sources, incidences and severity of stressful work situations among primary and secondary school teachers. The study identified a multiplicity of teacher stressors such as "low salaries", "deteriorating working conditions," "work overload," "poor accommodation" and so on.

In Zambia, like in most parts of the developing world, very little research has been done on occupational stress, let alone on stress in academia. However, recently, with the initiative of western agents, concern about occupational stress in work organisations is beginning to take root. This is evidenced by the preponderance of stress management seminars being held countrywide (Zambia Counseling Council, 2000). In addition, research work, though still in its embryonic stage, is beginning to emerge. For example, recently, Rachel Baggaley (1999), under the auspices of UNICEF, did a study on AIDS-related stressors affecting primary school teachers in the Zambian city of Lusaka. The study was a follow up activity after the cohort had undertaken a course on stress management and counseling skills. It brought out factors such as poverty, illness and death of pupils and teachers, as well as teenage sexual misconduct and pregnancies, as antecedents of teachers' stress (Baggaley, 1999).

Baggaley's study seemed to have had problems pertaining to the way it was organised. The course on stress management could have perhaps more appropriately come after identification of sources of stress. In this way the instructions would have been based on the identified stressors. Besides, the fact that sources of stress that might be inherent in teaching were not investigated meant that the management skills that were subsequently designed could not be that effective.

This might explain why the project could not achieve its objectives, as the researcher observed:

Despite the training, many teachers could not adequately manage their subsequent stress experiences or counsel pupils effectively. The teachers were clearly in need of continuing support and training to enable them cope with this aspect of their work (Baggaley, 1999).

DEMOGRAPHIC PATTERNS OF OCCUPATIONAL STRESS

Patterns of stress in organisations arise from the fact that stress at work evokes different reactions in different individuals. One of the reasons for this is that some categories of people are better able to cope with stress than others. They have certain resources at their disposal which enable them to adapt their behaviour in ways that meet environmental challenges. On the other hand, other people are more characterologically predisposed to stress. In other words, they are particularly vulnerable on account of their inability to cope or adapt to stress-provoking situations. According to Cooper and Payne (1980), this is the basis for the patterns of stress experience in a given population. Many factors may contribute to the emergence of these patterns. These include personality, motivation, ability and demographic variables such as age, gender, status, and so on.

The significance of identifying patterns of stress experience in a given population is that they provide information that is useful for effective stress reduction intervention, which is the main reason for studying the phenomenon (Bratton, 1994). In other words, stress reduction programmes need to be carefully tailored to the specific demographics of the focal group if they are to be effective (Lazarus, 1994). Therefore, any approach to stress reduction in an organisation which does not take into account the patterns of stress in that organisation is doomed to failure (Cooper and Marshal, 1978).

The literature reviewed mainly reveals gender, age and field-of-speciality-based patterns of stress in educational and other organisations. For example, Fong and Amatea (1992) carried out a study of occupational stress among 141 academic women. This study explored levels of stress, career satisfaction, and coping strategies among four role groups (single, single-parent, married, married-parent women). Of interest, teachers in the 31 to 44 age range reported higher levels of stress than teachers either under 30 or 45 years and older.

Fong and Amatea's findings are consonant with those of Goldberg and Comstock (1980). In a study of stress among academicians, Goldberg and Comstock found that younger teachers tended to experience more stress compared with older teachers. Those under 30 years of age reported almost three times the number of stressful events compared with those above 30 years of age.

Research findings on gender-based patterns of stress in work organisations are not consistent. For example, Chruden (1984) noted that women are less likely to suffer stress-related illness than men in similar jobs. He attributed this to the fact that women find it easier to vent their emotions and verbalise their frustration at work, unlike men who he said consider it a sign of weakness to vent off their dissatisfaction and frustrations. Nhundu (1999) also found that female teachers perceived both prevalence and severity of stress in the work environment as significantly less prevalent and less stressful than male teachers.

However, there are other studies which have shown that female teachers are prone to stress more than male teachers. These include Goldberg and Comstock (1980), and Kaplan et al., (1995). Guthries et al., (1995), in a study they undertook to examine the nature and sources of stress among health workers in the north of England, noted that women reported more stressful incidents than men. Fish (1986) also made a similar observation among clinical workers. He observed that in country after country, women were found to suffer more from stress than men. He speculated that this could be because women juggle more duties between home and work. Bratten (1994) also observed that women experience more psychological distress than men. He provides two possible explanations for this: that women may be more willing to admit to stress or to having difficulties than men, or that women may actually experience more stress than men.

Findings from other studies, however, suggest that there is little difference between men and women in levels of stress experienced in work places. For example, Martochio and O'leary (1989) concluded, from a meta-analysis study, that men and women are equally prone to experiencing occupational stress. Levi (1990) also observed that prevalence rates for psychological morbidity resulting from work-related stress were similar for male and female subjects.

The variations in gender-based patterns of stress seem to be a function of demographics which occur among male and female workers. For example, the status of single, single-parent, married, married parent seem to influence research outcomes. Bebbington et al (1981:55) alluded to this when they stated that "There is little difference between men and women in stress experience. It is only when

such issues as marriage and divorce become factors that a difference in the sexes becomes apparent."

In work places, individual qualifications have also been found to be factors in determining the individual experience of stress. In a study conducted by Cobb and Kasi (1988), it was found that individuals with high educational achievement but low job status exhibited abnormally high levels of job stress symptoms such as anger, irritation, anxiety, tardiness, clinical depression, and low self-esteem (Steers and Black, 1998).

A teacher's field of specialisation has also been found to play a role in stress experience. For example, Gmelch (1984) found that faculty members in the humanities were significantly more affected by the identified job stressors than their colleagues in other disciplines. In another study, Keinan and Perlberg divided faculty members into eight disciplinary sub-groups and concluded that "It is quite clear that there is far more similarities than differences in the way faculty from across academia view the sources of stress in the work" (Journal of Cross Cultural Psychology, 1987:486). In Nhundu's study of stress among teachers in Zimbabwe, one of the patterns that emerged involved teachers' years of teaching experience. It was found that beginning teachers were more stressed than long serving teachers. The severity of self-reported teacher stress diminished with increase in the teaching experience of the teacher.

Significant differences in the prevalence of stressors and their severity were also found between rural and urban school teachers with rural teachers rating their work as more stressful.

This difference was also noted in relation to the level of grades taught. In this regard, it was observed that those who taught junior classes reported more stress than their senior level counterparts.

Most of the stress factors which showed significant differences between the various categories of teachers were those concerned with teaching and teaching-related aspects of their job.

OCCUPATIONAL STRESS COPING STRATEGIES

The term “coping” has been used in many ways by various researchers on stress. One of the clearer definitions has been provided by Lazarus and Folkman (1984). They defined coping as “constantly changing cognitive and behavioural efforts to manage specific external and internal demands that are appraised as taxing or exceeding the resources of the person” (p. 178). Basically, coping is our attempt to change a stressor or a stress-response.

A number of attempts have been made to identify and categorise the different coping modes workers use in stressful situations. An individual’s efforts to cope with stress are manifested at a physiological, psychological and behavioural levels. It should be noted that not all ways of coping with stress are healthy. Symptoms at each of the three levels can feed back to become causes of stress in their turn. It was with this in mind that M^cCrae and Costa (1986) suggested that the different coping strategies that have been put forward can be compressed into two major categories which they referred to as adaptive and maladaptive coping strategies.

Adaptive coping strategies are those that are effective at relieving stress in an individual. The individual uses the cognitive restructuring of the situation and employs some practical means of resolving the situation. Under this mode we have social and professional support. These tend to produce a generalised positive effect on the individual regardless of the levels of stress involved (Dubow et al., 1989).

Maladaptive coping strategies, on the other hand, are ineffective and usually unrealistic modes of responding to stress. These externalising types of coping mostly lead to self defeating behaviour. Maladaptive coping strategies are usually an indication that the stressors exceed by far the individual’s coping resources. Such uncompromising utilisation of negative coping repertoire does not promote normal human development (Atshuler, et al., 1989). Examples of maladaptive coping strategies among workers include working for long hours, excessive drinking, smoking, and drug abuse.

The individual who finds himself or herself unable to cope with stress is better advised to leave the stressful situation, whether that situation is a domestic

set-up or work. Unfortunately, in most job-related situations, avoiding stressful events or running away from them are not always practical solutions. Thus, stress tends to build up in individual workers with no outlet. The result is a multiplicity of health problems and other negative outcomes.

Generally, studies have shown that in most stressful work organisations, workers are more inclined towards maladaptive rather than adaptive stress coping strategies. For example, Jackson and Maslack (1982) found that police officers experiencing stress were more likely to display anger, spend time away from home than be involved in family matters. These officers coped with stress by smoking, drinking and withdrawing from other people. Thus, the study concluded that the officers were mostly using maladaptive stress coping strategies. The findings in this study might have been prejudiced by the nature of the sample used. The sample consisted mainly of officers stationed in troubled spots. Hence the results might not be representative of coping modes of most workers as was assumed by the researcher.

A survey conducted by Robert Half International (1998) in the UK found that workers used various coping strategies to cope with workload. For instance, it was found that 60% took work home at night and during week-ends on average thrice in a month. In addition, it was found that almost a third of workers were unable to take the holiday entitlements for various reasons.

Sears (Journal of Occupational Health Psychology, 2000) examined occupational stress and coping strategies among health professionals. He observed that most of the participants used negative coping strategies such as excessive beer drinking and drug abuse.

This study did not come across studies on coping strategies in Zambia involving workers. However, it did come across a study of coping strategies in non-working environments which provided valuable information on the subject. One such study was undertaken by Mambwe (1996) among street children. He identified psychosocial and physiological stressors that the cohort was subjected to on chronic basis. To cope with these stressors, the participants used a number of strategies which Mambwe categorised as approach coping strategies, partial avoidance coping strategies and complete avoidance coping strategies. According

to him, only approach coping strategies were adaptive. Partial and complete avoidance coping strategies were counter-productive, self-defeating, and, above all, maladaptive (Mambwe, 1996). He referred to these as coping failures rather than coping strategies. Overall, Mambwe's study indicated that coping failures were used significantly more than adaptive coping strategies.

Thus, there seems to be a consensus among researchers that the common coping mode to high levels of stress is invariably maladaptive rather than adaptive. In work places this may be attributed to the mostly non-humane and oppressive nature of modern working environments. But since the majority of the people are dependent on their jobs for their livelihood, they are compelled to stay on despite facing severe stress.

ORGANISATIONAL AWARENESS OF OCCUPATIONAL STRESS

Not much literature has been identified on this aspect of the issue. As a result, the current study has largely relied on some authority statements on the issue.

In urging organisations to take occupational stress seriously, Hindle (1999) outlined the following costs of work-place stress:

- (i) Low quality of service: this may lead to loss of customers or clients which endangers an organisation.
- (ii) High staff turnover: both time for training and money for recruitment are spent on replacing unhappy workers;
- (iii) Poor reputation: an organisation with dissatisfied clients or customers has to pay for changes to restore confidence in its products and services;
- (iv) Poor organisational image: a stressed organisation may recruit only a low-quality or inexperienced workforce since better qualified and experienced individuals are unlikely to be attracted to it;
- (v) Dissatisfied workers: where individuals are subjected to high stress, valuable time is spent in disputes with management over terms and conditions of employment.

Cooper (2000), urges modern managers to have reasonable knowledge of job-related stress and to be actively concerned about it if they are to be effective. He adds that this should be complemented by organisational efforts to minimize the effects of the phenomenon (BBC, 20-12-2000). In the paper he presented to the World Health Organisation, he went on to say:

...an astute manager never ignores any turnover, or absenteeism problem, work place drug abuse, decline in performance, poor quality of products, or any other sign that the organisation's performance goals are not being met. Rather he must view these occurrences as symptoms and look beyond them to identify and correct the underlying causes. Yet most managers tend to search for traditional causes. In all likelihood, stress is not on the list of possible problems.

Managerial lack of knowledge and concern for such a serious phenomenon has thus cost a lot of employees their lives and a lot of organisations their productivity.

On the subject of organisational awareness of job stress, Chruden (1984) therefore suggested that there should be increasing awareness at different managerial levels that occupational stress is as important as other job-related concerns to the effectiveness of the organisation. He further suggested that managers should recognize that employee ill-health can be psychological in addition to being physical. Managers and supervisors should therefore concern themselves with improving potentially distressful conditions at work. Lazarus (1984) feels that it is the responsibility of employers to identify, control and eliminate the sources of stress in work places. He goes on to say "any organisation should view devising a strategy to reduce stress as a necessary part of the cost of maintaining its most valuable asset – its work force" (p.36)

A study which was done in the United Kingdom to assess, *inter alia*, managerial concerns about occupational stress reported that managers across the UK exhibited satisfactory knowledge of job-related stress. It was further found that most managers had put in place specific measures and future plans to regulate job-related stress (British Business Magazine, October 1998). In addition, eight out of ten managers believed that the work environment was more stressful than it was five years earlier. They estimated that around 70% of their subordinates were suffering from stress-related complications. Organisational position on occupational

stress may be assessed at managerial level (Bratton, 1994). Managerial knowledge of occupational stress is, for instance, seen as a manifestation of organisational awareness of the problem. Similarly, the presence or absence of mechanism for reduction or prevention of job stress indicates whether there is any policy in place or not.

It can therefore be seen that unless organisational concern for occupational stress is enlisted, stress in work places will continue to take its toll unabated.

SUMMARY OF THE REVIEWED LITERATURE

There was a lack of literature on Zambia and most of Africa on sources and patterns of occupational stress in the teaching profession. Hence, with a few exceptions, all the studies that have been reviewed were conducted in the west. They suggest that multiple stressors do exist in the teaching profession.

It should be pointed out that the scarcity of local research literature on the subject does not, however, mean that occupational stress is an alien problem to Zambia. As Mambwe (1996:9) pointed out, "it's evident that stress takes its toll in Zambia and other developing countries just as it does in the western world. However, it is not receiving the serious attention it deserves from researchers, medical practitioners as well as human resources management practitioners." This may, in part, be attributed to the fact that most developing countries are plagued with other more pressing problems of a survival nature such as starvation, disease and poverty. This leaves little room to attend to less quantifiable, though equally fatal, problems such as job stress. However, prevailing situations in most of the Zambian schools imply the existence of the problem.

Despite coming from cultural settings different from that of Zambia the literature reviewed is still enlightening on the subject under study. This is because it addresses the problem of occupational stress in teaching, in the context of stress factors identical with what obtains in Zambia. It would seem teaching activities, working conditions of teachers and situations which arise in schools have an appreciable amount of universality. Thus the findings of most of the literature reviewed can be applied directly to the Zambian teaching profession.

Some of the several sources of teacher stress that research has identified include role overload, role conflict, poor working conditions, low status, inadequate pay, conflict with administrative policy, students' behaviour, job insecurity, teaching resources, and lack of recognition for work well done. In general, the sources of teacher stress, identified by previous research, can be collapsed into four major categories- administrative policies and strategies, organisational structure and design, organisational processes and working conditions.

Levels of stress among teachers are so high that a number of studies have actually reported teacher burnout (Zanden, 1984), which is a fatal level of job stress.

The patterns of occupational stress that have been revealed are based on gender, school level, school location, school type and work experience among other demographic variables.

With regard to coping strategies, most studies suggest that over-stressed workers tend to rely more on maladaptive than adaptive coping strategies. Adaptive coping strategies appear to be a luxury of those subjected to relatively mild stress.

Finally, on organisational awareness and policy, research indicates that there is significant awareness of job stress in organisations such that most organisations actually have specific policies intended to regulate levels of job stress among workers on regular basis.

In conclusion, we could say that stress is a significant problem in the teaching profession and is getting worse as society keeps evolving. Another observation worth making is that much research into job stress has tended to focus on "executive burnout" and individuals in the high echelons of organisational hierarchy. This, in academic circles, is reflected in the concentration of studies of occupational stress at higher levels of education and among educational administrators. This is rather regrettable because, as a U.S. study found out, the severity of stress actually increases as we move down the managerial hierarchy in organisations (Cooper, 1981). In agreement with this view, a study in the United Kingdom concluded that "The problems of stress are more apparent in middle management than at senior level" (UK Business Magazine, 1998:12). Teachers are in this category of workers.

CHAPTER THREE

DATA COLLECTION

This Chapter discusses the methods used to collect the data. It briefly describes the pilot study and then the main study in detail.

THE PILOT STUDY

On the 4th of December 2000, a letter was obtained from the office of the Provincial Education Officer for Lusaka Region granting permission to conduct the study amongst public and private secondary school teachers.

A pilot study was conducted between the 8th and 17th of December. It involved secondary school teachers from one mission school, one government school, one private school and a rural school. In addition, it involved ten education administrators who included school headmasters and human resources officers from Lusaka Region and Ministry Headquarters.

The rationale for involving a cross-section of teachers in the pilot study was to ensure that the questionnaire had adequately taken into account the diverse working environments of the different categories of teachers involved in the main study. It was therefore assumed that such a sample would facilitate the fulfillment of the purposes of the pilot study, which were:

- (i) to determine whether or not the items in the questionnaire would be clearly understood by the subjects of the final study; and
- (ii) to determine the best way of administering the instruments for the final study.

After necessary modifications were made to the three instruments, on the basis of the observations made during the pilot study, the instruments were re-administered to the same pilot sample.

The second administration of the instruments showed that all the items were clear to the cross-section of teachers. The final research instruments are presented in Appendices A, B and C.

THE FINAL STUDY

Data for the final study were collected between December 2000 and February 2001. The procedures used for administering the instruments were the same as those used during the pilot study. They are described in detail under data collection techniques on page 33.

STUDY DESIGN

The research design took the form of a survey. It involved both quantitative and qualitative methods. Quantitative methodology relied mainly on the questionnaire. Qualitative methodology on the other hand, employed semi-structured interview schedules and behavioural observations.

STUDY POPULATION

The study population comprised all the private and public secondary school teachers in Lusaka Region.

According to the Ministry of Education's 1999 list of secondary schools, there are 73 secondary schools in Lusaka Regions. Lusaka Region comprises Lusaka city, Kafue, Chongwe and Luangwa Districts.

In this study, Kafue, Chongwe and Luangwa were defined as Lusaka rural, while Lusaka City was defined as urban. For the purpose of obtaining a relatively comprehensive picture of the situation of occupational stress in the whole region, the study sampled both urban and rural secondary school teachers.

The rationale behind confining the study to secondary school teachers was that the time and resources available could not permit inclusion of primary and nursery school teachers. In any case, research suggests that secondary school teaching is more stressful than primary or nursery school teaching (Zanden, 1984).

SAMPLE AND SAMPLING PROCEDURES

The respondents were drawn from both private and public schools as well as from rural and urban schools in order to enhance sample representativeness of the population.

In order to draw a sample of 17 from a total number of 73 secondary schools, the list of all the schools in the region was proportionately stratified into private and public. It was found that there were 50 private schools and 23 public schools.

At the second stage, random sampling was used to select six private schools and eleven public schools to participate in the survey. The public category comprised government and grant aided schools. A total number of 14 copies of the questionnaire were taken by the researcher to each of the 17 secondary schools. In addition, 20 copies of the supplementary questionnaire were administered to educational administrators. Therefore, the total sample comprised 238 secondary school teachers out of a total of 1025, and 20 educational administrators out of a total of 80. The educational administration included human resources officers and school headteachers. An observation guide was also used to observe 20 teachers in potentially stressful situations. The average number of teachers interviewed per school was nine. Other details of the schools and teachers in the study are shown in tables 1 and 2 below.

Out of the initial 238 copies of the questionnaire distributed to participating schools, 187 usable copies (representing 136 public school teachers and 51 private school teachers) were returned. This gave a favourable rate of return of 79% compared with similar studies by Nhundu (1999), Pierce & Moll (1990), Schwab and Iwanick (1982), Kyriacou and Sutcliffe (1978). These yielded return rates of 75.89%, 73%, 59.5% and 55.88% respectively.

On the other hand, all the 20 copies of the observational guide were returned and 18 out of the 20 copies of the interview schedule were returned, representing 90% rate of return.

Table 1: Distribution of Schools and Teachers in the Study

School Category	No. Of Schools Sampled	Number Of Teachers Sampled
Private	5	51
Public		
(a) Government	8	88
(b) Mission	4	48
Total	17	187

Table 2: Distribution of Teachers according to sex and qualifications

Qualifications			Total
	Male	Female	
Graduate	44	28	72
Non graduate	80	35	115

DATA COLLECTION INSTRUMENTS

The following research instruments were used to collect data for the study:

- (i) Teachers' Stress Index Questionnaire (TSIQ)
- (ii) Observation schedule guide
- (iii) Semi-structured interview schedule

(i) Teachers' Stress Index Questionnaire (TSIQ)

The Teacher Stress Index Questionnaire (TSIQ) was the main research instrument of the study. This instrument had been modified from the Teachers' Stress Index developed by Nhundu in 1999 to study the prevalance, incidence and severity of occupational stress among primary and secondary school teachers in Zimbabwe (Zimbabwe Journal of Educational Research, V112, 1999). The items in the questionnaire were selected from a review of previous research as well as from the records of common teachers' complaints kept by headteachers. However, the

majority of the items were adopted from Nhundu's Stress Index. The final questionnaire included 48 items (see Appendix A).

Section A of the questionnaire required subjects to fill in personal data items such as gender, years of service, age, subjects taught and nature of school. In Section B respondents were required to indicate the severity of self-reported stress which was calibrated as follows: - not stressful = 1, Mildly stressful = 2, Moderately stressful = 3, Considerably stressful =4, Very stressful =5, Extremely stressful =6.

Section C of the questionnaire required respondents to volunteer some sources of job stress in their occupation, and rate them on the six point Likert-type rating scale provided. The last part of the section required respondents to evaluate the level of stress they experienced at work, and indicate what percentage of the total stress in their lives stemmed from their job. Finally, Section D required respondents to indicate their coping strategies to various stressors in their work environment.

(ii) Observation schedule guide

The observation schedule supplemented the main questionnaire. This was used to observe teachers in various potentially stressful situations that occur in teaching. The observation guide had a form attached to it. This form required the observer to indicate manifestations of job stress in a given situation under the categories of psychological, physiological and behavioural symptoms. The observations involved episodic situations such as 'a teacher handling an overcrowded classroom' or 'struggling to beat an important deadline.' In certain cases, observational periods stretched into a number of days as in one case where a teacher was fighting for study leave.

(iii) Semi-structured interview schedule

The third instrument in this study, the semi structured interview schedule, was designed for educational administrators such as school headteachers, school inspectors and Human Resources Officers. The instrument merely sought information about awareness of occupational stress and official position towards the phenomenon.

DATA COLLECTION PROCEDURE

A research assistant was enlisted in each of the participating schools. The research assistants were given special orientation by the researcher with regard to the administration of the questionnaire. The research assistants gave out copies of the questionnaire to a randomly selected sample of teachers in each school. They saw to it that the sample was representative in terms of gender and subjects taught, *inter alia*.

The questionnaire was left with each respondent for a maximum of four days. The completed copies of the questionnaire were later collected by the research assistant who kept them until the researcher returned to pick them up.

On strict instructions from the researcher, the assistants also conducted the observation in their respective schools. The observation report had to identify specifically what the observer perceived as a potentially stressful situation as well as the specific manifestations of behaviour observed. The observer then indicated the date and appended his or her signature at the end of each observation session.

The semi-structured interview schedule was conducted by the researcher himself. The researcher sat with the interviewee in a quiet room and filled in the interview schedule as the interviewee responded to each item. This interview schedule was administered in this way because of the necessity for follow-up questions. In this way a richer information base was obtained with regard to organisational awareness of occupational stress in the Ministry of Education.

DATA ANALYSIS

The SPSS Package was the main statistical instrument used in the analysis of quantitative data while qualitative information was analysed using the content analysis approach.

PROBLEMS ENCOUNTERED IN THE PROCESS OF DATA COLLECTION

The following were some of the major problems encountered in the process of administering the Teacher Stress Index Questionnaire:

Firstly, when the distribution of the instrument was just getting under way, the school term was abruptly interrupted by the year 2000 census exercise. This involved a sizeable number of public school teachers. This meant that only a small number of teachers were accessible. The rest spent most of the time supervising census enumerators, and so could not be accessed.

Secondly, there was a general negative attitude towards participating in the study. Most teachers felt it was pointless to participate in the study as it would not mitigate their suffering in any way. Others participated grudgingly and deliberately responded in ways that were not helpful. This, of course, has implications for the study outcome.

Thirdly, Private school administrators felt threatened by the study. They felt that it would expose them to public criticism. Consequently, most of them did not cooperate with the researcher. In other cases, private school administrators allowed their teachers to participate in the study, but actively made attempts to influence their responses. One research assistant, for example, reported that the deputy headteacher advised the teachers to respond in a "responsible" way and avoid painting a bad image of the school.

Fourthly, the researcher had to go to most of the schools more than once. This was because not all the teachers respected the time frame stipulated to them for completion of the questionnaire. On account of the problems cited here, out of 238 copies of the questionnaire which were distributed, 210 were returned. And out of the 210 copies which were returned, only 187 were judged to be usable.

The interview schedule and the observational guide had less problems compared to the questionnaire.

Twenty educational administrators were interviewed using the semi-structured interview schedule, and eighteen copies of the schedule were found usable. This represented 90% of the copies that were used to collect the data from educational authorities.

On the other hand, all the twenty copies of the observation guide that were given out to observe teachers in potentially stressful situations were returned. In addition, all of them were judged to contain usable information.

CHAPTER FOUR

RESULTS

This chapter presents the results of the study. The results obtained for each of the factors that were investigated are presented separately. These results were arrived at by using the data analysis procedures discussed in chapter three above.

SOURCES OF OCCUPATIONAL STRESS

It will be recalled that the first objective of this study was to determine sources of occupational stress in the study sample.

The stress factors were arrived at following the lead set by Gmelch et al., (1984). This involves selecting an arbitrary number of individual stress factors with the highest stress values. Gmelch, in his study, selected the top ten stress factors. This approach was also used by Keinan and Perlberg (1987). They selected the top ten stress factors in their analysis of sources of stress among Israel academicians. Recently the approach was used by Nhundu (1999). He selected the highest twelve stress factors in his analysis of sources of occupational stress among Zimbabwean secondary and primary school teachers. The current study has selected 14 highest sources of job stress among secondary school teachers. Table 3 below shows the identified major sources of occupational stress among secondary school teachers in Lusaka Region.

Figure 2, on page 36, shows categorical sources of occupational stress in the study sample. It involves selected broad categories of sources of occupational stress to which the discrete stress factors belong.

The results in Table 3 show selected discrete sources of stress and their severity. It is interesting to note that "low salaries" has the highest stress index ($x=5.462$). It is also of interest that the second highest source, "Difficulties of obtaining entitlements" and the fourth highest, "pay problems" are closely related to "low salaries." All the three stress factors have to do with the rewards that teachers expect to reap from their job. In this sense the item with the third highest stress index, "Limited opportunities for further studies," may also be said to be related to

the three factors cited above since it refers to psychological rewards expected by teachers.

Of the top 14 stressors, eight of them are concerned with terms and conditions of employment, and four have to do with the environment in which teachers work. Only two of the “most serious” stress factors may be considered intrinsic to the job of teaching itself. These are “pupils’ poor attitude and lack of commitment to school work” and “unrealistic administrative demands.”

The overall effect of the top 14 stress factors on different sub-categories of the study sample is also of great interest: About 80.6% of public school teachers reported the top 14 stress factors as serious sources of stress, whereas only 57.1% of their private school colleagues reported them as serious sources. Another point worth noting is that, for each of the 14 top stress factors, the percentage of public school teachers affected by it is significantly higher than that of the private school teachers. The only exception to this is item 42, “pupils’ poor attitudes and lack of commitment to school work.”

Table 3: Most Serious Sources of Stress for Secondary School Teachers in Lusaka Region

Sources Of Stress		Severity		
Item No.	Top 14 Stress Factors	Mean	SD	Rank
28	Low salaries	5.462	1.254	1
31	Difficulties of obtaining entitlements	5.117	1.608	2
23	Limited opportunities for further studies	4.972	1.455	3
30	Pay problems	4.893	1.836	4
26	Lack of regard for qualifications	4.765	1.676	5
32	Accommodation related problems	4.675	1.791	6
43	Dealing with education offices	4.669	1.805	7
29	Too much time-consuming but not rewarding paper work	4.586	1.675	8
27	Lack of recognition for work well done	4.564	1.742	9
45	Public's lack of respect for teachers	4.257	1.790	10
47	Unrealistic administrative demands	4.120	1.773	11
25	Difficulties of getting alternative jobs	4.102	1.859	12
42	Pupils' poor attitudes and lack of commitment to school work	4.091	1.576	13
48	Few sanctions which teachers can apply for pupil misbehaviour	4.054	1.708	14

Focusing on public school sub-groups, 82% of government school teachers reported the top 14 stress factors as serious sources of stress while 77.6% of mission school teachers did so.

On the basis of location, 81% of urban secondary school teachers reported the top 14 stress factors as serious while 78.7% of their rural counter-parts reported them as serious sources. Overall, 55.1% of the participants reported serious stress while only 44.9% reported normal or mild stress in their job as teachers.

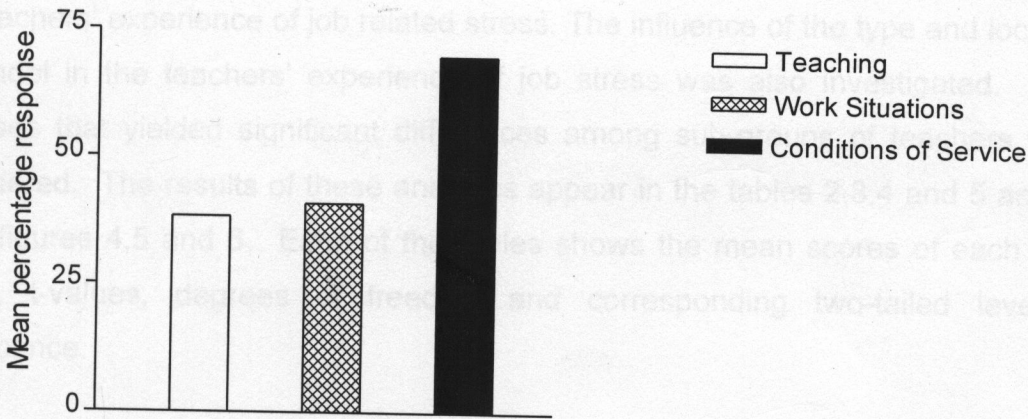
Functional Categories of Stress Sources

Following the lead of Gmelch and his co-workers, three functional categories of work situations were delineated (see figure 2 and Appendix E). These were teaching, work situations and conditions of services. Items appropriate to each of these categories were then identified from the Teacher Stress Index Questionnaire (TSIQ). The teaching group consisted of 13 items. This included items such as “cumbersome assessment systems,” “teaching classes of limited ability,” repetitive nature of the job” and so on.

The work situations category comprised 14 items such as “heavy work load,” “over-crowded classes,” “interruptions to school programmes,” and so on.

The conditions of service category consisted of seven items. Among these were “poor promotion prospects,” “low salaries”, “lack of recognition for work well done and so on.

Fig. 2: Percentage distribution of three functional categories of secondary school teachers’ work



Items (stress factors) appropriate to each of the categories were gleaned from the main questionnaire of the study. Respondents were requested to indicate the severity of each stress factor on a six point Likert-type rating scale calibrated as follows: 1 = not stressful; 2 = mildly stressful; 3 = moderately stressful; 4 =

considerably stressful; 5 = very stressful; 6 = extremely stressful. For each stress factor, the mean value of total scores was subsequently computed using the six point ratings. Thereafter, the mean percentage response or the mean score was calculated. The teaching group consisted of thirteen categories including «Cumbersome assessment system; Lack of teaching materials and Repetitive nature of teaching». The work-situations group contained seventeen categories. The conditions of service group had eight items.

From Figure 2 above, conditions of service emerged as the most stress inducing category. This was followed by work situations. The teaching category was the least stressful. It should also be noted that public school teachers reported higher levels of stress in all three functional categories than their private school counter-parts.

PATTERNS OF OCCUPATIONAL STRESS

This section addresses the second objective of the study: To determine patterns of stress among different categories of the teachers in the study.

In this section t-test analyses were used to determine whether gender, qualifications and years of experience in teaching of respondents were factors in the teachers' experience of job related stress. The influence of the type and location of school in the teachers' experience of job stress was also investigated. Only analyses that yielded significant differences among sub-groups of teachers were considered. The results of these analyses appear in the tables 2,3,4 and 5 as well as in figures 4,5 and 6. Each of the tables shows the mean scores of each sub-group, t-values, degrees of freedom and corresponding two-tailed level of significance.

Gender Patterns

Table 4: T-test analysis for items which produced statistically significant differences between male and female teachers on the severity of self-reported teacher stress.

Item No	Stress Factors	Male	Female	T-value	Df	P
4	Heavy work-load	2.83	3.66	2.65	101	0.009

18	Doing same work repeatedly	2.52	3.19	2.50	97.3	0.014
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Table 4 shows that only two stress factors produced significant differences between the perceptions of the male and female sub-groups on the severity-of-stress sub-scale (see Appendix f (i)). Female teachers scored substantially higher than male teachers on both stress factors.

This may be taken to imply that female teachers perceived the presence of stressors in their work environment as significantly more stressful than male teachers did.

School-type Patterns

Table 5 shows that 19 items produced statistically significant differences between private and public school teachers (see also Appendix F (ii) for graphical presentation). This does not come as a surprise since the working environments and the conditions of service in the two types of schools differ markedly. According to this table, private school teachers scored substantially lower than their public school counterparts on the severity of stress subscale.

This may be taken to indicate that private school teachers perceived the presence of stressors in the work environment as significantly less stressful than public school teachers. It is worth noting that item 24, "Job not secure" contrasts from the rest of the items in the table in that it shows a higher severity of stress for private school teachers than that of public school teachers. Perhaps this doesn't come as a surprise since it is common knowledge that there is more security of tenure in government than in private sector.

Table 5: T-test analysis for items which produced statistically significant differences between private [n=51] and public [n=136] school teachers on the sources and severity of self-reported stress.

Item No	Stress Factors	Private	Public	T-value	df	P
36	Discrimination practices	3.47	4.10	1.86	70.3	0.068
3	Conflict of work role	2.09	2.70	2.98	122	0.003
5	Unpleasant states of classes	2.60	3.23	2.24	87.0	0.028
9	Handling crowded classes	2.74	4.16	4.13	66.6	0.000
11	Lacking teaching material	3.38	4.29	2.94	69.8	0.004
13	Interruptions of school programmes	2.49	4.52	7.32	80.0	0.000
18	Doing same kind of work repeatedly	2.27	2.90	2.75	109	0.007
22	Poor Promotion prospects	3.43	4.19	2.14	64.6	0.036
23	Limited opportunities for further studies	4.48	5.14	2.49	67.8	0.015
24	Job not secure	4.34	2.38	6.36	90.4	0.000
26	Lack of regard for qualifications	3.84	5.07	3.85	59.9	0.000
27	Lack of recognition for work well done	4.06	4.75	2.22	75.1	0.029
28	Low salaries	4.52	5.79	4.63	51.9	0.000
29	Time consuming but not rewarding paper work	3.88	4.85	3.56	86.3	0.001
30	Pay problems	2.62	5.60	9.21	48.0	0.000
31	Difficulties of obtaining entitlements	3.05	5.79	9.65	47.1	0.000
43	Dealing with education officers	2.85	5.13	6.12	41.3	0.000
44	No opportunities to communicate job problems	2.64	4.02	4.39	4.39	0.000
45	Public lack of respect for teachers	2.56	4.52	3.21	83.0	0.002

Another point of interest in Table 5 is that most of the 'p' values such as $p < .001$ and $p < .0001$ are extremely low. This indicates very high differences between the scores of the subcategories of teachers (see Appendix F (ii) for graphical presentation).

When government school teachers were compared with mission school teachers, nine items produced statistically significant differences between them. These are shown in Table 6 and Appendix F (iii). With the exception of item 6, all the other items show significantly higher scores for government school teachers than mission school teachers. This could mean that government school teachers perceived stressors in their work environment as significantly more stressful than mission school teachers.

Table 6: T-test analysis for items which produced statistically significant differences between government and mission school teachers on the sources and severity of self-reported stress [n=136 (72.7%)].

Item No	Stress Factors					
		Govt	Mission	t-value	Df	P
4	Heavy work load	3.81	3.09	2.01	96.9	0.047
5	Unpleasant states of classes	3.92	1.88	7.25	101	0.000
6	Limited freedom in executing teaching duties	2.24	3.05	2.36	66.8	0.021
9	Handling overcrowded classes	4.79	2.80	5.60	65.1	0.000
11	Lacking teaching materials	4.58	3.92	2.119	92.7	0.031
13	Interruption of school programmes	4.76	4.08	2.25	89.0	0.027
32	Accommodation problems	5.09	4.37	2.09	77.3	0.040
42	Pupils' poor attitude and lack of commitment to school work	4.43	3.43	3.45	88.2	0.001
48	Few sanctions which teachers can apply for pupils' misbehaviour	4.43	3.69	2.41	91.8	0.018

Location-related Patterns

A t-test analysis was computed to determine whether there were significant differences in the severity of self - reported stress between rural and urban school

teachers. See Table 7 below. The mean scores for urban school teachers on the severity subscale were significantly larger (see graph in Appendix F (iv)). This suggests that urban teachers rated their work as more stressful. It can however be noted that item 5, “unpleasant states of classrooms” shows higher mean for rural teachers than for urban teachers. This indicates that this particular stress factor affects more rural teachers than urban teachers (Table 7).

Table 7: T-test analysis for items which produced statistically significant differences between rural (n=35) and urban (n=152) school teachers on the severity of self-reported teachers’ stress (n=187).

ITEM NO.	STRESS FACTORS	URBAN	RURAL	T-VALUE	DF	P
2	Managing changes	2.45	1.86	2.12	44.5	0.039
5	Unpleasant states of classrooms	2.91	4.06	3.12	52.9	0.003
20	Noise from neighbourhood	2.65	2.07	1.96	78.2	0.054
25	Difficulties of getting alternative jobs	4.34	3.53	2.10	51.9	0.041
37	Lack of participation in decision making	4.01	2.97	2.72	48.4	0.009
38	Too many orders from administration	3.40	2.59	2.31	59.5	0.024
42	Pupils’ poor attitude towards school work	4.84	3.81	4.11	85.4	0.006
44	Too few or no opportunities to communicate difficulties encountered in teaching	4.22	3.50	2.10	52.5	0.040

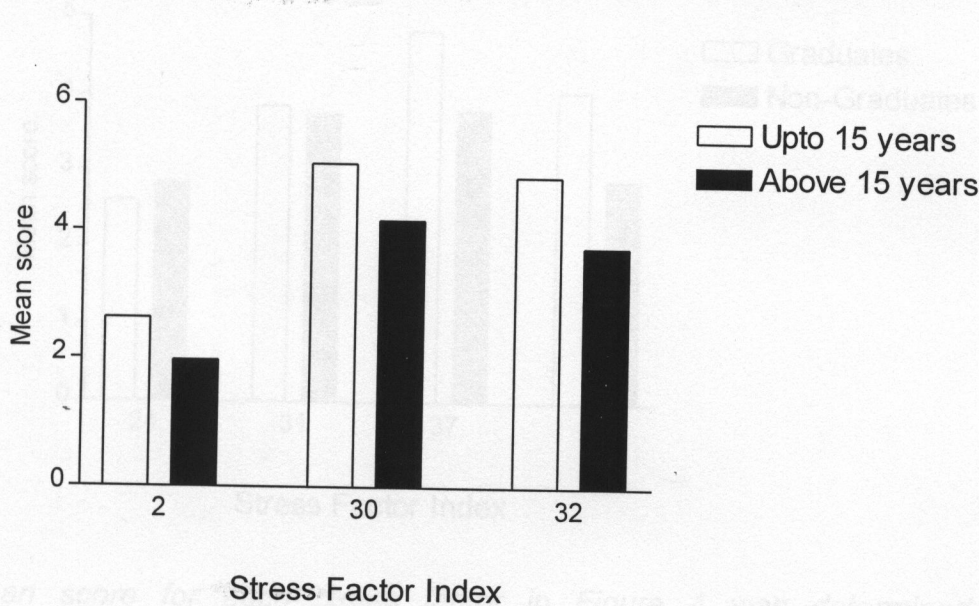
Work experience differences in stress

Differences in perceived severity of self-reported stress among subgroups of teachers classified according to two categories of teaching experience were investigated. The results of this analysis appear in Figure 3 below.

On all the three items which produced statistically significant differences on the severity subscale, teachers who had worked 15 years or more scored substantially lower than those who had worked 15 or less years (Figure 3). This indicates that more experienced teachers reported lesser experience of stress

in their work environments. Furthermore, item 30 “Pay Problems”, showed the highest score in both work experience categories (Figure 3).

Figure 3 : Stress factors which produced statistically significant differences between two work-experience categories of secondary school teachers.

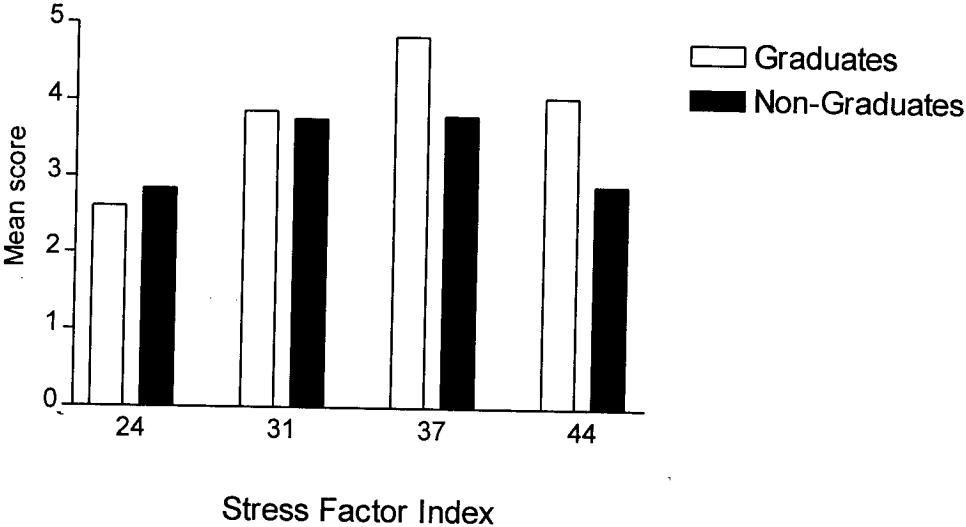


The mean score for each stress factor was determined from respondents as described in Fig. 2 on page 36 above. Each stress factor is represented by a specific index (number) as indicated below :
6 = Limited freedom in executing teaching duties, 30 = pay problems and 32 = accommodation problems.

Qualification-related differences in stress

According to Figure 4, the t-test analysis for graduate and non-graduate teachers produced statistically significant differences on the severity subscale. On all the items except 24, graduate teachers scored substantially higher than non-graduate teachers. This implies that graduate teachers experienced more stress on the job than their non-graduate counterparts.

Figure 4: Stress factors which produced statistically significant differences between Graduate and Non-graduate secondary school teachers on the severity of self-reported occupational stress.



The mean score for each stress factor in Figure 4 was determined from respondents as described in Fig. 2 on page 36. Each stress factor is represented by a specific index (number) as shown below :

24= Job not secure, 31 = difficulties of obtaining entitlements, 37 = lack of participation in decision making and 44 = no opportunities to communicate job problems.

Status-related differences in stress

The results in Figure 5 show that non-confirmed teachers scored higher on all the items. This would suggest that non-confirmed teachers reported being stressed by work factors in their schools more than confirmed teachers did.

Figure 5 : stress factors which produced statistically significant differences between Confirmed secondary school teachers and their Non-confirmed colleagues.

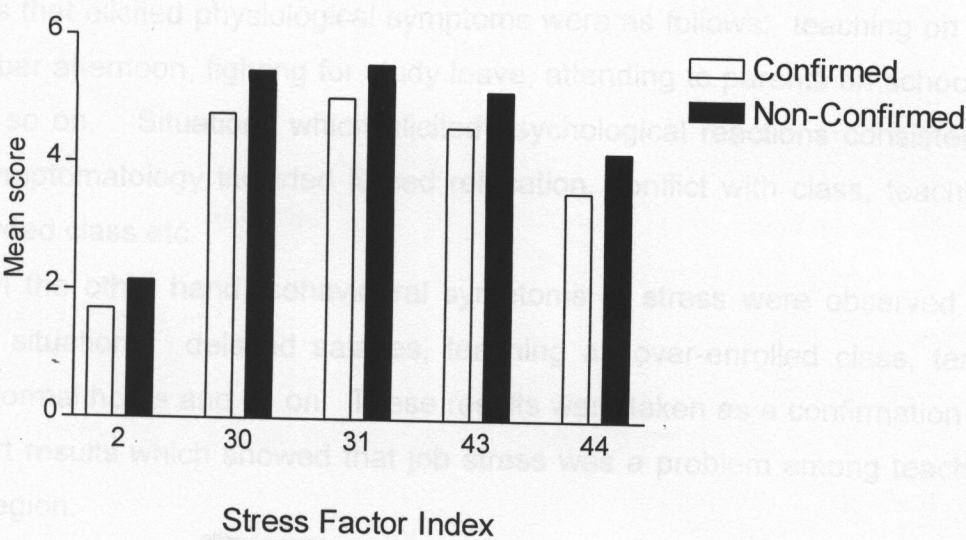


Table 8: Observed Manifestations of Job Stress among Teachers

The mean score for each stress factor was determined from respondents as described in Fig. 2 on page 36.. Each stress factor is represented by a specific index (number). Thus 2 = managing changes, 30 = pay problems, 31 = difficulties of obtaining entitlements, and 43 = dealing with educational officers.

OBSERVATIONAL RESULTS

This phase of analysis is based on data obtained through direct observation of teachers' behaviour in various potentially stressful situations of their occupation. The section also involves data obtained from a semi-structured interview with educational administrators at different levels.

In this study information pertaining to occupational stress was obtained mainly by the method of self-report. Like many other methods of data collection, self-report has potential for falsification of results. It was therefore thought

necessary to confirm that the results obtained were a true reflection of the prevailing situation. For this purpose, direct observation of teachers' behaviour in potentially stressful situations of their job was conducted. Specific symptoms of stress observed in each situation were noted. The results are displayed in table 8 below.

The different symptoms of stress observed fell under three major categories: physiological, psychological and behavioral symptoms. Some of the stressful situations that elicited physiological symptoms were as follows: teaching on a very hot October afternoon, fighting for study leave, attending to parents on school open day and so on. Situations which elicited psychological reactions consistent with stress symptomatology included forced relocation, conflict with class, teaching an overcrowded class etc.

On the other hand, behavioural symptoms of stress were observed in the following situations: delayed salaries, teaching an over-enrolled class, teaching outside normal hours and so on. These results were taken as a confirmation of the self-report results which showed that job stress was a problem among teachers in Lusaka region.

Table 8: Observed Manifestations of Job Stress among Teachers

Type of stress symptom observed	Frequency percentage
1. Physiological Symptoms a. Profuse sweating b. Falling sick c. Eye dilation d. Other physiological symptoms	 10.5 20.0 07.0 62.5
2. Psychological Symptoms a. Frequent loss of temper b. Nervousness c. Job dissatisfaction (verbalised) d. Other psychological symptoms	 16.7 33.3 3.3 16.7
3. Behavioural Symptoms a. Absenteeism b. Accident proneness c. Leaving teaching d. Drunk on duty e. Other behavioural symptoms	 15.0 5.0 10.0 60.0 10.0

STRESS COPING STRATEGIES

The third objective of the study was to identify and examine coping strategies adopted by the teachers. Strategies for coping with stress can be divided into two main categories: adaptive and maladaptive (Hindle, 1999). If workers exhibit adaptive behaviour, they are probably dealing positively with stress, and actively seeking help. If they are behaving maladaptively, they are failing to cope well with stress. The study undertook to examine the teachers' coping strategies in order to determine the level of stress they were facing. The responses were later categorised in terms of approach (adaptive) and avoidance (maladaptive) coping.

From Tables 9 (a) and 9 (b) below, approach coping modes were infrequent in all categories of teachers, and much more used by male than female teachers.

The overwhelming coping choice of teachers in the study was avoidance coping which also leads to some maladaptive behaviour such as drug abuse, alcoholism, absenteeism and rapid staff turnover.

Table 9: Stress Coping Strategies used by Secondary School Teachers in Lusaka

(a)

COPING STRATEGIES	MALE (N = 126)	FEMALE (N = 61)
A. Approach coping	38.708	22.997
B. Avoidance coping		
i. Partial avoidance	57.31625	46.24872
ii. Complete avoidance	20.2333	33.24833

(b)

COPING STRATEGIES	MALE + FEMALE RESPONDENTS (MEAN %)
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a.	Approach coping	30.85
b.	Avoidance coping	41.4075

LEVEL OF ADMINISTRATIVE AWARENESS OF OCCUPATIONAL STRESS AMONG TEACHERS

The fourth and last objective of the study was to assess educational authorities' awareness of the problem of occupational stress among teachers in Lusaka Region. This information was extracted using a semi-structured interview. See Table 10 and 11 below.

Table 10 below shows higher percentage values for “agree” than “not agree”. This indicates that the majority of educational managers felt that stress related problems were prevalent among secondary school teachers. This demonstrates an appreciable degree of awareness of the existence of the phenomenon of occupational stress.

Table 11 shows percentages of affirmative responses to each of the statements. Thus, 64.4% of the respondents attributed teachers' problems to stress. In addition, 84.6% exhibited working knowledge of the concept of job stress. This, together with the results of table 10, demonstrates reasonable knowledge and awareness of job stress among educational authorities.

Table 10: Level of Awareness of Occupational Stress among Educational Authorities.

STATEMENT	AGREE	NOT AGREE
There is high staff turnover	73.8%	26.2%
Absenteeism is rife	71.5%	28.55
There is excessive alcohol consumption	61.5%	38.5%
High teacher morbidity	76.9%	23.1%
High teacher mortality	69.2%	30.8%
High negligence of duty	83.3%	16.7%

Table 11: Frequency Percentage of types of statements made by educational authorities

Types of statements	Frequency percentage
Attributing teachers' problems to job stress	64.4%
Indicating working knowledge of occupational stress	84.6%
Indicating need to take occupational stress seriously	92.3%
Suggesting that prevention and alleviation of stress is a responsibility of teachers themselves as well as that of school administrators	100%
Indicating lack of stress prevention measures for teachers	76.9%

Statement 3 in table 11 shows that 76.9% of the educational management officers felt that no measures of stress prevention and alleviation are currently in place in the Ministry of Education. This is despite the knowledge and awareness of the existence of the problem according to the results of table 10. In this vein, 92.3% of the respondents were of the view that job stress among teachers needed the serious attention it deserves.

In summary, the results of the study show that occupational stress among teachers in Lusaka region emanates from a number of sources. In addition, they show that different subgroups of teachers are affected differently by stress factors.

The results for coping strategies show that teachers use both 'approach' and 'avoidance' coping strategies. However, 'avoidance' coping was shown to be more frequently used than 'approach' coping. It should be noted that 'avoidance' coping comprises two components: partial avoidance and complete avoidance. Thus, the term avoidance coping incorporates the two modes.

Finally, the results also show that teachers are currently not receiving any organisational assistance from their employers to help them cope with occupational stress, notwithstanding the high level of awareness of the prevalence of job stress among educational authorities.

CHAPTER FIVE

DISCUSSION

This chapter discusses the findings of the study in the same sequence in which they were presented in chapter four: sources of job stress, patterns of occupational stress, coping strategies, and administrative awareness of occupational stress among teachers.

SOURCES OF OCCUPATIONAL STRESS

Job stress in this study was found to emanate from various job factors. Some of the factors that have led to increased tension among teachers in Zambia include the introduction of poorly planned innovations in the education system, low salaries aggravated by the fact that teachers are habitually paid late, repeated omission from the pay roll and general administrative problems in the Ministry of Education. For instance, the exercise to weed out ghost teachers has been so badly managed that many serving teachers are no longer on the pay roll, and attempts to correct the situation have in turn generated a multiplicity of problems for serving teachers.

Other factors responsible for high levels of stress among Zambian secondary school teachers include overcrowded classes, inadequate teaching resources, poor student results, few sanctions which teachers can apply against misbehaving pupils, changing attitudes of pupils to school work and a general decline in teacher's conditions of service. These factors raise concern on the quality of education and student outcomes.

The results of this study further show that the mean scores of all the stress factors were consistently high. This indicates low tolerance levels for self-reported teacher stress. This may suggest that the research sample might have

experienced prolonged exposure to stressful work situations, which undermined their adaptive and tolerance capacity. This also raises concern over teacher effectiveness since prolonged exposure to stressors often leads to diminished job performance (Phillips and Lee, 1980).

The results suggest that conditions of service and work situations, and not teaching and teaching-related activities, were the major sources of occupational stress among teachers. The functional category of "conditions of service" was reportedly the most stress-inducing among teachers surveyed (69.9%). This involves, among other things, rewards which include monetary, material and psychological benefits from one's job. A number of possible explanations can be made as to why terms and conditions of employment were found to cause teachers a lot of stress. In Zambia, teaching is one of the most despised jobs due largely to the poor remuneration associated with the job. In a number of organisations, such as manufacturing industries, unskilled workers earn more than graduate secondary school teachers. Recently, the British Broadcasting Corporation (22 July, 2001) on "Focus on Africa" described Zambian teachers as the poorest paid teachers in the whole of Southern Africa. On the average, teachers take home K175, 000.00 (J C T R, 2001). This makes it difficult for the teachers to take care of their children and other family responsibilities.

Another aspect of the reward system that is responsible for much stress among teachers is that of entitlements. Despite the fact that teachers qualify for a number of entitlements, such as paid study leave, loans, and many other allowances including housing and health, very few of them benefit from these entitlements. In fact, it is a distressing factor to teachers that whilst these benefits appear on paper, they are not applied in practice. This, combined with the fact that teachers are poorly paid, has subjected most teachers to abject poverty. Even though private school teachers are relatively better off in terms of salaries and entitlements when compared with public school teachers, they are still lowly paid in comparison with most workers in other occupations and professions (JCTR, 2001).

Due to the teachers' inability to afford basic necessities, the majority of them have resorted to survival means in order to cope with the poverty situation. In Lusaka these take the form of private tuition, vending, reducing the number of

meals per day and borrowing money from friends and relatives. Some of these strategies exhaust the teacher and deplete the energy needed for effective teaching. More importantly, most of them injure the teacher's self and public image, hence the resulting experience of stress.

The third aspect of conditions of service responsible for causing stress among teachers is what might be referred to as psychological rewards, such as praise for outstanding performance, promotion and so on. All employees value being praised by supervisors and colleagues. It is such a common experience that it hardly needs empirical support. In most Zambian schools, teachers work under very difficult conditions, sacrificing their own free time, and in some cases, using their meagre personal resources to adequately prepare pupils for examinations. However, when they achieve a good passing rate, for instance, no special acknowledgement is accorded to them in most cases. It's little wonder that long serving teachers tend to relax and do the absolute minimum, especially in public schools. This is compounded by the limited promotions for teachers, which implies that most of the teachers remain as ordinary class teachers for the greater part of their teaching career. This can be very distressing to teachers who have attained certain achievements which necessitate promotion.

Bearing in mind that monetary reward often signals recognition and achievement, higher status and evidence of the regard in which the organisation holds an individual, it is easy to understand why most teachers found poor conditions of service the highest source of stress.

The functional category of work situations was identified as the second highest source of occupational stress among the teachers (40.9%). Work situations in this study covered factors such as workloads, high pupil-teacher ratio, inadequate resources, poor facilities, autonomy accorded to the teacher in executing his or her duties as well as environmental factors such as noise and extreme temperatures.

In almost all public schools, high over-enrolment has become a permanent feature. The official maximum number of pupils in a given class is 45, but in most government schools, pupils can be as many as 85 in a class. High pupil-teacher ratios affect the effectiveness with which a teacher is able to communicate with the

pupils in class. This also means that the teachers have extra work-overload in the form of marking pupils' books, tests and examination scripts. Thus, in addition to being lowly paid, teachers also have to bear a heavy burden of handling abnormally large class sizes.

The introduction of children's rights has not ameliorated teachers' plight. It has effectively tied up teachers' hands and left them helpless against pupils' misbehaviour. It has also led to high proliferation of pupil indiscipline. Ironically, parents and school administrators are putting more and more pressure on teachers to achieve higher passing rates and instil good manners and morals in pupils (MOE, 2001). This call has been echoed at almost every forum involving teachers. Clearly, this is a difficult task as long as teachers are not allowed practical leverage on pupils who engage themselves in acts of indiscipline. Another aspect of stressful work situations is lack of basic teaching resources in most government schools. The situation is so serious that in government schools, "sometimes teachers have to buy their own chalk and duster" (Musakabantu, 2001). Lack of adequate facilities, such as chairs and desks, means that some pupils have to stand during lessons. Most of the infrastructure in government schools is in a state of disrepair characterised by broken windows, cracked floors and walls. Such unpleasant environment is potentially stressful (Munchinsky, 1993). A poor working environment can be a major cause of stress. Not only does it affect the way you do your job, but it can also undermine your health.

Given such a situation where teachers have to deal with poor employment conditions as well as poor working environment at the same time, their output at the end of the day is significantly compromised. In addition, the resulting physical stress is devastating. It is little wonder that more and more experienced teachers are leaving the teaching profession. To work under such difficult conditions is highly stressful. As Coleman (1984) puts it, facing a number of stressors at the same time results in more severe stress situation than if these stressors are suffered separately.

The functional category of teaching and teaching-related activities was identified as the least source of teachers' stress. This finding is consonant with that of Zanden (1984) who concluded that teaching itself is the least stressful job. It is

only such things as poor working environment, low pay and lack of necessary resources, which stress most teachers. On the other hand, this finding contradicts other previous findings by Faber (1985), Rowsey and Ley (1986) and Shaw, Keiper and Flaherty (1985), and Nhundu (1999). These studies showed that teaching and teaching-related activities were the highest source of teacher stress.

A possible explanation why this finding is at variance with other findings from elsewhere is that, whatever stress factors are inherent in teaching *per se* are negligible when compared to stress factors pertaining to, say, poor salaries and taxing work situations prevailing in Zambia. Besides, while most stressors pertaining to teaching-related activities can easily be avoided, though at the expense of pupils, those related to conditions of service and work situations are not so easy to avoid. As Cooper (1980) puts it, events that the individual has no way of avoiding cause more severe stress than those that he or she can avoid.

PATTERNS OF OCCUPATIONAL STRESS

The data collected yielded interesting results on patterns of occupational stress in the study sample. It should be remembered that "patterns of stress", in this study, is used to refer to group or class variations in the perception of severity of self-reported stress. The subgroups analysed in this study were based on the following demographic variables: gender, school type, location of school, work experience, qualifications and status. The findings on each subgroup will now be discussed.

Gender Patterns

Table 4 on page 38 shows that a t-test between male and female teachers in the study revealed that female teachers experienced significantly more stress from the two stress factors which produced statistically significant differences between male and female teachers. This indicates that there was a gender difference in the way teachers perceived the severity of stress in their work environments.

The question why male teachers are the less stressed of the two sub-groups remains. One possible explanation is that females are more open and thus more willing to admit to their difficulties (Kalimo, 1987). On the other hand, in most African cultures, men consider it unmanly to acknowledge facing stress or indeed

any serious difficulties at work. This contention implies that perhaps male teachers are equally or even more stressed than their female colleagues, but because stress is measured by self-report, this stress is not acknowledged.

If, however, we assume that the self-reports accurately mirrored the true feelings of the respondents in both gender, several interpretations of the results offer themselves:

The first explanation is related to domestic roles played by men and women. A major personal factor that can cause stress among Zambian working women is the 'dual role' syndrome (Herzberg, 1966). Women juggle more duties between home and work (Firth, 1988). Thus, the additional burden of coping with two jobs: the paid job and the unwaged 'job' at home makes women more vulnerable to job stress. Job stress cannot be separated from personal life, e.g. illness in the family or lack of food requirements put an employee under pressure and lead to stress.

Another possible explanation is one provided by Bratton (1994), that sexual harassment targeted at women in work places causes them a lot of stress. He defines sexual harassment as unwelcome advances, requests for sexual favours and other verbal or physical conduct of a sexual nature. This stress factor was volunteered by 35% of the female respondents. No matter how subtle it is, sexual harassment in work places is extremely stressful. It is also unlawful. School administrators have to take appropriate action to prevent sexual harassment and to inform their staff of the consequences of such pervert behaviour.

While this finding may be consonant with those reported by Goldberg and Comstock (1980), Guthries (1995) and Kaplan et al (1998), it is at variance with that reported by Chruden (1984), Matochio et al (1989) and Nhundu (1999), which showed that female teachers were generally less stressed than male teachers. This might be attributed to the local context of the current study.

School Type Patterns

The results of a t-test for private and public school teachers in table 5, page 39, show that public school teachers found their work to be more stressful than private school teachers. The functional category which produced the most differences between these subgroups of teachers was that of 'work situations'. This

may be explained by the fact that, generally, private schools are better off than public schools in terms of infrastructure, teaching resources and amenities (JCTR, 2001).

The 'conditions of service' category produced the second highest significant differences between private and public school teachers. Generally, the terms and conditions of employment in private schools are better and therefore more predictable than what obtains in the public school system. As Beech (1984) observed, the more unpredictable the work situation is, the more likely that it will induce stress among the affected workers.

The fact that the 'teaching' category produced the least significant differences between the two subgroups seems to imply that much as private and public schools differ in certain aspects, the actual teaching activities tend to be uniform.

Item 36, "discriminative practices" is one of the stress factors which was reported to be stressful by more public school teachers than their private school colleagues. In addition, among respondents of each of the two subgroups, the item showed extremes of scores with some respondents indicating it as least stressful, and others indicating it as extremely stressful. The implication is that while some teachers felt discriminated against by their leaders (school administrators) others felt favoured or at least not discriminated against by their administrators. This might be explained in part by George Green's (1975) vertical dyadic model (vertical dyad linkage model of leadership).

The model suggests that it is inevitable for a leader to engage in discriminative practices among his or her subordinates. The model says every leader develops close relationships with some of his or her subordinates, the in-group, while keeping a distance with other subordinates who are the out-group. The relationship between the leader and in-group members is characterised by affective, mutual trust and reciprocal influence. This has the effect of making out-group subordinates feel discriminated against.

The moral of this model to organisational managers is that leaders should be aware that they have different relationships with their subordinates. Hence they ought to make deliberate efforts to try to reduce the negative effect on the out-

group. In addition, Hindle (1999) warns that stress is contagious; any person or group of persons not performing well due to stress increases the amount of pressure on their colleagues, superiors, and subordinates. In the end, the entire organisation is affected. Hence, organisational administrators cannot afford to neglect the out-group, however small it might be. Research has consistently shown the in-group members to be more satisfied. Thus, when the in-group becomes larger, effectiveness and productivity of the group also increases (Steers and Black 1994).

It should, however, be pointed out that the fact that item 36 shows a high score for public school teachers than for private school teachers is remarkable in the sense that one would expect more discrimination in private than public schools. One possible explanation is that public school teachers are freer to criticise management and express opposing views than their private school counterparts. This contention implies that perhaps private school teachers equally or, as expected, experience even more discrimination than their public school colleagues. This is an issue which requires further investigation.

Item 24 "Job not secure" is also of particular interest in that it was the only one which reportedly stressed private school teachers more than public school teachers. This may be attributed to the fact that private school teachers work on contract basis, and at the end of each contract, renewal is not automatic. Above all, chances of getting fired, without benefits, are higher in private schools than in public schools. In private schools, even a minor offence can threaten one's job. This can be stressful as it keeps teachers in constant fear of losing their jobs. On the contrary, for public school teachers, the job is reasonably secure. This, in fact, is one of the few reasons why some teachers stay on in public schools despite poor conditions of service.

In the subgroups of Mission and Government schoolteachers, mission schoolteachers reported comparatively less job stress than their government school counterparts. This seems to suggest differences in the conditions under which the two subgroups of teachers work. It is general knowledge that most Mission schools have better infrastructure, better resources and facilities than most government schools. In addition, most mission schools are strict on maintaining optimal pupil-

teacher ratios. On the contrary, government schools generally have relaxed pupil-enrolment policy. As one Headmaster charged:

New classes keep mushrooming while the size of teaching staff remains the same. Above all, ill-qualified pupils keep finding their way into our already over-crowded classrooms from higher offices throughout the year. This puts us in an awkward position.

Item 6, "limited freedom in executing teaching duties" was the only one on which mission school teachers reported more stress than their government school colleagues. This may be explained by the fact that in Mission schools, rules tend to be more strict and supervision closer than what obtains in government schools. It is because of such red-tape in Mission schools that many teachers have sought to transfer to government schools, despite the fact that teachers' living and working environment is generally more congenial in Mission schools than in government schools.

Location-based Patterns

A t-test analysis for rural and urban teachers revealed that the latter rated their work as significantly more stressful as can be seen from Table 7 on page 41. The majority of the discriminating stress factors were concerned with work situations as well as with teaching and teaching-related activities. This finding is at variance with that of Nhundu (1999), which showed higher levels of self-reported teacher stress for rural than for urban teachers. This may be reflecting a unique local context with regard to the current study.

One possible reason why urban teachers may experience more stress in Lusaka is that the impact of teachers' poor conditions of service may be more pronounced in urban areas than in rural areas due to the high cost of living in urban areas. There is also the aspect of social comparison whereby people compare themselves with others around them. This theory states that if others around you appear better off, your self-image is negatively affected. This could lead to chronic stress. On the other hand, if those around you are evaluated to be worse off, your personal image is enhanced and stress is less likely to occur. This would seem to

apply to the situation of urban and rural teachers. Urban teachers in this case compare themselves with better off individuals such as successful businessmen, lawyers and other elite urban members of society they interact with on daily basis. On the contrary, rural teachers generally interact with less privileged people who are found in such locations.

One of the factors on which urban teachers scored higher than their rural counterparts was “pupils’ poor attitude towards school work”. This may be attributed to the fact that urban pupils are more exposed to influences which distract their concentration on academic activities. Above all, urban pupils tend to be very assertive and more disrespectful towards their teachers. The situation has been aggravated by the introduction of children’s educational participation rights in Zambian schools. This has greatly weakened the teacher’s leverage on the pupil. The situation in rural schools is slightly different. In rural areas, pupils generally have less distracters to their academic work and are generally easier to control and discipline as most of them are in boarding.

Urban teachers also scored higher on “lack of participation in decision making” than their rural counterparts. This could mean that administrators in rural schools are, for some reason, more democratic than those in urban schools. Alternatively, it could be that both urban and rural teachers are denied opportunities to participate in decisions affecting them, and while urban teachers are bothered by this, their rural colleagues tend to be indifferent about it. Whatever the case, it is important for school administrators to realise the value of involving their teachers in the decision making process. This is espoused in what is known as the Scanlon Plan (Hindle, 1999). The Scanlon Plan involves giving employees a much greater say in matters of improved efficiency of the organisation. Group interaction is encouraged as a means of participation in decision making. The basic philosophy in the Scanlon Plan is that in any organisation there are many employees who are able to contribute to their work situations when they are consulted and motivated. This implies that organisations which do not consult their employees or motivate them are wasting considerable resources. Suggestion boxes, which are found in most schools’ staff rooms, are often a total failure because they fail to grasp the essential aspect of the Scanlon Plan; that employees will not be motivated where

they do not feel equitably treated in the first place. Thus, school headteachers in Zambia would do well to apply the Scanlon Plan in the decision making process.

In addition, according to Steers and Black (1998), participation in decision making increases job involvement and simultaneously reduces stress by relieving ambiguity and conflict. However, although the benefits of increased participation are many, it should be noted that being more participative is not easy for most administrators. It threatens them. For this reason most administrators would rather dictate to subordinates than involve them in decision making. Thus, the issue of participation does not appear to be whether subordinates desire it; instead, it appears to be whether superiors will allow it.

An interesting environmental stress factor which mostly affected urban teachers was “noise from neighbourhood interfering with academic activities.” This problem arises from the fact that some schools are situated near very busy roads. Therefore, noise from passing vehicles continually interrupt classroom communication. The same applies to those schools located near bars, factories and army barracks. Noise from these places is highly distractive to academic activities. It can interfere with activities such as speaking, listening, working and sleeping. Research shows that prolonged noise at certain levels can lower learning ability (Robbins, 1996). It can also affect people’s blood pressure and general body chemistry (Quick et al, 1997). Noise has also been found to lower people’s ability to fight off certain diseases, such as the common cold, and can subsequently give rise to more serious physical ailments. Noise is therefore a very dangerous physical stressor and should be eliminated at all costs in work environments such as schools where maximum concentration is absolutely necessary. Other environmental stressors which need regulation in Zambian schools include extremes of temperature as well as air pollution.

“ Unpleasant states of classrooms” was the only stress factor which affected more rural than urban teachers. This may reflect the prevailing rural-urban disparities with regard to the distribution of resources and maintenance of existing infrastructure. Rural areas are generally poorer and, therefore, unable to raise additional funds needed to develop schools, equipment and new buildings whose aggregate effect is to improve the provision and quality of education (Nhundu,

1999). Clearly, most of the infrastructure in rural schools is in urgent need of attention. In most of the rural schools, for instance, no new buildings have been erected from the time the schools were first established.

Work Experience Patterns

Results of a t-test analysis for two subgroups of teachers classified according to their teaching experience revealed that less experienced (0-15 years) teachers generally rated their work as more stressful than those with more years of teaching experience (15 + years). This is evident from all the stress factors which produced statistically significant differences between the two sub-groups in Figure 3 on page 42. This finding is in harmony with several previous studies which have also shown that occupational stress is inversely proportionate with age and years of experience on the job (Knutton and Mucroft, 1986; Tung and Koch, 1980, and Wilson and Otto, 1988). Despite limited research support for this view, it would seem reasonable to assume that the longer people stay on the job, the more they are able to cope with job pressure and demands.

The items on which teachers with 0 to 15 years of experience scored significantly higher than those with 15 years and above were "limited freedom in executing teaching duties", "pay problems" and "accommodation-related problems". The 0 to 15 category mainly involved newly employed teachers. Newly employed teachers are normally full of novel ideas about teaching. School administrators ought to realise this, and give newly employed teachers reasonable freedom in executing their teaching duties rather than insisting that they rigidly conform to traditional patterns of teaching. In fact, research has shown that where individual workers are allowed to set their own standards for achievements, their productivity and satisfaction are greater than when standards are imposed on them (Luthans, 1995).

Another possible reason why newly employed teachers reported more stress is that they face serious pay and accommodation problems. The process of getting new teachers on the pay roll has in the recent years become painstakingly slow. In certain cases, teachers work up to three years without receiving their first salary. During this period, it is impossible to get any of teachers' entitlements. Even when

the teacher is finally on the pay roll, the accumulated pay is usually heavily taxed. A similar situation obtains with regard to teachers' accommodation. In private schools, the situation is mitigated by the provision of housing allowance to teachers at the time of recruitment. This does not obtain in public schools where newly recruited teachers generally have to fend for themselves in terms of money and accommodation.

Qualification-related Patterns

A t-test analysis for graduate and non-graduate teachers revealed that the former rated their work as significantly more stressful. See Figure 4 on page 43. Most of the stress factors which affected graduate teachers most seriously have to do with work situations. The particular stress factors which discriminated between graduate and non-graduate teachers were "difficulties of obtaining entitlements", "lack of participation in decision making", and "problems of communicating difficulties encountered in carrying out teaching duties."

The issue of communication in the schools surveyed seems to be a serious one. One teacher said: "We are often left guessing about a number of serious issues pertaining to the school and our own welfare". There is generally very poor communication between teachers and their administrators. When communication does take place, it is predominantly 'downward'. In other words, school administrators have a tendency of dictating to their teaching staff. This generates much resentment and stress among teachers. Administrators ought to realise that communication is a two-way process. Thus, they should facilitate both downward as well as upward communication. To the extent that subordinates feel their problems and complaints are being heard, they experience less stress and are less inclined to engage in counter-productive behaviour (Cooper, 1980).

Hindle (1999:55) says "The better communication flows, the more likely it is that stress is recognised and defused." Hindle further recommends the following methods of avoiding stress in work places, to organisational administrators:

- (i) Keep staff and colleagues informed about all decisions that may affect them;
- (ii) Encourage participation in planning;

- (iii) Set aside time each week to ask for comments and suggestions, and to give feedback.

In general, it can be seen that the stress factors on which graduate teachers scored higher than their non-graduate counterparts involve teachers' personal and collective rights. This seems to suggest that graduate teachers are more conscious of their rights than non-graduate teachers. According to Pettinger (1996), a good deal of stress in work places could be avoided if people paid more attention to their own rights. He contends that stress will result if there is a continuing conflict between what one wants or would like and what is actually happening to one. There are two main types of occupational rights. There are statutory rights regarding the sort of rights a person can assert at work. These have to do with conditions of employment. There are also unwritten or assertive rights, as they are often called. Pettinger argues that much stress is caused by the employee's failure to obtain his or her assertive rights. Once a person has succeeded in negotiating his or her assertive rights, he or she can employ other ways of coping with stress at a personal level, such as time management and personal planning.

The finding that graduate teachers reported higher job stress than non-graduate teachers is consonant with those of other previous studies. For example, in a study by Cobb and Kasi (1988), it was found that individuals with high educational achievement but low job status exhibited abnormally high levels of job stress symptoms such as anger, irritability, anxiety, tardiness, clinical depression, and low self esteem (Steers and Black, 1998).

Status-related Patterns

Job factors where non-confirmed teachers experienced more stress than their confirmed counterparts were similar to those that discriminated between stress experiences of graduate and non-graduate teachers (Figure 4). These included "managing change", "pay problems", "difficulties of obtaining entitlements," "dealing with educational offices," and "too few or no opportunities to communicate job difficulties to the administration."

A possible explanation as to why unconfirmed teachers reported higher stress is that they have practically no privileges until they are confirmed. Moreover,

even after qualifying for confirmation, the process is tedious and very slow. This means the teachers have to deal with educational offices for a long period of time before they can solve even the simplest possible problem. Moreover, the offices at the region and at the Headquarters are reportedly characterised by inefficiency and poor management. Teachers have complained of cruel and disrespectful treatment from clerks and other junior officers. For this reason many a teacher loathe visiting the Region and Headquarter offices even when they have serious problems.

Unconfirmed teachers also scored higher on “managing change”. The Ministry of Education has, in recent years, been characterised by a lot of poorly planned innovations. These innovations are usually of no practical value and invariably affect the already frustrated teachers adversely. Changes create uncertainty and uncertainty is something most people are not comfortable facing as it stresses them. Thus, if any change has to be effected, it must be planned very well to minimize its negative consequences on the people affected. Usually it is advisable to enlist the services of change agents. In fact, educational authorities ought to realise that whenever changes are introduced in an organisation, they become stressors (Munchinskey, 1997). Some of the changes that have affected teachers in Zambia in the recent past include the recent attempt to forcibly relocate teachers to ensure an even distribution of the teaching personnel in all schools around Lusaka, attempts to turn schools into boards, decentralisation of the Ministry of Education, changes in the pay system and so on. All these and other changes have literally been imposed on the teachers without any concern as to how the teachers are affected.

Results of an observation study which was carried out as a supplement to the main survey confirmed the findings of the main study that serious levels of occupational stress existed among secondary school teachers in Lusaka Region and that the sources of such stress were multidimensional (See Table 8 on page 45). The observers reported all the three main forms of stress manifestation. For example, frequent illness of teachers exposed to prolonged job stress was the main physiological manifestation observed. Psychological manifestations mainly included accident proneness, irritability and nervousness. Physiological and psychological symptoms should not be allowed to persist over time as they can lead

to more serious physical symptoms and sudden death in certain cases (Kapling, 1999). The behavioural symptoms of occupational stress revealed by the observational study are of great concern to educational authorities as they directly interfere with the learning-teaching process. These included teacher absenteeism which accounted for 15% of the behavioural symptoms observed, teacher turnover (10%) and reporting for work in a drunken state (60%). These manifestations of job stress have serious implications to the quality of education and the student outcome.

COPING STRATEGIES

The study revealed a number of strategies teachers use to cope with occupational stress. For the purpose of analysis, the different coping models were collapsed into two categories as can be seen from Table 9 (a) and (b). From the table, 30.85% of teachers use “approach” coping strategies whereby they use the cognitive restructuring of the situation and employ some practical measures of resolving the stressful situation. However, under the “approach” coping mode, social and professional support did not appear to be significant for both male and female teachers. Yet social support tends to produce a generalised positive effect on individuals, regardless of the level of stress [(Dubow et al (1989))].

Overall, the analysis of teachers' coping strategies indicated that the majority preferred employing the avoidance coping mode (41.41%). See also Appendix F (v)). The avoidance coping mode is an externalising type of coping which mostly leads to maladaptiveness and self-defeating behaviour. This uncompromising utilisation of a negative coping repertoire is an indication that the severity of stress is very high. In other words, it means stressors are over-taxing and exceed the coping resources of the affected people. This almost invariably leads to psychophysiological disorders such as ulcers, headache and coronary heart diseases (Lazarus et al 1984). Such psychophysiological disorders, if chronically endured, may lead to incremental degeneration of the individual's health, and death may result. This might help to explain the high rate of ill health and death reported among teachers in Zambia (Times, August 4, 1999). This was highlighted in a newspaper article entitled “High death rate hits teaching profession.” The then

Minister of Education, Godfrey Miyanda, exclaimed at the unprecedented number of teachers who were either terminally ill or dying from various ailments. He said that was one of the major causes of shortages of teaching staff in schools. Moreover, such adverse effects of occupational stress among teachers in Zambia may be exacerbated by the fact that, unlike workers in other productive sectors, teachers are virtually neglected, with little attention given to their specific health needs by employers or primary health care service.

The situation has not improved to date. Recently, the current Minister of Education, Reuben Musakabantu, announced government's intention to scrap user fees in teachers' training colleges to enable more people to take up the training. He said the move was necessitated by a critical shortage of teachers in both primary and secondary schools which he attributed to a high death rate. He attributed the high death rate among teachers to a multiplicity of ailments (ZNBC, 31st August, 2000). The health problems afflicting teachers in Zambia are therefore likely to be due to severe stress as such levels can suppress one's immune system and open doors to a number of infectious diseases. Almost any illness might be made more probable, and its effects more severe, in a person subjected to high stress levels (Llewelyn, 1995).

The high level of stress revealed by the current study might also be blamed for the prevalence of counter-productive behaviour among Zambian teachers, such as absenteeism reported by (61.5%) of education authorities, teacher turnover (53%) and excessive alcohol consumption (61.5%). This however is a subject for further investigations by subsequent studies.

ADMINISTRATIVE AWARENESS OF THE PROBLEM OF OCCUPATIONAL STRESS AMONG TEACHERS

Content analysis of the completed semi-structured interview schedule showed that educational authorities (Table 10 and 11) were aware of the prevalence of stress-related problems among teachers such, as high rate of morbidity (76.9%), high teacher mortality rate (69.2%), absenteeism (61.5%) and so on.

Most of the administrators (84.6%) also did demonstrate appreciable knowledge of occupational stress as a noxious phenomenon. In addition, the majority of the educational authorities were able to associate most of the problems they cited with job stress.

Despite having appreciable knowledge of job stress and being aware of the prevalence of problems symptomatic of job stress, the Ministry of Education does not seem to be concerned about the situation in that 61.5% of the respondents were of the view that there were no measures currently in place to prevent or alleviate stress among teachers.

However, it is worth noting that most administrators (84.6%) were of the view that there was urgent need for special organisation-wide measures to try to help teachers cope effectively with occupational stress, and where possible alleviate such stress. In this regard the administrators (100%) were of the view that prevention and alleviation of teachers' stress required collective efforts involving all the stakeholders. This shades a ray of hope as effective management of such a perverse and complex phenomenon is dependent on both individual efforts as well as organisational strategies (Steers and Black, 1994). Any effort involving one of these without the other is doomed to failure as far as prevention and alleviation of job stress is concerned. (Lazarus, 1994).

IMPLICATIONS OF THE FINDINGS TO IVANCEVICH AND MATTESSON'S (1990) MODEL OF ORGANISATIONAL STRESS, AND TO THE COGNITIVE APPRAISAL THEORY

Ivancevich and Matteson's model of organisational stress postulates that in any particular organisation, stressors come from a multiplicity of sources. They may originate from the physical environment, from individual phenomena, from the work group and from the organisation's culture.

This study found that occupational stress among teachers in Lusaka Region emanates from a number of sources. These included the physical environment, work overload, career goal discrepancy, responsibility for pupils, intergroup conflict and so on. These diverse sources of stress were collapsed into three functional categories of 'teaching', 'work situations' and 'conditions of service.' Thus, the study could not single out a discrete stress factor as being solely responsible for

occupational stress among the sample. Rather, it identified a wide spectrum of sources within the school setting. In this sense the findings are consonant with Ivancevich and Mattesson's model of organisational stress.

The cognitive Appraisal Theory, on the other hand, holds that different stress factors will have different meanings for different individuals in line with the latter's particular circumstances and past experiences. This implies that personal characteristics of individuals determine the severity of the stress they experience in any particular stressful situation. It will be recalled that the study found that selected demographic factors such as gender, qualifications and work experience were factors in teachers' experience of the severity of occupational stress. This is in harmony with the Cognitive Appraisal Theory.

The value of this finding is two fold: It can help organisational management to identify which workers are at greatest risk of occupational stress and how best to help them. This finding also may serve as a guide in designing stress management strategies for a given category of workers.

CHAPTER SIX

SUMMARY, CONCLUSION, RECOMMENDATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

In this chapter a summary of the study is given. Conclusions drawn from the investigations are also outlined. In addition, recommendations, based on the findings, are given. The chapter closes with suggestions for further research.

SUMMARY

The study examined the sources and patterns of occupational stress among secondary school teachers in Lusaka Region. The study also considered the coping strategies employed by individual teachers as a way of assessing the severity of the problem. Further, the position of administrators and policy makers in the Ministry of Education, with regard to occupational stress in the teaching profession, was assessed.

Occupational stress in this study was operationally defined as an adaptive response to an external situation that results in physical, psychological and behavioural deviations for organisational participants.

It will be remembered that the purpose of the study was to identify the major sources and patterns of occupational stress among teachers which could subsequently be used as a basis for effective management and alleviation of the problem.

The significance of the study was that once facts about occupational stress, as it occurs among this special category of workers, are established, decisions by policy makers and teachers themselves about suitable course of action may be possible. It was generally felt that occupational stress, which has serious implications to individual teachers' health and the quality of education, has remained unchecked despite signs that it might be taking its toll among teachers.

The study was guided by three main questions. These were as follows:

1. What are the sources of stress among secondary school teachers in Lusaka?
2. How does stress manifest itself among different categories of teachers? And

3. What do teachers and their employers do to cope with stress in the profession?

The reviewed literature, which were mostly based on studies conducted in the west and on the views of western writers indicated that occupational stress emanates from a multiplicity of sources within the work environment of a given organisation. It also indicated that occupational stress manifests itself differently among different subgroups of workers and that workers' perception and reaction to job stress is a function of their demographic characteristics, such as gender, age and work experience.

Quantitative data were collected from the sample using the Teacher Stress Index questionnaire (TSIQ). The questionnaire also included two sections for qualitative data.

Information on occupational stress was also obtained from the teachers using an observational schedule. Further information was obtained using a semi-structured interview schedule from educational administrators who included school headmasters, Regional and Ministry Headquarters officers. A total of 187 questionnaires out of 238 copies were found to be usable.

The mean and t-test were the main statistical tests of significance used in the analysis of the data to answer the research questions. The analysis showed that teachers were experiencing multiple job stressors emanating from diverse aspects of their occupation. The following were some of the important findings of the study:

- (i) Sources of greatest stress among teachers were conditions of service, where low pay was rated the most stressful factor irrespective of personal characteristics.
- (ii) Some categories of teachers were more susceptible to stress than others. For instance, female teachers were found to experience more stress than their male colleagues.
- (iii) Maladaptive coping was the preferred mode of dealing with stress by most teachers, an indication that the level of stress was in excess of the teachers' coping resources.
- (iv) Educational authorities are quite aware of the problem of occupational stress among teachers. Notwithstanding their awareness, educational authorities

are currently not offering teachers any form of assistance to help them deal effectively with the various stressors they face in their job.

Observational results confirmed self-reported results that occupational stress is indeed currently a problem among teachers in Lusaka Region.

CONCLUSIONS

According to Cooper, (1994), stress in the work environment arises from a variety of sources. Cooper adds that numerous variables affect how people perceive stress and how they are affected by it. One would need to know these determinants to launch an effective programme of preventing occupational stress in work organisations.

The findings of this study are generally consonant with Cooper's observations as stated above. For example, the fact that the stress factors identified as serious sources of job stress were of different types involving psychosocial and physical stress factors, it may be concluded that teachers in Lusaka Region are subjected to multiple stress factors. These stressors emanate from various aspects of teachers' work setting such as administrative policies and strategies, organisational structure and design of the Ministry of Education, organisational processes and working conditions.

The findings of this study suggest that sources of greatest stress among teachers in Lusaka Region were conditions of service concerned with pay-related matters, where "low salaries" was rated the most stressful factor irrespective of personal characteristics. Another major source of stress suggested by the study was "work situations," involving interruptions to school programmes, heavy workload, over-crowded classes and so on.

The findings also suggested that not all the teachers in any given school were affected in the same way by stress. In particular it was concluded that demographic factors such as gender, qualifications, years of experience and so on influenced the way teachers were affected by occupational stress.

With regard to teachers' coping strategies, the study concluded that 'avoidance' coping strategies were used by the teachers more than 'approach' coping strategies. This leads to a further conclusion that occupational stress

among teachers in Lusaka region is very high and is over-taxing teachers' coping resources.

The finding that, despite being aware of the existence of stress defining problems among teachers, educational authorities have not taken any practical intervention measures led to the conclusion that educational authorities are indifferent to occupational stress and its concomitant problems. Any organisation should, however, view devising strategies to reduce stress as a necessary part of the cost of maintaining its most valuable asset – its workforce. Of course, the ideal strategies will depend upon the size and resources of the organisation.

Overall, the findings concerning the sources and patterns of stress are consonant with what was reviewed in the literature. This is suggestive of cross-cultural similarities in the experience and perception of the severity of self-reported stress among teachers.

RECOMMENDATIONS

On the basis of the findings, the study makes the following recommendations:

- i) Since conditions of service and work situations emerged as the major sources of occupational stress among teachers, the study suggests that significant improvements should be made in these areas. In particular, teachers' salaries must be increased to a level that would enable them to meet their basic needs in order to ensure delivery of quality education. Similarly, attention must be paid to honour allowances contractually due to teachers. Specifically, accommodation, transport, health and other allowances should be paid. This will no doubt increase the teachers' psychic income and therefore their ability to focus time and attention on improving teaching (JCTR, 2000 March). The improvement of teachers' overall conditions of service is central in the entire education system reform process. It requires a multifaceted approach and full commitment by all stakeholders who include educational authorities, teachers themselves, government and parents.

- ii) The study has shown that there are at least two loci of control from which working conditions can be manipulated to alleviate the problem of occupational stress. These are the local or school level and the central or organisational level. In this regard, the study recommends that, at local level, school administrators should strive to create a supportive and enabling environment that minimises stress and fosters collegial relationships for teachers. At central level, the study recommends that intervention by central authority be made to alleviate stress factors such as low pay, over-enrolment of pupils, lack of accommodation and inequitable allocation of resources.
- iii) On the basis of the finding that no organisational coping strategies were availed to teachers, the study suggests that urgent intervention measures be taken before some of the more serious consequences of occupational stress set in. In the light of this, the study recommends that:
 - (a) The central authority (Ministry of Education) introduces staff counseling services in all schools. Qualified counsellors should be made available to teachers to mitigate the stress situation. Currently, counseling services in schools are mainly targeted for pupils, and in most cases counsellors are ordinary teachers without special training in the field of counseling.
 - (b) Assistance be made available to teachers on stress management and adaptive coping strategies through regular seminars and workshops.
 - (c) Teacher training and induction programmes should incorporate training in stress prevention and management strategies.
 - (d) Educational authorities are reminded that stress management is not a quick-fix solution. To be effective, the study recommends that the interventions taken should extend indefinitely, and the emphasis should gradually shift from cure of stress to prevention.
- iv) The study also recommends a programme of stress-preventive measures to improve the overall well-being of teachers in the long term, such as the

provision of sports facilities, flexi-time, health insurance and regular medical checks.

- v) The study recommends that whatever stress intervention measures are taken by the relevant authorities in the Ministry of Education, they should take into account the selective nature and effects of stress factors on different subgroups. This is in view of the reported significant differences based on biographical characteristics of respondents in the research sample.
- vi) A great deal of occupational stress results from non-observance of workers' statutory and assertive rights. Therefore, as a way of ameliorating the situation, the study proposes that school administrators and other educational authorities strictly adhere to the existing Zambian labour laws at all times so that teachers are not exploited in the course of their employment. Teachers, on their part, can avoid or at least reduce stress at work by asserting their personal and job-related rights appropriately.
- vii) The problem of occupational stress among teachers presents a challenge not only to education, but also to the health and labour ministries to develop appropriate policies concerning the health and well-being of teachers and, indeed, other categories of workers in other organisations. To begin with, employers in various organisations need to become more aware of the health needs of their employees, and occupational health programmes should be developed in all organisations and work environments.
- viii) Finally, it may be stated that the prevention and alleviation of occupational stress in the teaching profession is a problem of social and national importance which should be accorded the serious attention it deserves. Occupational stress therefore should be taken as seriously as other work place hazards. It is only through efforts at the national level that proper and effective prevention of occupational stress and its accompanying problems can take place. This calls for cooperative effort on the part of government,

educational authorities, teachers themselves and the general public. Teachers, in particular, should get organised and take action through their trade union, which is able to put pressure on government and the Ministry of Education to ensure that their occupational needs are addressed.

SUGGESTIONS FOR FURTHER RESEARCH

This study outlines the following propositions for future research in the area of occupational stress:

- i) First and foremost, there is need to establish the prevalence of stress among teachers in the country. Our data do not provide sufficient grounds to establish this aspect of the problem. Such an assessment would require additional research.
- ii) Personal factors such as particular patterns of learning, motivation, locus of control, personality type and disposition can inhibit or enhance the effect of stress factors (Steers and Black, 1994). The current study however did not investigate how such personal factors interact with stress to determine individual teachers' perception of stress and their subsequent reaction to it. This leaves a conundrum for further research to resolve.
- iii) The consequences of a stressed and demoralised teaching workforce on the quality of education and student outcome are also identified as the focus for future research.
- iv) An interdisciplinary longitudinal research designed to determine the major patterns and causes of occupational stress among teachers or any other category of workers is strongly recommended. Ideally, this should include a psychologist, a physiologist and a physician. Such a study would bring out very comprehensive information about occupational stress as it would benefit greatly from the multidisciplinary approach.

- v) Finally, further research is recommended to verify the findings of this exploratory study and contribute to the development of a research database on teacher stress in Zambia. Without the benefit of further research, which should also explore other stress-related areas such as burnout, depression and psychological distress, the current findings can only provide partial understanding and solutions to the problem of occupational stress among teachers in this country. Further, research would also contribute to the development of a cohesive body of research literature on occupational stress in the teaching profession in Africa in general. Currently, as was pointed out earlier, research literature in the area of occupational stress is predominantly based on the findings of studies conducted in the west and the views of western writers.

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APPENDICES

APPENDIX A

**THE UNIVERSITY OF ZAMBIA
SCHOOL OF EDUCATION
M.ED PROGRAMME
P.O. BOX 32379
LUSAKA**

November 2000

Dear Sir/madam,

We are conducting a survey to establish sources, intensity and patterns of occupational stress among secondary school teachers in Lusaka. The survey will also seek to establish how teachers are coping with stressful situations in their occupation. Such data will be of value to policy and decision-makers, school teachers, administrators and their professional organisations. In this way it is hoped that solutions will be found to alleviate stressful situations in the teaching profession. Thus enhancing teaching and employment conditions of teachers in Zambia.

The success of this study depends upon your expression of sincere opinion on the issues about which you are asked.

Please do not answer the questions as you think other people would like you to answer them. We are interested in your own views and not the views the general public may hold. Do not, therefore, discuss the questions with other people. Follow the instructions which are given before answering the questions.

To ensure confidentiality, you are asked not to put your name on this questionnaire.

Thank you, in anticipation, for your willingness and the trouble you will take to complete this questionnaire.

Yours sincerely

P.H. NAMANGALA

M.ED STUDENT

THE UNIVERSITY OF ZAMBIA

SCHOOL OF EDUCATION

SOURCES AND PATTERNS OF STRESS AMONG TEACHERS

SECTION A: DEMOGRAPHIC DATA

1. Indicate the following:

- (a) Gender: _____
- (b) Nationality: _____
- (c) Age: _____
- (d) Years in teaching profession: _____
- (e) Confirmed or not confirmed: _____
- (f) Highest level of educational qualification obtained _____
- (g) Subject(s) taught _____
- (h) Marital status: _____
- (i) If married, occupation of spouse: _____
- (j) Number of children: _____

2. Indicate the following about your school:

- (a) Name of the school: _____
- (b) Is your school government, mission or private? _____
- (c) Is it a single sex school or co-education? _____
- (d) Is your school boarding or day? _____
- (e) In which area of Lusaka is your school located? _____

SECTION B

In this section you are provided with an inventory of some of the possible factors which subject you to prolonged anxiety, frustration or tension in your job as a teacher. In each case indicate the degree to which you think the item stresses you by circling one of the six digits against each item.

If the given item does not apply to your school, indicate N/A against it.

1 means not stressful

2 means mildly stressful

3 means moderately stressful

4 means considerably stressful

5 means very stressful

6 means extremely stressful

1 Overstretched 1 2 3 4 5 6
(having to perform tasks not trained for - specify)

.....

2 Managing changes (e.g. educational innovations and
changes in curriculum and syllabus)..... 1 2 3 4 5 6

3 Conflict of work role (teaching and other responsibilities
e.g. being HOD) 1 2 3 4 5 6

4 Heavy work load (specify number of periods)..... 1 2 3 4 5 6

.....

5 Unpleasant states of most classrooms (specify) 1 2 3 4 5 6

.....

6 Limited freedom in executing teaching duties..... 1 2 3 4 5 6

7 Attending administrative and committee meetings..... 1 2 3 4 5 6

8 Extra curricular activities (assembly, master on duty,
manual work etc) 1 2 3 4 5 6

9 Handling over crowded classes 1 2 3 4 5 6

10	Teaching schedules which permit few or no breaks.....	1	2	3	4	5	6
11	Lacking teaching materials	1	2	3	4	5	6
12	Working under deadline pressures (school reports, schemes of work, records of work etc)	1	2	3	4	5	6
13	Interruptions of school programmes (classes or school term)	1	2	3	4	5	6
14	Having to stand and talk during lessons	1	2	3	4	5	6
15	Taking classes of limited ability	1	2	3	4	5	6
16	Preparing and evaluating pupils' work (homework, test, exam)	1	2	3	4	5	6
17	Pupils' inability to understand some topics.....	1	2	3	4	5	6
18	Boredom from doing same kind of work repeatedly.....	1	2	3	4	5	6
19	The challenge of maintaining class control.....	1	2	3	4	5	6
20	Noise from neighbourhood interfering with teaching (specify noise)	1	2	3	4	5	6
21	Extreme temperatures in classrooms (cold and hot months)	1	2	3	4	5	6
22	Poor Promotion Prospects (stagnating in the classroom)	1	2	3	4	5	6
23	Limited opportunities for further studies (due to staff shortage or no funding)	1	2	3	4	5	6
24	Job not secure (eg on contract or likelihood of suspensions and expulsion).....	1	2	3	4	5	6
25	Difficulties of getting alternative jobs.....	1	2	3	4	5	6
26	Lack of regard for qualifications (e.g no real differences in pay and job content).....	1	2	3	4	5	6
27	Lack of recognition for work well done	1	2	3	4	5	6
28	Low salaries	1	2	3	4	5	6
29	Too much time consuming, but not rewarding paper work (e.g. records of work, setting exams, entering reports etc)	1	2	3	4	5	6

30	Pay problems (under payments, omission from payroll, delays etc)	1	2	3	4	5	6
31	Difficulties of obtaining entitlements (e.g. allowances, leave benefits, loans etc)	1	2	3	4	5	6
32	Accommodation related problems (specify).....	1	2	3	4	5	6
33	Travelling to and from the school where I teach	1	2	3	4	5	6
34	Pupils' tendency to challenge teachers	1	2	3	4	5	6
35	Pressure to produce better exam results.....	1	2	3	4	5	6
36	Discriminative practices of dealing with teaching staff (eg inconsistent promotions)	1	2	3	4	5	6
37	Lack of participation in decisions (eg cancellation of classes change in time table etc).....	1	2	3	4	5	6
38	Too many instructions and orders from administration.....	1	2	3	4	5	6
39	Pupils' general lack of regard for teachers.....	1	2	3	4	5	6
40	Dealing with pupils parents (e.g. on open days etc).....	1	2	3	4	5	6
41	Too much teacher supervision by management.....	1	2	3	4	5	6
42	Pupils' poor attitude and lack of commitment to school work	1	2	3	4	5	6
43	Dealing with education officers (e.g. study leave, mechanised salaries etc).....	1	2	3	4	5	6
44	Too few or no opportunities to communicate difficulties encountered in executing teaching duties	1	2	3	4	5	6
45	General public's lack of respect for teachers (e.g. unfair criticisms).....	1	2	3	4	5	6
46	Lack of clarity about what my supervisor expects of me	1	2	3	4	5	6
47	Unrealistic administrative demands (e.g. no teaching materials but insist on better results)	1	2	3	4	5	6

48 Few sanctions which teachers can apply for pupil misbehaviour
(e.g. due to children's rights and ban on physical punishment)1 2 3 4 5 6

SECTION C

In this section indicate any other factors, not cited above, which you feel subject you to mental and physical exhaustion in your occupation as a secondary school teacher. Rate their relative stress intensity on the same scale of 1 to 6.

1	1	2	3	4	5	6
2	1	2	3	4	5	6
3	1	2	3	4	5	6
4	1	2	3	4	5	6
5	1	2	3	4	5	6
6	1	2	3	4	5	6

Make an approximation of the total stress in your life which is induced by your job as a teacher.

Answer:% of the stress I experience in my life results from my teaching job.

SECTION D

In this section you are given some statements about specific aspects of your job as a teacher. In each case tick the option that most applies to you. For items that don't apply to you indicate N/A.

1. Teachers' salaries are generally low. How do you survive on such earnings?
 - A. I engage in other activities to raise the extra money
 - B. I live within the limitations of my pay
 - C. I have accepted my situation.
2. In teaching, promotions are rare. As a result most teachers remain as class teachers throughout their teaching career. What are you doing about this situation?
 - A. I intend to find a better job.
 - B. I just regret about the state of affairs.
 - C. I keep hoping that I will be lucky
3. Many teachers tend to feel bored after a few years in the profession. Apparently this is caused by the repetitive nature of the job. How do you handle this aspect of your job?
 - A. I talk about it with colleagues and superiors
 - B. I avoid teaching when I don't feel up to it
 - C. I have come to accept the situation as it is
4. How do you respond to mental and physical exhaustion during teaching hours?
 - A. I engage in teaching activities that help me relax
 - B. I engage in non academic activities
 - C. I just go on teaching until knocking off time
5. How do you manage to prepare for all your classes?
 - A. I have set aside specific time for that
 - B. I have to work long and irregular hours
 - C. I only prepare when I can
6. Sometimes pupils perform poorly even after you have put in your best. How do you react?
 - A. I try to establish what might have gone wrong.
 - B. I blame it all on pupils
 - C. I don't let it bother me.

7. When you find yourself under intense pressure and frustration due to the many setbacks in your job, what do you do?
- A. I talk to friends and close colleagues
 - B. I try to get over it by drinking beer
 - C. I try not to think too much about suffering
8. How do you get around the problem of lack of teaching resources at your school?
- A. I improvise or seek help from elsewhere
 - B. I complain about the state of affairs
 - C. I ignore the situation and use whatever is available
9. How do you handle situations whereby you have too much work to do?
- A. I prioritize my workload
 - B. I work long and irregular hours
 - C. I try to do everything at once
10. Teachers are currently prohibited from administering physical punishment to pupils. When pupils indulge in disruptive behaviour, what do you normally do?
- A. I discuss the matter with my headmaster
 - B. I just get on with my work
 - C. I avoid having anything to do with them

APPENDIX B

OBSERVATION SHEET

INSTRUCTION: Observe four teachers at your school in various potentially stressful situations.

Examples of possible stressful situations:

- (i) Teacher struggling to beat a deadline.
- (ii) Teacher handling an overcrowded class.
- (iii) Teacher struggling in vain to go on study leave.
- (iv) Teacher in an understaffed department.
- (v) Teacher dealing with parent e.g. open day.
- (vi) Sudden disruption of lessons.

REPORT

DATE:

NAME OF SCHOOL:

SITUATION OBSERVED:

SUBJECT: (i) Male []
(ii) Female []
(iii) Graduate []
(iv) Non graduate []

SYMPTOMS OF STRESS EXHIBITED (Tick as appropriate)

(A) Physiological Symptoms

- (i) Falling sick e.g. headache, back pain, H.B.P. flu etc.
- (ii) Dilation of pupils
- (iii) Any other

(B) Psychological Symptoms

- (i) Irritability
- (ii) Lack of dissatisfaction with job
- (iii) Loss of temper
- (iv) Nervousness
- (iv) Any other

(C) Behavioural Symptoms

- (i) Increased absence
- (ii) Aggression towards colleagues
- (iii) Committing too many more errors
- (iv) Leaving or attempting to leave job
- (v) Accident proneness
- (vi) Excessive smoking
- (vii) Excessive drinking
- (viii) Emotional outbursts
- (ix) Any other

Observers Signature:

APPENDIX C

A SURVEY OF SOURCES AND PATTERNS OF STRESS AMONG TEACHERS: A CASE OF LUSAKA SECONDARY SCHOOLS.

INTERVIEW SCHEDULE

PLACE: _____ DATE: _____

I am carrying out a survey of sources and patterns of stress among Lusaka secondary school teachers. Additionally, I will be interested in establishing some of the coping strategies that teachers use to cushion the impact of stress in their work. This information will be of value to policy and decision-makers, school teachers, administrators and other stakeholders.

SECTION A

1. Respondent's sex: Male ☐ Female ☐
2. Respondent's designation: _____
3. Respondent's duration in the position held (a) _____ years
(b) _____ months
1. Which of the following are currently problems of concern to you and other educational authorities?
 - (a) Teacher turnover (e.g. resignations and unaccountable "disappearances" of teachers)
Problem ☐ Not problem ☐
 - (b) Teacher absenteeism (Non attendance to a class or classes without permission from administration)
Problem ☐ Not problem ☐
 - (c) Teacher misbehaviour (e.g. involvement in exam leakages, having affairs with pupils, dishonest etc)
Problem ☐ Not problem ☐

(d) Suspected teacher drug abuse

Problem [] Not problem []

(e) Excessive teacher alcohol consumption

Problem [] Not problem []

(f) Teacher negligence in their duties (eg. not applying themselves fully in their work)

Problem [] Not problem []

(g) Relatively high teacher morbidity (illness and hospitalisation of teachers)

Problem [] Not problem []

(h) Mortality rates among teachers.

problem [] Not problem []

2 What, in your opinion, are the possible causes of the problems you have cited above in the teacher's working environment in Zambia?

(a) _____

(b) _____

(c) _____

(d) _____

3. Is job stress a possible cause of the problems you have cited above?

Yes [] No []

4. What do you understand by job stress?

5.

(a) Would you say this phenomenon exists among teachers in Zambia/at your school?

Yes [] No []

(b) How do you know that job stress exists among teachers?

6. Mention some of factors that can lead to job stress among teachers.

(a)

(b)

(c)

(d)

7. Do you think educational authorities are currently concerned about job stress among teachers in Zambia?

Yes [] No []

8. What measures are currently in place to try to prevent or alleviate stress among secondary school teachers in Zambia?

9. If you feel job stress exists among secondary school teachers in Zambia, how do you propose to remedy the situation of the Zambian teacher in this regard? In other words what plans do you have to enhance teaching and improve employment conditions of teachers?

10. Tick the statement that you agree with.

- (a) There is need to be concerned about stress among teachers in Zambia.
[]
- (b) There is no need to be concerned about stress among teachers in Zambia.
[]
- (c) Prevention and alleviation of job stress among teachers is solely a responsibility of teachers themselves.
[]
- (d) Prevention and alleviation of job stress among teachers is the responsibility of both teachers themselves and education authorities.
[]

THANK YOU FOR THE INFORMATION!

APPENDIX D

PARTICIPATING SCHOOLS

No.	SCHOOL	CATEGORISATION
1	Chongwe school	Public (govt.) (rural)
2	David Kaunda school	Public (govt) (urban)
3	International school of Lusaka	Private (urban)
4	Kabulonga boys school	Public (govt) (urban)
5	Kabulonga Girls school	Public (govt) (urban)
6	Katondwe Girls school	Public (mission) (rural)
7	Lake Road PTA school	Private (urban)
8	Leopards Hill school	Private (urban)
9	LICEF school	Private (urban)
10	Luangwa Boys school	Public (govt) (rural)
11	Lusaka High school	Private (urban)
12	Matero Boys school	Public (mission) (urban)
13	Matero Girls school	Public (govt)(urban)
14	Munali Secondary school	Public (govt) (urban)
15	Naboye Secondary school	Public (govt) (rural)
16	Rhodes Park school	Private (urban)
17	Roma Girls school	Public (mission) (urban)
18	St. Mary's Girls	Public (mission) (urban)

APPENDIX E

FUNCTIONAL CATEGORIES OF OCCUPATIONAL STRESS AMONG TEACHERS:

TEACHING CATEGORY:

ITEM NO.	PERCENTAGE VALUE	MEAN VALUE
6	26.6%	2.476
7	25.7%	2.311
8	27.3%	2.638
11	57.1%	4.052
14	24.2%	2.602
15	56.6%	3.697
16	60%	2.710
17	47.3%	3.446
18	25.6%	2.738
19	16.7%	2.130
34	21.7%	2.276
39	43.0%	3.327
42	66%	4.091
OVERALL AVERAGES	38.3	2.96

APPENDIX E (I)

WORK SITUATIONS CATEGORY

ITEM NO.	PERCENTAGE VALUE	MEAN VALUE
1	27.4%	2.613
2	12.6%	2.012
3	18.5%	2.535
4	45.2%	3.386
5	38.6%	3.067
9	51.8%	3.821
10	43.9%	3.419
12	47.5%	3.614
13	51.4%	3.989
20	24.2%	2.450
21	45.9%	3.503
24	44.5%	3.000
35	51.3%	3.470
40	20	2.335
41	33.3%	2.657
43	62.5%	4.669
OVERALL AVERAGES	40.92%	3.262

APPENDIX E (ii)

CONDITIONS OF SERVICE CATEGORY

ITEM NO.	PERCENTAGE VALUE	MEAN VALUE
22	57%	4.000
26	75.2%	4.765
27	70.8%	4.564
28	84.0%	5.462
29	70.6%	4.586
30	62.2%	4.893
31	69.7%	5.117
OVERALL AVERAGES	69.93	4.770

APPENDIX F
FREQUENCY / PERCENT PER SCALE

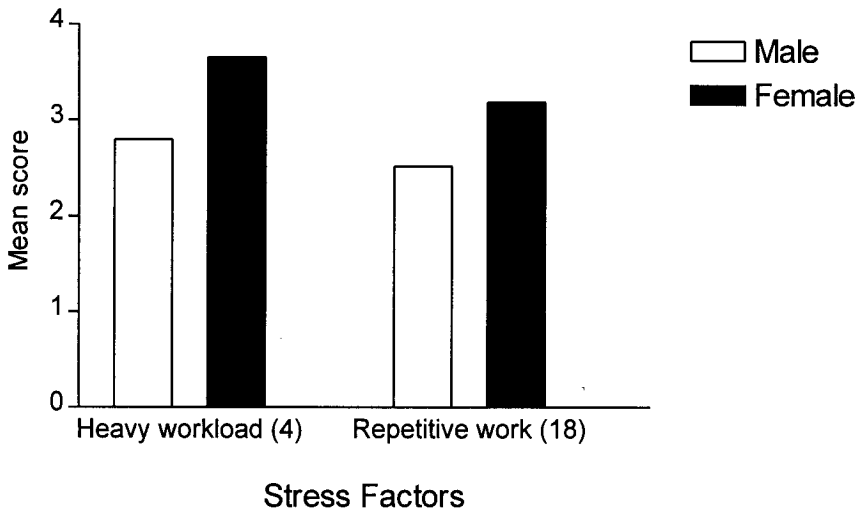
NO .	STRESS FACTOR	1	2	3	4	5	6
1	Over stretched	57(36.8)	32(20.6)	19(12.3)	21(13.5)	13(8.4)	13(8.4)
2	Managing changes	83(48.3)	41(23.8)	26(15.1)	10(5.8)	9(5.2)	3(1.7)
3	Conflict of work	51(30.0)	46(27.1)	34(20.0)	17(10.0)	14(8.2)	8(4.7)
4	Heavy workload	41(24.0)	32(18.7)	15(8.8)	23(13.5)	23(13.5)	37(21.6)
5	States of classrooms	47(28.5)	27(16.4)	23(13.9)	23(13.9)	26(15.8)	19(11.5)
6	Limited freedom to teach	69(42.1)	31(18.9)	20(12.2)	16(9.8)	17(10.4)	11(6.7)
7	Attending meetings	76(42.9)	37(20.9)	22(12.4)	21(11.9)	17(9.6)	4(2.3)
8	Extra activities	59(31.9)	45(24.3)	24(13.0)	29(15.7)	17(9.2)	11(5.9)
9	Handling crowded class	36(22.2)	20(12.3)	11(6.8)	18(11.1)	24(14.8)	53(32.7)
10	Few / no breaks	38(22.8)	26(15.6)	25(15.0)	17(10.2)	28(16.8)	33(19.8)
11	Lack of materials	19(10.9)	23(13.2)	22(12.6)	26(14.9)	34(19.5)	50(28.7)
12	Deadline pressure	25(13.6)	33(17.9)	34(18.5)	24(13.0)	32(17.4)	36(19.6)
13	Interruption of class	28(15.6)	23(12.8)	16(8.9)	21(11.7)	38(21.2)	53(29.6)
14	Standing/ Talking	72(38.7)	31(16.7)	36(19.4)	15(8.1)	10(5.4)	22(11.8)
15	Class of limited ability	26(14.9)	22(12.6)	26(14.9)	36(20.6)	35(20.0)	30(17.1)
16	Evaluating work	54(29.0)	46(24.7)	25(13.4)	34(18.3)	15(8.1)	12(6.5)
17	Pupils inability	16(8.6)	35(18.8)	46(24.7)	41(22.0)	35(18.8)	13(7.0)
18	Boredom - same work	48(26.2)	51(27.9)	33(18.0)	20(10.9)	1497.70	17(9.3)
19	Class control	78(42.2)	56(30.3)	23(12.4)	10(5.4)	13(7.0)	5(2.7)

20	Noise from neighbourhood	72(45.0)	23(45.0)	16(16.3)	13(8.1)	12(7.5)	14(8.8)
21	Extreme temperatures	24(13.9)	36(20.8)	30(17.3)	28(16.2)	22(12.7)	33(19.1)
22	Poor prospects	33(19.4)	14(8.2)	16(9.4)	19(11.2)	33(19.4)	55(32.4)
23	Limited opportunities	8(4.5)	7(3.9)	18(10.1)	15(8.4)	32(17.9)	99(55.3)
24	Job not secure	58(36.7)	23(14.6)	18(11.4)	10(6.3)	18(11.4)	31(19.6)
25	Difficult to change jobs	28(15.8)	17(9.6)	16(9.0)	25(14.1)	30(16.9)	61(34.5)
26	Lack regard for Qualifications	17(9.5)	11(6.1)	6(3.4)	22(12.3)	30(16.8)	93(52.0)
27	Don't see work well done	21(11.6)	10(5.5)	14(7.7)	18(9.9)	37(20.4)	81(44.8)
28	Low salaries	7(3.8)	5(2.7)	6(3.3)	3(6.1)	20(10.9)	143(77.7)
29	Much time consuming	16(8.6)	14(7.5)	18(9.7)	16(8.6)	41(22.0)	81(43.5)
30	Pay Problems	24(13.5)	7(3.9)	7(3.9)	8(4.4)	16(9.0)	118(66.3)
31	Diff. to get entitlements	16(8.9)	6(3.3)	6(3.3)	13(7.7)	21(11.7)	123(68.3)
32	Accommodation Problems	20(11.8)	11(6.5)	9(5.3)	10(6.5)	27(16.0)	9(52.7)
33	Travelling to/from school	75(48.7)	14(9.1)	5(3.2)	20(11.0)	15(9.7)	35(22.7)
34	Tendency to challenge teachers	85(47.0)	34(18.8)	20(11.0)	42(23.0)	13(7.2)	9(5.0)
35	Pressure to produce results	33(18.0)	25(13.7)	31(16.9)	25(14.5)	21(11.5)	31(16.9)
36	Discriminative practices	33(19.2)	13(7.6)	18(10.5)	25(14.5)	33(19.2)	50(29.1)
37	Lack part. In decisions	31(17.8)	30(17.2)	21(12.1)	22(12.6)	32(18.4)	38(21.8)
38	Too many instructions	47(26.9)	26(14.9)	25(14.3)	19(10.9)	30(17.1)	28(16.0)
39	Pupils lack regard	34(19.9)	33(19.3)	27(15.8)	24(14.0)	26(15.2)	27(15.8)
40	Dealing with	82(44.3)	31(16.8)	33(17.8)	14(7.6)	17(9.2)	8(4.3)

	parents						
41	Too much supervision	67(38.3)	35(20.0)	18(10.3)	21(12.0)	14(8.0)	20(11.4)
42	Poor attitude	13(7.0)	26(14.0)	25(13.4)	30(16.1)	51(27.4)	41(22.0)
43	Dealing with Educ. Offices	22(13.0)	9(5.3)	8(4.7)	13(7.7)	29(17.2)	88(52.1)
44	Too few opportunities	34(19.5)	21(12.1)	21(12.1)	27(15.5)	34(19.5)	37(21.3)
45	Public lack's respect	22(12.0)	20(10.9)	17(9.3)	19(10.4)	40(21.9)	65(35.5)
46	Lack of clarity	50(29.2)	31(18.1)	20(11.7)	19(11.1)	28(16.4)	23(13.5)
47	Unrealistic demands	24(14.4)	13(7.8)	18(10.8)	27(16.2)	34(20.4)	51(30.5)
48	Few sanctions to apply	20(10.8)	22(11.8)	27(14.5)	28(15.1)	37(9.9)	52(28.0)

APPENDIX F (I)

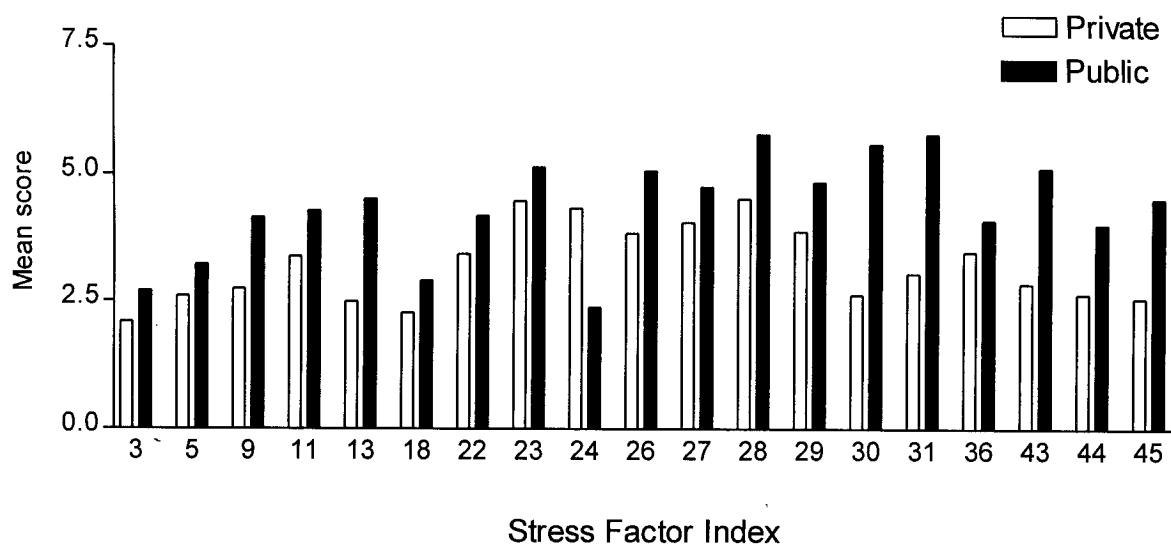
T-test analysis for items which produced statistically significant differences between male and female teachers



Appendix f (i): Comparison of mean stress scores of male and female secondary school teachers in response to specific stress factors. The mean score for each stress factor was determined from male and female respondents as described in Fig. 1. Based on the severity of self-assessed teachers' stress, only two stress factors (Heavy-work-load and Repetitive-work) produced statistically significant gender differences.

APPENDIX F (ii)

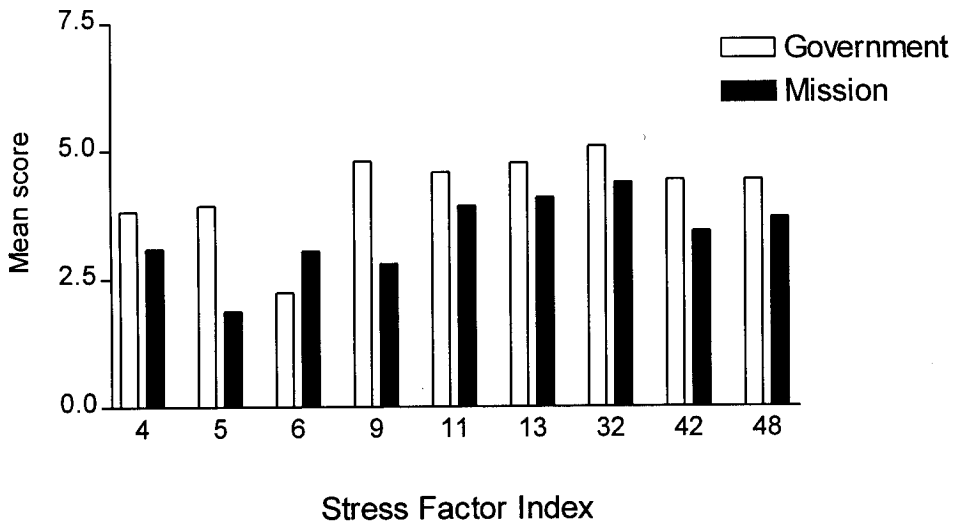
T-test analysis for items which produced statistically significant difference between private and public school teachers.



Appendix f (ii): Stress factors which produced statistically significant differences between private and Public secondary school teachers on the sources and severity of self-reported stress. The mean score for each stress factor was determined from respondents as described in Fig. 1 above. Each stress factor is represented by a specific index (number) as described in Table 3. For instance 3 = conflict of work role, 5 = unpleasant states of classes and 9 = handling crowded classes.

APPENDIX F (iii)

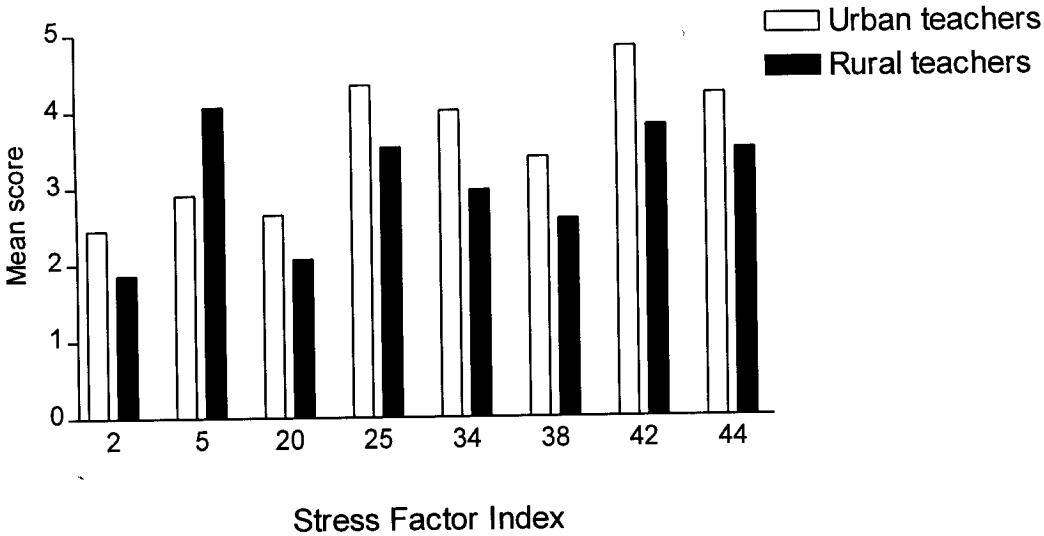
T-test analysis for items which produced statistically significant difference between government and mission school teachers



Appendix f (iii): Stress factors which produced statistically significant differences between Government and Mission secondary school teachers on the sources and severity of self-reported stress. The mean score for each stress factor was determined from respondents as described in Fig. 1 above. Each stress factor is represented by a specific index (number) as described in Table 4.

APPENDIX F (iv)

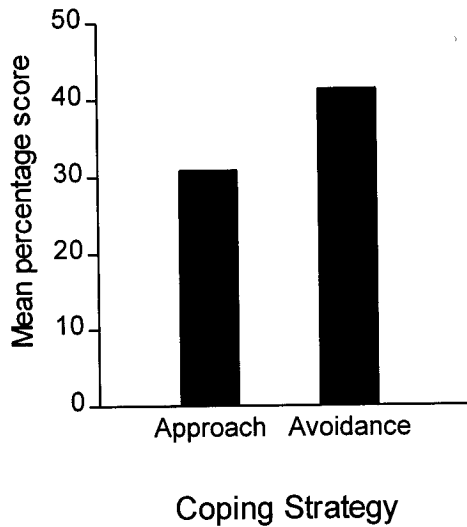
T-test analysis for items which produced statistically significant difference between rural and urban school teachers



Appendix f (iv): Stress factors which produced statistically significant differences between Rural and Urban secondary school teachers on the sources and severity of self-assessed occupational stress(N =187). The mean score for each stress factor was determined from respondents as decribed in Fig. 1 above. Each stress factor is represented by a specific index (number) as described in Table 5.

APPENDIX F (v)

Percentage distribution of stress coping strategies used by secondary school teachers



Appendix f (v) Stress factors appropriate to each mode of coping with occupational stress were gleaned from section D of the main questionnaire (see appendix a). The «Approach» coping mode comprised 26 items including sharing frustrations with colleagues, working hard to raise extra income, and prioritising work demands. The «Avoidance» coping mode comprised 30 items including denial of experiencing stressors, acceptance of job-based stressors as part of life and so on.....The percentage of respondents for each each item was calculated and the mean of percentage for each category subsequently computed