

**OCCUPATIONAL STRESS AND ITS MANAGEMENT IN THE POLE
TREATMENT INDUSTRIES OF ZIMBABWE: A CASE STUDY OF BORDER
TIMBERS LIMITED POLE TREATMENT YARD, MUTARE**

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**A DISSERTATION SUBMITTED TO THE DEPARTMENT OF GEOGRAPHY AND
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Abstract

The main goal of the study was to assess occupational stress and its management in the Pole Treatment industries of Zimbabwe with focus on Border Timbers Limited Pole Treatment Yard. Identification of sources of stress, examination of patterns and coping strategies as well as analysis of relationships between perceived levels of stress and various variables such as job experience and work site were done. The research employed a cocktail of both quantitative and qualitative methods through the use of techniques such as questionnaires, interviews and observations. The research established that safety issues, unhealthy work sites, delays in the payment of salaries, unfair salaries and benefits as well as lack of recognition for outstanding work done were the main sources of stress. It ascertained that workers were more affected by organizational related factors as compared to job related ones. The research also established that workers who are tenants, sole breadwinners with big family sizes and mostly affected by home pressure recorded high levels of work stress. Institutional coping strategies were found to be fragmented, weak and almost non-existent. On an individual basis, most workers employed positive coping strategies such as going to church and releasing pressure through discussing troubling issues with co-workers. Proper environmental management at the work sites, stress management training and adoption of employee wellness and assistance programs were the main recommendations brought forward to improve the workers' welfare and reduce the levels of occupational stress.

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Dedication

This dissertation is dedicated to my parents who believed in me all the way and brought candles when my academic efforts seemed to be in dire darkness. I also devote this work to the strong women in my family; Patience Ngomani, Lilian Ngomani and Tracy Ngomani for inspiring me with their incredible audacity to survive in this world full of calamities.

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Acronyms

UN	United Nations
WHO	World Health Organisation
MSU	Midlands State University
GES	Geography and Environmental Studies
SHEQ	Safety, Health, Environment and Quality Assurance
PPE	Personal Protective Equipment/Clothing
CCA	Chromated Copper Chromium
SPSS	Statistical Package for Social Sciences

CHAPTER ONE

INTRODUCTION

1.1. Background to study

Occupational stress has been defined by Cox *et al* (2003) as the response people may have when presented with work demands and pressures that are not matched to their knowledge and abilities and which challenge their ability to cope. Stress is frequently considered as the most common disease of the modern age. It is a pattern of negative physiological states and psychological responses that occur in an individual. When stressed, an individual feels that his well-being is menaced but is at the same time unable to cope with it (Lazarus and Folkman, 1984; Hill, 2001). Occupational stress has its umbilical cord in the middle 19th Century where Friedrich Engels first described in detail the physical and psychological health problems suffered by workers in many trades in his book entitled *The Condition of the working class in England (1845/1987)*(Barling and Griffiths, 2011). Karl Max was also to follow suit with his book *Das Kapital (1867/1999)*. With time through the cross fertilization of ideas from continent to continent, occupational stress became widely recognized especially in the developed nations.

There are three main stages in the development of stress. The first stage is the alarm/acute which involves adrenaline being produced in order to bring about the fight. Every part of the human organ experiences minor changes (Ekundayo, 2014). The second stage is the resistance stage where the body has to decide to fight or flight. The body will try to add resources to help it cope through maximum adaption and hopefully, successful return to equilibrium for the individual. The exhaustion stage is the third and final stage. At this point, all the body's resources are eventually depleted and the body is unable to maintain normal function because elastic limit is exceeded. The repercussions are serious nervous or psychological and physical breakdown.

There are four major types of stress as explained by Taylor (1995). There is acute stress where by the individual knows exactly why he is stressed. Normally, the body rests when these stressful events cease and life gets back to normal because the effects are short-term. Acute stress is known to cause only temporary damage to the body. There is also Traumatic stress which is a severe stress reaction that results from a catastrophic event or intense

experience such a natural disaster, sexual assault, life-threatening accidents, or participation in a combat. Chronic stress has unrelenting demands and pressures seemingly interminable periods of time. This stress wears the individual down leading to breakdown and even death. Episodic acute stress is a situation where the individual's life experiencing this type of stress are very chaotic, out of control and they always seem to be facing multiple stressful situations.

A number of theories to explain occupational stress have been brought forward over the years. According to Babatunde (2013) occupational stress theories range from person-environment fit theory, job characteristics framework (Hackman and Oldham, 1980), job demand-control model (Karasek, 1979), effort-reward imbalance concept (Siegrist, 1996) and the transactional theory of psychological stress and coping (Lazarus & Folkman, 1984). These are some of the well-known models which have gained dominance over the decades in guiding stress research and practice despite their variance in popularity and empirical support (Mark & Smith, 2008). However, one of the influential stress models out of the pile is the transactional theory of psychological stress and coping.

In terms of managing stress in organizations, there has been an array of diverse strategies used. According to Mukhalipi (2014), a good employer should design and manage work in a way that avoids common risk factors for stress and prevents foreseeable problems as much as possible. This will allow employees to be more productive at all times as they will feel appreciated and cared for. There are basically three ways of managing stress. Mukhalipi (2014) insinuates that the first way is primary prevention where stress is reduced through ergonomics, work and environmental design, organizational and management development.

The second is through secondary prevention where you reduce stress through worker education and training. Lastly there is tertiary prevention where the impact of stress is reduced by developing more sensitive and responsive management systems (Kendall *et al*, 2000). Workplace stress has been shown to have a detrimental effect on the health and well-being of employees, as well as a negative impact on workplace productivity and profits. According to Lee (2000), when people become stressed, their brain downshifts. When in a downshifted state, their ability to function intellectually, psychologically, and behaviourally is all compromised. This makes them more vulnerable to accidents and injuries. Downshifting also causes a large number of other undesirable qualities and conducts that lead to performance problems.

Braaten (2000) is of the view that occupational stress has become a serious health issue, not just in terms of an individual's mental and physical well-being, but also for employers and governments who have begun to assess the financial consequences of work stress. Workplace stress is said to result in costly diseases such as diabetes, heart and cardiovascular problems, anxiety, depression, infectious diseases, musculoskeletal disorders and certain cancers. The other impacts of stress well documented include the overall cost presented by high absenteeism, presenteeism and high employee turnover. These need to be managed through coping strategies. At present, BTL has fragmented coping strategies and therefore the research seeks to assess their effectiveness and bring forward recommendations to have a successful and well comprehended framework. According to Timber Producers Federation (2007), the Forestry industry in Zimbabwe employed more than 13,800 people and generated over US\$30 million dollars in 2007. This makes the industry a crucial component of economic performance. There are many stages in the production and manufacturing of Timber products from the forest to the last point which is treatment. As such, there is bound to be intense job stress as the industry is hectic as workers strive to keep up with targets.

Large scale socio-economic and technological changes in recent years along with increasing trends in restructuring and downsizing has continued in many organizations, resulting in an increase in sub-contracting and outsourcing that have affected workplaces considerably (Sparks, Faragher & Cooper, 2001). From 2010, Border Timbers Limited has been going through a restructuring process which has led to immense downsizing and subsequently retrenchment. This has left many workers job insecure as the exercise is still going on (Chaeruka, 2014). According to Bickford (2005), stress in the workplace is a growing concern in the current state of the economy, where employees increasingly face conditions of overwork, job insecurity, low levels of job satisfaction and lack of autonomy.

Poor communication has also been trivial as Lee (2000) postulates that one of the greatest sources of employee stress is for employees not to be aware of changes taking place in the company. This has generated visible low morale among workers as they drown in anxiety. Nguwi (2014) postulates that 43% of Zimbabweans suffer from occupational stress which is a figure way higher than that of the average of developed countries at 15-25%. The thrust of this research is to explore the sources, patterns, severity and coping strategies of occupational stress at Border Timbers Limited Pole Treatment Yard.

1.2. Statement of the problem

According to Kortum (2014), WHO's Global Plan of Action for Workers' Health (2008–2017), in particular the WHO healthy workplace initiative's essence is to protect and promote workers' health. It reiterates the importance of a workplace that is not detrimental to health and well-being. Border Timbers Limited also shares the same sentiments in its Safety, Healthy, Environment and Quality Policy. At Border Timbers Limited Pole Treatment Yard, there is scant if any numerical data to divulge the presence and extent of occupational stress among employees of all grades. However, there are stress indicators on workers such as presenteeism, absenteeism, work accidents and decrease in morale which are manifesting. These have been provoked by long working hours, unclear job descriptions, poor working conditions, delay in payment of salaries and generally poor operating environments. If no intervention strategies are adopted to manage and monitor the stress levels at BTL Pole Treatment Yard, the situation will get worse with more and more workers succumbing to the effects of job stress.

According to the Government of Zimbabwe (2013), since 2000, Zimbabwe has been submerged in a deep economic and social crisis characterised by a hyperinflationary environment and low industrial capacity utilization, leading to the overall decline in Gross Domestic Product (GDP) by 50% in 2008. In light of such a besieged economic context, the timber industries of Zimbabwe have not been spared, Border Timbers Limited included. The company has been going through economic meltdown for close to a decade now. This has resulted in the company continuously re-organizing, downsizing through retrenchments and massively embarking on cost cutting measures at the expense of the safety and health of workers.

This research aspires to explore the sources and patterns of occupational stress. Further it scrutinizes the relationships between perceived levels of stress and many variables such as academic qualifications, salary range and age. It examines the fragmented coping strategies adopted by Border Timbers Limited Pole Treatment Yard and its workers. The findings will be used to introduce a comprehensive occupational stress management system at Border Timbers Limited which will be of benefit to both the employer and employees.

1.3. Objectives of the study

General Objective

To assess occupational stress and its management in the Pole Treatment Industries of Zimbabwe with attention on Border Timbers Limited.

Specific Objectives

- To identify the sources of occupational stress at Border Timbers Limited.
- To examine the magnitude and patterns of stress among workers at Border Timbers Limited.
- To analyze the relationship between perceived levels of stress and individual differences as well as the working environment.
- To examine coping strategies adopted by Border Timbers Limited to deal with stress.

1.4. Justification of the Study

This research seeks to look at occupational stress and its management at Border Timbers Limited. It is justified because the study establishes facts about the existence, patterns and severity of stress among workers at Border Timbers Limited. This information will be very critical since there is scant data detailing occupational stress at Border Timbers Limited Pole Treatment Yard. It will be the first step towards the adoption of a suitable management strategy.

The research is also justified since it seeks to enhance the level of occupational stress management onto the existing set of coping strategies at Border Timbers Limited. The research findings as well as the recommendations will be of value to the Border Timbers Limited management fraternity as it will assist in declining occupational stress related costs.

Other Stakeholders to benefit from this study will include other players in the timber industries, Timber Producers Federation, Rift Valley Group of Companies and other stakeholders who will work towards devising intervention strategies in order to assuage stress levels among workers in the pole treatment industries of Zimbabwe and abroad.

It was during her work related learning period (August 2013- July 2014) at Border Timbers Limited that the student recognized some of the symptoms of occupational stress among workers. As a prospective future SHEQ Officer in various industries, the study will add value

to her knowledge of comprehensive Occupational Health and Safety Management through the integration of psychosocial issues.

1.5. Area of Study

For the purposes of this study, the student has selected Border Timbers Limited Pole Treatment Yard in the Eastern Highlands of Zimbabwe. Border Timbers Limited (BTL) is a forestry and sawmilling company in Zimbabwe. The company operates five forest estates, two sawmills and a pole treatment yard. Principal products include pine and eucalyptus. The Pole Treatment Plant at the Nyakamete Industrial site treats poles using either CCA or Creosote using the Full Cell Treatment Process. The treatment yard has 30 workers but a year ago the number was more than 65 workers. The reduction has been due to the restructuring and downsizing efforts in the whole company. BTL is a subsidiary of the Rift Valley Group of companies and Radar Group.

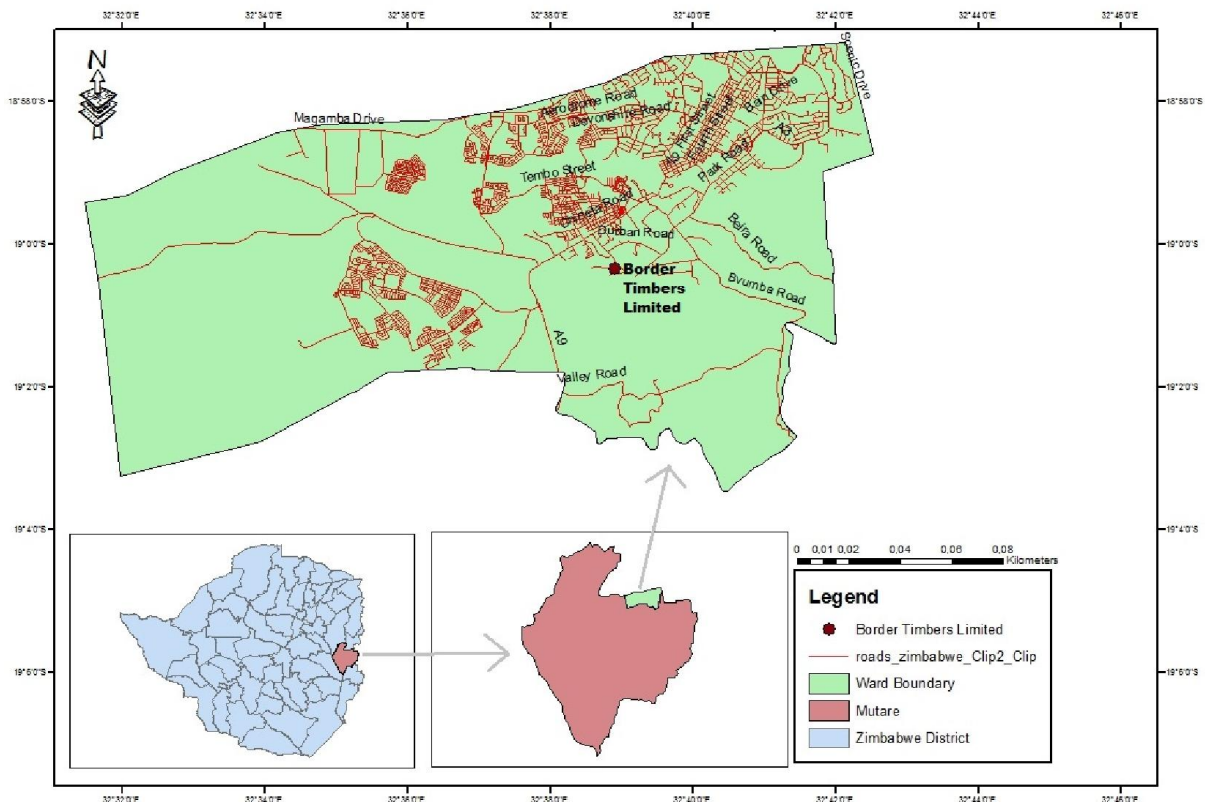


Figure 1. 1: A map showing location of the study area

1.6. Organization of the Study

The study consists of five chapters. The first chapter introduces the study with information on background to the study, statement of the problem, justification of the research, objectives of the study, definition of terms, description of study area and organization of the study. It forms the skeleton and framework of the study. The second chapter reviews the literature of past work done narrowing the research to the essentials and broadening knowledge on the fundamentals. The third chapter discusses the Research Methodology and data analysis procedures in detail elucidating on how data collection will be carried out and rationale for choosing suggested techniques. Chapter four brings forth data presentation and discussion of findings from the research. Comparative analysis with past findings is also necessitated in this chapter where possible. The last chapter concludes the research with summary of findings and recommendations to improve the status of workers through reduction of occupational stress at Border Timbers Limited Pole Treatment Plant.

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

This chapter covers the diverse studies previously undertaken by scholars which this researcher reviewed and related to on occupational stress. It seeks to explore various aspects of occupational stress for us to get better understanding of the topic through synthesis and analysis of the previous researches done on the topic.

2.2. Defining occupational stress

Occupational stress also known as job or work stress has been a major problem to employers and employees the world over and the rates seem to be on the rise due to the ever worsening working conditions. On the other hand, work is inevitable in today's life and it forms the focal point of almost all human life (Kortum, 2014). The problem of occupational stress is particularly relevant for developing countries and regions undergoing enormous economic and social changes (Leka and Jain, 2010).

There is no unilateral consensus over the definition and so various scholars have come up with various definitions of occupational stress to suit different situations. For better understanding of the definition of occupational stress, the parental definition (of stress) was reviewed. Shirom (1982) defined stress as an individual's perception that stressors exceed his or her capabilities and resources leading to negative outcomes. Stress is also used in relation to the actual demands that are placed on humans which are referred to as stressors. Cotton (1996) postulates that stress can also be in the context of being a process of a multi-faceted concept that occurs in a temporal and dynamic manner which is influenced by the interaction of a multitude of contributory factors.

Specifically, occupational stress has been defined by NIOSH (1999) as harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources or needs of the worker. Rohan (2003) added a definition of job stress as anything regarding the working environment or nature of work itself that causes individual perceived stress. Leka *et al* (2003) further expanded the definition of work related stress as the response people may have when presented with work demands and pressures that are not matched to their abilities and knowledge which challenge their ability to cope.

The use of the term stress in various situations contributes to its complexity. Kendall *et al* (2000) mentions that the term stress is often used in colloquial language where it is used to denote a response or reaction to negative conditions. The same relates to occupational stress. However, according to Spector and Jex (1988) this type of stress in empirical literature is usually referred to as strain and it represents an outcome variable.

All the definitions however agree on the fact that stress is an individual perception which implies that other people are more vulnerable to it than others are and other situations are more likely to have higher rates of occupational stress than others are. It is a transaction between the worker (his/her abilities and knowledge) and work pressures or demands resulting in a mismatch or inequality. Kendall *et al* (2000) agree with the notion that stress is a constantly changing and circular process that raises significant implication for research and practise.

2.3. Sources of occupational stress

Sources of occupational stress vary in nature but work hand in hand to contribute to a much stressed work population. Sources of occupational stress relate to the causes or origin of the stress. In the mid nineteenth century Friedrich Engels authored a book titled *The Condition of the working class in England (1845/1987)* voicing in detail the physical and psychological wellness problems suffered by workers of various trades. To him, these problems were rooted in the organization of work and its associated physical and social environment (Barling and Griffiths, 2011). Karl Max further pursued psychological issues as he explored the horrendous ways industrial capitalism abused workers in his book *Das Kapital (1867/1999)*. According to Max, the causes for this situation lay in the growing specialization and division of work in workplaces which further treated employees as commodities in a capitalist economic system.

According to Mukhalipi (2014), occupational stress is due to excessive demands and pressures which can be caused by poor work design, poor management and unsatisfactory working conditions. In order to exhaust the sources of occupational stress, four groups were created based on the compilation of data from past researches. Below is a list of work facets that have been known to be sources of stress and the brief explanations provided by various authors over the years.

2.3.1. Organizational Related Practices

How the organization operates and what it believes in towards the work which may have come to be organization traditions can be a source of occupational stress. Some of the facets on this topic have been explored before as briefly explained below.

Career development and growth

The feeling of being in a stagnant place with the progression of one's career can be a source of stress at work. According to Leka *et al* (2003), having too much or too little to do, limited opportunity for further study and training, scant promotion prospects, under and over promotion and all the other factors that affect job security can be a source of occupational stress (Michie, 2002). The prevailing economic and political environment can play a crucial role also on job security as it may affect the stability of the workers and the organization they are working for.

Interpersonal Relationships

Bickford (2005) is of the view that poor relationships with subordinates, superiors and co-workers at work may cause job related stress. This is because of the uncertainty and fear which may result from such which compromises the worker to handle stressors. In that same manner, bullying, harassment and threats of violence may also result in work stress.

Further on interpersonal relationships, Leka *et al* (2003) believe unclear procedures for dealing with work issues as well as inadequate, inconsiderate and unsupportive supervision at work may result in occupational stress (Michie, 2002). They also added on the notion of working in solitude as a major source of job stress as chances of getting support during work hours from colleagues were very low leading to work related stress.

2.3.2. Personal features

When workers are faced with stressors, they have different ways to cope stemming from their personalities. This therefore makes other workers more vulnerable to work related stress than others based on their personalities. To exemplify, workers with 'hardness' were found to have low stress levels than those who were regarded as fragile at the workplace (Wainwright and Calnan, 2002). The result was an increased chance of getting cardiovascular disease.

According to Houtman and Jettinghoff (2007), individual differences of the worker such as age, education, experience and coping style are most important in predicting whether certain

job specifications will result in stress. People with personality disorders are not likely to handle well strain imposed by pressure at work leading to job stress (Kendall *et al*, 2000). These disorders increase the probability of work stress and the manifestation of occupational stress.

The same applies with people with low self esteem. They are likely to suffer from work related stress as their ability to cope is severely compromised by the way they view their capabilities (Leka and Jain, 2010). Also, people with cognitive distortions and negative thinking patterns may also be a source of occupational stress. In general, people with a lack of material and psychological resources are more exposed to occupational stress as insinuated by Michie (2002).

Home-work interface can be another cause for occupational stress as explained in Leka *et al* (2003). This is because sometimes at work there are no support systems designed for domestic problems and or at home there won't be enough support for work problems yet work and home overspill into each other's circles. This then weakens a worker's ability to cope even with other stressors at work exposing him or her to stress.

2.3.3. Job features

Work load can be simply understood in simple terms as the volume of work or its requirements. It is usually discussed in terms of quantity i.e. the amount or volume of work per individual or in terms of quality i.e. the skills required to complete a task (Leka and Jain, 2010). Too much or too little to do could lead to occupational stress. If the volume of work mismatches or surpasses the skills, knowledge and abilities of a worker, this causes stress (Bickford, 2005). However it can be concluded that workload is not an isolated source of work stress but tends to be combined with other factors in the prediction of stress (Kendall *et al*, 2000).

If the work pace becomes excessive leading to unbearable pressure through unrealistic deadlines, such a situation could lead to stress. Having too much to do may lead to insufficient time for planning, inability to complete required tasks in the allocated workday resulting in work being taken home, constant interruptions relating to other work demands (i.e meetings) (Humphrey, 1998; Sauter & Hurrell, 1999).

If what constitutes one's work (job content) becomes repetitive, demoralizing, non-diversified, boring, repulsive and aversive it causes occupational stress (Leka *et al*, 2003; Cox

et al 2000). When work hours become stringent, rigid and unpredictable such that they become very long and unsocial this may result in occupational stress. If shift systems are also not carefully and considerately designed then this may result in work stress. (Scabracq & Cooper, 2000)

Unclear job description is where the worker is not really sure of what he or she has to do in the context of their job (Lundi *et al*, 2006). This may end up sidelining with role conflict where one has multiple roles with the others disabling the worker to achieve the objective of the other tasks (Bickford, 2005). This mayhem may result in occupational stress as the worker will be failing to handle the tasks successfully giving results expected by the employer.

Participation and control may sometimes be referred to as autonomy. It is where the worker has no ability to control his/ her designated tasks or has no say in the decision making process that affects the way these tasks are done. This often in many cases results in occupational stress (Bickford, 2005). The physical environment where one undertakes his or her work may contribute to stress levels (Bickford, 2005). This is because some environments are detrimental to the workers' well being and may end up stressing them as they do not have much control over it. Physical environments may be very noisy with vibrations and machinery, dusty, oily and maybe with noxious smells.

Threats to personal safety may also result in job stress. This is because sometimes one's workplace can be very hazardous (Lazarus, 2001) and at times there won't be any adequate Personal Protective Equipment or Clothing to lessen these hazards. This has the power to cause occupational stress.

2.3.4. External stressors

Political Factors

These external factors may not directly affect the worker but may cause unsteadiness which results in occupational stress. What is going on outside the circle may also affect the internal which causes workers to stress a lot. Instability in the political environment usually makes workers worry about their job security and sometimes ability to survive and progress with their careers (Ekundayo, 2014). This may come in the form of civil unrest, threatening policies, ethnic face offs and government disruptions.

Socio-Economic and Technology Environment

In recent years, large scale socio-economic and technological changes along with increasing trends in restructuring, retrenching and downsizing have continued in many organizations. This has resulted in an increase in sub-contracting and outsourcing that have affected workplaces considerably (Sparks, Faragher & Cooper, 2001).

This is because workers have been found themselves in relatively small organizations with recent complex technologies but with so much work to do as the number of workers is significantly decreasing (Bickford, 2005). This therefore creates a situation where there is high need for high production of goods but with fewer employees who will be struggling to catch up with the recent technologies (Vokic and Bogdanic, 2007). This has resulted in occupational stress.

Globalization has also been found to cause occupational stress. According to Houtman and Jettinghoff (2007), globalization at international level results in increased economic transactions, increased foreign investment and increased world trade. At national level it results in fragmented companies and smaller independent decentralised units as well as outsourced activities to smaller units. In other words, it increases competition in the trade zone which makes organizations want to maximise on profits and minimise on expenditure such as labour.

This thus creates a situation where there is more work for few workers and high pressure to meet deadlines. In other words, globalization has resulted in further widening the gap between the rich and the poor and in excluding and marginalising the general worker, particularly in developing countries (Houtman and Jettinghoff, 2007). In the end, if workers fail to cope up with the demands brought about by globalization then they may succumb to work related stress.

2.4. Patterns of occupational stress

It is most problematic for developing countries as well as for countries 'in transition' to establish patterns of job stress as often in many cases there is scant if any specific national data available due to poor recording systems and the non-recognition of related outcomes in most of these countries (Houtman and Jettinghoff, 2007). This made it difficult for literature to be reviewed based on comparative analysis of continental and other categories such as

developed and developing countries. As such, it was found necessary to look at the patterns of certain aspects of stress according to the findings of past literature.

Smith *et al* (2000) found that occupational stress was most rampant in the 41-50 years old category and this also concurred with the findings of Jacobsson *et al* (2001) who established that higher levels of stress were associated with older ages as work demands also increased. Smith *et al* (2000) found work stress in Bristol to be the lowest in the 18-32 years category which however deviates from the findings of Jonas (2001) who established that in educators, work stress was more rampant in the younger ages. In terms of gender differences, several studies have found out that in the education sector, work stress is more rampant in women than in men (Hawe et al, 2000; Ngidi and Sibaya, 2002; Makasa, 2013). However, Smith *et al* (2000) findings contradict with the above as they found no significant differences between the prevalence of occupational stress and gender. They actually found men to record high levels of stress than women by about 0.2%. Other patterns established in Smith et al (2000) were summarized in Table 2.1:

Table 2. 1: Patterns of individual differences in Bristol

Individual difference	High stress	Low stress
Marital status	Divorced/Widowed/Separated	Single
Level of Education	Respondents with Degrees	Respondents without secondary education
Employment terms	Full-time employed	Part-time employed
Salary earnings	Workers earning more	Workers earning less
Profession	Teaching	Hair and Beauty

2.5. Types of stress

Taylor (1995) as cited in Ekundayo (2014) came up with 4 types of stress namely: acute, traumatic, chronic and episodic acute stress. She detailed them as follows:

Acute stress is the most familiar type of stress and is easily diagnosed. In this case, the individual is very clear on the causes of his or her stress. Its effects are short term and hence only result in temporary damage to the body. Recovery is usually prompt after the elimination of the stressor and then life gets back to being normal.

Traumatic stress on the other hand is a very serious stress reaction emanating from a disastrous event or extreme experience. Examples include events such as natural disasters (typhoons, earthquakes), rape or sexual assault, robbery, near death accidents or going in

combat in a tough war zone. After the initial shock wears off sometimes the victims slowly start to recover but for some; the trauma-related physical and psychological symptoms continue to manifest. The condition is known as post trauma stress disorder. Symptoms may include flashbacks, nightmares, irritability, tension and over cautiousness.

Chronic stress is the type of stress which wears down the individual daily and a normal working day seems ridiculously perpetual. This goes for years without any interventions. It would seem as if there is no visible escape because of the relentless demands and pressures. The result is emotional erosion and ultimately a breakdown or even death. Lastly there is acute episodic stress which is usually experienced by people who are workaholic, very competitive, impatient, always in a hurry and easily get angry and forceful in speech (Ekundayo, 2014). These kinds of people are always very chaotic, late and want to handle too much work than they can. These individuals will not know or admit that they are stressed. Their life style will be promoting stress and they find it difficult to change their habits until they suffer catastrophic physical symptoms.

2.6. Occupational stress management

Occupational stress needs to be properly managed before there are catastrophic consequences which may disadvantage the worker and or the company. In the progression of the discipline from the mid 20th Century, several scholars have come up with different angles to solving this menace.

Richardson and Rothstein (2008) grouped intervention and management strategies into three categories namely primary, secondary and tertiary. A primary intervention strategy focuses on modifying the source of stress giving attention to the worker, his or her workplace and the inter-link between the worker and his or her workplace (Kendall *et al*, 2000). It can be either pre-emptive or reactive. A good example is job redesigning to eliminate work stressors or to increase worker autonomy in decision making processes. However, these kinds of strategies are often said to be very expensive and disturb production schedules hence are rarely adopted (Kendall *et al*, 2000; Stoica and Buicu, 2010).

A secondary intervention strategy which can be sometimes referred to as preventative, tries to lessen the magnitude of stress symptoms before they result in life-threatening health problems (Murphy and Sauter, 2003). They focus mostly on the individual with examples such as counselling, medical treatments and employee assistance programs (Kendall *et al*,

2000). This is the most common strategy adopted by many organizations the world over (Richardson and Rothstein, 2008).

Tertiary intervention strategies usually deal with case management where a specific case of an identified illness is treated to ensure full restoration or full recovery to health in a worker (Kendall *et al*, 2000). An example of a tertiary strategy can be the treatment of depression in a worker till s/he can be considered stable and comes back to work full time as before.

Instead of grouping stress management strategies into primary, secondary and tertiary interventions; other scholars have further classified these strategies as either organizational or individual approaches (Michie, 2002; Robbins, 2004; Oyetimein, 2009).

According to Stoica and Buicu (2010), an Organizational approach involves the establishment of a friendly work environment which has favourable job characteristics, labour relations, a healthy organizational structure and culture. These may include things such as professional advice (seminars on weight and substance abuse control) and provision of technical support (Ekundayo, 2014).

An individual approach is very crucial since the success of an organization's anti-stress programs is determined by an individual (Stoica and Buicu 2010). Personal measures include effective time management, organizing personal space, understanding organizational policies, proper communication and enhancing inner balance as well as developing confidence and maintaining a healthy lifestyle (Ekundayo, 2014; Stoica and Buica, 2010; Robbins, 2004).

2.7. Theoretical development of stress

Several theories have been brought forward by many scholars in an effort to try and explain how stress rises or how it results in detrimental health effects. Pisaniello (2010) is however of the view that there is no theory as yet which is able to fully explain and forecast on occupational stress. According to Dollard (2002), for easier discussion of these theories, they can be grouped into four groups which are:

- Stimulus or response combination
- Interactional vs transactional models
- Sociological vs psychological paradigm
- Environmental vs individual emphasis

However, for the purposes of this study, it was found appropriate to focus more on environmental versus individual emphasis, transactional and interactional theories.

2.7.1. Person-Environment Fit Model

According to Pisaniello (2010), the model suggests that “perceived job stress is a measure of the degree of fit or congruence between the individual and the environment.” In other words, the deviation or balance or satisfaction between the worker and his/her working environment depicts the level of perceived stress. If there is satisfaction between the two, the perceived level of stress will be low and the opposite is true. Further, environmental demands and the person’s ability either real or perceived to cope with stress are the two factors which influence stress in this theory (Bahri Yusoff, 2013). He also added that conflicting work roles as well role ambiguity also contribute to occupational stress which then results in dissatisfaction and ultimately poor job performance.

2.7.2. Demand Control/Support Model

This model is a product of Karasek’s work in 1979 and Johnson (1986) later added the social support variable to the theory. The model gives much prominence on the working environment. It is an example of interactional theories which generally are concerned with a person’s interface with their working environment (Dollard, 2002). The main argument brought by the theory is that the products of stress such as strain emanate from the consequences of high job demand, low social support and low autonomy (Bahri Yusoff, 2013).

Pisaniello (2010) described job demands as psychological stressors which may include high working pace and load, working under time pressure and job conflict. This model was later refined by Theorell and Karasek (1996) as they introduced other variables such as job insecurity, physical exertion and hazardous exposure (Pisaniello, 2010).

2.7.3. Effort Reward Imbalance Model (ERI)

This theory was proposed by Siegrist (1996, 1998, 2001) and it is based on the notion that stress is as a result of inequity between the amounts of effort required to get a job done and the reward gained from the job done (Siegrist, 1996). Pisaniello (2010) gives examples of reward such as money, recognition, esteem and job status control. She further described the inequalities giving a new view that the imbalance maybe between a worker’s characteristics of coping and the job demands. In other words, individual differences are very crucial in this model (Dollard, 2002).

2.7.4. Transactional theory of psychological stress and coping

This theory was introduced by Lazarus and Folkman (1984). It is by far one of the most prominent theories in the field of stress (Babatunde, 2013). According to Meurs and Perrewe (2009), this theory suggests that “an imbalance of greater environmental demands than resources to cope with these demands produces strain”.

Dewe *et al* (2012) says according to the theory, the authority and power of the transaction lies in the process of appraisal that binds the person with the environment. Lazarus (1999) postulates that there are two types of appraisal namely primary and secondary appraisal.

Primary appraisal is when a person concedes that there is something at stake and it could be harm, threat, challenge or benefit that is according to Lazarus (1999). The secondary type of appraisal focuses on the steps that can be taken to conquer the potential threat (Lazarus, 2001).

2.8. Knowledge gap

The field of occupational stress has been researched for more than half a century now. Some studies have been interested in knowing the sources, effects as well as management of stress in different industries such as the education sector, medical sector, for managerial positions, army personnel and the list is endless. Occupational stress has not yet been fully explored or researched in Africa and Zimbabwe is included in the statistics. Some occupations however are better off for example the health and teaching sectors. Most industrial occupations have been sidelined like the timber industries which house pole treatment industries. Few researches have been undertaken in Zimbabwe to fully investigate the field of occupational stress in pole treatment which is characterized by a majority of general workers with no specific qualifications. As such, this study seeks to avail the occupational stress situation in such an industry in Zimbabwe. This study reveals the sources of occupational stress, examines its patterns and establishes relationships amongst chosen variables as well as examining the coping strategies employed at Border Timbers Limited Pole Plant Section.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Introduction

This chapter outlines the research design used to collect and analyze the data collected pertaining to occupational stress and its management at Border Timbers Limited Pole Treatment Yard. The discussion includes study design; methods of collecting data, sample selection and how the data was analyzed.

3.2. Research design

A research design is a detailed plan with a list of specifications and procedures for conducting and controlling a research project (Newman, 2003). This research is largely descriptive as it embraces surveys and fact-finding inquests on occupational stress. It triangulates qualitative and quantitative research paradigms. The qualitative approach encompasses understanding some aspects of social life and its methods generate words and not numbers for data analysis (Patton and Cochran, 2003). Quantitative approach according to Neuman (2000) entails the systematic collection and analysis of data in numerical form and classifying features of contrasting statistical figures to explain what is observed.

Qualitative techniques employed in this research include open ended questionnaires, interviews and field observations. These were used to identify sources and examining the coping strategies of occupational stress at Border Timbers Limited Pole Treatment Plant. For quantitative methods closed ended questionnaires were used to examine the patterns and establish relationships between perceived levels of stress and gender, age, academic qualifications, salary range and job experience. The two approaches complimented each other to result in a fully robust and explorative research.

The qualitative techniques were very useful in thoroughly investigating the workers' perceptions and views on the sources of occupational stress. The interviews helped with exploring sources of stress and the various coping strategies in various departments at Border Timbers Limited Pole Treatment Yard. Direct field observations became very useful in identifying some sources of stress and mechanisms of coping adopted by workers. The quantitative techniques helped to produce sense from statistical manipulation so as to establish relationships and trends of and between variables.

3.3. Target Population

Target population has been defined by Miller (1995) as a collective whole; in this case of people that researchers collect data from. It is very crucial for a researcher to know who (position, personal details) they should be collecting data from, what they do (in relation to the research area), how (techniques) they will use to collect the data and why (rationale for selecting that person) in relation to achieving the set objectives of the study. Targeted population is also crucial as it helps in determining sample size and techniques to be used.

In this scenario, the target populations were all the workers at Border Timbers Limited Pole Treatment Yard who total to 30. These workers were stationed in the following departments: Preparation, Treating and Dispatch. The rationale for targeting every worker in this research was because the population was considerably small and hence adding everyone as a participant was advantageous so as to make the statistics generate logic and sense.

The clinic staff was targeted because of their in depth knowledge on affairs affecting workers' welfare. They know the trends of diseases and conditions most reported by workers, in this scenario those that show symptoms of occupational stress. Management was targeted as it is the body responsible for introducing coping strategies to deal with stressing situations and jobs. Above all, they are also subjected to occupational stress as they will be in the spotlight trying to balance and meet targets as well as respond to emerging issues affecting the company. They have an understanding of what affects their workers.

3.4. Methods of Data Collection

This research employed a concoction of both primary and secondary data. Primary data was collected using questionnaires, interviews and direct field observations while secondary data was collected from the internet, journals, textbooks, newspapers, documents and records. Questionnaires were self-administered to the 30 workers. The rationale for this was for ensuring a high response and return rate; minimise response errors and to provide assistance to the respondents where necessary. Structured and semi-structured interviews with key informants such as peer educator, nurse in charge, SHEQ Manager, workers' representative were conducted.

3.4.1. Questionnaire Surveys

A questionnaire is any written instrument that presents respondents with a series of questions or statements to which they are to react by either writing out their answers or selecting from a panel of existing answers (Ong'anya and Ododa 2009). Both open and closed ended

questionnaires were employed in this research. This was done to collect both quantitative and qualitative data. A single questionnaire was designed and 30 copies were reproduced which were self-administered to reduce the response error margin and ensure a high response and return-rate.

The questionnaire had three sections; A, B and C. Section A comprised of personal details and closed ended questions were used. This was done to facilitate quantification of data in a bid to establish individual differences, patterns and relationships between and amongst variables of occupational stress. Section B comprised of details related to Sources of occupational stress whilst section C comprised of questions related to stress management. For section B and C both closed and open ended questionnaires were employed. This strategy was employed to fully exhaust the perceived magnitude, sources and stress management techniques adopted at the same time facilitating establishment of trends and relationships.

Questionnaires were used as they are effective in gathering descriptive data especially on a large population. Also, they became logical as they facilitated a wide coverage of topics which represented all the objectives on one questionnaire. The advantage of using questionnaires is the ability of data derived from them to be analysed using existing cheap and readily accessible software such as Microsoft Excel and SPSS.

3.4.2. Interviews

Kumar (1999) defined an interview as a two way conversation initiated by the interviewer to obtain information from a respondent. Structured and semi-structured interviews were used which meant that questions were asked following a guide. This was done to keep the interviewees focused on the research topic since occupational stress can be a very emotional topic and hence the need to avoid the respondents getting carried away. The interviews were employed so as to get in depth knowledge on the sources of stress and the coping strategies being practiced by Border Timbers Limited and the workers at large. Another advantage of using interviews was that sensitive topics were pursued and probed further on which could have been difficult to address in a questionnaire. Key informants and why they were interviewed are summarized in Table 3.1.

Table 3. 1: Interviewees and rationale for choosing them

Interviewee	Justification
SHEQ Manager	The person is an expert in workers' welfare and has immense knowledge on coping strategies that are being used by Border Timbers Ltd.
Operations Manager	This individual has in-depth knowledge on the changes taking place in the company that may be potential sources of occupational stress. Generally, he has an overall understanding of what affects workers and why.
Human Resources personnel	These know the challenges faced by workers on a daily basis and sometimes know the sources of these challenges.
Peer Educator	This individual is familiar with workers welfare; what troubles workers as s/he is required to have counselling sessions with stressed workers. This person is also very familiar with coping strategies which they usually recommend to colleagues.
Workers' Representative	This individual is a representative of workers and their plights and hence has in-depth comprehensive details on issues affecting fellow colleagues. S/he also has an insight of what should be done to manage occupational stress and its impacts.
Nurse in Charge	This individual was chosen because s/he witnesses workers' burnout on a daily basis. Through counselling sessions, s/he gets in-depth knowledge of the sources of occupational stress.

3.4.3. Field Observations

According to Peter (2011) observations refer to the use of eyes to observe people and their environment, situations, interactions or phenomena and recording what is seen as data. Observational research findings are considered strong in validity because the researcher is able to collect in depth information about the particular situation on the ground. Using an observation checklist, non- participatory observations to note the cradle of stress and some of the coping mechanisms that workers and managers used to deal with occupational stress were employed.

3.4.4. Secondary Data

Data collected from a source that has already been published in form of reports, books, journals, historical information and census data and collected for purposes other than the original use is referred to as secondary data (Jewel and Abate, 2001). Secondary data from the internet, textbooks, journals, publications and newspapers helped to source data about the background to occupational stress and trends at global, international, regional, national and local level. It also facilitated the acknowledgement of other authors who did past studies and developed frameworks on occupational stress and its management. In this study, secondary data was used to compliment the data acquired from primary data sources so as to come up with a stealth comprehensive study. Some of the secondary data sources employed included clinic records, SHEQ Policy, manuals and other Border Timbers Limited documents.

3.5. Data analysis and presentation procedure

After collecting data it must be classified and presented in meaningful forms to have a better insight of the research problem (Panneerselvan, 2006). On completion of sampling and finding results, there was need to interpret what the results meant and this involved the use of diverse techniques to analyse and present data. These methods facilitated a systematic analysis of the data from which research findings and conclusions were drawn. This study produced both qualitative and quantitative data and each employed a suitable technique.

The numerical data adopted from the questionnaires was analysed and summarised to produce trends and establish relationships between and amongst variables of occupational stress. Statistical manipulations were done using SPSS and data generated from it was presented using pie charts, graphs and tables using Microsoft Excel and Microsoft Word. Qualitative or narrative data from key informant interviews, direct field observations and those from questionnaires was also summarised in a manner befitting, adding descriptive flesh to the skeleton provided by quantitative data.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1. Introduction

This chapter presents the findings of the research. Discussion of each of the results obtained and wherever possible, a comparative analysis with findings of other researchers in the field is also elaborated to a greater extent. The discussion is guided by the research objectives.

4.2. Organizational Structure Of SHEQ At The Pole Treatment Plant

Border Timbers Limited is made up of eight business units which include; Charter, Sheba, Tilbury and Imbeza Estates, Charter and Sheba Sawmills, Border Timbers Central and the Pole Treatment section. Each business unit's Safety, Health, Environment and Quality issues (SHEQ) issues are generally managed by one central SHEQ Manager.

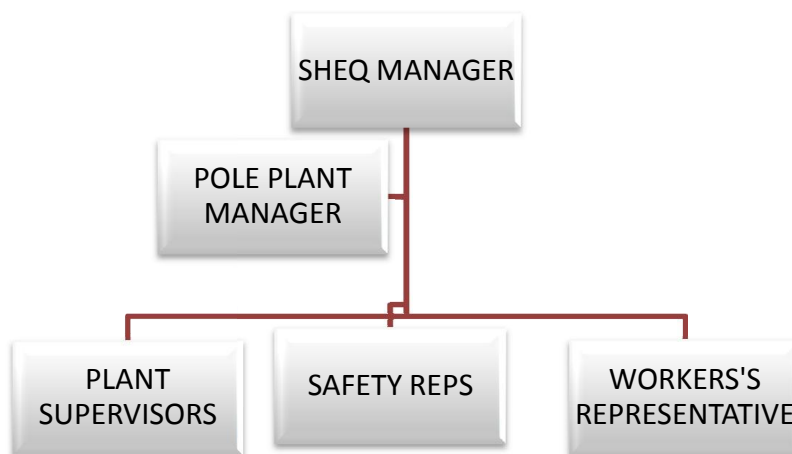


Figure 4. 1: Organizational structure at the Pole Treatment Yard

In this instance, occupational stress falls under the SHEQ department and hence at the Pole treatment section; the head of the SHEQ department is the overall SHEQ Manager. Right below the manager is the Pole treatment section/yard manager as highlighted in Figure 4.1. This manager is mandated to deal with all the matters affecting the workers' social, physical and mental well being at work at the same time being advised by the SHEQ Manager.

Border Timbers Limited has no SHEQ officers and this also applies to the Pole Treatment Yard. Therefore, after the Pole manager, then comes safety representatives, plant supervisors and the workers' representative. These have a mandate to record and are involved in awareness programs of SHEQ issues on the ground to other fellow workers such as the

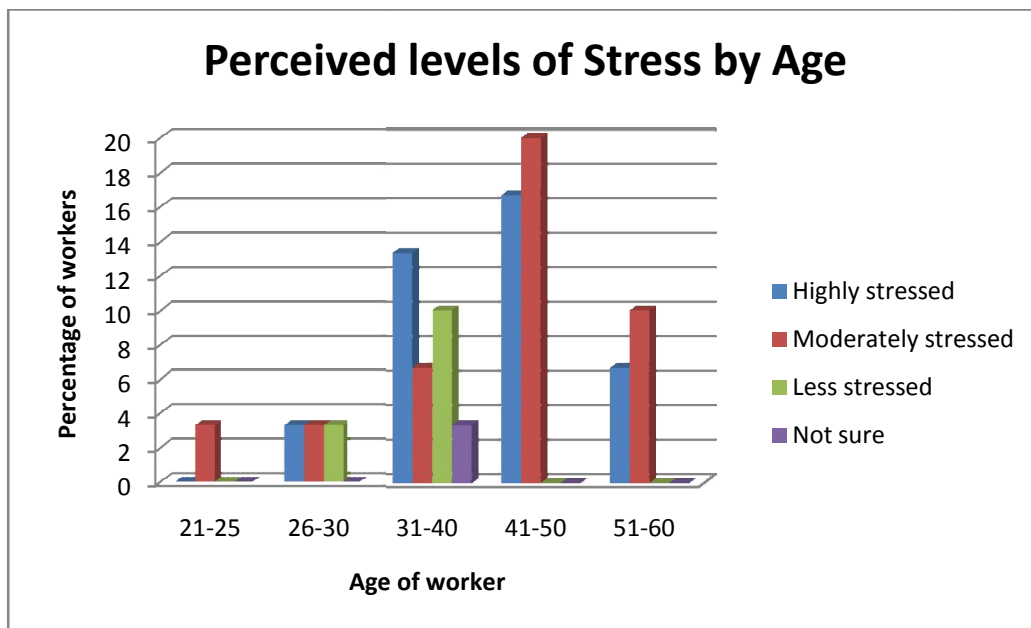
morning brief. They also report to the plant manager who will then seek advice from the SHEQ manager.

4.3. Sources Of Occupational Stress

The first objective was to identify the sources of work stress at Border Timbers Limited Pole plant section. To effectively achieve this objective, the possible sources were grouped into three categories namely; individual differences, job-related and organizational culture related factors.

4.3.1. Individual differences

Individual differences were analysed from the data on age, sex, academic qualifications, job experience, family size, accommodation status, number of bread winners in the family, salary range and the effect of home pressure.



Source: Field Survey (2015)

Figure 4. 2: Perceived levels of stress and age

From Figure 4.2, it can be denoted that the age group with the highest percentage of workers who are highly stressed is the 41 to 50 years category. This finding concurs with that of Smith et al (2000) who found that the majority of workers under their study (20.8%) who were highly stressed were aged between 41 and 50 years. This is probably because these workers are in a ‘mid-life crisis’ where by now after several years of hard work they feel they should be awarded for their labour. In this age group, 54.5% of the workers have 4-5

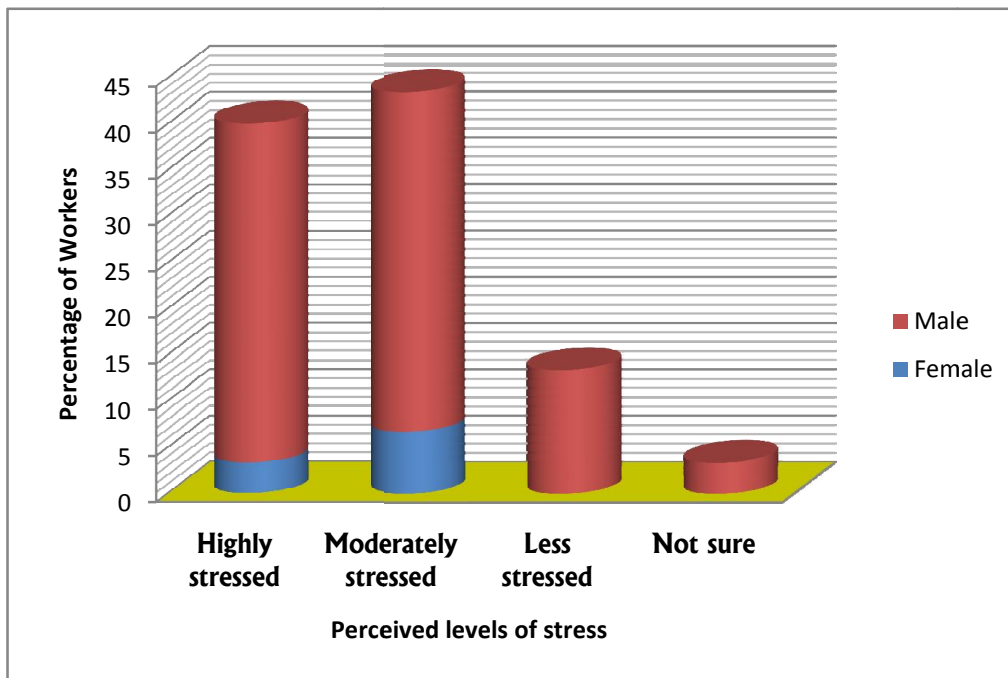
dependents and 36.3% have six or more dependents. These include the spouse, children, and other family members dependent on the worker. These need to be fed, clothed, sheltered and may be in school hence will require a lot of resources for their upkeep. As such, work becomes a place sought after for solace and answers to life's questions. Also, these workers have spent a long time in the company and know how good the working conditions were in the past years hence know the difference. They have been worst affected by change and a deteriorating working environment as most of the workers highlighted. They are going through a transition and it will take time for them to adapt to the situation. Even the percentage of workers who are moderately stressed is highest in this category. Altogether, this age group has the most workers affected by stress.

The next category with a considerable number of workers with high levels of perceived stress is the 31-40 age group. This is probably because again of the high demands these workers have from their dependents. However, this age group also has the highest percentage of workers who are less stressed. This maybe because some of these workers are not yet attached to their work, they expect anything to happen. They are also not worried about changing place of work and hence are not affected by the changes taking place in the company.

A small percentage of workers in the age group of 51-60 years are highly and moderately stressed. This is because these workers are just a footstep away from approaching retirement. As such, they are not easily shaken with the changes in their working environment. Also, in their age, they are most likely to have fewer dependents and more income earners hence the burden is lessened. Those who are highly stressed in this category it is probably because they realize their years of toil have not yielded much to improve their lives. Also, most of them have not been awarded their long service awards and hence they feel unrecognised for their outstanding work done during all the years they were at the Pole treatment yard.

The sex of a person can make them more vulnerable or exposed to stress or it can help them cope with stress better. In this situation, the women in this study only make up 10% of the total workers' population which brings partiality in the results. Figure 4.3 reflects that there are a fewer percentage of women who are highly or moderately stressed. However, one thing is certain; either they are highly or moderately stressed which translates to generally high levels of stress. This is because the working environment at the Pole treatment section is very tough and the conditions are usually bad; the odour of creosote and CCA, dust, exposure to

sun, high work load etc. also, the environment is male infested and thus the competition for survival becomes trivial with the possibility of resulting in work stress.



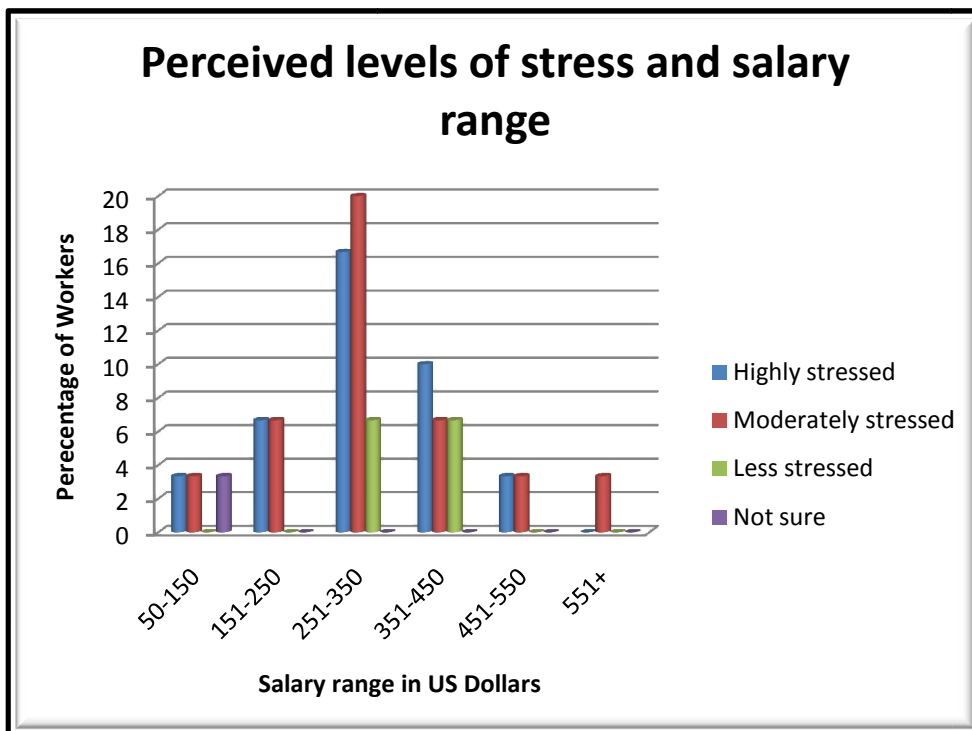
Source: Field Survey (2015)

Figure 4. 3: Perceived levels of stress and gender

How much a person earns can be a source of work stress and it can also make other people more vulnerable to it than others. It is a very important aspect when looking at individual differences. In this study, the majority (43,3%) of the workers earn US\$251-350, 23,3% earn US\$351-450, 13,3% earn \$151-250, 10% earn \$150 and below, 6,7% earn \$451-550 and 3,3% earn above \$551.

In Figure 4.4, the graph shows that the highest percentage of workers who are highly stressed earn between \$251-350 followed by the \$351-450 range. The possible explanation to this is that the range is dominated by workers of ages ranging from 31-50 years. These workers are in a mid-life turmoil tormented by the growing demands of everyday life. They are mostly burdened with a lot of dependents as the research shows that 61.5% of workers in the salary range of \$251-350 have got four to six dependents and 30.8% of these workers have six or more dependents under their care. 71.4% of workers in the salary range of \$351-450 have got four to six dependents under their care. To add to the problems, 69.2% of workers who earn

\$251-350 are tenants. This translates to added pressure on the little money that seems too little to cater for such huge families.



Source: Field Survey (2015)

Figure 4. 4: Perceived levels of stress and salary range

Figure 4.4 shows that occupational stress is rampant in the middle and subsides in both ends if we are to focus on the individual difference of salary range. This could be because when workers know they earn less, they deal with it and therefore are prepared for anything. These are the kind of workers who are grateful that they have a job no matter how stressing it may be. This concurs with Smith et al (2000) who found that the majority of workers in their study (90.8%) who were lowly stressed earned less. Also, if workers are earning more than \$551, they are likely to have less stress because they have a better salary than most of the workers

From the Table 4.1, it is apparent that 75% of workers who are highly stressed have got a family size ranging from 4-6 members and only 8.3% of workers who are highly stressed have got a family size of one to three members only. This may be because big families have got more demands and needs and hence put more pressure on the provider. Therefore, from Table 1, it has been established that workers with big families experience high levels of occupational stress than those with fewer dependents. This finding concurs with that of

Makasa (2013) who established that teachers in Lusaka urban who had big family sizes under their care experienced high levels of job stress.

In terms of the status of accommodation, 50% of workers who are highly stressed are the sole breadwinners in their households. 25% of workers who are also highly stressed have got two to three other income earners in the family. The percentage of workers who are highly stressed decreases as the number of other income earners in the family increases. The results also show that 53.3% of workers who are moderately stressed have got two to three income earners in the family hence further supporting the above stated notion.

Table 4. 1: Perceived levels of stress and individual aspects

		Perceived levels of stress by the worker				Total
		Highly stressed	Moderately stressed	Less stressed	Not sure	
Size of family	1-3	1	1	1	0	3
	4-6	9	5	2	0	16
	6+	2	7	1	1	11
	Total	12	13	4	1	30
Number of income earners in the family	1	6	5	2	1	14
	2-3	3	7	2	0	12
	4-5	2	1	0	0	3
	6+	1	0	0	0	1
	Total	12	13	4	1	30
Status of Accommodation	Landowner	2	2	2	0	6
	Renting	9	7	2	1	19
	Family home	1	4	0	0	5
	Total	12	13	4	1	30
Home pressure	Least stressful	2	0	1	0	3
	Mildly stressful	0	3	1	0	4
	Moderately stressful	0	4	0	0	4
	Very stressful	1	1	2	0	4
	Extremely stressful	9	5	0	1	15
	Total	12	13	4	1	30

Source: Field Survey (2015)

The results shown in Table 4.1 further reveal that 75% of highly stressed workers are tenants. This may be because these workers have to work with deadlines especially for the payment of

rents unlike the landowners and those who reside in family homes. This further extends to the results from the perceived effect of home pressure to occupational stress. 75% of highly stressed workers rated the effect of home pressure as extremely stressful and 38.5% of moderately stressed workers rated the effect of home pressure on job stress as extremely stressful. This could be because these workers are now used to job pressures as 73.3% of the workers who rated home pressure to be extremely stressful are found to have a job experience of 16 to more than 25 years. Therefore, home pressure plays a crucial role in influencing the level of occupational stress.

From the results shown in Figure 4.5, the highest percentages of workers who are highly stressed have served Border Timbers Limited for 16-20 years. This could be explained by the issue of these workers being heavily burdened by dependents at home and hence they expect to find answers at work. At the same time, the company is going through a very rough time comprised of retrenchments, administrative changes and a tough economic period. As such, these workers feel by now they should have something to show for their several years of toil but instead they are threatened by job insecurity. However, this deviates from the findings of Makasa (2013) who found out that teachers with few years of experience recorded higher levels of stress than those who had spent many years in the teaching industry.



Source: Field Survey (2015)

Figure 4. 5: Perceived levels of stress and job experience

From Figure 4.5, the workers who have served Border Timbers Limited from the categories of six to ten years and 21-24 years are dominantly moderately stressed. This is because these workers are still in a very comfortable place as 42.9% of workers who have served in the six to ten years category have secondary education and the other 42.9% have a certificate or a diploma. This means that these workers are not scared to move elsewhere as they are trainable and have a tangible baseline that can make them employable. For the workers who have served for 21-24 years they are probably moderately stressed because they are now mature as all the workers in this category are aged 41 to 60 years. They have also spent enough time in the company and have adapted to the situation hence are not that much stressed by events.

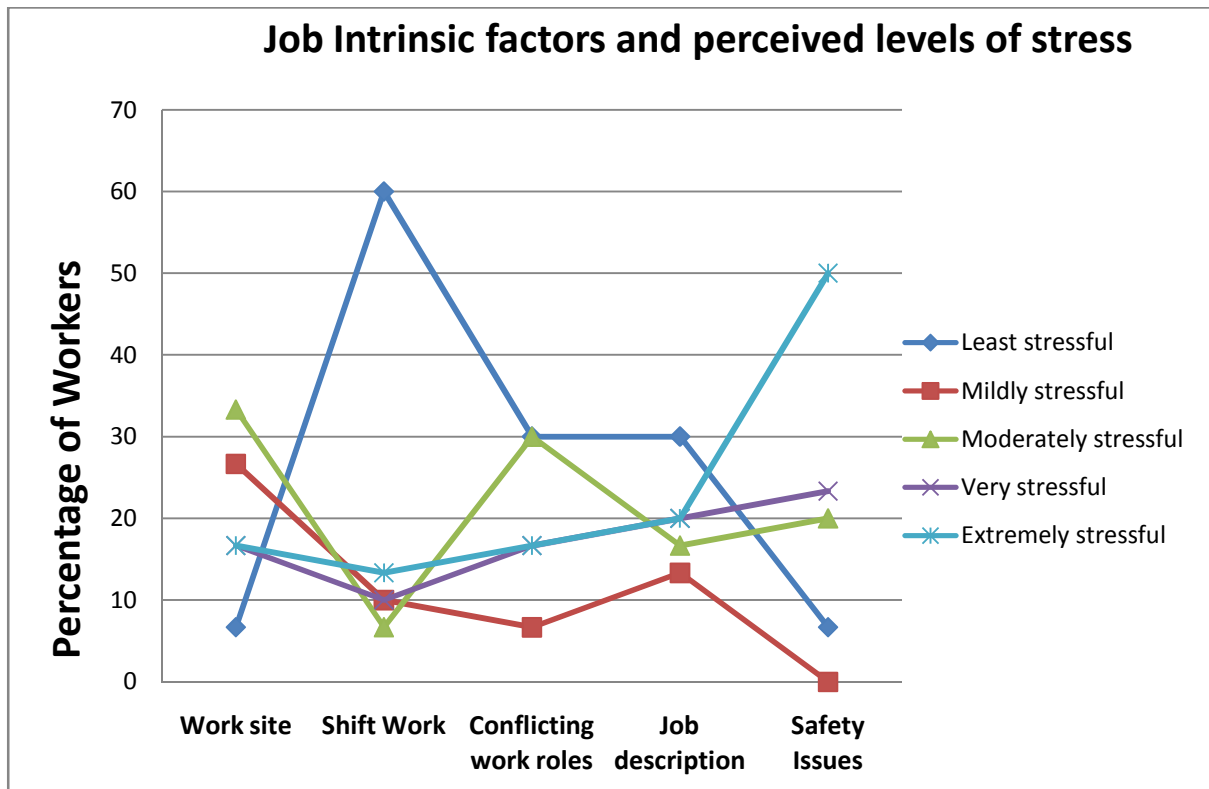
The highest percentage of workers who are moderately stressed have served 16-20 years. This may be because 55.6% have secondary education and 44.4% have a certificate or diploma. This means these workers have less pressure as they are trainable and employable people. From Figure 4.5, 10% of workers with only months to five years working for Border Timbers Limited rated their level of stress as less stressed. This is because these workers joined the company when it was already struggling and they are not yet attached to the company. They know that anything can happen and they won't have any problems finding employment anywhere else. Therefore, they are not really stressed by work a lot, they are actually grateful that they have a place of employment.

4.3.2. Job related factors

From past studies, job related factors were found to be the major sources of occupational stress. In this study, such factors were analysed to determine the level of its contribution to perceived levels of stress by workers. The following aspects were analysed; unfriendly work site, evening shifts, conflicting work roles, unclear job description and safety issues.

From Figure 4.6, the most highly rated aspect as extremely and very stressful is safety issues. No workers rated it as mildly stressful and a little percentage rated it as least stressful. These are issues that deal with protective clothing and work procedures making sure that whatever activity is undertaken poses little or no harm to the worker. In an interview with the workers' representative, she highlighted that *'We are highly exposed to harm here at the Pole Plant. We come into direct contact with CCA and Creosote on our skin. We are naked in every*

sense. We handle these treated poles with bare hands and unprotected feet. We do not know how we will look when we grow old.’



Source: Field Survey (2015)

Figure 4. 6: Job related factors and perceived levels of stress

Furthermore, it was also observed that the workers did not wear any masks especially those who work directly at the plant, treating the poles. The odour was heavy in the atmosphere and one can just wonder what effect it has on the respiratory anatomy. It was noted that workers would undertake their operations in the open heat of the sun and sometimes it got windy and they had no protection. From this interview and observations, it was concluded that indeed safety issues are extremely stressful to the workers as they all seemed irritated by that notion. This assents with the finding by Makasa (2013) who found out that the majority of teachers in urban Lusaka (95%) were often very irritated by their working environment.

Shift work was rated the least rated very stressful aspect, lowest moderately stressful and highest least stressful aspect among the five job related factors. This is because for a time now the Pole Treatment yard has not been treating high quantities as such there was no need for shift work. Only few workers do shift work like the Boiler attendants. According to Figure 4.6, work site also took the centre stage with workers rating it as the highest

moderately stressful job related aspect. It was also rated least extremely stressful and highest mildly stressful but the percentage of workers were fewer than those who rated it as moderately stressful.

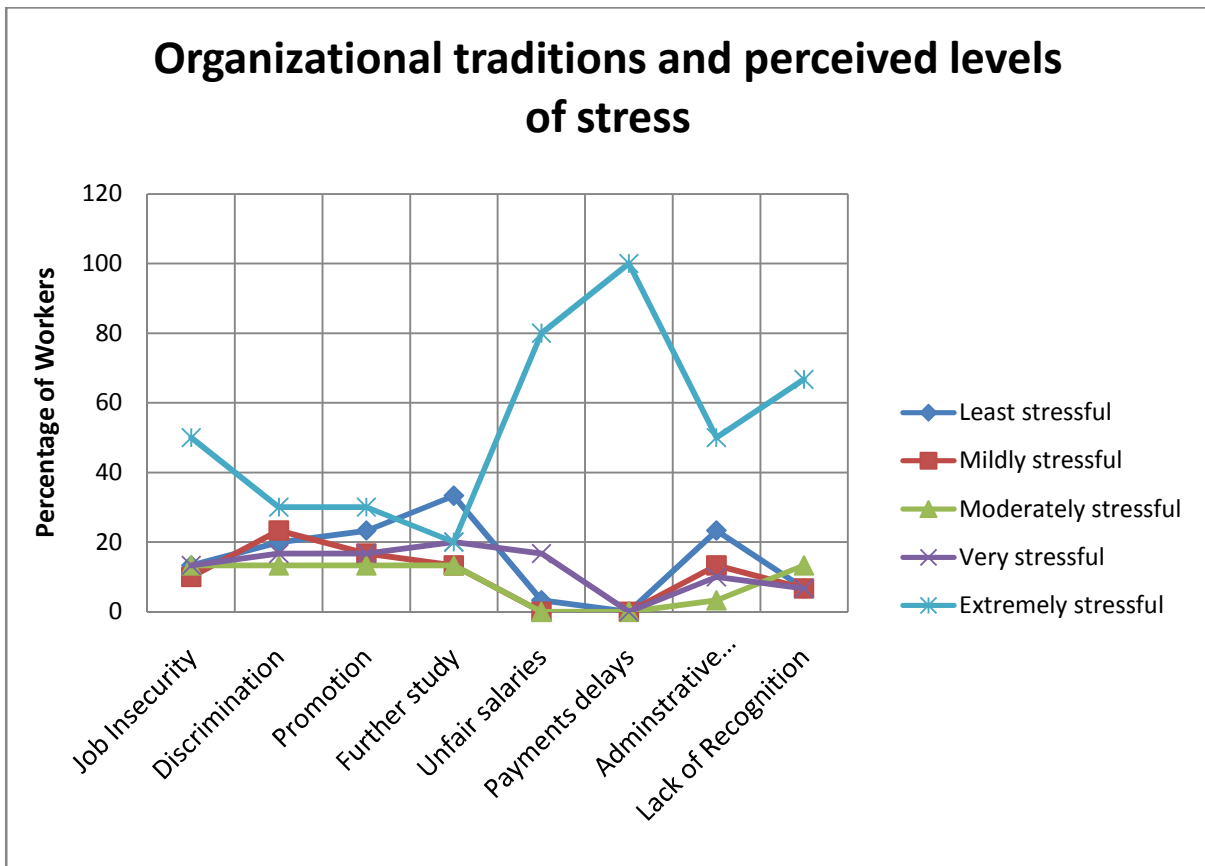
In conclusion, safety issues and unhealthy work sites contributed the most to high stress levels amongst the job related sources of stress. The least stressful aspect was shift work.

4.3.3. Organizational related factors

Organizational culture can be a source of work stress and the following influencing factors were analyzed under it; job insecurity, discriminative practises of dealing with workers, poor promotion prospects, limited opportunities for further studies, unfair salaries and benefits, delay in payment of salaries and administrative changes.

According to Figure 4.7, the most rated extremely stressful aspect is delays in the payments of salaries. All the workers rated it as extremely stressful. When interviewed, the peer educator reflected that *'Delays in the payment of our salaries have got to be the most extremely stressful because there is nothing that we can do in terms of planning. For a very long time we went unpaid for three months and now we are two months behind. We have to borrow to augment the little never coming salaries and when they decide to give us, we would have exhausted it already. So what kind of a life does one lead when we are just surviving on credit?'* However, this finding contradicts with the findings of Ncube and Tshabalala (2013) who found that the most stressful aspect in teachers was poor pay. This could be because in teachers there are no delays of payments as yet.

Other extremely stressful aspects in this context include unfair salaries and lack of recognition for outstanding work done. In an interview with the Pole Plant manager, he pinpointed that *'One of the things we have failed to do as a company is to appreciate our workers for all the good they do. As such, we have demotivated and demoralized them at length. It may sound like petty talk but a long time service award escorted with a little hamper means the world to these workers but for the past five years we have failed to hold such ceremonies.'* It was also observed that all the workers with a job experience of more than 16 years were affected by this.



Source: Field Survey (2015)

Figure 4. 7: Organizational traditions and perceived levels of stress

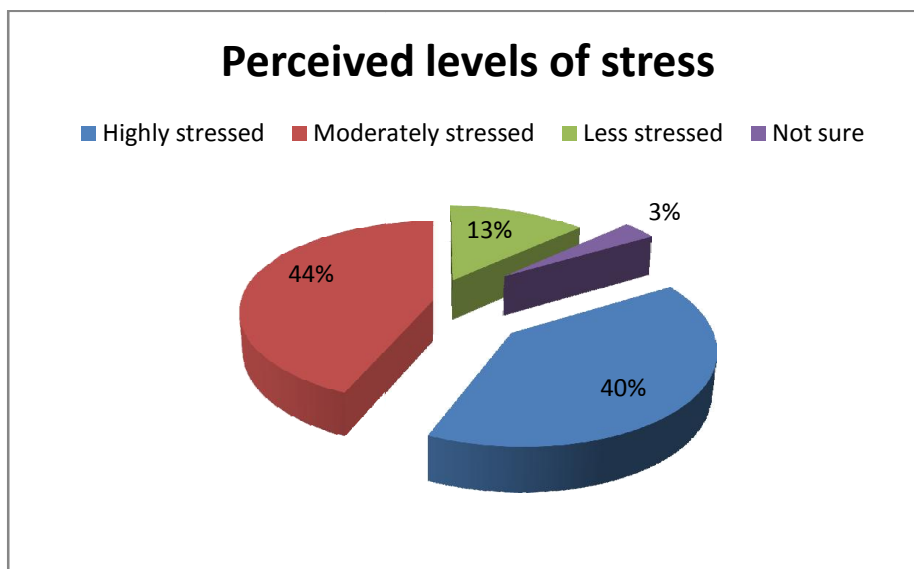
The least rated extremely stressful event is lack of prospects for further study and it was also rated as the highest least stressful aspect. This is because 53.3% of the workers are aged 41 years and above. This means that the majority of the workers are towards their retirement age and hence the workers feel they are too old to go to school. To support this notion, 85.7% of the workers who have acquired primary education are only found in this age group of 41-60 years. Also, all the workers in the age group of 51-60 years only have primary education and this means they are not really academic people.

In conclusion, the most contributing aspect to occupational stress on organizational related factors is the delay in the payment of salaries followed by unfair salaries and benefits as well as lack of recognition of outstanding work done. It is clear that workers are more affected by organizational related factors as compared to job related ones because in a comparative analysis of the graphs reveals that Figure 4.5 has intertwined knots while Figure 4.6 has the extremely stressful line on top and the other lines way below. This signifies that most factors were rated extremely stressful by most workers and only a few thought otherwise.

4.4. Patterns and magnitude of stress

The magnitude of stress was measured by analyzing the perceived levels of stress as well as the frequency. Effects of occupational stress on well-being, work and social relationships were also analyzed to further determine the severity of work stress.

From Figure 4.8, the majority of the workers are moderately stressed though the percentage does not deviate greatly from the 40% figure of highly stressed workers. A significantly low percentage of workers are less stressed and only 3% are not sure of their level of stress. This is because many people consider stress to be different things. Some consider pressure to be stress, other people consider frustrating phenomena as stress and some consider stress to be that period when someone over thinks a subject such that worry is generated.



Source: Field Survey (2015)

Figure 4. 8: Perceived levels of stress

In an effort to measure severity of stress, the perceived frequency of stress were analyzed based on three options given in the questionnaire as shown in Table 4.2. From the table, the majority of the workers were sometimes stressed in a week. They said this was because they have learnt to deal with stress though sometimes during the week they are just overwhelmed and cannot help it but stress at work. Another 23.3% of workers thought they were very stressed on a daily basis. They revealed that it was because they had to provide for food everyday and cope up with work demands every day. To them, the employer is sometimes unsympathetic and hence stress is inevitable on a daily basis. Only 20% indicated that they

were stressed on month ends. This was attributed to the pressure presented by unpaid bills and the anticipation which came from the delay of payments.

Table 4. 2: Perceived stress frequency by the worker

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Daily	7	23.3	23.3	23.3
	Sometimes in a week	17	56.7	56.7	80.0
	Only month ends	6	20.0	20.0	100.0
	Total	30	100.0	100.0	

Source: Field Survey (2015)

From Table 4.2, it was concluded that occupational stress at the Pole Treatment yard is definitely something to be very serious about as most workers are affected by it. If problems are to go unsolved, the situation could develop into a tragedy.

The effects of occupational stress on workers' health were also analyzed. Weight issues and hypertension or high blood pressure were listed as the most highly recorded conditions. Weight problems could be overweight or underweight and this is usually driven by eating disorders which could be loss of appetite or more thereof. A significant percentage of workers of 16.7% reported to have headaches when they were stressed at work and 13.3% of the workers believed they did not have any health problem related to occupational stress. Only women reported to have musculoskeletal disorders from occupational stress. They disclosed that when they felt stressed a lot, they got sharp twinges of pain in the chest and at the back. Other health problems which were said to be an effect of occupational stress are diabetes, insomnia, fatigue, sexual problems and tonsillitis as illustrated in Table 4.3. Insomnia was listed by many workers as an occasional disorder though it seemed they did not consider it much of a problem. However, in a study majoring on staff at Koforidua Polytechnic, Nnuro (2012) found that most workers were affected by back pain and fatigue as a result of occupational stress which contradicts with the findings of this research.

Table 4. 3: Problems associated with occupational stress

Health Problem	Percent	Valid Percent	Cumulative Percent
B.P	23.3	23.3	23.3
Diabetes	3.3	3.3	26.7
Insomnia	3.3	3.3	30.0
Fatigue	3.3	3.3	33.3
Headache	16.7	16.7	50.0
MSDs	6.7	6.7	56.7
N/A	13.3	13.3	70.0
Sexual issues	3.3	3.3	73.3
Tonsils	3.3	3.3	76.7
Weight	23.3	23.3	100.0
Total	100.0	100.0	

Source: Field Survey (2015)

When analyzing the perceived effect of occupational stress on job performance, 36,7% of the workers agreed that work stress negatively affected job performance. To add to that, 30% strongly agreed that work inspired stress negatively affected how they performed in the set tasks. Around 33.3% of the workers however disagreed that occupational stress affected job performance. In an interview with the Human Resources Officer, he highlighted that *‘it is difficult to deal with workers who have their thoughts elsewhere. Stress is a disease which is affecting performance because in the yester years, workers were often rewarded for beating targets but now they perform poorly and work stress is the paramount cause. However, some workers are scared to lose their jobs and so they have found ways in their personal capacity to have their tasks unaffected by their stress.’* This finding concurs with that of Ncube and Tshabalala (2013) who established that even the majority of teachers in Nkayi district reported to have their job performance negatively affected by work stress. Nnuro (2012) also had the same findings in the study of workers at a polytechnic in Ghana.

The impact of stress on the social welfare of workers was also analyzed. The results showed that 60% of the workers had their relationships with family and friends negatively affected

due to occupational stress. In an interview with the peer educator, he revealed that most workers showed signs of frustration and even irritability during sessions of counselling ‘*most workers said they always got a bit angry with relatives and friends especially if they wanted to probe into their lives. Some even went on to the extent of disassociating from loved ones*’. From the above findings, it was concluded that indeed occupational stress affected workers and their social and work lives.

4.5. Analysis of Relationships

A non parametric test called Pearson’s Chi Square test was run to find out if there is (H_1) or there is no (H_0) association between perceived levels of stress and different variables. According to Pearson’s Chi Square test, if the critical value or the probability of accepting or rejecting (H_0) is above 0.05, then we reject (H_1) and accept (H_0) but if it is less than 0.05 then we accept (H_1) and reject (H_0).

4.5.1. Relationship between the perceived levels of stress and age

To determine if there is any association between occupational stress and age, the following hypotheses were tested:

H_0 - There is no association between perceived levels of stress and age

H_1 - There is an association between perceived levels of stress and age

Table 4.4 shows the Chi square resultant figure. The figure is 0.575 and it is clearly greater than 0.05. Therefore, we reject H_1 and accept H_0 which means there is no association between perceived levels of stress and age. This also means that from these results, it can be concluded that occupational stress can affect any worker despite their age. This finding concurs with that of Jeena (1998) who in the study of educators in Pietermaritzburg North Region established that all workers were at the risk of high stress levels irrespective of their age.

Table 4. 4: Chi square test for occupational stress and age

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.471 ^a	12	.575
Likelihood Ratio	12.578	12	.400
N of Valid Cases	30		

4.5.2. Relationship between occupational stress and home pressure

To establish any association between occupational stress and home pressure, the following hypotheses were tested:

H₀- There is no association between perceived levels of stress and home pressure

H₁- There is an association between perceived levels of stress and home pressure

Table 4. 5: Chi square test for occupational stress and home pressure

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	20.179 ^a	12	.064
Likelihood Ratio	24.422	12	.018
N of Valid Cases	30		

a. 18 cells (90.0%) have expected count less than 5. The minimum expected count is .10.

The Chi square value from Table 4.5 is 0.06 and it is slightly larger than 0.05. In this case, we reject H₁ and accept H₀ and this means that there is no significant association between occupational stress and home pressure. This further means that occupational stress can affect any worker, with or without pressure from home.

4.5.3. Relationship between work stress and academic qualifications

The Chi square test was also employed to ascertain any association between occupational stress and academic qualifications. The following hypotheses were tested:

H₀- There is no association between perceived levels of stress and academic qualifications

H₁- There is an association between perceived levels of stress and academic qualifications

Table 4. 6: Chi square test for perceived levels of stress and home pressure

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.396 ^a	6	.758
Likelihood Ratio	4.618	6	.594
N of Valid Cases	30		

The Chi square value is 0.758 which is a figure larger than 0.05 thus we reject H₁ and accept H₀. When interpreted, this means that occupational stress can affect anyone despite his or her level of education.

4.5.4. Relationship between occupational stress and salary range

In order to establish any associations between occupational stress and a worker's salary; the Chi square test was administered and the results are shown in Table 4.7. The following hypotheses were tested:

H₀- There is no association between perceived levels of stress and salary range

H₁- There is an association between perceived levels of stress and salary range

The resultant Chi square value is 0.568 as displayed in Table 4.7 which is larger than 0.05. In this case we then reject H₁ and accept H₀. This means that there is no association between occupational stress and the salary of a worker. When interpreted this means work stress can affect any worker irrespective of how much they earn.

Table 4. 7: Chi square test for perceived levels of stress and salary range

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	13.446 ^a	15	.568
Likelihood Ratio	10.319	15	.799
N of Valid Cases	30		

a. 22 cells (91.7%) have expected count less than 5. The minimum expected count is .03.

4.5.5. Relationship between perceived levels of stress and job experience

To establish any associations between occupational stress and job experience, the Chi square test was administered. Two hypotheses were tested as stated:

H₀- there is no association between occupational stress and job experience

H₁- there is an association between occupational stress and job experience.

The Chi square value is shown in Table 4.8 and it is 0.243. The figure is greater than 0.05 thus we reject H₁ and accept H₀.

This means that there is no association between occupational stress and job experience. Any worker can be stressed no matter how many years s/he has spent serving Border Timbers Limited Pole Treatment Yard.

Table 4. 8: Chi square test for occupational stress and job experience

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.386 ^a	15	.243
Likelihood Ratio	16.865	15	.327
N of Valid Cases	30		

a. 24 cells (100.0%) have expected count less than 5. The minimum expected count is .03.

4.5.6. Perceived levels of stress and working environment

In order to establish any association between perceived levels of stress and the working environment, the Chi square test was employed and the following hypotheses were tested:

H₀- there is no association between occupational stress and working environment

H₁- there is an association between occupational stress and working environment.

The resultant Chi square test value was 0.026 as shown in Table 4.9 and it is a figure smaller than 0.05. In this case therefore we accept H₁ and reject H₀. This means that there is an association between occupational stress and the working environment. When interpreted, this means that the kind of working environment one operates in can affect the level of stress in a worker. It means that some working environments result in less or more levels of perceived job stress.

Table 4. 9: Chi square test for occupational stress and the working environment

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	23.212 ^a	12	.026
Likelihood Ratio	18.059	12	.114
N of Valid Cases	30		

4.5.7. Perceived levels of stress and Job Insecurity

In order to fully analyze the relationships between occupational stress and the working environment, the Chi square test was employed to establish any association between occupational stress and job insecurity. The following hypotheses were tested:

H₀- there is no association between occupational stress and job insecurity

H₁- there is an association between occupational stress and job insecurity

The results presented in Table 4.10 show that the Chi square value is 0.580, a figure above 0.05. Therefore we accept H₀ and reject H₁ which means that there is no association between perceived levels of stress and job insecurity. When interpreted this means that occupational stress can affect anyone at Border Timbers Limited Pole Treatment Yard whether they feel their job is under threat or not. Occupational stress is not prominent in other workers based on job insecurity but any worker could be at risk of being occupationally stressed.

Table 4. 10: Chi square test for perceived levels of stress and job insecurity

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.410 ^a	12	.580
Likelihood Ratio	11.413	12	.494
N of Valid Cases	30		

18 cells (90.0%) have expected count less than 5. The minimum expected count is .10.

4.5.8. Perceived levels of stress and poor promotion prospects

To determine the existence of any associations between occupational stress and poor promotion prospects the Chi square test was employed and the hypotheses were drafted as follows:

H₀- there is no association between occupational stress and poor promotion prospects.

H₁- there is an association between occupational stress and poor promotion prospects.

Table 4. 11: Chi square test for occupational stress and poor promotion prospects

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.376 ^a	15	.650
Likelihood Ratio	13.136	15	.592
N of Valid Cases	30		

24 cells (100.0%) have expected count less than 5. The minimum expected count is .03.

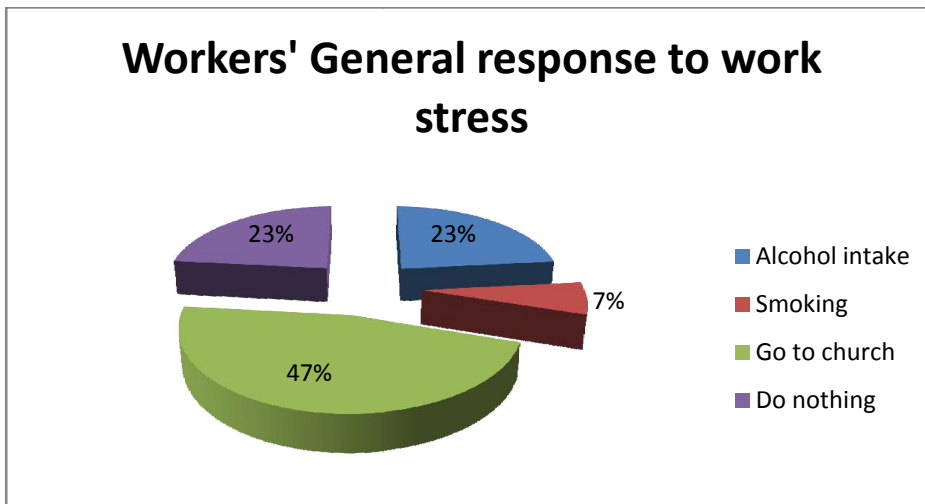
The resultant Chi square figure is displayed in Table 4.11. The Chi square value is 0.650 which is above 0.05 and this means we reject H_1 and accept H_0 . This means that there is no association between perceived levels of stress and poor promotion prospects. When interpreted, this means that perceived levels of stress are not affected by poor promotion prospects. In other words, occupational stress is not influenced by how workers are affected by poor promotion prospects but can affect any worker.

4.6. Coping Strategies

The last objective was to examine coping strategies adopted by Border Timbers Limited Pole Treatment Yard and its workers to deal with stress. To enable thorough exploration, coping strategies were grouped into personal and institutional coping mechanisms. Personal coping strategies are the mechanisms employed by a worker as an individual to deal with occupational stress whereas institutional strategies are those mechanisms employed by Border Timbers Limited as a company to deal with stress. It forms the organization's culture and traditions of helping its workers to reduce and minimise the sources and severity of occupational stress.

4.6.1. Personal coping strategies

Personal coping mechanisms can be either negative or positive. Negative mechanisms are those methods used by workers to cope with work stress which are destructive and harmful to health and wellness. Positive coping strategies are those mechanisms employed by workers which are beneficial to the worker in the present as well as the long term basis. From Figure 4.9, it can be noted that majority of the workers (47%) generally respond to work stress by going to church. This is a positive coping strategy. However, 23% of the workers relieve their stress by alcohol intake and 7% smoke to ease up their stress levels. These are negative coping mechanisms as in the long run workers are likely to suffer from adverse health impacts such as lung cancer and liver problems. The remaining 23% of the workers do nothing to respond to work stress.



Source: Field Survey (2015)

Figure 4. 9: Workers' general response to job stress

When Sears (2000) examined occupational stress and coping strategies among health workers, he found out that most of his participants used negative coping strategies such as excessive alcohol intake and drug or substance abuse. However, the results in this study were different as explained above. This could be attributed to maturity of the workers as 53.4% of the workers are aged 41 to 60 years. Also, when the workers' representative was interviewed, she reflected that *'Many workers here could drink their problems away but they have kids who want to go to school, to be fed, clothed and sheltered. As such, there is no money left for other money demanding activities. Most of the workers realized that drinking added problems to their little late coming salary so we have all turned to God for answers.'* These sentiments altogether led to the conclusion that the majority of workers at Border Timbers Limited Pole Treatment yard basically have adopted positive coping strategies because they cannot spare any money for negative ones such as alcohol intake and smoking.

Occupational stress often leads to physical and mental exhaustion or fatigue. To cope with this effect, the majority (60%) of the workers indicated that they discussed with colleagues to cope up with this aspect of occupational stress as illustrated in Table 4.12. This also corresponds with Makasa (2013) findings which reflected that most teachers in urban Lusaka used discussion with colleagues as a coping strategy. It was also observed that workers at the yard spent most of their times laughing to jokes and basically talking as they went about their duties. Most workers did not enjoy working in quiet environments or in solitude. When the peer educator was interviewed, he brought to light that *'As a peer educator we encourage workers to help each other deal with work stress by chatting because half a problem said is*

half a problem solved. Also, discussing helps the worker as an individual to feel that s/he is not alone and in many a times, some workers realize they have better burdens than others thus they are motivated to be strong and fight off the effects of stress.'

Table 4. 12: Workers response to physical and mental exhaustion

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Discuss with colleagues	18	60.0	60.0	60.0
	Entertainment	4	13.3	13.3	73.3
	Endure	8	26.7	26.7	100.0
	Total	30	100.0	100.0	

Source: Field Survey (2015)

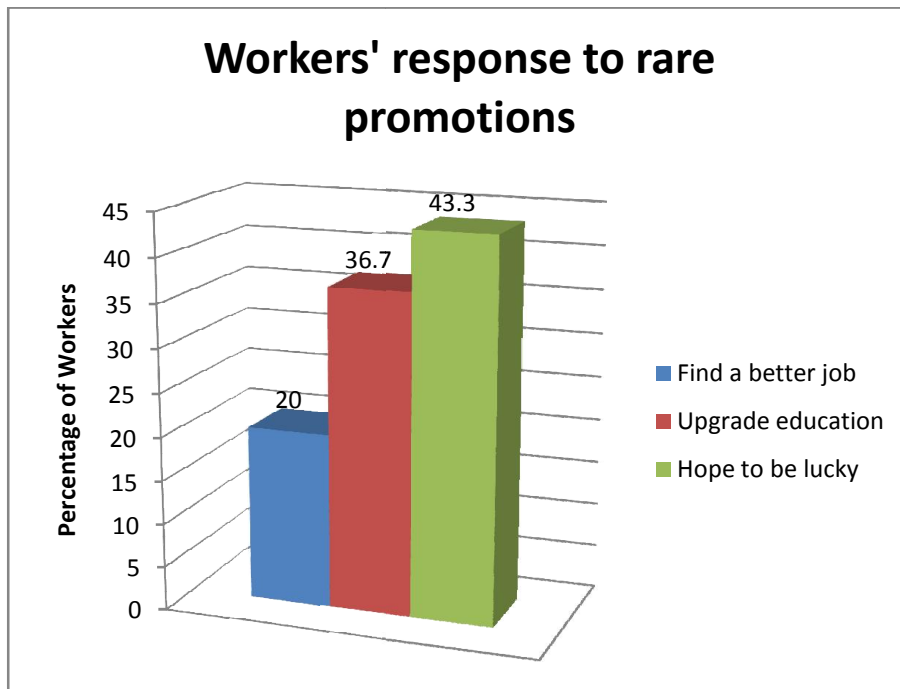
The other 13% also adopted a positive coping mechanism of reviving themselves with entertainment from their mobile phones. It was observed that some workers would listen to music when they seemed frustrated or worn out during the working hours. The reason why this mechanism is not so popular could be because most of the work at Border Timbers is hectic and the working environment is a very noisy one from the operating tractors, teleloggers and the boiler.

However, 26.7% of the workers resorted to endurance as a coping strategy which could be a negative mechanism. This is because endurance means keeping things inside and often leads to boredom and burn out. When someone is worn out s/he is supposed to find a way to revive the mind and the body. Enduring also could possibly lead to over straining the body, forcing it to ignore the pains of exhaustion.

When asked how the participants responded to work pressure the majority (26.7%) indicated that they took days off to get away from work. 16.7% of the workers said they resorted to prayer; asking for relief from God or to ask for strength so that they can cope well. 10% of the workers resorted to chatting with friends and family to get some counselling on how to handle work pressure. The other 10% said they turned to watching television and grooving to some music when they got home so that they could lessen the undesirable effects brought about by work pressure. Other workers resorted to drinking, fishing, sporting, counselling sessions, relaxing and some resorted to prostitution. In an interview with the Nurse in Charge,

she indicated that ‘Sometimes workers find comfort in the most imaginable of habits. For example some workers lust or overeat when there is a lot of pressure because it will be the only good thing that will be happening to them.’ Thus it was concluded that sometimes workers end up indulging in harmful, degrading and destructive hobbies so as to cope up with pressure.

Poor promotion prospects are one of the sources of stress. When asked how workers were responding to rare promotions the majority of the workers (43.3%) indicated that they were hoping to be lucky one day. This means these workers are not willing to move away from Border Timbers or to do anything to improve their chances. A significant population of 36.7% of the workers indicated that they intended to upgrade their education so as to improve their chances of being promoted as shown in Figure 4.10.

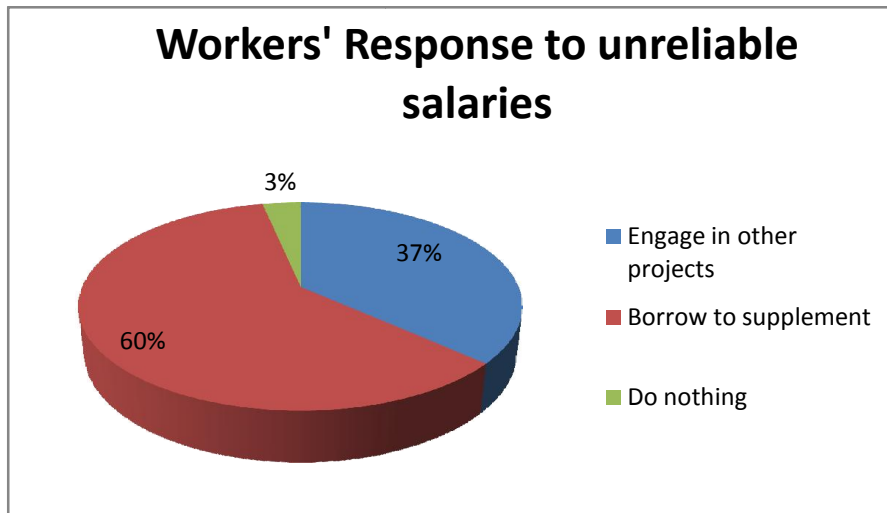


Source: Field Survey (2015)

Figure 4. 10: Workers’ response to rare promotions

Only 20% of the workers highlighted that they intended to find a better job elsewhere. These workers are not scared of the external environment and this may be probably because they know they are equipped with job experience and a better education since 83.3% of these workers have secondary education and a certificate or diploma.

Pole treatment yard workers are faced with an unreliable salary and pay date which is one of the major causes of work stress. As such, participants were asked what they were doing in response to unreliable salaries.



Source: Field Survey (2015)

Figure 4. 11: Workers' response to unreliable salaries

The majority (60%) of the workers indicated that they borrowed money from various entities such as friends, family and even loan sharks to supplement their income. This is a negative coping strategy as in the end, some workers may end up losing property as it gets attached being part of bond of surety. Some workers explained that the reason why they opted to borrow than to engage in other income generating projects was because they did not have capital or the time to concentrate on the projects. 37% of the workers indicated that they engaged in other income generating projects to supplement their income and 3% of the workers said they just ignored the situation. They did not borrow or engage in any other activity but they just patiently wait for their salary to come and budget from there.

4.6.2. Institutional coping strategies

Border Timbers Limited is yet to come up with an occupational stress management strategy. There are some coping strategies but they are fragmented and they are not detailed, systematic or with proof that they are effective. She also observed that even in the SHEQ policy (version 3.0 of 2013) occupational stress issues were not specifically mentioned. To get more detail, the SHEQ Manager was interviewed. In the interview he revealed that there was no proper strategy but just to manage the situation and to improve production they had come up with measures. He reflected the following remarks '*There is no specific strategy that*

we have adopted as Border Timbers to deal with occupational stress but we have come up with fragmented segments just to ease the burden of our workers. We do not deny our workers days off when they feel overwhelmed by work. We have also made sure that our workers get their weekends free so that they can get enough time to rejuvenate and relax so that when they come to work on Monday they will be focused. We have also made sure that under normal circumstances our workers knock off on the stipulated time which is 4:00 PM so that they can get enough time to rest. We have also made a provision of providing our workers with some benefits though they may be small in nature but it is just a token of appreciation. These include giving them firewood, creosote sludge and scrap material which they can sale or reuse upon request thus save some money.'

In conclusion, institutional coping mechanisms are fragmented and weak though evidently management is willing to intervene. What is deficient is a proper drafted plan of action which addresses all the issues of occupational stress and improves the standard of life for the workers.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.1. Conclusion

Occupational stress is a modern day hazard at the work place which needs to be addressed before it turns tragic at Border Timbers Limited Pole Treatment Yard. This is because 83.4% of the workers are suffering from occupational stress related diseases and conditions such as hypertension, headaches, insomnia and weight problems. It was established that 88% of the workers were either highly or moderately stressed with 80% of the workers being stressed daily to sometimes in a week. This shows that indeed work stress at Border Timbers Limited is quite severe.

The main sources of work stress identified from job related features were safety issues and unhealthy worksites. From organizational related factors delays in the payment of salaries, unfair salaries and benefits and lack of recognition for outstanding work done were identified as the main sources of job stress. It became apparent that workers were more affected by organizational related factors as compared to job related ones. Workers who were tenants, sole breadwinners, with bigger family sizes and affected most by home pressure were found to have higher levels of occupational stress than workers who were landowners with small family sizes and more income earners in the family. However, it became evident that every worker at Border Timbers Pole Treatment Yard is vulnerable to occupational stress despite his or her job experience, age, academic qualifications, home pressure, job insecurity and or poor promotion prospects.

The research established that the majority of workers responded to work stress through the use of positive mechanisms. It became apparent that most of the workers relieved themselves from work stress by taking days off work, going to church and discussing with colleagues. The majority of the workers borrowed money from various entities to cope up with unreliable salaries which is a negative strategy. However, many workers resorted to doing nothing to improve their situation so that they can cope with rare promotions. Institutional coping strategies were found to be inadequate and fragmented hence the need for a proper plan of action.

5.2. Recommendations

In light of the findings derived from the research, the following recommendations were suggested:

- Border Timbers Pole Treatment Yard needs to provide adequate PPE to reduce the impact of hazards such as inhalation of dust. There should be reduction of work related hazards such as the use of malfunctioning machinery through proper and systematic maintenance of equipment. This reduces safety worries in workers which may reduce the rate of occupational stress.
- Border Timbers Limited needs to effectively manage the Pole Treatment Yard worksite. The creosote spillages need to be properly managed to reduce noxious smells. Creating pavements on stacking bays could reduce the effect of dust and thus improving the worksite.
- There is great need for Border Timbers Limited (the parent company) to engage in stress management training and adoption of employee wellness programs with promotion of mental wellness, nutrition and basic wellness. This will increase awareness of work stress among workers hence implementation of best coping strategies.
- Border Timbers Limited Pole Treatment Yard should promote leisure activity events such as sports day at work that enhance the workers' physical and mental well being. This distracts workers from their mundane work lives and reduces susceptibility to occupational stress related diseases and any other illnesses.
- To pledge formal involvement to occupational stress management top management should add a clause on dedication to workers' mental health in the SHEQ policy.
- There is need for the creation of an Employee assistance program headed by the Human Resources personnel to increase social support to workers. Such a program could allow workers to reduce home pressure as the program will aid workers to support their dependents with expenses like school fees and medical aid when there are payment delays. The program could also help workers who are tenants to buy residential stands and develop them thus reducing home pressure.
- There is need for the SHEQ department to come up with a logical, properly drafted stress management strategy. This will cover the institutional loop holes in managing job stress.

- Border Timbers Limited Pole Treatment Yard should also consider honouring its workers with long time service awards and rewarding workers consistently and fairly for their excellent output such as when they beat targets.

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APPENDIX 1

QUESTIONNAIRE

NUMBER

The researcher Sharon Ngomani is a student at Midlands State University undertaking a BSc (Honours) Degree in Geography and Environmental Studies. The research is being carried out in partial fulfilment of the degree programme. Please kindly assist and feel free as the information you give is strictly confidential and solely for academic purposes.

TOPIC: Occupational Stress and its management in the pole treatment industries of Zimbabwe: A case study of Border Timbers Limited.

Kindly answer all the questions in this questionnaire as honestly as possible. Show your answer by making a cross(x) against your choice in the spaces provided or by filling in the blank spaces.

Section A: Personal details

1. Sex : Male Female
2. Age : 16-20 21-25 26-30 31-40 41-50 51-60 61+
3. Marital status : Single Married Widowed Divorced
4. Highest Academic Qualification: Primary Form 2 O' Level A'Level
5. Highest Professional Qualification: Certificate/Diploma Degree
6. Job Experience: 0-5yrs 6-10 yrs 11-15yrs 16-20yrs 21-25yrs 25+
7. Family size: 1-3 4-5 6+
8. Number of family members with means of income: Only you 2-3 4-5 6+
9. Accommodation status: Landowner Renting Family home Under chaperon
10. Salary range: Below \$150 \$151-250 \$251-350 \$351-450 \$451-550 \$551+

SECTION B: Magnitude or Severity of stress

11. How do you rate your level of stress: Highly stressed Moderately stressed
Less stressed Not sure
12. How often do you get stressed at work: Every day Sometimes in a week Only
month ends
13. Do you encounter health related problems due to work related stress? Yes No
14. If so what are they?.....
15. Does your stress level affect your relationship with family and friends? Yes No
16. Does your stress level affect your work performance? Strongly agree Agree
Strongly disagree Disagree

SECTION C: Sources of Occupational stress

In this section you are provided with an inventory of some of the possible factors which can contribute to work stress. In each case indicate the degree to which you feel each item stresses you by crossing an x under the appropriate rating.

Perceived sources of stress	Extremely stressful	Very stressful	Moderately stressful	Mildly stressful	Least stressful
	5	4	3	2	1
17. Unfriendly work site (e.g. noise, oil overspill)					
18. Safety issues					
19. Evening shifts					
20. Performing tasks not trained for					
21. Conflicting work roles					
22. Unclear job description					
23. Heavy work load					
24. Inadequate equipment for your job					
25. Job Insecurity					
26. Discriminative practises of dealing with workers					
27. Poor promotion prospects					
28. Limited opportunities for further studies					
29. Lack of recognition for outstanding work done					
30. Unfair salaries and benefits					
31. Delay in payment of salaries					
32. Home pressure					
33. Administrative changes					
34. Too much on job supervision by management					

If there is any other source of work stress that is not listed above please list them here

- 1.....
-
- 2.....
-
- 3.....
-

SECTION D: Stress Management

- 35. If your salary is not reliable what do you do to survive?
 - A) Engage in other income generating projects
 - B) Borrow money to supplement income
 - C) Do nothing
- 36. Since promotions are rare what do you intend to do about the situation
 - A) Intend to find a better job
 - B) Intend to upgrade academic qualification
 - C) Keep hoping to be lucky one day
- 37. How do you respond to mental and physical exhaustion during the work day
 - A) Talk it out with colleagues
 - B) Get entertainment e.g. from radio, music
 - C) Endure till knock off time

Any other solution not listed above please list here

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- 38. How do you generally respond to work stress
 - A) Drink beer
 - B) Smoke
 - C) Go to church
 - D) Do nothing
- 39. How do you manage with inadequate equipment
 - A) Improvise what is available
 - B) Complain to management
 - C) Ignore the situation
- 40. What do you do to relieve work pressure?

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Thank you very much for your time spent on completing this questionnaire. God bless you!

APPENDIX 2

Interview guide for the SHEQ Manager

1. Does Border Timbers Pole Treatment Yard have a specific occupational stress management strategy?
2. Are there any occupational stress management programs that you co-ordinate?
3. If so, what are they and how successful are they?
4. What do you think are the prevalence rates of work stress at Border Timbers Pole Treatment Yard?
5. How critical is occupational stress in overall employee health and safety?
6. Are there any plans to curb occupational stress at Border Timbers Pole Treatment Yard?

APPENDIX 3

Interview guide for the Operations Manager

1. What do you think are the indicators of existence of occupational stress in employees under your jurisdiction?
2. What do you think are the major sources of occupational stress?
3. Are there any occupational stress management programs that you co-ordinate?
4. Is there any training done on occupational stress management? If so how often is it done and who conducts it?
5. What do you think is the prevalence of work stress?
6. How critical is work stress to employee wellness?
7. What do you think should be done to curb occupational stress?

APPENDIX 4

Interview guide for the human resources officer

1. What are the challenges of dealing with workers who are stressed?
2. What are the effects of occupational stress on production?
3. What could be the causes of occupational stress?

APPENDIX 4

Interview guide for the peer educator

1. What are some of the most reported workers' concerns regarding work issues?
2. What are the symptoms of work stress?
3. What do you usually recommend workers to do when they feel overwhelmed by work issues?
4. Why do you recommend such coping mechanisms?

APPENDIX 5

Interview guide for the Workers' Representative

1. What are some of the most reported workers' concerns regarding work issues?
2. What are the symptoms of work stress?
3. What do you think are the solutions to work stress?
4. What do you think causes stress the most and why?

APPENDIX 6

Interview guide for the Nurse in Charge

1. What are some of the most reported occupational stress related illnesses?
2. What do you think causes occupational stress?
3. Are the staff members under you capable of psychological counselling workers?
4. Is there any register for occupational related illnesses, if so what are the most recorded conditions?
5. What coping strategies do you usually recommend to workers and why?

APPENDIX 7

Observation checklist

1. Are occupational stress issues and mental health mentioned in the SHEQ Policy?
2. In minutes of SHEQ meetings, is there any evidence of discussions of work stress?
3. Is the work site conducive?
 - a) Is it dusty?
 - b) Is it noisy?
 - c) Is it smelly of noxious smells?
 - d) Is it covered or exposed to the sun?
 - e) Are there any oil spillages
 - f) Is there any visible waste i.e paper, planks etc
4. Do workers have adequate PPE?
 - a) Do they have helmets
 - b) Do they have safety shoes
 - c) Do they have correct work suits?
 - d) Do they have gloves
5. Do employees work in solitude?
6. What do employees usually complain about?