

**EXPLORING CONTRIBUTORY FACTORS TO OCCUPATIONAL STRESS AMONG FIRE-FIGHTERS
IN THE POLOKWANE LOCAL MUNICIPALITY, LIMPOPO PROVINCE**

By

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DISSERTATION

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ABSTRACT

The aim of the study was to explore the factors that contribute to occupational stress among the fire-fighters employed by the Polokwane Local Municipality, Capricorn District of Limpopo. The study focused on the following variables: working relationships, work-load, nature of work, deadlines pressure and work-home balance. The nature of the study is qualitative.

The study data was collected from July to September 2015. The researcher interviewed fire-fighters in Polokwane Local Municipality. An in-depth semi-structured interview was utilised as the data collection method. The instrument used in the study was a semi structured interview schedule. Data was thematically analysed.

The study findings showed that working relationships, work-load, nature of work, deadline pressure and work-home balance contributed to occupational stress. The study also found that occupational stress had negative effects on both the fire-fighters and their organisation.

DECLARATION

I, EMMANUEL RALIWEDZA, declare that this study “Exploring contributory factors to occupational stress among fire-fighters in Polokwane Local Municipality, Limpopo Province” submitted for Masters of Arts in Social Work, at the University of Limpopo, has not previously been submitted for a degree at this or any other institution, and that this is my own work in design and execution. All reference materials contained herein have been duly acknowledged.

SIGNATURE.....

DATE.....

DEDICATION

This study is dedicated to my mother Edith Azwidihwi Mutshinyalo and all emergency service employees who selflessly put their lives at risk to protect others.

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CHAPTER 1

GENERAL ORIENTATION OF THE STUDY

1.1 Introduction

This study is about factors that contribute to occupational stress among fire-fighters in the workplace. Occupational stress has always been a serious concern to both employees and their employers, though many organisations tend to turn a blind eye to the phenomenon of stress as it affects employees, tending to focus only on the production of goods and delivery of services. There are several factors that contribute to occupational stress, including: working relationships, workload, deadline pressure, nature of work and work-home balance, among others. According to Shreffler, Meadows and Davis (2011) fire-fighting can be a stressful and traumatic job. Fire-fighters do not only perform their fire-fighting function, they also render emergency, fire prevention and rescue services, all of which are inherently stressful (Oosthuizen & Koortzen, 2011).

Stranks (2006) indicated that not all stress is bad for people. According to Stranks, positive stress is one of the outcomes of competent management and mature leadership, where everyone works together and their efforts are valued and supported. Positive stress enhances the well-being of employees and can be harnessed to improve overall performance and boost achievement. This was supported by Quick and Nelson (2011), who argued that stress can have positive outcomes and indicated that positive stress is called Eustress. Stranks (2006) further indicated that it is the negative stress, or distress, such as stress arising from having to meet set deadlines or resulting from poor working

conditions and working environment - commonly leading to ill health, that needs to be considered by employers as part of a stress management strategy. An unhealthy organisational environment results in the development of a culture of bullying where threat, coercion and fear may become substitutes for the non-existence of stress management skills. For the purpose of this study, the researcher focused on negative stress.

1.2 Operational definition of concepts

For the study to be reader-friendly, it is essential to define concepts according to how they are used in the study. Defining concepts familiarises the reader with the concepts and clarifies them in the mind of the reader. The following are concepts defined:

1.2.1 Occupational stress

Occupational stress can be defined as an employee's physiological, psychological and emotional response to threatening situations or events. This is caused by an interrelationship between human and organisational factors (Stevens, 2005:68). For the purpose of the study, occupational stress is the distress which arises from work pressures, the inability to create a balance between work and home responsibilities and from poor working conditions.

1.2.2 Stressors

According to Gibson, Ivancevich, Donnelly and Konopaske (2009) a stressor is a potentially harmful or threatening external event or situation. In this study, stressors refer to all factors that lead to occupational stress.

1.2.3 Fire-fighter

A fire-fighter is a rescuer extensively trained in fire-fighting, primarily to extinguish hazardous fires that threaten property and civilians or natural populations; and trained to rescue people from dangerous situations, such as collapsed or burning buildings or crashed vehicles (Shreffler *et al.*, 2011). For the purpose of the study, fire-fighter refers to an individual who is trained and qualified to extinguish fires; and to rescue people from disasters and other dangerous situations.

1.2.4 Work-Home Balance

Baltes and Heydens-Gahir, in Spector (2006), define work-home balance as a form of extra role conflict in which the demands of work interfere with those of the family. For example, having to spend time at work leaves insufficient time for the family and home responsibilities. For the purpose of the study, work-home balance refers to inability of an individual to balance work and family responsibilities.

1.2.5 Workload

Workload refers to the work demands that the job places on an employee (Spector, 2003). In this study, workload will refer to workers' job descriptions and any other responsibility given to them by the employer.

1.2.6 Employee wellness

According to Slocum and Hellriegel (2007) employee wellness refers to a health management initiative that incorporates components of disease prevention, medical care, self-care and health promotion. In this study employee wellness refers to preventative and supportive measures designed to promote the well-being of employees, including life skills development and health promotions, among others.

1.2.7 Employee assistance programme

Bernardin (2010) defined employee assistance programmes as specific programmes designed to help employees with personal problems. For the purpose of the study, employee assistance programmes are measures established by the organisation to help employees to cope with occupational stress and other personal problems.

1.3 Problem statement

Occupational stress is increasingly becoming a problem for many organisations in South Africa, in particular, and in the world in general. Many organisations experience low production and regular occupational injuries due to employee stress. Coetzee (2008)

alluded to the fact that if an organisation does not ensure that its employees maintain a state of relative health, it risks becoming ineffective in the long run. According to Kinicki and Fugate (2012), occupational stress can have very negative effects on organisational behaviour and on an individual's health. Occupational stress is closely related to absenteeism, turnover, coronary heart disease and viral infection.

Fire-fighters are at a much higher risk of experiencing stressful and traumatic events due to their nature of work, than are employees in most other occupations. Fire-fighters are regularly exposed to gruesome injuries and death; and often face dangerous and unpredictable situations (Shreffler *et al.*, 2011).

The researcher was concerned about occupational stress as it poses a serious challenge to individual employees and their organisations. The researcher is of the opinion that threats, such as low productivity, poor work place relations, employee substance abuse, job absenteeism and accidents - as experienced by fire-fighters in the Polokwane Local Municipality - may persist if the phenomenon is not extensively investigated and addressed. Fire-fighting is an essential service that demands that workers are always alert and ready to perform with utmost efficiency, without endangering themselves and the people they serve.

1.4 Assumptions of the study

The study is based on the following assumptions:

- Factors, such as working relationships, workload, nature of work, deadlines pressure and work-home balance, contribute to occupational stress among fire-fighters working in the Polokwane Local Municipality;
- Occupational stress has psychological, behavioural and physiological effects on the fire-fighters;
- Lack of professional support of employees forces fire-fighters to develop their own strategies, which are both inadequate and ineffective to cope with occupational stress.

1.5 Motivation for the study

The cases of stress among fire-fighters which were reported to the (researcher) social worker's office in the Department of Social Development drew the researcher's attention and led the researcher to study the problem. Oosthuizen and Koortzen (2009) indicated that stress among fire-fighters may arise from factors outside the work situation and from factors within the working environment. They further indicated that situations outside of the working environment may include, among others: long working shifts (which interferes with their sex life), limited time with family and marital dysfunction. Situations arising from their working conditions include: interpersonal tensions and workload. The statistics which were supplied to the researcher by the Polokwane Local Municipality show a high rate of absenteeism. The fire-fighters also drew the attention of the researcher to their plight and brought the researcher to the realisation of the need to explore the phenomenon intensively. Stranks (2006) indicated that occupational stress can result in job

absenteeism, poor productivity and ineffective decision-making. The researcher was also interested in the study population since little research has been done on fire-fighters in South Africa.

1.6 Theoretical framework

There are a number of models that have been developed to explain occupational stress, however, the models found to be most relevant to the study were the Job Demand-Control-Support (JD-CS) model and Organisational Stress model.

1.6.1 The Job Demand-Control-Support model

The Job Demand Control-Support model suggests the following factors as occupational stressors: working intensively under time constraints, a high workload, job insecurity and work conflict. The theory also indicates that constructs job demands, control/decision latitude and social support vary independently within the work environment; to the extent that different combinations of these variables produce different outcomes (Cooper & Dewe, 2005). Some of the stressors outlined by this model helped the researcher establish the objectives of the study.

1.6.2. The Occupational Stress model

The Occupational Stress model, according to Oosthuizen (2014), suggests that stressors lead to stress which, in turn, produce a variety of outcomes. Gibson *et al.*, (2009) suggest that the relationship between stress and outcomes (individual and organisational) is not necessarily direct; similarly neither is the relationship between the stressors and stress.

The relationships may be influenced by stress moderators. Individual differences, such as age, social support mechanisms and personality are identified as potential moderators. Additionally, Oosthuizen (2014), states that several individual differences moderate the stressor-stress-outcome relationship. Oosthuizen also identified four major stressors: Individual stressors, group stressors, organisational stressors and extra-organisational stressors. The model also notes that people interpret the same stressors differently. It also posits that stress has behavioural, cognitive and psychological consequences.

1.7 Aim and objectives of the study

A successful study must clearly define its aims and objectives.

1.7.1 Aim of the study

The aim of this study was to explore the factors that contribute to occupational stress among the fire-fighters in the Polokwane Local Municipality.

1.7.2 Objectives of the study

The study had the following objectives:

- To establish whether and to what extent working relationships, workload, nature of work, deadline pressure and work-home balance contributed to occupational stress among fire-fighters in the Polokwane Local Municipality.
- To determine the psychological, behavioural and physiological effects of occupational stress on the fire-fighters and their organisation.

- To establish whether the employer provides stress-related professional support to the employees and, if not, what strategies are the employees using to cope with occupational stress.

1.8 Research methodology

Research methodology includes the following; research type, research design, population, sampling procedure, data collection method, data collection instrument, data analysis procedure, as well as reliability, validity and objectivity of the study.

1.8.1 Research type

The research methodology applied to this study was qualitative in nature. The approach was chosen based on the fact that it allows the researcher to be flexible and also to gather as much data as possible, until saturated stage is reached. The method also helped the researcher gain in-depth information from the individuals with experience of the phenomenon being studied.

1.8.2 Research design

The researcher made use of exploratory research design, since there has been little research undertaken regarding the phenomenon, particularly on fire-fighters in Limpopo. The motivation behind the selection of this research design was the fact that the design allows the researcher to explore and describe a phenomenon in a natural setting. Flexibility is important in this research approach, since adjustments that are needed can be accommodated (Mogorosi, 2007).

1.8.3 Population

The population in this study was fire-fighters employed by the Polokwane Local Municipality, regardless of gender and age. The participants had one or more years of working experience as fire-fighters in the Polokwane Local Municipality.

1.8.4 Sampling

Payne and Payne (2004) define sampling as a process of selecting a population of people or social phenomena to be studied from the large universe to which they belong. However, Mogorosi (2007) emphasised the possibility of leaving out members of a population, should the population be found to be unmanageable.

In view of the manageable number of employees in the fire-fighting section within Polokwane Local Municipality, the researcher decided to do without sampling. The municipality had 15 employees with more than one year of work experience as fire-fighters. This study had a population of 14 participants.

1.8.5 Data collection method

A number of different methods could have been used to collect data from the fire-fighters. Each method has advantages and disadvantages and some methods are better than others in certain circumstances. Data collection methods refer to various methods social researchers have developed for collecting evidence in a systematic way (Bless, Higson-Smith, & Kagee, 2007).

For the purpose of this study, the researcher made use of an in-depth semi-structured interview. This enabled the researcher to gain detailed information about the participants' accounts of factors contributing to occupational stress. This method allowed for flexibility between the researcher and participants.

1.8.6 Data collection instrument

The data collection instrument used in the study was a semi structured interview schedule. This allowed the researcher to clarify concepts, eliminate superfluous questions and properly formulate ambiguous ones. The researcher made sure that the interview schedule did not dictate but rather acted as a guide, because the respondents were regarded as the experts on the subject and were allowed maximum opportunity to tell their stories. However, this tool has limitations in that it is time consuming. In dealing with the limitation, the researcher made use of short hand skills when taking notes.

1.8.7 Data analysis

Since the researcher collected data in a non-numerical way, as well as interpreted what he observed, the researcher made use of thematic content analysis, which is a descriptive presentation of qualitative data. The researcher was guided by Creswell's (2007) eight integrated steps outlined below:

- planning for recording data,
- data collection and preliminary analysis,
- managing data,

- reading and writing memos,
- generating categories, themes and patterns,
- Coding data,
- testing emergent understanding and lastly,
- Writing a report.

Though the study is generally qualitative in nature, the researcher made use of quantitative data analysis to address the demographic data. The quantitative data was presented using frequency distribution tables and percentages. This gave a clear description of the study participants.

1.8.8 Pilot study

To evaluate whether the procedures and techniques used were effective in accomplishing the goal of the study, the researcher undertook pretesting before conducting the study. For the purpose of the pilot study, the researcher interviewed four (4) fire-fighters from the Mogalakwena Local Municipality in Mokopane who met the criteria for inclusion in the study. The pre-testing of the interview schedule determined the reliability of the questions asked during data collection. The researcher had to change and reframe some of the questions which were not clear before the actual data collection commenced. The researcher also removed and added new questions.

1.9. Ethical considerations

In social science research, ethics are very important as researchers mostly study humans who are typically associated with morality and matters of wrong and right which are defined according to standards (Neuman, 2006). In addition, the researcher has an ethical responsibility towards those who take part in the research, those who sponsor the research and those who are potential beneficiaries from the research (Monette, Sullivan & De Jong, 2008). The ethical issues considered relevant in this study are discussed below:

1.9.1 Permission to conduct a study

Prior to the commencement of the study, the researcher applied to the University of Limpopo's Research and Ethics Committee for ethical clearance. The researcher also asked permission from the Polokwane Local Municipality to conduct the study in their fire-fighting unit.

1.9.2 Informed consent

The researcher explained the nature, purpose and procedures of the study to the respondents before the collection of data. It was also explained to the respondents that it was their choice whether to participate in the study or not and to withdraw before or during the study, if they so wished. The participants also signed a consent form in order to take part in the study.

1.9.3 Confidentiality

The researcher informed all the respondents about confidentiality. The participants were informed that the information and their responses shared during the study would be kept private and that the results would be presented in an anonymous manner. The respondents' names were not captured during data collection.

1.9.4 Deception of respondents

In a study of this nature the employees might raise their hopes, thinking that being part of the study might help them get salary increases or promotions. For the purpose of the study, the researcher offered correct information to the participants. Furthermore, the concepts were presented unambiguously so as to ensure that no information was withheld from the participants.

1.9.5 No harm to respondents

This research had the potential harm in a sense that it could bring forth old painful experiences to the participants. The researcher was sensitive when asking questions relating to the participants' experiences. The researcher made arrangements to refer participants to a professional if they showed signs of discomfort following the interview.

1.10. Significance of the study

The study helped in identifying factors that contribute towards occupational stress in the Polokwane Local Municipality, as well as providing possible strategies to manage the phenomena. The study highlighted the effects of occupational stress on employees as well as the effects on their organisation. In addition, the study also provided recommendations for fire- fighters and their supervisors; and to employee assistance practitioners/social workers, to develop possible effective strategies to address occupational stress. Recommendations were also made for future research. New knowledge on the phenomenon was also be generated.

In conclusion the study has shed more light on the everyday experiences of fire-fighters and the impact these have on their lives, families and organisation. As a result, this study can benefit social work policy makers and social workers/employee assistance practitioners in improving the services in the field.

1.11. Limitation of the study

In terms of data collection, the researcher encountered challenges with regard to the availability the respondents. The respondents in this study work in shifts and the only place where respondents could be found was at their station at Ladana in Polokwane. The researcher went to the station several times in search of the respondents and could not find them as a collective. The researcher had to take advantage of any fire-fighters who were found at the station during the time of the interview. The only advantage was that all the fire-fighters matched the researcher's desired criteria.

During data collection, one respondent refused to be part of the study. He complained that the data collection tool was too long and that he did not have time. The researcher tried to explain to this respondent how quickly and easily the process would be done, but the respondent was not interested.

1.12. Outline of the study

1.12.1. Chapter 1: The general orientation of the study

1.12.2. Chapter 2: Factors contributing to occupational stress among the fire-fighters

1.12.3. Chapter 3: Data presentation, analysis and interpretation

1.12.4. Chapter 4: Summary of major findings, conclusion and recommendations of the study

CHAPTER 2

FACTORS CONTRIBUTING TO OCCUPATIONAL STRESS AMONG FIRE-FIGHTERS

2.1. Introduction

This chapter reviews the literature published on factors contributing to occupational stress, with special reference to fire-fighters. The chapter covers the background to occupational stress, the definition of occupational stress and possible factors contributing to occupational stress, for example: working relationship, workload, deadline pressure, nature of work, as well as balance between work and home responsibilities. The chapter also addresses the consequences of occupational stress on individual employees and on the organisation, individual responses to occupational stress and various strategies to manage occupational stress.

2.2. Background of occupational stress

Robbins *et al.*, (2009) reported that occupational stress is a common problem around the world. They further indicated that global studies show the following: about 50% of workers surveyed from 16 European countries reported that occupational stress had risen significantly over a period of five years; 35% of Canadian workers surveyed said they were under a high degree of occupational stress; in Australia, cases of occupational stress jumped 21% in a one year; over 57% of Japanese employees suffered from work-related stress and 83% of call-centre workers in India suffered from sleep disorders due

to occupational stress. These authors further reported that a study on stress in China showed that, as the country undergoes massive economic and social changes; most managers experience more occupational stress.

2.3. Occupational stress

Occupational stress is the harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources or needs of the worker (NIOSH Working Group, 1998). Robbins *et al.*, (2009) defined occupational stress as the adverse reaction people have to excessive pressure place on them as a result of extraordinary demands, constraints or opportunities. Occupational stress is part of everyday working life and occurs for a variety of reasons, including individual differences, types of personality, occupation, actual nature of the job, whether working in private or public sector; as well as conflict and the work/life balance (Laurie & Mallins).

2.4 Factors that contribute to occupational stress

There are some common factors contributing to occupational stress. Gibson *et al.*, (2009) identified individual, group and organisational stressors as the major contributors to occupational stress. They also defined stressors as actions, situations, or events that place special demands on a person. To elaborate, the researcher critically analysed a few key stressors within work context:

2.4.1. Working relationship

One source of stress in the workplace, and as potent as the more obvious sources of stress - such as work pace and intensity, stems from the quality of the relationships we experience with colleagues and supervisors (Fincham & Rhodes, 2005). Working and living with other people is one of the most stressful aspects of life. Good relationships between members of a work group are considered a central factor in individual and organisational health. Low trust, low levels of support and low interest in problem solving within the organisation characterise poor relationships at work (Quick *et al.*, 2008).

Coetzee (2008) supports Quick *et al.*, (2008), who identified relationships with superiors, colleagues and subordinates as potential stressors. Hodgetts and Hegar (2008) also indicated that a poor social environment and a lack of support or help from co-workers and supervisors all lead to stress. Cooper and Cartwright, as cited in Coetzee (2008), stated that mistrust of co-workers is related to high role ambiguity, poor communication, low job satisfaction and poor psychological well-being. Vecchio, who is also cited in Coetzee (2008), indicated that strong emotions, such as workplace jealousy and envy among employees, have even been blamed for pathological outcomes, such as work place stress, violence and harassment.

Stevens (2005) also agreed with Quick *et al.*, and Coetzee in that humans are social beings who are constantly socialising and interacting with others. However, relationships can be a major source of stress as well as support. It is not surprising, therefore, that the quality of relationships at work can have a significant impact on the well-being, work performance and the likelihood of stress-related errors and accidents. Poor work

relationships are often the result of interactions with colleagues and line managers that are characterised by a lack of trust, little support and low interest in listening and attempting to tackle workplace problems. More direct causes of stress include abrasive personalities, authoritarian leadership style, group pressure and workplace bullying. Cumming and Worley (2008) eluded to the fact that building supportive relationships is aimed at helping employees cope with stress, rather than changing the stressors themselves.

Individual differences may influence the working relationship. Graffins and Moorhead (2014) made a distinction between Type A and Type B personality profiles. The Type A individual is extremely competitive, very devoted to work and has a strong sense of time urgency. Moreover, this person is likely to be aggressive, impatient and highly work oriented. He or she has drive and motivation and wants to accomplish as much as possible in as short a time as possible. The Type B person, in contrast, is less competitive, is less devoted to work and has a lower sense of time urgency. This person experiences less conflict with either people or time and has a more balanced, relaxed approach to life. He or she has more confidence and is able to work at a constant pace.

How people relate to each other within the organisational framework and structure can be a significant cause of stress, due to, perhaps, a poor relationship with the boss, which may arise through lack of understanding of each other's roles and responsibilities, attitudes held and other human emotions, such as greed, envy and lack of respect; poor relations with colleagues and subordinates created by a wide range of human emotions; personal conflicts arising from, for example, differences in language, regional accent,

race, sex, temperament, level of education and knowledge; no feedback from colleagues or management, creating a feeling of isolation and despair (Stranks, 2006)

2.4.2 Work-load

Hallowell, as cited in Quick *et al.*, (2008), stated that workload is a major source of stress. Workload concerns the work demands that the job places on an employee. Workload can be of two types, namely: qualitative and quantitative workload. Quantitative workload is the amount of work that a person has to do. A heavy quantitative workload means that a person has too much to do. Qualitative workload is the difficulty of work relative to a person's capabilities. A heavy qualitative workload means that the employee cannot easily do a job because it is too difficult for him or her to do. It is possible for a person to experience only one type of workload in a job. He or she might have a lot of work to do that is not necessarily difficult or difficult work to do that is not necessarily plentiful.

Crafford, *et al.*, (2007) also agreed that workload can be a source of occupational stress. They also made a distinction between qualitative and quantitative workload. They indicated that quantitative workload means that a person is given too much work to do, while qualitative workload means that the job is too difficult for the person to do.

Slocum and Hellriegel (2007) indicated that, for many employees, having too much work to do and not enough time or resources to do it can be stressful. A state of overload exists when the demands of the job exceed the capacity of a manager or employee to meet all of them adequately. Many stressful jobs may be in a continuous situation of role overload. Surveys commonly identify work overload or "having to work too hard" as a major source

of stress. According to Griffin & Moorhead (2014), when a manager gives an employee several major assignments to do at once, while increasing the person's regular workload, the employee will probably experience role workload. Role workload may also result when an individual takes on too many roles at one time. For example, a person trying to work extra hard at his or her job while running for election to the school board, serving on a committee in church, coaching Little League baseball, maintaining an active exercise programme and being a contributing member to his or her family will probably encounter role overload.

According to Greenberg (2011), work overload is only part of the total picture when it comes to stress. Although being asked to do too much can be stressful, so too can being asked to do too little. In fact, there seems to be considerable truth in the following statement: "The hardest job in the world is doing nothing - you can't." Under load leads to boredom and monotony. Since these reactions are quite unpleasant, under load, too, can be stressful. Gibson *et al.*, (2009) not only recognise work overload as a stressor, they also identified work under load as a stressor. They suggest that an employee with too little responsibility at work may feel less important. Work under load can also decrease motivation. According to Griffin and Moorhead (2014), low task demands can result in boredom and apathy, just as overload can cause tension and anxiety.

According to Fincham and Rhodes (2005), the impact of workload always seems to be moderated by some other factors. One such important moderator is how much control we can exercise over our work. While managers, for example, can exert some control over their workload - for example, by delegating or rescheduling jobs which combine overload

with low control, are experienced as particularly stressful. Studies have also found that a combination of work overload and low control is particularly stressful.

2.4.3 Deadline pressure

Closely related to workload is the theme of deadline pressure. Pressure is not just about the amount of work that an individual is presented with, but the urgency with which that work must be completed. It may also involve the difficulties of reconciling competing demands, particularly if they require the rapid acquisition of new skills (Crafford *et al.*, 2007). Quick *et al.*, (2008) indicated that “studies show that stress levels increase as difficult deadlines draw near”.

Stevens (2005), states that being required to carry out work at excessive speeds on a continuous basis is a common source of stress. Stevens is supported by Newstrom (2011), who suggests that time deadlines put employees under pressure and leads to stress. Often these pressures arise from management and poor management can cause stress.

According to Fincham and Rhodes (2005), having to work under severe pressure to fulfil deadlines is an obvious stressor. But working long hours is actually a coping strategy used by managers. Long hours and excessive workload almost inevitably leads to stress-related problems such as increased alcohol and cigarette consumption, depression, low self-esteem, and coronary heart disease.

Deadline pressure can also affect employees working in groups. Group pressure may include pressure to restrict output, pressure to conform to the group’s norms and so forth.

For instance, it is quite common for a work group to arrive at an informal agreement on how much each member will produce. Individuals who produce much more or much less than this may be pressured by the group to get back in line. An individual who feels a strong need to vary from the group's expectations (perhaps to get a pay raise or promotion) will experience a great deal of stress, especially if acceptance by the group is also important to him or her (Graffins & Moorhead, 2014). According to Hodgetts and Hegar (2008) workload must be in line with workers' capabilities and resources.

2.4.4 Nature of work

It is important at this stage to allude to the job description of fire fighters in order to understand the nature and the risk this work impose on the employees. According to the West Rand District Municipality Fire Department following are some of the duties of fire fighters:

- Receive and respond to calls reporting a fire or a medical emergency
- Drive fire trucks and other emergency vehicles to the scene
- Control fires through the use of water hoses, pumps, fire extinguishers and other equipment
- Use ladders and tools to access burning structures
- Find and rescue victims in burning structures or in other emergency situations
- Treat medical issues as needed, such as illness or injury
- Provide emergency transportation to medical facilities
- Provide specialised clean up services in emergencies involving hazardous materials
- Prepare written reports for each emergency response
- Participate in physical fitness drills and fire control drills
- Clean, inspect, and maintain all fire equipment, including trucks and hoses
- Maintain a complete set of emergency gear, including jacket, boots and helmet

- Be available and ready to respond at a moment's notice during on-call shifts

Firefighting is a physically demanding and very dangerous career. A high risk of death is common due to incidents such as walls falling or floors collapsing after being damaged by fire. They wear heavy protective gear in order to shield themselves from heat and flames. Firefighters may also find themselves coming into contact with dangerous materials such as poisons and chemicals, potential explosive gases and radioactive substances.

Newstrom (2011) suggests that some jobs produce more stress than others. He indicated that the type of jobs involving rotating shifts work, machine-based tasks, routine and repetitive work, or hazardous environments, are associated with greater stress. Slocum and Hellriegel (2007) agree with Newstrom in that job stressors differ from one job to another. They added that temperature extremes, loud noise, lighting, radiation and air pollution are some examples of working conditions that may cause occupational stress.

Heavy travel demands and working in shifts are other aspects of jobs that employees may find stressful. According to *section 7(c) of the Basic Conditions of Employment Act, no 11 of 2002*: every employer must regulate working time of each employee with due regard to the Code of Good Practice as issued by Minister of Labour under section 87(1) (a) of the Act, which contains a provision concerning the arrangement of work and, in particular, its impact upon the health and welfare of employees, work shift, rest period and family responsibility. Fire-fighters at the Polokwane Local Municipality work in different shifts. The day shift runs from 06:00 to 18:00. The night shift runs from 18:00 to 06:00. They commonly work 50+ hours per week in varied schedules, far from the norm of 08:00 to 16:00 workers.

According to Hodgetts and Hegar (2008), people who work in poor work environments report more stress. Likewise, people in on-going work situations that are negative or stressful have a higher potential for negative health consequences. On the other hand, scientists have found that people who are engaged in their work have much lower self-reported stress than those who are disengaged.

According to Greenberg (2011), some jobs, such as emergency room physicians, police officers, fire-fighters and airline pilots, expose people who hold these positions to high levels of stress. Others professions, such as college professors, janitors and librarians, do not experience the same levels of stress. The basic fact that some jobs are generally (but not always) much more stressful than others has been confirmed by the results of a survey involving employees in more than 130 different occupations. The research has shown that several features of jobs determine the levels of stress they generate. Specifically, people experience greater stress the more their jobs require the following:

- Making decisions;
- Constantly monitoring devices or materials;
- Repeatedly exchanging information with others;
- Working in unpleasant physical conditions;
- Performing unstructured rather than structured tasks.

The greater the extent to which a job possesses these characteristics, the higher the level of stress that that job produces among individuals doing it. Nurses and long-distance bus

drivers perform jobs that match this profile and, not surprisingly, people in these occupations tend to show many of the adverse signs of stress. This is not to imply that people do not experience stress in every job. In fact, a variety of sources of stress can be found in different types of jobs.

According to Shreffler, *et al.*, (2011) the nature of the job can be stressful and traumatic for fire-fighters. Witnessing injuries/death and personal injuries in line of duty and being called to threats of a terrorist incident/man-made disaster/natural disaster, being called to the scene of an accident involving a child or an accident in which a fire-fighter knew the victim, working on a scene with multiple casualties and working at a scene where the fire-fighters feel that their life is in danger can be stressful (Kruse *et al.*, 2012).

Hodgetts and Hegar (2008) state that role/task demands may lead to stress. For example, some employees are tied to their computers, allowing little time for flexibility, self-initiative or rest. According to Griffin and Moorhead (2014), a role is a set of expected behaviours associated with a particular position in a group or organisation. As such, a role has both formal (i.e., job-related and explicit) and informal (i.e., social and implicit) requirements. People in an organisation or work group expect a person in a particular role to act in certain ways. They transmit these expectations both formally and informally. Individuals perceive role expectations with varying degrees of accuracy and then attempt to enact that role. However, “errors” can creep into this process, resulting in stress-inducing problems.

The physical demands of a job are its physical requirements of the worker. These demands are a function of the physical characteristics of the setting and the physical tasks

the job involves. One important element is temperature. Working outdoors in extreme temperatures can result in stress, as can working in an improperly heated or cooled office. Strenuous labour, such as loading heavy cargo or lifting packages, can lead to similar results. Office design can be a problem, as well. A poorly designed office can make it difficult for people to have privacy or promote too much or too little social interaction. Too much interaction may distract a person from his or her task, whereas too little may lead to boredom or loneliness. Likewise, poor lighting, inadequate work surfaces and similar deficiencies can create stress. Shift work can cause disruptions for people because of the way it affects their sleep and leisure-time activities (Griffin & Moorhead, 2014).

Kaminsky *et al.*, as cited in Oosthuizen and Koortzen (2009), indicated that fire-fighters are subject to and experience intense job stress due to the emergency services that they render to the public. Some factors that may lead to stress in fire-fighters may include exposure to serious fires in which people are trapped, accidents in which many people are injured and exposure to loss of human life. Furthermore, Oosthuizen and Koortzen, cited in Rogers (2007), indicated that, owing to their high level of exposure to traumatic incidents, fire-fighters can become secondary victims of trauma, exhibiting symptoms akin to those of direct victims.

2.4.5 Work-home balance

Baltes and Heydens-Gahir, as cited in Spector (2006), indicate that work-family conflict is a form of extra role conflict in which the demands of work interfere with the family, for example, having to spend time at work leaves insufficient time for home. The problem can be particularly acute for two-career couples with children and for single parents. With

both parents working or with single parents, role conflicts are certain to arise over issues such as staying home with sick children and participating in school functions. Burke and Greenglass, as cited in Quick *et al.*, (2008), suggested that there is a greater understanding of the reciprocal relationship between the work and home domains. They further stated that research evidence indicates that job and life satisfaction are influenced by demands and conflict of home and family life.

Achieving a happy balance between the demands of work and those of the home environment has, for many people, become more difficult in the last decades. The introduction of e-mails, mobile phones and other forms of communication has aggravated the situation to the extent that people are no longer able to divorce their home life from their work. People are being put under greater pressure at work and it is essential to achieve a reasonable balance between home and work (Stranks, 2006). According to Cary Cooper, as cited in Stranks (2006), stress arising from this home-work interface can result in: divided loyalties - whereby employees are frequently required to make decisions in terms of their loyalties to the demands of the family as opposed to those arising from work; conflict of work with family demands, particularly in the case of overtime working, resulting in employees spending more time at work instead of being with their families and participating in family activities, such as family outings and eating together; and lastly, intrusion of problems outside work - due to working excessive hours, the employee may not be in a position to deal with a range of matters which require his attention, including those of an economic nature or life crisis situations.

The old adage of employees being required to leave their troubles at the factory gate is unrealistic. Events in an employee's private life can also lead to stress, which spills over into the workplace. Managers need to be sensitive to the possibilities therefore. Besides, as we have seen, the division between work and non-work stress is seldom distinct, each can influence the other. The sources of non-work stress are potentially infinite. For convenience they may be grouped as follows: life transitions, daily hassles, the impact of personality, the home-work interface and, lastly, socio-economic status. Life transition refers to major events in a person's life. Change in one's personal life can produce stress and ultimately lead to illness. Examples of potentially stressful events include death and divorce.

An example of an issue in the private life of employees that may lead to stress is life trauma. Life trauma is an upheaval in an individual's life that alters his or her attitudes, emotions or behaviours. For example, an employee who is going through a divorce will obviously experience emotional turmoil during the process. This turmoil is a form of life trauma and will clearly cause stress, much of which may spill over into the workplace. Major life traumas that may cause stress include marital problems, family difficulties, and health problems initially unrelated to stress. For example, suppose a person learns that she has developed arthritis which will limit her favourite activity, skiing. Her dismay over the news may translate into stress at work. Similarly, a worker coping with the traumatic aftermath of the death of his or her child will almost certainly go through difficult periods, some of which affect her or his job performance (Griffin & Moorhead, 2014).

2.5 Individual responses to occupational stress

Job stress shows itself in a number of ways (Robbins *et al.*, 2009). Managers often find it difficult to identify people in the organisation who are experiencing detrimentally high level of stress. Part of this difficulty is that people respond to high stress in different ways and part of this is the fact that physiological reactions to stress are hard, if not impossible, for managers to observe and monitor. Such reactions include high blood pressure, pounding heart and gastrointestinal disorders (Certo and Certo, 2014). Muchinsky (2006) reported that researchers have classified responses to occupational stress into three broad categories: physiological, psychological and behavioural.

- **Physiological responses**

Physiological responses include indices typically determined by medical doctors, such as blood pressure, cholesterol level, biochemical levels (such as uric acid, which is associated with the cause of diseases and disorders) and gastrointestinal conditions (such as ulcers). Changes in these physiological indices (such as faster heart rates, high blood pressure, and increase in uric acid production) have been associated with conditions in the work environment - for example, the unpredictability of work life, the pace of work and workload.

- **Psychological responses**

Psychological responses to stress at work most typically involve affective variables, with job dissatisfaction being the most common. Occupational stress is associated with an increase in negative emotions and moods associated with anger, irritation, annoyance

and intolerance. Chronic stress is also associated with decrements in self-confidence and feelings of personal worth. Kets de Vries, as cited in Muchinsky (2006), proposed that work-induced stress can produce a condition in which individuals experience very little (or a total absence of) pleasure. Instead, there is a feeling of emotional numbness. Kets de Vries, as cited in Muchinsky (2006), refers to such individuals as “organizational sleepwalkers”.

- **Behavioural responses**

Behavioural responses to occupational stress are often clustered into five broad categories: (a) job behaviour (performance, substance abuse at work, accidents); (b) flight from the job (tardiness, absence, turnover); (c) antisocial behaviour at work (theft, purposeful damage); (d) antisocial behaviour off work (spouse and child abuse); and (e) self-abusive behaviours (drug use, compulsive gambling).

A manager who observes one or more of these symptoms in an employee should investigate to determine whether those exhibiting the symptoms are indeed under too much stress. If so, managers should try to help those employees handle their stress or should attempt to reduce stressors in the organisation (Certo & Certo, 2014).

2.6 Consequences of occupational stress on employees and the organization.

Because stress is felt by virtually all employees in all organisations, insights about managing stress are valuable to all managers. Managers must understand how stress influences worker performance, identify where unhealthy stress exists in the organisation and should help employees handle stress. Once managers understand the impact of

stress on performance, they must identify where stress exists within the organisation. After areas of stress have been pinpointed, managers must then determine whether the stress is at an appropriate level or is too high or low (Certo & Certo, 2014).

2.6.1 Consequences of occupational stress on employees

Stranks (2006) indicated that individuals may not necessarily manifest the same stress response. However, many of the outward signs of stress are readily recognisable. Stress fundamentally initiates a number of changes in the body processes which are complex and involve several levels such as:

Emotional - which is characterised by tiredness, anxiety and lack of motivation.

Cognitive - resulting in increased potential for error and, in some cases, accidents arising through error.

Behavioural - changes in behaviour resulting in poor or deteriorating relationships with colleagues, irritability, indecisiveness, absenteeism, smoking, excessive eating and alcohol consumption.

Psychological - the individual complains of increasing ill health associated with headaches, general aches and pains, and dizziness. These contribute to raised blood pressure, heart disease, a reduced resistance to infection, skin conditions and digestive disorders.

Crafford *et al.*, (2007) indicated that exposure to stress for longer periods of time leads to a higher heart rate and blood pressure, lower immunity and stomach ulcers. These

conditions cause other health problems. If the response to stress is not dealt with, it can lead to burnout. It is for these reasons that the researcher found it important to engage in studying this phenomenon.

2.6.2 Consequences of occupational stress on the organisation

Kazmi, Amjad and Khan (2008), state that quality productivity is very essential for organisational survival. Therefore, occupational stress becomes a concern to organisational administrators. According to Stevens (2005), occupational stress has many negative consequences for organisations and, therefore, it is a strategic risk that can be identified, quantified and managed. Stevens further reported that numerous studies have shown that workplace stress adversely affects work performance, morale and commitment to the organisation. Workplace stress may cause absenteeism through physical or psychological ill-health, or an increase in turnover as employees leave the organisation for less-stressful working conditions.

Quick *et al.*, as cited in Coetzee (2008), indicated that if an organisation does not ensure that employees maintain a state of relative health, it risks becoming ineffective in a long run. Coetzee also indicated that stressed employees may produce lower quality work or less work. He further reported that occupational stress may lead to faulty decision-making. When stressed, employees may be involved in more accidents.

According to Shreffler *et al.*, (2011), working in a trauma and disaster context can impair mental and physical health and the consequences can persist for prolonged periods. Workers in critical occupations, such as fire-fighters, police officers and emergency

personnel, are at much risk of experiencing trauma events than are the population at large. Fire-fighters are regularly exposed to gruesome injuries and death and they are often face dangerous and unpredictable situations. Approximately 22% of U.S fire-fighters meet the diagnostic criteria for post-traumatic stress disorder (PTSD). Occupational stress is associated with numerous negative consequences for the family. Job stress has been linked to negative individual mental and physical health outcomes and work to family conflict.

Occupational stress can have damaging psychological and physiological effects on an employee's health and on their contributions to organisational effectiveness. Occupational stress can cause heart disease and it can prevent employees from concentrating or making decisions. Increased levels of stress have also been associated with adverse effects on family relationships, decreased productivity in the workplace and increased psychiatric symptoms. A stressed employee can affect the safety of other workers or even the public. Occupational stress represents a significant cost to organisations. Some estimates put the cost of stress-related problems in the U.S economy at \$150 billion a year. As examples of these costs, organisations spend a great deal of money treating stress-related employee problems through medical programmes and they must absorb explosive legal fees when handling stress related lawsuits (Certo & Certo, 2014).

Gibson *et al.*, (2009) state that occupational stress costs organisations money. The organisation may have to cover costs associated with mental and physical health problems arising from stress conditions, including hospital and medical costs, lost work

time, turnover, sabotage and a host of other variables. When you consider that employers pay approximately 80% of all private health insurance premiums and that worker's compensation laws increasingly include provisions for awarding benefits for injuries stemming from stress in the workplace, it is clear that organisational consequences are significant.

2.7 Preventative measures

Coetzee (2008) indicates that prevention is better than cure. Individuals and organisations should rather try to prevent stress through a philosophy and set of principles that promotes individual's health and preventing distress. Quick *et al.*, as cited in Coetzee (2008), identified the three stages of occupational stress prevention that individuals and organisations can target:

- **Primary prevention**

Primary prevention is the protection of health at the first stage, before distress or disease occurs. This prevention strategy aims to eliminate or reduce the impact of risk factors. In this regard, employees can try to manage their own perception of stress. Employees can use constructive self-talk and employ various coping strategies. One can also look at managing the work environment differently by trying to avoid overload, planning and managing your time differently and using social support to help you.

- **Secondary prevention**

Secondary prevention is applied at the early stages or first detection of distress or disease. It involves prompt, early interventions to correct this deviation from health. This entails a re-look at various aspects of life, like using various relaxation exercises, making use of emotional outlets, looking after your physical fitness, nutrition and spiritual health.

- **Tertiary prevention**

Tertiary prevention intervention is therapeutic in nature and tries to treat the symptoms of possibly advanced stages of distress. It aims to alleviate discomfort and restore effective functioning. If necessary, one can seek counselling or therapy, which can be career counselling, group therapy or symptom-specific programmes.

2.8 Management of occupational stress

Stress management refers to any initiative that reduces stress by helping people understand the stress response, recognise stressors and use coping techniques to minimise the negative impact of stress. Individual and organisational practices to help managers and employees cope with stress have become increasingly popular as stress has become more widely recognised as a problem (Slocum & Hellriegel, 2007). Mullins (2007) indicates that there are a number of measures which individuals and organisations can use to attempt to reduce the causes and effects of stress.

2.8.1 Individual stress management

Today, self-help remedies, do-it yourself approaches, weight-loss clinics and diets, health foods and physical exercise are being given much attention in the mass media. People are actually taking responsibility, or know they should be taking responsibility, for their own wellness. Individual coping strategies for dealing with stress make sense. Today, this coping responsibility goes beyond physical well-being to also include physiological well-being, spiritual vitality and ethics (Luthans, 2008).

Slocum and Hellriegel (2007) suggest that managing stress by individuals includes activities and behaviours designed to (a) eliminate or control the source of stress and (b) make the individual more resistant to, or better able to cope with, stress. The first step in individual stress management involves recognising the stressors that are affecting the person's life. Next, the individual needs to decide what to do about them. Personal goals and values, coupled with practical stress management skills, can help individuals cope with stressors and reduce negative stress reactions.

Slocum and Hellriegel also provided the basic practices for managing stress by individuals, namely:

- Plan ahead and practice good time management.
- Get plenty of exercise, eat a balanced diet, get adequate rest, and generally take care of yourself.
- Develop a sound philosophy of life and maintain a positive attitude as well as a sense of humour.

- Concentrate on balancing your work and personal life. Always take time to have fun.
- Learn relaxation techniques.

Emphasis is placed on relaxation techniques. Slocum and Hellriegel further state that individuals can use relaxation techniques during the work day to cope with job demands. For example, a common “relaxation response” to stress is to (a) choose a comfortable position, (b) close your eyes, (c) relax your muscles, (d) become aware of your breathing, (e) maintain a passive attitude when thoughts surface, and (f) continue for a set period of time (e.g., 20 minutes).

2.8.2 Organisational stress management

According to Luthans (2008), organisational coping strategies are designed by management to eliminate or control organisational-level stressors in order to prevent or reduce occupational stress for individual employees. Certo and Certo (2014) suggest that occupational stress are seldom significantly reduced until the stressors causing the stress have been dealt with satisfactorily or removed from the environment. For example, if too much organisational change is causing undesirably high levels of stress, management may be able to reduce that stress by improving organisational training aimed at preparing workers to deal with job demands resulting from change. Management might also choose to reduce such stress by refraining from making further organisational changes for a while. Management can also adopt several strategies to help prevent the initial development of unwanted stressors. Four such strategies follow:

- **Create an organisational climate that is supportive of individuals.**

Organisations commonly evolve into large bureaucracies with formal, inflexible climates. This setup leads to considerable job stress. Making the organisational environment less formal and more supportive of employee needs will help prevent the development of unwanted organisational stressors.

- **The implementation of stress management courses.**

Recent research has demonstrated that employees who participated in a stress management course were less depressed than employees who did not participate in a stress management course. The stress management course involved a group session in which educational materials about coping strategies and stress prevention were presented. An additional part of the stress management course involved teaching employees about the benefits of relaxation. Those employees who participated in the stress management course demonstrated significant improvement in their depressive symptoms. Clearly, the implementation of a stress management course could be beneficial to the workplace.

- **Make jobs interesting**

Routine jobs that do not allow employees some degree of freedom often result in undesirable employee stress. Management should focus on making jobs as interesting as possible to help prevent the development of stressors related to routine, boring jobs.

- **Design and operate career counselling programmes**

Employees often experience considerable stress when they do not know what their next career step might be or when they might take it. If management could show employees that next step and it that could realistically be achieved, this will discourage unwanted organisational stressors.

Stevens (2005) states that line managers can help to support employees by setting achievable goals, in consultation with employees and by providing regular and constructive feedback as to how work tasks are being undertaken. Managers can also provide support by giving encouragement and praise for good work and by ensuring that employees have the necessary resources and competencies to carry out their job/role. Stevens (2005) further suggests that, at an organisational level, there should be systems in place to respond to individual concerns such as occupational stress, bullying, the use of authority without justification and unhelpful criticisms.

- **Employee wellness programmes (E.W.P)**

According to Bernardin (2010), employee wellness programmes (E.W.P) are designed to prevent employee problems. Tobacco use, alcohol and substance abuse, sedentary lifestyles, poor nutritional habits, excessive and unnecessary stressors in the workplace, and inadequate employee abilities to cope with stress are examples of targets of employee wellness programmes. The scope and features of wellness programmes among organisations vary widely. Luthans (2008) states that wellness programmes are a special type of benefit programme that focuses on keeping employees from becoming

physically and/or mentally ill. There is considerable evidence that employees who exercise regularly are less likely to take sick days and thus reduce health insurance premiums and loss of productive time.

Gibson *et al.*, (2009) give the following reasons for including employee wellness programmes in a discussion of stress management:

- ✓ Stress prevention and management is a vital part of wellness, it is frequently a component of wellness programmes.
- ✓ Many of the concerns of wellness programmes are at least partially stress related.
- ✓ A major reasons organisations are interested in stress management is that it contributes to healthier, more productive, and more effective organisations. Corporate wellness programmes simply extend these payoffs.
- ✓ It is impossible to divorce the topic of stress from health. In a sense, a wellness programme represents a broad-based, contemporary extension of stress programmes; their focus is concern for employee health and quality-of-life issues.

▪ **Employee assistance programmes (E.A.P)**

According to Swanepoel, Erasmus and Schenk (2008), employee assistance programmes (E.A.P) essentially involve social services offered to troubled employees who need professional treatment for varying kinds of personal problems with which they cannot cope and which may have a potentially negative impact on their work performance and personal lives. According to Luthans (2008), social workers/E.A.P practitioners

typically provide employees with services such as confidential counselling and/or follow-up on issues of personal or work-related concerns. They also provide family workshops and consultations (related to marriage, single parenting, working parents), stress management workshops, relaxation seminars and other kinds of support. Often, the mere peace of mind that E.A.Ps provide, knowing that there is support available, can help ease some of the stress that employees face in today's environment.

2.9 Legislative frame work of occupational stress

There are many models trying to explain occupational stress, however, the models found to be most relevant to this study are the Job Demand-Control-Support (JD-CS) model and Organisational Stress model.

The Job Demand Control-Support model suggests the following factors as occupational stressors: working intensively under time constraints, a high workload, job insecurity and work conflict. The theory also indicates that constructs job demands, control/decision latitude and social support vary independently within work environment to the extent that different combinations of these variables produce different outcomes (Cooper & Dewe, 2005). Some of the stressors outlined by this model helped the researcher to establish the objectives of the study.

The Occupational Stress model suggests that stressors lead to stress, which, in turn, produce a variety of outcomes (Oosthuizen, 2014). Gibson, *et al.*, (2009) indicate that the model also suggests that the relationship between stress and outcomes (individual and organisation) is not necessarily direct; similarly neither is the relationship between the

stressors and stress. The relationships may be influenced by stress moderators. Individual differences, such as age, social support mechanisms and personality, are introduced as potential moderators. Additionally Oosthuizen (2014) states that several individual differences moderate the stressor-stress-outcome relationship. Oosthuizen also identified four major stressors, namely: Individual stressors, group stressors, organisational stressors and extra-organisational stressors. The model also notes that people interpret the same stressors differently. It also states that stress has behavioural, cognitive and psychological consequences.

CHAPTER 3

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

3.1 Introduction

In this chapter, the data collected from the respondents is presented, analysed and interpreted. Fire-fighters employed by the Polokwane Local Municipality in the Limpopo Province were interviewed. The aim of the study was to explore the contributory factors to occupational stress among the fire-fighters. During the data collection, fire-fighters showed that they understood the concept of occupational stress and they also described how working relationships, workload, nature of work, deadline pressure and work-home balance contributed to occupational stress. The fire-fighters also explained how occupational stress affected them personally and their productivity at work. The study also revealed various strategies applied by fire-fighter in dealing with occupational stress, including the professional support provided by their employer.

3.2 Demographic information

This section primarily focuses on the demographic information of the respondents. The purpose of this section is to ensure that the information to be provided by the respondents is valid and reliable. In order to achieve the latter, the researcher had to confirm that the respondents in the study met the required criteria for inclusion in the population of the study. Though the study is qualitative in nature, demographic data was presented using frequency distribution tables and percentages. The reason behind the use of frequency

distribution tables and percentages is to provide a clear description of the study population. The population of the study was made up of fire-fighters employed by the Polokwane Local Municipality, regardless of their gender and age. The respondents were expected to have at least a minimum of one years' working experience in the field of fire-fighting. Even though it was not the researcher's intention to reveal whether age, gender and marital status contributed to occupational stress among fire-fighters, it was, however, interesting that the latter variables were considered by fire-fighters as some contributing factors in bringing about occupational stress. This section only covers five demographic aspects, namely: the age, gender, marital status, number of dependants under the age of 18 years and work experience as fire-fighters of those who participated in the study.

3.2.1 Age of the respondents

Age in years	Number of respondents	Percentages
26-35	08	57%
36-45	06	43%
Total	14	100%

Table 1: Age of the respondents

The table above shows the age range of the fire-fighters in relation to the total number of those interviewed. The study population criteria did not prescribe the particular age of the respondents. All the fire-fighters, regardless of age, were considered to form part of the study. The table further indicates in numerical terms that the age of eight (57%)

respondents ranged from 26 - 35 years of age, while the age of six (43%) of the respondents ranged from 36 - 45 years of age. This age range enhanced the study because it captured respondents from young to middle age with a variety of family responsibilities and commitments. Fire-fighters of a particular age may view occupational stress in a different manner when compared to those of a different age.

3.2.2 Gender of the respondents

Gender	Number of respondents	Percentages
Males	09	64%
Females	05	36%
Total	14	100%

Table 2: Gender of the respondents

The table above shows the number and gender of the respondents. The study did not discriminate between the respondents on the basis of gender. The researcher considered the fact that respondents from different genders may view the phenomenon of occupational stress differently. For the purpose of the study, nine males (64%) and five females (36%) were interviewed. Even though the gender of the respondents was not balanced, the study will still benefit from documenting the experiences the women. Though the objective of the study was not to establish how fire-fighters from different genders view occupational stress, the study found that occupational stress affects fire-fighters differently based on their gender.

3.2.3. Marital status of the respondents

Marital status	Number of respondents	Percentages
Single	05	36%
Married	09	64%
Total	14	100%

Table 3: Marital status of the respondents

Table 3 shows the number and percentages of respondents with regard to their marital status. What is deduced from Table 3 is that five respondents were single and they constituted to 36% of the total number of respondents. Nine fire-fighters were married and they constituted to 64% of the total number of the respondents. The finding that the majority of the respondents were married is important for this study since emergency services involve shift work which is always a threat to an employee’s married and family life. However, having participants who are married as well as those who are single enhanced the study with regard to diversity views.

3.2.4 Number of respondents with dependents under the age of 18 years

Dependents	Number of respondents	Percentages
0-18 years old	12	86%
19 and above	02	14%
Total	14	100%

Table 4: Number of respondents with dependents under the age of 18 years

Table 4 indicates the number of respondents and their percentages on the basis of the ages of their dependants. The researcher believes that fire-fighters with dependents under the age of 18 years might not perceive occupational stress in the same way as those who have dependants above 18 years of age, or no dependents at all. Twelve respondents (86%) were found to have dependants aged between 0-18 years old, while fourteen respondents (14%) were found to have dependants aged 19 years old and older. This study found that the majority of respondents were faced with different tasks of child rearing while they are expected to work flexible hours. Inability to adequately care for one's minor children can also be a source of stress.

3.2.5 Work experience of the respondents

Work experience	Number of respondents	Percentages
01-05 years	03	21%
06-10 years	05	36%
11-15 years	04	29%
16-20 years	02	14%
Total	14	100%

Table 5: work experience of the respondents

Table 5 shows the number and percentages of respondents on the basis of work experience. The effects of occupational stress may vary based on the work experiences of a fire-fighter. In this study, three respondents (21%) had between 1 and 5 years' work experience, five (36%) respondents had between 6 and 10 years' work experience, four respondents had between 11 and 15 years' work experience, while two respondents had between 16 and 20 years' work experience. The fact that the majority of the respondents had more than 3 years' work experience enriched the findings of the study. The level of experience indicates that the respondents knew about the phenomenon being studied.

3.3 Factors contributing to occupational stress

3.3.1 Working relationship

The focus of the question on working relationships was to gain an understanding of how fire-fighters view good working relationships in their working environment. The researcher also wanted to know how relationships at work lead to occupational stress. The participants were found to have a common understanding when it came to their views of a good relationship in their workplace. The majority of the respondents described a good working relationship in a form of characteristics. Most respondents included the word “support” in their responses. Respondents indicated that fire-fighting requires teamwork, therefore support is imperative. Participants indicated that understanding for, and support of, each other is essential, as is having good communication. They pointed out that not bringing family problems to work and to respect each other is also important. They further stated that a good working relationship comprises of love, support and understanding. People should be able to resolve problems that arise throughout their working lives. This was echoed by the majority of the respondents who said that:

“Support, good communication, openness and honesty should be priorities in a working relationship. Personal issues and agendas should not influence relationships.”

The fire-fighters also shared their views on levels in which work relationships can lead to occupational stress. The majority argued that, if a relationship can be bad to such an extent that people are no longer talking to each other, this can be very stressful.

Based on the responses from the fire-fighters, the researcher agrees that a good working relationship is key to effective and accident-free service delivery in the fire-fighting unit.

Fire-fighters emphasised that the following factors are critical to working relationship:

- Teamwork,
- Trust,
- Respect for one another,
- Support and care,
- And good communication.

Fire-fighting does not involve individual work, it requires people to work in a team and, therefore, a supportive and good working-relationship is essential. Without a good working relationship it will be difficult for one to work, since fire-fighting requires of the employees to work in a team. Poor working relationships directly lead to occupational stress among fire-fighters. It is also of paramount importance that fire-fighters maintain a good working relationship.

The fire-fighter's responses and the study findings are in line with Stevens (2005). Stevens reiterates that relationships can be a major source of stress in the workplace. Poor work relationships are often the result of interactions with colleagues that are characterised by a lack of trust, little support, low interest in listening or in attempting to tackle workplace problems.

3.3.2 Workload

The intention on this question on workload was to find out whether workload does contribute to occupational stress among the fire-fighters in the Polokwane Local Municipality. The researcher wanted find out directly from fire-fighters if workload could lead to occupational stress. Each respondent had his or her own perspective regarding the workload variable.

The majority of respondents gave the impression that there is a link between the workload as a variable and the occupational stress. Respondents emphasised and/or justified their answers by elaborating on the various kinds of scenes that fire-fighters have to attend to, which they perceived as stressful. Other respondents also alluded to the fact that the workload is seasonally dependent. The unpredictability of workload may result in low or high workload, depending on the season or the circumstances. The respondents indicated that over the festive season the fire-fighters face a high workload when compared to other seasons. On the other hand, respondents stated that during non-busy season they often feel underutilised, which also contributes to occupational stress. Some respondents had this to say:

“In our case workload is unpredictable, sometimes we have a high workload and sometimes we have a very low workload. In December times we have a high workload which can be stressful. You attend one scene after the other. Sometimes in the middle of the year we have a low workload in a way that we just sit waiting for a call or attending community campaigns.”

In addition, another respondent indicated that not only is workload a problem, but highlighted staff shortages as another factor. The staff to workload ratio according to the respondent is one of the factors that leads to workplace stress if it is not well balanced.

In response to the same question, other fire-fighters concurred that workload can lead to occupational stress. However, they also complained about under-payment, stressing that their job expectation does not match the level of payment.

The study found that fire-fighters have a great deal of responsibility. The name fire-fighters makes it to sound like fire-fighters are only expected to fight fires, however, they are also expected to attend to different kinds of emergencies, such as disasters and accidents. In the fire-fighting department, workload is unpredictable. The festive season is referred to as busiest time of the year when compared to other seasons. The study also found that occupational stress does not only develop as a result of a high workload but also from a low workload. When employees have little to do at work, they may feel underutilised and that may contribute to occupational stress.

The findings with respect to workload are in line with the literature and also in line with the objectives. Hallowell, as cited in Quick *et al.*, (2008), stated that workload is a major source of stress. Workload concerns the work demands that the job places on an employees. Slocum and Hellriegel (2007) indicated that, for many employees, having too much work to do and not enough time or resources to do it in can be stressful. Work overload exists when the demands of the job exceed the capacity of a manager or employee to meet all of them adequately. However, Gibson *et al.*, (2009) not only recognise work-overload as a stressor, they also identified work under-load as a stressor.

They suggest that an employee with little responsibility at work may feel less important. Work under-load can also decrease motivation. Furthermore, Shreffler, *et. al.*, (2011) articulate that fire-fighters are not only expected to extinguish fires but also to attend to issues such as: terrorist incidents, man-made disasters and natural disasters.

3.3.4 Nature of work

The primary purpose of this theme lies in the assumption that the nature of work contributes to occupation stress. The focus was on the kind of duties that fire-fighters are expected to execute. The majority of the fire-fighters indicated that fire-fighting is, by nature, a stressful job. Other respondents indicated that stress can be severe, especially during the early years of employment, since fire-fighting is an emergency service. They also pointed out that the severity of incidents is unpredictable.

Some incidents can be intense and more traumatising while others are minor and less traumatising or not traumatising at all. Other respondents also indicated that fire-fighting involves people's lives and that fire-fighters are only called out when people are in danger. The respondents also stated that that they were not only expected to extinguish fires, as the name may suggest, but also to perform all other emergency and rescue services.

In describing how nature of work can lead to occupational stress, one respondent took out his phone and read out a little poem in support of his answer. The little poem describes how the nature of work poses danger to the fire-fighters and how important is their services are to humankind. This is how the poem was structured:

"I am either a hero or a super hero.

I could be hit by a car while treating you on the side of the road.

I could be pricked by a dirty needle and contract a disease.

I will risk my life to rescue you on a cliff ledge.

I will suffer for all these if you need me and make the ultimate sacrifice for you.

I hope we never meet, but if we do I'm there for you.

I have studied hard and earned this, the proudest title..."

The findings show that the nature of work which fire-fighters are involved in contributes to occupational stress. There is a strong relationship between the nature of work and workload. Fire-fighting is part of emergency services and fire-fighters are expected to perform various emergency tasks. The kinds of duties that fire-fighters perform can be so detrimental to them and, as such, stress could be the outcome thereof. The fact that the nature of work contributes to occupational stress has a direct link to objective number one which, amongst others, is to establish how and to what extent does nature of work contribute to occupational stress among the fire-fighters in the Polokwane Local Municipality, Limpopo Province.

The responses obtained from the respondents are in line with the literature on the nature of work. Newstrom (2011) suggested that some jobs produce more stress than others. Kaminsky, *et al.*, as cited in Oosthuizen and Koortzen (2009), indicated that fire-fighters are subject to, and experience, intense job stress due to the emergency services that they render to the public. Some factors that may lead to stress of fire-fighters may include

exposure to serious fires in which people are trapped, accidents in which many people are injured and exposure to human loss. Furthermore, Rogers (2007) indicated that, owing to their high level of exposure to traumatic incidents, fire-fighters may become secondary victims of trauma, exhibiting symptoms akin to those of direct victims.

3.3.4 Deadline pressure

This section deals with deadline pressure as a factor that contributes to occupational stress. The researcher wanted to find out how deadline pressure leads to occupational stress and how it can be managed.

There was a common understanding among the majority of the respondents, indicating that they face deadline pressures often, depending on the circumstances. Fire-fighters wish to assist everyone who is in danger and, depending on the nature of the incident, sometimes they succeed and sometimes they fail. The fire-fighters stated that deadline pressure is also unpredictable. The respondents articulated that pressures depend on the circumstances and seasons. Festive season is regarded as the busiest and therefore pressure is predominant. The majority of the fire-fighters indicated that they often face deadline pressure and the most dominant strategy that is used to deal with this pressure is through team work. Fire-fighters also prioritise their tasks in order to manage their deadline pressures.

Deadline pressure can emanate from the office or from the scene of the emergency. In the office the fire-fighters maybe expected to prepare for campaigns or to compile reports. The fire-fighters are also expected to attend emergency scenes and the nature of such

scenes is unpredictable. The fire-fighters are therefore expected to work hard to meet the targets.

The findings show that deadline pressure contributes to occupational stress. There is also a strong relationship between workload, nature of work and deadline pressures. Both workload and nature of work can lead to deadline pressure and, therefore, to occupational stress. Deadline pressures are inevitable in the working environment. Deadline pressures force fire-fighters to work harder than they anticipated in order to contain the situation. Working under pressure may compromise the quality of service. Inability to manage the targets can lead to pressure which, in return may, may lead to occupational stress. A good support system and teamwork is necessary in fire-fighting; therefore, a good working relationship is important.

The responses to this variable do not have a direct link with the literature. However, some of the responses may be linked to the literature. Crafford *et al.*, (2007) state that pressure is not just about the amount of work that an individual is presented with, but the urgency with which that work must be completed. It may also involve the difficulties of reconciling competing demands, particularly if they require the rapid acquisition of new skills. Newstrom (2011) suggests that deadlines put employees under pressure and lead to stress.

3.3.5 Work-home balance

The focus of this section was on understanding the fire-fighters' views regarding work-home balance as a contributory factor to occupational stress. The researcher wanted to

understand whether there was a connection between work-home balance and occupational stress. The majority of respondents agreed that there was a connection between work-home balance and occupational stress. According to the respondents, inability to perform some of their family responsibilities, such as attending their children's school meetings due to work shifts, can be stressful. Fire-fighters also indicated that sometimes they have to leave their families behind when they are working at night while on standby. The fire-fighters stated that fear for their family and household safety leads to stress. According to the respondents family/personal problems can affect them as well. The respondents indicated that problems arise when employees are unable to maintain a balance between their work and home lives.

The study found that inability to find a balance between work and home life can contribute to occupational stress. Psychosocial problems are inevitable, both in the working environment and at home. Workplace stressors can affect employees at homes and home stressors can affect employees in the workplace. Family, financial and marital problems can affect the employees in the workplace. Organisational problems can also affect the individual employees at home. The fire-fighters working on standby during the night may fear for the safety of their family. The fire-fighters are expected to work on standby and sometimes they work during the night. Leaving their families at home without proper security systems may lead to stress. The inability to perform some of the domestic responsibilities because of work may also lead to occupational stress. The inability to balance work and home/family life can affect the employees both at home and at work.

From the data gathered for this variable, the researcher found that the responses from the fire-fighters are in line with the literature on work-home balance. Spector (2006) indicated that work-family conflict is a form of extra role conflict in which the demands of work interfere with the family, for example, having to spend time at work leaves insufficient time for home.

3.4 Effects of occupational stress on employees as individuals and their organisation.

Occupational stress can affect both employees and their organisations. Stranks (2006) listed a number of areas in which occupational stress can negatively affect individual employees, namely: emotional, cognitive, behavioural and psychological. Gibson *et al.*, (2009) state that occupational stress costs organisations money. The organisation may have to cover costs associated with mental and physical health problems arising from stress conditions, including hospital and medical costs, lost work time, turnover, sabotage and a host of other variables.

3.4.1 Effects of occupational stress on the individual employees.

Robbins *et al.*, (2009) indicated that occupational stress shows itself in different ways. Muchinsky (2006) reported that researchers have classified responses to occupational stress into three broad categories; physiological, psychological and behavioural.

The focus of this section is to find out the extent to which occupational stress can affect the fire-fighters. The researcher wanted to understand the respondents' perceptions of the effects of occupational stress on fire-fighters as individuals. The majority of the fire-

fighters indicated that occupational stress had a diverse effect on their lives. Some of the fire-fighters indicated that when they were stressed they become moody at work. Respondents also indicated that they drank alcohol excessively to relieve themselves of stress. Other respondents stated that they experience headaches, an increase in blood pressure, loss of appetite, etc., whenever they are stressed. Respondents also indicated that occupational stress can affect employees in various ways, depending on the type of a stressor and the uniqueness of the individual. The following are some of the comments made by the respondents:

“It depends on what will be stressing me at that particular time. When my stress is from financial issues, I spend much of my time calculating in my mind and I end up counting numbers aloud. I sometimes do not even hear myself; I will just hear people laughing at me. Sometimes when you are stressed you may drink alcohol excessively and I do not think that is a good way to solve a problem.”

The study found that occupational stress has a diverse effect on employees as individuals. The effects of occupational stress differ from one individual to another. The nature of the stressor may also determine the effect that occupational stress can have on an employee as an individual. Occupational stress can affect fire-fighters physiologically, psychologically and behaviourally. Depending on the nature of the stressor and the uniqueness of individuals, employees may respond to occupational stress in the following manners: loss appetite, headaches, rise in blood pressure, irritability, excessive consumption of alcohol, conflicts with colleagues, etc. Stressed employees may lack concentration at work and, as such, they may be prone to cause accidents which may

lead to physical injuries or fatalities. Occupational stress is associated with an increase in negative emotions and moods associated with anger, irritation, annoyance and intolerance.

All the responses received from the fire-fighters are in line with Muchinsky (2006)'s three responses to occupational stress: physiological responses, psychological responses and behavioural responses. The physiological responses include indices typically determined by medical doctors, such as blood pressure, cholesterol level, biochemical levels (such as uric acid, which is associated with the cause of diseases and disorders) and gastrointestinal conditions (such as ulcers). With respect to psychological responses, occupational stress is associated with an increase in negative emotions and moods associated with anger, irritation, annoyance and intolerance. Behavioural responses to occupational stress are often clustered into five broad categories: (a) job behaviour (performance, substance abuse at work, accidents); (b) flight from the job (tardiness, absence, turnover); (c) antisocial behaviour at work (theft, purposeful damage); (d) antisocial behaviour off work (spouse and child abuse); and (e) self-abusive behaviours (drug use, compulsive gambling).

3.4.2 Effects of occupational stress on the organisation.

Occupational stress does not only affect employees as individuals it also affects the general productivity or service delivery of their organisation. Kazmi, *et. al* (2008) state that productivity is essential for organisational survival. Therefore, occupational stress becomes a concern to organisational administrators. According to Stevens (2005), occupational stress has many negative consequences for organisations and, therefore, it

is a strategic risk that can and should be identified, quantified and managed. Stevens further reported that numerous studies have shown that workplace stress adversely affects work performance, morale and commitment to the organisation.

The majority of the fire-fighters agreed that occupational stress can affect the productivity or service delivery of the organisation. Respondents indicated that stressed employees cannot function well in the workplace. Stressed employees tend to lack concentration at work and that can lead to poor service delivery. The respondents also indicated that, when stressed, fire-fighters absent themselves from work, which directly affects the productivity of the organisation. The following excerpts illustrate some of the respondent's views:

The study findings indicated that occupational stress can also affect the organisation which the fire-fighters are working for. Organisational productivity/service depends on the effectiveness of the employees who work towards the organisational goals. Every employee should perform their duties in order to achieve the organisational goals. Instead of working towards the achievement of the organisational goals, management may spend time conducting disciplinary measures and resolving matters. Stressed employees may find it difficult to be effective in their organisation. Fire-fighting is an emergency service and concentration is vital. Stressed employees are prone to cause accidents when they lack concentration. The organisation may have to cover the costs for accidents and medical treatment. Stressed employees may also be involved in conflict with colleagues. Some employees may absent themselves from work due to occupational stress and this

may lead to poor service delivery or poor production. Due to occupational stress, the quality and quantity of work may be compromised.

The responses in this section are in line with the literature. According to Stevens (2005), occupational stress has many negative consequences for organisations and, therefore, it is a strategic risk that can be identified, quantified and managed. Numerous studies have shown that workplace stress adversely affects work performance, morale and commitment to the organisation. Workplace stress may cause absenteeism through physical or psychological ill-health, or an increase in turnover as employees leave the organisation for less-stressful working conditions. Coetzee (2008) indicates that stressed employees may produce lower quality work or less work. He further reported that occupational stress may lead to faulty decision-making. When stressed, employees may be involved in more accidents.

3.5 Coping strategies used by fire-fighters and Professional support

The researcher's focus on this section was to explore the strategies that fire-fighters use in order to cope with occupational stress. The researcher also wanted to understand whether the fire-fighters have a stress-related professional support from their employer.

3.5.1 Coping strategies used by fire-fighters

Employees respond to occupational stress in different ways. The mechanisms to deal with the stressors also vary from individual to individual. Slocum and Hellriegel (2007) suggest that managing stress by individuals includes activities and behaviours designed to (a) eliminate or control the source of stress and (b) make the individual more resistant to or better able to cope with stress. An employee's personal mechanisms to deal with occupational stress may be helpful, while some may lead to even more problems. Exercise can be a good measure to deal with stress, while drinking excessively in trying to relieve stress may lead to even more problems.

Fire-fighters utilise various strategies to deal with occupational stress. The majority of the employees said that they share their problems with people they trust as a way to find solutions to their problems. Respondents indicated that they engage in activities such as playing golf, exercise, etc. Other fire-fighters stated that the management of occupational stress depends on the severity of the stressor. The respondents indicated that they have employee assistance programme practitioners to assist them with stress management and other psychosocial related matters. Though there is a professional measure in place to deal with the phenomenon, the majority of the fire-fighters stated that they do not consult with these professionals. The fire-fighters have their own strategies to deal with occupational stress. Some of the strategies can be helpful and some may lead to even more problems. Some respondents indicated that they try to solve their problems by mitigating for the solutions with people they are in conflict with. Respondents indicated

that they drink alcohol in order to relieve themselves of stress. One respondent indicated that he once consulted the social worker/ employee assistance programme practitioner.

The study found that fire-fighters utilise various strategies to deal with occupational stress. Occupational stress is a serious problem since it has a negative impact on the wellbeing of the employees, as well as their organisations. Management of occupational stress is, therefore, essential, as it assists both the employees and their organisation. It is vital that employees share their problems with people they trust. Employees also have a responsibility to find solutions to their problems. Regular exercise, healthy diets and sporting activities are also essential tools in managing stress. Where employees are unable to manage their stress levels, it is important that they consult people who are professionally trained to handle stress, e.g. social workers/employee assistance programme practitioners, employee wellness coordinators, etc.

The majority of responses from fire-fighters did not match the literature. Slocum and Hellriegel (2007) provided the basic practices for managing stress by individuals, namely:

- Plan ahead and practice good time management.
- Get plenty of exercise, eat a balanced diet, get adequate rest, and generally take care of yourself.
- Develop a sound philosophy of life and maintain a positive attitude as well as a sense of humour.
- Concentrate on balancing your work and personal life. Always take time to have fun.
- Learn relaxation techniques.

3.5.2 Professional support

Stevens (2005) suggests that, at an organisational level, there should be systems in place to respond to individual concerns, such as occupational stress, bullying, the use of authority without justification and unhelpful criticism.

The majority of the fire-fighters indicated that there is professional support to address issues in relation to occupational stress. However, the majority of the respondents also stated that they do not consult the professionals, even though they are in need of assistance. As a way to deal with occupational stress, the majority of fire-fighters suggested that fire-fighters should attend trauma counselling sessions after attending to traumatic incidents. The fire-fighters further suggested that debriefing sessions should take place periodically, since not all fire-fighters are able to consult on a personal level. It is also advised that fire-fighters should share their problems with people they trust or consult with an employee assistance practitioner, where necessary.

The respondents viewed it as important that the services of an employee assistance programme be provided to all emergency service providers. In corroboration of the above, this was echoed by other participants who said:

“People must share their problems with people they trust. It is also important that we have trauma counselling at least twice in a month. Paramedics, traffic officers and other emergency services providers need to undergo counselling timeously. The service should be done involuntarily because some of the people do not want to seek assistance individually”.

The findings indicate that the Polokwane Local Municipality has an employee assistance programme practitioner; however, the majority of the fire-fighters do not consult with this professional. Fire-fighters know and understand the importance of employee assistance programmes but they do not utilise the services on offer. Social workers/E.A.P practitioners should provide counselling sessions periodically without waiting for referrals. Employees should be informed about the individual strategies to handle stress.

Stevens (2005) states that line managers can help to support employees by setting achievable goals, in consultation with employees and providing regular and constructive feedback as to how work tasks are being undertaken. Managers can also provide support by giving encouragement and praise for good work and by ensuring that employees have the necessary resources and competencies to carry out their job/role.

3.6 Conclusion

The primary aim of this chapter was to qualitatively present, analyse and interpret data collected during the study. The results were confirmed by the researcher using the existing literature in the field of occupational stress. From the views of the respondents in this study, it was found that poor working relationship, workload, nature of work, inability to manage deadline pressure and work-home balance contribute to occupational stress among the fire-fighters at the Polokwane Local Municipality. The study also found that occupational stress negatively affects the employees and the organisation they work for.

CHAPTER 4

SUMMARY OF MAJOR FINDINGS, CONCLUSION AND RECOMMENDATIONS

4.1 Introduction

This chapter presents an overview of the study by restating the motivation for the study, research problem, aim, objectives and the assumptions of the study. It also summarises the findings and discusses whether the research achieved its aim and objectives. The chapter then presents conclusions drawn from the findings as well as the recommendations pertaining to the study.

4.2 Re-statement of motivation of the study

The cases of stress among fire-fighters which were reported to the (researcher) social worker's office in the Department of Social Development drew the researcher's attention to study the problem. Oosthuizen and Koortzen (2009) indicated that stress among fire-fighters may arise from outside the work situation and from within the working environment. They further indicated that outside situations may include, among others: long working shifts (which interferes with sex life), limited time with family, marital dysfunction; and working conditions which include: interpersonal tensions, workload, etc. The statistics which were supplied to the researcher by the municipality show a high rate of absenteeism. The fire-fighters also made the researcher realise the need for exploring the phenomenon intensively. Stranks (2006) indicates that occupational stress can result in job absenteeism, poor productivity and ineffective decision-making. The researcher

was also interested in the study population, since little research has been done on fire-fighters in South Africa.

4.3 Re-statement of the problem

Occupational stress is increasingly becoming a problem for many organisations in South Africa and in the world in general. Many organisations experience low production problems and regular occupational injuries due to employee stress. Coetzee (2008) alluded to the fact that, if an organisation does not ensure that employees maintain a state of relative health, it risks becoming ineffective in the long run. According to Kinicki and Fugate (2012), occupational stress can have a negative impact on organisational behaviour and on an individual's health. Occupational stress is closely related to absenteeism, turnover, coronary heart disease, and viral infection.

Fire-fighters are at a much greater risk of experiencing stressful and traumatic events than are other employees, due to their nature of work. Fire-fighters are regularly exposed to gruesome injuries and death; and often face dangerous and unpredictable situations (Shreffler *et al.*, 2011).

The researcher was concerned with occupational stress as it poses a serious challenge to individual employees and to their organisations. The researcher is of the opinion that threats, such as low productivity, poor work place relations, employee substance abuse, job absenteeism and accidents, as experienced by fire-fighters in the Polokwane Local Municipality, Limpopo Province, may persist if the phenomenon is not extensively investigated and addressed. Fire-fighting is an essential service that demands that

workers are always alert and ready to perform with utmost efficiency, without endangering themselves and the people they serve.

4.4 Re-statement of the aims, assumptions and objectives

4.4.1. Aims of the study

The aim of the study was to explore the factors that contribute to occupational stress among the fire-fighters in the Polokwane Local Municipality. To achieve the aims, the study was founded on the three assumptions.

4.4.2. Assumptions

The study was based on the following assumptions:

- Factors such as working relationships, work-load, nature of work, deadlines pressure and work-home balance contribute to occupational stress among fire-fighters in the Polokwane Local Municipality, Limpopo Province. The study affirmed this assumption and explained how the above stressors manifest themselves.
- Occupational stress leads to psychological, behavioural and physiological effects on the fire-fighters. Respondents in this study agreed that occupational stress leads to the above effects.
- Lack of professional support of employees leads them to develop their own strategies which are inadequate and ineffective to cope with occupational stress.

The study confirmed that failure to acquire professional support results in personal strategy to deal with the phenomenon.

In order to prove the assumption the study was based on three objectives.

4.4.3. Objectives of the study

The objectives were developed to help achieve the aims of the study:

- To establish whether and to what extent working relationships, workload, nature of work, deadlines pressure and work-home balance contribute to occupational stress among fire-fighters in the Polokwane Local Municipality, Limpopo Province. The objective was achieved and supported by the findings as described in sub-sections 3.3.1, 3.3.2, 3.3.3, 3.3.4, and 3.3.5. Sub-section 3.3.1 revealed that poor working relationships lead to occupational stress among the fire-fighters. Sub-section 3.3.2 showed that both low and high workload contributes to occupational stress. It was also revealed that both qualitative and quantitative work-loads have a direct link to occupational stress. Sub-section 3.3.3 revealed that fire-fighters perform different kinds of duties and that such duties contribute towards occupational stress. In sub-section 3.3.4 deadline pressure was also found to be a factor that contributed occupational stress. Inability to manage to manage deadline pressure was found to have a direct link to occupational stress. Sub-section 3.3.5 revealed that an inability to balance work responsibilities with home life was found to be a contributory factor to occupational stress among fire-fighters in the Polokwane Local Municipality.

- To determine the psychological, behavioural and physiological effects of occupational stress on the fire-fighters and their organisation. This objective was achieved as the researcher discovered how occupational stress affects fire-fighters psychologically, behaviourally and physiologically. According to Muchinsky (2006), the physiological responses include indices typically determined by medical doctors, such as blood pressure, cholesterol level, biochemical levels (such as uric acid, which is associated with the cause of diseases and disorders), and gastrointestinal conditions (such as ulcers). On the matter of psychological responses, occupational stress is associated with an increase in negative emotions and moods associated with anger, irritation, annoyance and intolerance. Behavioural responses to occupational stress are often clustered into five broad categories: (a) job behaviour (performance, substance abuse at work, accidents); (b) flight from the job (tardiness, absence, turnover); (c) antisocial behaviour at work (theft, purposeful damage); (d) antisocial behaviour off work (spouse and child abuse); and (e) self-abusive behaviours (drug use, compulsive gambling).

It was also found that occupational stress affects the organisation that the fire-fighters are working for. According to Stevens (2005), occupational stress has many negative consequences for an organisation and, therefore, it is a strategic risk that can be identified, quantified and managed. Workplace stress affects work performance, morale and commitment to the organisation.

- To establish whether employer provides stress related professional support to the employees and if not, what strategies are they using to cope with occupational stress.

This objective was achieved and supported by the findings as reflected on in section 3.5 which shows that the respondents have a support from their employer. The Polokwane Local Municipality has an employee assistance programme in place, however, the majority of the fire-fighters do not make use of the service and, as such, they have their own mechanisms to deal with occupational stress.

4.5 Summary of major findings

This section summarises the findings of the study of fire-fighters and the relevancy of the study to social work. A summary of the findings illustrates how working relationship, workload, nature of work, deadline-pressure, and work-home balance contribute to occupational stress among fire-fighters in the Polokwane Local Municipality. The findings further illustrate how occupational stress affects both the employees and their organisation. Finally the findings explain the type of professional support employees receive from their employer and their own personal strategies to deal with occupational stress.

Based on the data collected and analysed, the following were the major findings of the study:

- The majority of the participants were married males in their early adulthood, with minor children.
- It was established that a poor working relationship contributes to occupational stress. The majority of the respondents alluded to relationships that are bad to the extent that co-workers are not on talking terms. Fire-fighters stated that a good working

relationship is essential in the fire-fighting unit since their job requires team work. They identified the following factors as critical to a good working relationship: teamwork, trust, respect for one another, support, care and good communication.

- The study revealed that both high and low workload leads to occupational stress. Qualitative and quantitative workloads were also identified as contributors to occupational stress. This is because fire-fighters respond to all sorts of emergencies, such as environmental disasters and accidents. Festive season is popularly known for a high volume of incidents.
- The nature of work was also found to have the potential to cause occupational stress. Respondents stated that fire-fighting is an emergency service where peoples' lives are involved. They alluded to trauma of loss of people's lives, life threatening injuries and exposure to all kinds of danger to their own lives. By nature emergency services are characterised by urgency which the majority of respondents identified as this main reason for their inability to manage deadlines, which leads to occupational stress. This happens mostly during peak periods.
- It was established in sub-section 3.3.4 that an inability to manage deadline pressure can lead to occupational stress.
- It has become evident that that work-home balance contributes to occupational stress. An inability to balance work responsibilities and home life has a direct link to occupational stress. This was established in sub-section 3.3.5. The respondents

identified problems such as absenteeism poor concentration and vulnerability to occupational accidents.

- It was established that occupational stress affects both employees and their organisation. Occupational stress affects employees psychologically, behavioural and physiologically. Fire-fighters alluded to being moody, excessive drinking and headaches. In the organisation, occupational stress affects production/service delivery. This was established in sub-sections 3.4, 3.4.1 & 3.4.2.
- It has become evident that the Polokwane Local Municipality has an employee assistance programme which serves as support to employees' suffering from occupational stress and other personal problems. Though the employees have a professional support system, it was found that majority of employees do not consult the employee assistance programme practitioners, but rather have their own strategies to deal with occupational stress.

As part of employee wellness programmes, cohesion is necessary among the employees who work as a team. Implementation of programmes, such as team building activities and workplace sports, are necessary in this regard. Where conflict among the employees has already developed, social workers/E.A.P practitioners should intervene. Social workers/E.A.P practitioners should provide counselling sessions to the affected employees. Relevant social work principles and values (confidentiality, non-judgemental attitudes, neutrality etc.) should be implemented in order to assist in problem solving.

4.6 Conclusion

This study concludes that:

Working relationships, workload, nature of work, deadline pressure and work-home balance all contribute to occupational stress among fire-fighters in the Polokwane Local Municipality. Since fire-fighting requires teamwork, it is essential that the fire-fighter maintains good working relationships. Team building activities are, therefore, essential to strengthen relations within the fire-fighting unit. In seasons where the Province experiences a high volume of incidences, it is essential that the organisation employ additional staff on a temporary basis. Inability to balance home and work leads to stress. Stress which emanates from home can affect the employee at work and vice versa. Occupational stress does negatively affect both the employees and the organisation. When employees are stressed, their work performance deteriorates. The poorer the productivity of fire-fighters, the poorer the service they deliver.

The fire-fighters do not consult with social workers/E.A.P practitioners; they rather rely on their unprofessional and less effective intervention strategies to cope with occupational stress. The reliance on a personal stress management strategy may be risky and inadequate. When faced with life-challenging circumstances some fire-fighters may resort to alcohol and drug abuse, which leads to more problems, such as work absenteeism.

4.7 Recommendations

Based on the findings and conclusions of the study, the following is recommended:

- Fire-fighters consult with the social worker/E.A.P coordinator concerning any traumatic or occupational stress, regardless of the severity. Fellow employees and supervisors should refer their colleagues to the social worker/E.A.P coordinator.
- The social workers/E.A.P coordinators should adequately market their services within the organisation to ensure that employees are aware of available services.
- The municipality should, through their social workers/E.A.P coordinators, develop policies that would lead to the establishment of programmes for the enhancement of a spirit of team-work and cohesion among the fire-fighters. This can be done through, for example; interdepartmental games where, through different sport codes, fire-fighters can compete against other departments within the municipality. The introduction of life skills programmes can also be of assistance.
- The municipality should, through their human resource department, review policies aimed at improving social work services and create positions for reserve fire-fighters who can be employed during busy seasons, such as the festive season. This will assist in workload management.
- The social workers/E.A.P coordinators should introduce workshops and programmes aimed at providing work and deadline management. Such workshops and programmes should include, among other topics; time management and project management.

- Through the social workers/E.A.P coordinators and the skills development unit, the municipality should provide workshops and training on occupational stress management.
- The social worker/E.A.P coordinators should intensify their programme marketing strategies to bring awareness of these programmes to the employees. Catalogues and posters are therefore essential in this regard.
- Future researchers should focus on the reasons why the fire-fighters do not consult with the social workers/E.A.P coordinators.

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Appendix A

Student number: 201214045

Cell: 076 629 7549

Tel: 015 483 1729

Fax: 015 483 0970

Email: Raliwedza.man@gmail.com

CONSENT FORM FOR PARTICIPATION IN THE STUDY

I hereby consent to participate in the research project. The purpose and procedures of the study have been explained to me. I understand that I am not bound to participate in the study and that it is my right as the participant to withdraw from this study if I feel not comfortable. I understand that my responses will be kept confidential.

Participant no :

Date :

Signature :

Appendix B

RESEARCH INSTRUMENT: INTERVIEW SCHEDULE

Exploring contributory factors to occupational stress among fire-fighters in Polokwane local municipality, Limpopo Province.

Dear Participant (fire-fighters)

Semi-Structured Interview Schedule

My name is Emmanuel Raliwedza. I am a Masters' student (M.A.) in the Department of Social Work at the University of Limpopo–Turfloop Campus. I am conducting a study on “Exploring contributory factors to occupational stress among fire-fighters in Polokwane local municipality, Limpopo Province”. The research study is for me and for career persuasions. As part of the research study, I am expected to collect information from identified participants of this study of which you are part of. During the interview, the researcher will make use of a schedule, as a guide.

The information that you provide will be kept confidential and will not be provided to anyone. I further reassure the participants that they will be protected from any kind of harm, be it physical, psychological and/or emotional. The session will take approximately one (1) hour. You are requested to be open and be honest as possible as you can in answering questions. You are also requested to give answers freely and provide information to the best of your abilities. Confidentiality will be preserved at all cost by the researcher. The researcher will be extremely vigilant in respecting your rights to privacy and self-determination.

You have:

- The right to refuse to be interviewed
- The right to refuse to answer any question
- Not be interviewed during mealtimes

- Not be interviewed for long periods

Thanking you in anticipation.

Mr E. Raliwedza

MA (SW) Researcher

Semi-Structured Interview Schedule

1. In relation to your work environment, explain a good working relationship?

2. Would you explain the level at which working relationship cause stress?

3. Does nature of work contribute to occupational stress-explain?

4. Workload is something other people complain about, what is your view - explain?

5. At work there are deadline to be met, how often do you face deadline pressure and how do you deal with them?

6. Is there any connection between family life and occupational stress - explain?

7. In your own view, to what extent can stress affect an employee?

8. Stress can affect the productivity of your organisation, what is your view on this?

9. Can you explain the way you personally deal with occupational stress?

10. In your view, how do you think occupational stress should be dealt with?

Thanks for your time

Raliwedza Emmanuel

MA (SW) candidate

Letter to request a permission to conduct the study

Hooge street 52
Vergesig House No: 2
Mokopane
0600
14 September 2014

Attention Polokwane municipality
Municipal Manager

RE: A request to conduct a research study within the Polokwane Municipality.

My name is Emmanuel Raliwedza. I am a student registered for the master's degree in Occupational social work at the University of Limpopo. I am required to conduct a research study as a requirement for the completion of the degree. The study is about factors that contribute towards occupational stress.

I therefore wish to apply for a permission to conduct my research study in your municipality. The permission is also requested to interview the employees (Fire fighters) on factors that lead to occupational stress. The employees can be interviewed outside their working environment. The purpose of this study is to explore possible factors that contribute towards occupational stress.

The research outcomes will form part of my assignment as required by the University for me to qualify a master's degree in social work. In addition the study will provide recommendations for the Municipality's Employee Assistance Practitioners/social workers on possible effective strategies to address occupational stress.

Thank you for your attention

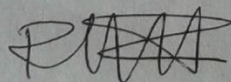
Yours sincerely

Raliwedza Emmanuel.

Cell no: 0766297549

Work Tell: 0154832545

Email Address: Raliwedza.Man@gmail.com



15 September 2014.

Confirmation of Registration



University of Limpopo
Department of Social Work
Private Bag X1106, Sovenga, 0727, South Africa
Tel: (015) 268 2291, Fax: (015) 268 3636/2866, Email: Jabulani.Makhubele@ul.ac.za

TO : The Municipal Manager
Polokwane Municipality

Date : 10/09/2014

Subject : Confirmation of registration of Mr Raliwedza Emmanuel (201214045) for Master
of Arts in Social Work

Dear Sir /Madam

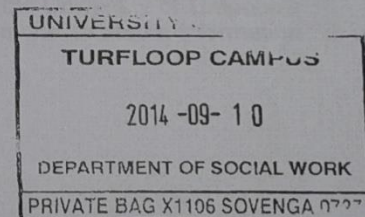
1. The above matter refers
2. This serves to confirm that Mr Raliwedza Emmanuel (201214045) is a registered student for Master of Arts in Social Work under the supervision of Mrs DT Seloana
3. His title of the study is: **Exploring factors that contribute towards occupational stress amongst fire fighters at Polokwane Municipality**

Thanking you in anticipation of your assistance and co-operation

Sincerely,

Dr JC Makhubele
HOD: Department of Social Work
University of Limpopo (Turfloop Campus)

Date



Polokwane Local Municipality internal Memorandum

#

G Khumalo (15/9/2014)

DIRECTORATE: CORPORATE SERVICES

ITEM:

FILE REF: 5/16/2

REQUEST TO GRANT MR RALIWEDZA EMMAUEL PERMISSION TO CONDUCT HIS RESEARCH AT POLOKWANE MUNICIPLITY

Report of the Director: Corporate and Shared Services

Purpose of the Report

To request approval from the Municipal Manager to give permission to Mr Raliwedza a Master of Arts in Social Work student at University of Limpopo to conduct they research within Polokwane Municipality.

BACKGROUND AND DISCUSSION

Mr. Raliwedza E a Master of Arts in Social Work student at University of Limpopo and the title of His Thesis is "Exploring factors that contribute towards occupational stress amongst fire fighters in Polokwane Municipality"

The survey to be conducted by Mr. Raliwedza E involves the interaction with Fire fighters Stakeholders about their perceptions. The survey shall be conducted in a form of administering of a questionnaire and interviews to at least 8 junior and senior fire fighters within the municipality.

The information collected during the survey shall be kept confidential and the University promises to observe all relevant research ethics in line with the University of Limpopo's standards and requirements. The universities promises to make available information related survey to the municipality.

FINANCIAL IMPLICATION

There is no financial implication on this project.

RECOMMEND

That approval be granted for Mr.Raliwedza E to conduct his research within Polokwane Municipality.

Permission to conduct the study

#492637 REPORT CONTROL SHEET

SUBJECT: Request to grant Mr. Faliwata permission to conduct his research

SECTION A: SUBMISSION BY SBU MANAGER
 SBU: Human Resources NAME [AUTHOR]: C. Khumalo
 SIGNATURE / SBU MANAGER: [Signature] DATE: 2014/09/16

SECTION B: AUTHORISATION / SUBMISSION BY
 DIRECTORATE: CSJ
 SIGNATURE / DIRECTOR: [Signature] DATE: 17/09/14

SECTION C: COMMENTS REQUIRED FROM: [TICK IN APPLICABLE BLOCK]

DIRECTOR: ENGINEERING SERVICES	<input type="checkbox"/>	SIGNATURE: _____	DATE: _____
DIRECTOR: DEVELOPMENT & ECON. PLAN	<input type="checkbox"/>	SIGNATURE: _____	DATE: _____
DIRECTOR: COMMUNITY SERVICES	<input type="checkbox"/>	SIGNATURE: _____	DATE: _____
DIRECTOR: CORP AND SHARED SERV.	<input type="checkbox"/>	SIGNATURE: _____	DATE: _____
CHIEF FINANCIAL OFFICER	<input type="checkbox"/>	SIGNATURE: _____	DATE: _____
DIRECTOR: COMMUNITY DEVELOPMENT	<input type="checkbox"/>	SIGNATURE: _____	DATE: _____
DIRECTOR: STRAT PLAN. MONITOR & EVAL.	<input type="checkbox"/>	SIGNATURE: _____	DATE: _____
MAN: COMMUNICATION & PUBLIC PART.	<input type="checkbox"/>	SIGNATURE: _____	DATE: _____

SECTION D: SECRETARIAT & ADMINISTRATION
 REG. NO: _____ REG. DATE: _____ COMMITTEE CLERK: _____

SECTION E: MUNICIPAL MANAGER
 APPROVED FOR SUBMISSION: _____ DATE: _____
 REMARKS: _____

ALLOCATION TO SPECIFIC COMMITTEES

FINANCE & LED.	ENERGY	HOUSING	CULTURE, SPORTS, REC. & SPEC. FOCUS	ADMIN & GOV.
WATER & SANITATION	COMMUNITY SAFETY	ROADS, S/WATER & TRANSPORT	WASTE & ENVIRON.	SPATIAL PLAN & DEV
LAND USE MAN.	LOCAL LABOUR FORUM	COUNCIL	MAYORAL COMMITTEE	

APPROVED ITO DELEGATED POWERS: [Signature] DATE: 23/09/2014
 MM/ NUMBER ALLOCATED BY CAO – SECRETARIAT _____ MM/ _____

APPROVAL OF EXECUTIVE MAYOR IN TERMS OF DELIGATED POWERS

APPROVED ITO DELEGATED POWERS: _____ DATE: _____
 EM/ NUMBER ALLOCATED BY CAO – SECRETARIAT _____

2014-09-18

P.O. BOX 111, POLOKWANE 0700

LIMPOPO PROVINCE

Permissions to conduct the study (Pilot study)

MOGALAKWENA LOCAL MUNICIPALITY

P O Box 34 - Mokopane - 0600
54 Retief Street - Mokopane - 0601
Tel: 015 491 9600 Fax: 015 491 9755



Enquiries : Irene de Villiers

5 February 2014

Mr E Raliwedza
2 Vergesig
52 Hoooge Street
MOKOPANE
0601

Sir

REQUEST TO CONDUCT A RESEARCH STUDY WITHIN MOGALAKWENA MUNICIPALITY

Your letter in respect of the above-mentioned matter refers.

I have pleasure in informing you that your request to do a research study on factors that lead to occupational stress within Mogalakwena Municipality, has been approved.

You are requested to contact the acting manager : traffic & emergency services on telephone number 015 491 9813 to make the necessary arrangements.

We wish you success with your studies.

Yours faithfully

IRENE DE VILLIERS
ACTING MANAGER : CORPORATE SUPPORT SERVICES

The language policy of the Municipality is English, should correspondence be received in any other official language a reply can be expected within 21 days

Proof reader's Affidavit



The Computer Room

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Tel: 076 079 0214 • Fax: 086 216 7380

Date: 21 November 2016

To Whom it May Concern

I hereby confirm that I have proof-read the document entitled: "EXPLORING CONTRIBUTORY FACTORS TO OCCUPATIONAL STRESS AMONG FIRE-FIGHTERS IN THE POLOKWANE LOCAL MUNICIPALITY, LIMPOPO PROVINCE" authored by RALIWEDZA E.

Each of us has our own unique voice as far as both spoken and written language is concerned. In my role as proof-reader I try not to let my own "written voice" overshadow the voice of the author, while at the same time attempting to ensure a readable document.

Please refer any queries to me.

Andrew Scholtz