Exploring the nature of trauma and coping strategies experienced by

Male Emergency Service Personnel at the Vosloorus Service Centre

A research report on a study presented to
The Department of Social Work
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In partial fulfillment of the requirements
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Occupational Social Work

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Declaration

I Maphuti Poopedi declare that this research report is my own unaided work. It is submitted in partial fulfilment of the requirements for the degree of Master of Arts in Social Work in Occupational Social Work at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in any other University.

Maphuti Poopedi

May 2020

Dedication

For my parents who walked every step of the way.

My late aunt Valarie Tsiri, my maternal aunt who passed on in 2002 who unconsciously inspired me to focus this research study. I was inspired by the role you played. Your courage is remembered.

and

To the male emergency personnel of the Vosloorus service centre who have sacrificed their lives in servicing the community

Scripture

I press toward the mark for the prize of the high calling in Christ Jesus (Philippians 3:14)

Acknowledgements

To my father in heaven God all mighty for teaching me time and time again that “I can do all things through Christ who strengthens me.” (Philippians 4:13). “This has been a tough and unforgettable journey where I had many intimate moments with you which have enabled me to persevere and have brought me this far”

My supervisors Dr Francine Julia Masson and Professor Eleanor Ross for your expert guidance and support. I thank God for your dedication and presence. Your approach and knowledge on the subject matter has broadened my thinking.

To my dearest husband and best friend; Sol Sipho Mathebula thank you for travelling this roller coaster with me, it’s a road less travelled. Your undisputed love, support and constant encouragement has always fuelled me to finish this race. Your critiques and support which has never been doubted as they have made me a better person.

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The following people who played a pivotal role on this journey: I thank God that our roads crossed: Maki Mashiane, Mpefe Khethlapile, Makgabo Ramoroka, Zoliwe Cutalele, Lesego Mpshe, Salamina Sehlabaka and Lebo Ratau.

Abstract

Psychological trauma is prevalent amongst emergency service personnel as the first line of response to critical life-threatening incidents. Due to the high level of accidents and demand for medical assistance within the South African society, emergency service personnel are often the first in line to attend to critical incidents. The research conducted explored routine trauma experienced by male emergency service personnel while on duty at the Vosloorus service centre. The research approach was qualitative and exploratory-descriptive in nature utilising case study as the research design. Purposive sampling was used to select 20 male participants. The male participants interviewed had been employed as emergency service personnel for more than a year by the Ekurhuleni municipality. The research data were collected by means of a semi-structured interview schedule and analysed through thematic content analysis. The findings revealed that emergency service personnel experience challenging calls on duty as a result of the distressing incidents in the line of duty. Emergency service personnel employ various coping strategies as a result of traumatic scenes they are exposed to. These stressors result in various coping strategies being utilised ranging from repression, emotional numbing, alcohol consumption, smoking, exercise as well as emotional resilience. The research has the potential of enhancing knowledge and understanding of trauma within an occupational setting as well as to suggest improvements to relevant support structures within Ekurhuleni Municipality.

Keywords: routine trauma, secondary traumatic stress, coping strategies, emergency service personnel

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CHAPTER ONE

OVERVIEW OF THE RESEARCH REPORT

1.1 INTRODUCTION TO THE STUDY

Emergency service personnel form part of the backbone of the rescue services in South Africa. Their line of duty involves attending to emergency scenes and providing appropriate interventions. Throughout their 12 hour shifts, their work requires extreme physical performance and mental alertness. Emergency service personnel are frequently exposed to critical incidents such as accidents, victims of crime, victims of violence, rescuing patients from distressing situations and performing life-saving procedures in and out of hospital settings LeBlanc et al., (2012). According to Alaxander and Klein (as cited in Avraham, Goldblatt & Yefe, 2014), emotional reactions by emergency service personnel to these encounters are potentially harmful to their mental health and emotional well-being. Various studies on the exposure of ambulance personnel to critical incidents have looked at the negative implications their work has on their mental and physical health, with a limited attention to routine trauma to which emergency service personnel are exposed as well as the impact the trauma has on them. (Alexander & Klein, 2001; Clohensey & Ehlers, 1999; Gallagher & McGilloway, 2008; Halpern, Gurveich, Schwartz & Brazeu, 2009a, 2009b; Sterud, Ekeberg & Hem, 2006, as cited in Avraham et al., 2014).

This study examines how emergency service personnel understand the impact of routine trauma on their lives and the types of coping strategies they use. The chapter introduces the research study by focusing on the research problem and the rationale for the study. The chapter will also define the key concepts which inform the study, clarify the purpose of the study, and provide an overview of the study, the anticipated value of the study and its limitations.

1.2 STATEMENT OF THE PROBLEM AND RATIONALE FOR THE STUDY

South African society is exposed to high levels of violence, high rates of critical accidents, and dangerous crimes (Crime Statistics Report, 2017). South Africa has a history of violence that ensued because of conflicts between different tribal groups in pre-colonial times and as a reaction to social, economic and political injustices perpetrated during Apartheid (McKeever, 2019). For instance, the Crime Statistics Report of 2017 indicated that South Africa's murder rate was five times higher than Mexico and 10 times higher than India. On 11 September 2018 South Africa's Crime Statistics for 2017/2018 reporting year (April 2017 - March 2018) was released detailing provinces ranked by total crimes reported with a total number of 3 923 403. The top three provinces were Gauteng with a total of 1 122 366 followed by Western Cape with 845 168 and Kwa-Zulu Natal 613 427. The research study was undertaken in Gauteng at the Vosloorus service station which attends to various medical cases and accidents in some cases related to crime within the community.

Furthermore, the Crime Statistics report of 2017/2018 indicated that there were 109 cases of sexual assault reported in daily Crime Statistics SA (2018). Aggressive crimes made up 20% of total crimes for the period 2002-2012 while murder rates increased from 10% in the period 1994-2001 to 25% in the period 2002-2012. The Crime Statistics report of 2017/2018 reported that murder increased from 34.7 per 100 000 people to 35.8 representing a 1,8% increase in murder rates. This relates to an average of 56 murders per day (Crime Statistics SA, 2017).

In addition to the high crime incidents in South Africa, emergency service personnel work in challenging environments which require flexibility. They attend to various accidents scenes on the roads, they declare people dead as a result of natural causes or crime and they attend to sexual assaults or domestic violence case. Emergency service personnel are expected to work long hours consisting of a 12 hour shift four times a week which is grouped as follows ;7am-7pm and 7pm and 7am with limited resources at times. Many times emergency service personnel are expected to work into another following shift termed a late call when an emergency exceeds the assigned shift period.

Even though the road safety activation and law enforcement operations dispatched more personnel staff on the national roads during the Easter season in 2018, the Arrive Alive Report (2018) recorded a total of 14 050 fatalities. This represented an increase of 2.6% in 2017 to 7.5% in 2018. Major road accidents were reported and investigated during this period were under review, however a total of 838 people died, 505 people sustained injuries as a result of major accidents. The 2018 Arrive Alive report issued by the National Department of Transport aimed to provide the road accident statistics in South Africa. The recent report stated that as a result of the fatalities during the Easter season, the Road Traffic Management Cooperation extended the safety programme by an initial 7 days from the 29th March to the 9th April 2018 to allow for visibility and safety on the National roads in South Africa.

These incidents described above can be of an aggressive and violent nature while road accidents also have the potential to induce feelings of fear, irritability, depression and anxiety. Emergency service personnel are usually the first persons to respond to an emergency scene as they are tasked with the responsibility of providing emergency medical services to victims. This study focuses on secondary traumatic stress (STS) which is part of the routine trauma that is experienced by male emergency personnel at the Vosloorus service station. This station has been chosen as there would seem to be a paucity of studies focusing on emergency personnel at the Vosloorus service station as other studies focus on various health professionals in various provinces and some are international. Some studies focus on both male and female emergency personnel, first aid responders, other professionals in public health and volunteers who render emotional support to victims of crime and as it is perceived they are likely to experience symptoms related to STS (Salton & Figley, 2003). Literature by Minnie, Goodman & Wallis (2015) focused on exposure daily trauma which emergency medical personnel are exposed to. While other studies in South Africa focus on emergency service the Western Cape province Wheater, (2016); Mashigo (2010) focused on coping strategies the Coping. Strategies of the Ekurhuleni emergency service employees in Gauteng province and other research gathered by Slattery and Goodman, (2009); Greinacher et al., (2019); Stanley, Hom and Joiner (2016); Haddock Poston, Jahnke, and Jitnarin (2017); Schiff and Lane (2019); Drewitz-Chesney (2019) are based on international studies on emergency service personnel including professionals and volunteers.

Emergency service personnel provide medical support to accident survivors which can lead to high levels of stress which may result in them developing STS. Several international studies have found STS amongst first responders in Europe as well as in volunteers who render psychosocial support services in emergency care (Greinacher et al, 2019). While in South Africa, Volsoorus fire station there is no literature written on emergency service personnel experience of STS. The Ekurhuleni Metropolitan Municipality formerly known as the East Rand covers an extensive area from Germiston to Springs and Nigel which includes 25 services points throughout the region (Ekurhuleni Metropolitan Annual report, 2018).

The services rendered by the emergency service personnel are invaluable as they are the first line of rescue in critical and life-threatening incidents. However, constant exposure to such incidents in their daily work routine, can result in feelings of fear, irritability, depression and anxiety, which are symptoms of trauma. This type of trauma experienced on a daily basis can have severe consequences for work productivity and coping mechanisms. Therefore, as argued by Gallagher and McGilloway (2009), to effectively ensure that emergency personnel cope efficiently with routine trauma, organisations that employ these workers need to invest in psycho-social support programmes that will assist employees to deal with the effects of trauma.

Gallagher and McGilloway (2009) further argue that if trauma is not addressed, it can manifest in various social and psychological problems that can have a negative impact on the ability of employees to execute their duties as expected. Although trauma in general has received adequate attention and study, the effects of secondary traumatic stress (STS) on emergency service personnel has not been adequately studied (Halpern et al., 2009a; 2009b). Avraham et al., (2014) conducted a study dealing with exposure of ambulance personnel to critical incidents with specific focus on the negative implications on their mental and physical health but not on how they cope with the effects of routine trauma.

Although numerous studies have identified that emergency personnel experience occupational stress and burnout, little attention has been paid to secondary traumatic stress to which they are exposed. It thus becomes imperative to explore how

emergency service personnel in South Africa are affected by trauma in their daily work routines, particularly considering the level of violent crimes in this country.

This study aims to understand the coping strategies utilised by male emergency service personnel in dealing with the perceived impact of routine trauma in their professional and personal settings as it is well known that men and women generally cope in different ways with stress and trauma and the majority of emergency service personnel are males.

The study may potentially contribute to broadening the body of knowledge on the effects of secondary traumatic stress as part of the routine trauma experienced by emergency service personnel. It is also envisaged that the conducted study may yield recommendations for developing training programmes and policies for workplaces to deal with the effects of secondary traumatic stress.

1.3 KEY CONCEPTS

DEFINITION OF TRAUMA: Trauma is often linked with medical conditions i.e. physical trauma to the body, from the Greek word referring to a wound, injury or a puncture (Kaminer & Eagle, 2010). Regardless of the source, psychological trauma/ wounding is described as unexpected penetration of unwanted thoughts, emotions and experiences into the psyche (Kaminer & Eagle, 2010).

ROUTINE/TRAUMA: This phenomenon is sometimes identified as secondary traumatic stress (Stamm, 1997) or compassion fatigue described as the “cost of caring” for others or secondary victimization (Figley, 2003). Survivors of routine trauma find themselves in a position where there is a risk of being re-traumatised (Straker & Moosa, 1994). Routine trauma is where people are constantly exposed to trauma as part of their work. This phenomenon together with secondary traumatic stress has been explored throughout the research study**.**

SECONDARY TRAUMATIC STRESS: Secondary traumatic stress is stress that results from knowing about a traumatic event and feeling a sense of obligation in wanting to assist a traumatise person (Figley, 2002). In other words, people can be traumatised without being physically injured or threatened.

COPING: According to Lazarus and Folkman (1984), “psychological stress is a particular relationship between the person and the environment that is appraised exceeding his or her resources and endangering his or her well-being” (Lazarus & Folkman, 1984, p. 19). This relationship goes through two important phases: (1) cognitive appraisals *and (2)* coping. Coping refers to “cognitive and behavioural efforts to master, reduce, or tolerate the internal and/or external demands that are created by the stressful transaction” (Folkman, 1984, p. 843).

EMERGENCY CARE PERSONNEL: refers to persons registered under section 17 of the Health Professions Act as Paramedics (Critical Care Assistant), Advanced Emergency Assistant, Basic Ambulance Assistants, Operational Emergency Care Orderlies, Emergency Care Assists and/ or persons who hold a valid first aid certificate issued by a first aid organization accredited by the Professional Board for Emergency Care (Regulations Governing Ambulance Service in the Western Cape, 2003

OCCUPATIONAL STRESS: Occupational stress or what is called workplace stress can be defined as the change in an employee’s physical or mental state in response to experiencing a challenge within the workplace (Mustafa, IIIzan, Muniandy,Hashmi, Sharifa, Nang, 2015). There are various occupational stress models which are further discussed in the research study namely the transactional model, micro/macro model, job demand control model and the effort-reward imbalance.

1.4 RESEARCH QUESTION

1.4.1 PRIMARY AIM

The purpose of the study was to explore the nature of trauma and how male emergency service personnel at the Vosloorus Service Centre cope with this trauma.

1.4.2 SECONDARY OBJECTIVES

The following objectives were included as part of the research study:

- To explore how emergency service personnel experience trauma;

- To explore the types of challenging calls related to routine trauma which emergency personnel experience;
- To explore the kind of effect secondary trauma has on the personal lives of the emergency service personnel;
- To determine ways in which secondary trauma influences professional functioning of the emergency service personnel at work; and
- To explore the coping strategies of emergency service personnel cope with secondary trauma.

1.5 OVERVIEW OF RESEARCH DESIGN AND METHODOLOGY

In order to explore and understand the nature of trauma experienced by emergency personnel, a case study located within a qualitative research approach was deemed appropriate. Qualitative research is based on making observations that are summarized and interpreted in a narrative report (Strydom, 2011). The proposed study was exploratory in nature as there is a paucity of studies conducted on the trauma experienced by emergency service personnel at the Vosloorus service centre. The study was descriptive where the researcher described the trauma to which the 20 emergency personnel are exposed to. The researcher made use of a semi-structured interview schedule which was developed based on the aim and the secondary objectives of the study. The semi-structured interview schedule enabled the researcher to assess and obtain further knowledge from the emergency personnel as the questions consisted of ten open-ended questions. The data were analysed using thematic content analysis.

1.6 ANTICIPATED VALUE OF THE STUDY

The study focused on male emergency personnel and their understanding of trauma and the coping mechanisms that they developed over time. The anticipated value of the study included:

- To highlight ways in which workplace support programmes can be strengthened for male emergency personnel by the Ekurhuleni Municipalities Employee Assistance Programme division; and
- To help occupational social workers and employee assistance practitioners further understand the stressors experienced by emergency service personnel.

1.7 LIMITATIONS OF THE STUDY

- The researcher accepts that there are limitations within the study. These include the use of a small purposive sample; the sample only included a limited number of males who have worked within the field for more than a year. The study may therefore not be representative of the entire population and will preclude generalization of findings to the broader population of emergency personnel.

- Social desirability responsiveness another limitation that occurred within the study as participants may have felt a sense of obligation to provide answers which they assume the researcher is aiming for. To reduce this possibility, the researcher encouraged honesty from the participants in terms of their responses before conducting the interview. The participants were also assured that the information obtained is kept confidential in a secure location.

1.8 ORGANISATION OF REPORT

The research report is separated into five chapters. Chapter contents are as follows:

CHAPTER ONE: INTRODUCTION:

The chapter provides a background to the rationale and problem statement and foundation to the study. The chapter discusses the rationale for the study, the research methodology and the key concepts relating to the study such as definition of trauma, routine trauma, secondary traumatic stress and coping. The primary and secondary objectives, the anticipated value of the study of and limitations the study are explained by the researcher.

CHAPTER TWO: LITERATURE REVIEW:

This chapter consists of the literature review which outlines the theoretical framework of the study and focuses on the clinical description of trauma in line with the Diagnostic and Statistical Manual (DSM V). The chapter further examines secondary traumatic stress, occupational stress, coping and debriefing strategies, post-traumatic stress disorder and its critique Gender roles and response to gender roles as well as systems theory forming the theoretical framework underpinning the study.

CHAPTER THREE: METHODOLOGY:

This chapter focuses on the research design and methodology. The research process is described as well as the sampling procedure and the research instrument, data analysis, trustworthiness of the research study used in the study. The chapter discusses the ethical considerations of the stud Namely no harm, privacy and confidentiality, institutional approval, competence, record keeping, informed consent to research and the relevance of debriefing.

CHAPTER FOUR: PRESENTATION OF DISCUSSION AND FINDINGS:

This chapter discusses the results and findings derived from the study by focusing on the themes derived from the data. Trauma, coping and resilience are discussed. The data is presented in the form of direct quotations, furthermore tables and graphs are used to present the data emanating from the findings.

CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS:

This chapter provides an overview of the main findings and themes which are linked to the aims and objectives of the study. Recommendations are drawn by the researcher which are in line with improving employees' occupational setting and

emphasising the role of occupational social workers. The recommendations highlight areas for future studies in the social work field.

CHAPTER TWO

REVIEW OF LITERATURE

"The work of helping traumatized people is gratifying. Helpers discover early in their careers that those who are traumatized can be supported by a caring professional who understands and respects their pain in hoping there is some form of recovery."

(Figley, 1995, p253)

2.1INTRODUCTION

Recent studies on emergency service personnel have focused on job stressors, occupational stress, trauma and coping strategies experienced by emergency service personnel and have highlighted the extreme and dangerous conditions in which these personnel work (van der Ploeg & Kleber, 2003; Avraham, Goldblatt & Yafe, 2014; Shepherd & Wild, 2014). As secondary trauma is one of the occupational stressors that emergency service personnel experience, it is important to define and describe this concept.

The chapter will discuss the significance of secondary traumatic stress (STS) in relation to occupational stress. The researcher has selected Figley's (1995) theoretical framework to explain STS. The chapter further focuses on the clinical description of psychological trauma and stress reactions according to the Diagnostic and Statistical Manual of Psychology and the impact of stressors and types of coping strategies utilised by male emergency personnel.

2.2 CLINICAL DESCRIPTION OF TRAUMA

Much of the work of emergency service personnel involves dealing with traumatic events. An in-depth examination of trauma is described in this section.

The word trauma originates from the Greek word meaning “wound” (Reuther, 2012). Before the 19th century the term trauma was utilised in medicine to describe physical injuries endured by individuals by a weapon such as a sword or spear (Reuther, 2012).

The Diagnostic & Statistical Manual of Mental Disorders (DSM) V defines trauma as “direct personal experience of an event that involves actual or threatened death, serious injury, or threat to one’s integrity or witnessing an event that involves the following: learning about violent death, serious harm, threat of death or experienced by a family member or close associate” (American Psychiatric Association, 2013, p.15). Bride holds a similar view defining it as an emotional state or a reaction of an individual or group to a dangerous event that can be caused by numerous factors and experiences, some more obvious than others (Bride 2012).

Scott and Straddling (2006) endeavoured to explore how trauma as an external source can have a direct or internal impact on an individual’s life. Trauma is often defined as a sudden overwhelming life-threatening experience that induces experiences of powerlessness, often leading to lasting disturbing memories producing a pendulum effect of hyper-arousal, numbness and disruptions around and in the workplace. Similarly, Figley (1989) viewed the reaction to trauma as causing an emotional state of discomfort and stress resulting from memories of an extraordinary, catastrophic experience which shattered the survivor’s sense of invulnerability to harm.

In line with the definition offered by the DSM V, trauma can be experienced when witnessing an event whereby there was an actual threat of serious harm or death. This emphasis is significant for emergency service personnel (EMS) as they witness traumatic events when on duty. Traumatic events can be construed as “any situation faced by persons/helpers that cause them to experience unusually strong emotional reactions which have the potential to interfere with their ability to function either at the scene or later.” (Mitchel, 1983, p.15).

2.2.1 VARIOUS FORMS OF TRAUMA

Friedman (2015) describes the various forms of trauma. These includes *simple trauma* as a result of a person being exposed to trauma in a single encounter while *repeat trauma* results in a person experiencing a traumatic event on a frequent basis which can result in prolonged trauma.

Herman (1997) suggests that political violence, domestic violence and other forms of terror can be classified as *complex trauma* due to the intricate dimensions of the trauma as well as the kind of impact the trauma has on a person and the ongoing nature of it. Friedman (2015) indicates that a person can be exposed to multiple forms of trauma concurrently.

Secondary trauma is a result of assisting people who have been in a traumatic environment, including emergency personnel, clinicians who are counselling or debriefing trauma survivors, medical staff and police officials (Friedman, 2015).

2.2.2 CAUSES OF TRAUMA

The causes of trauma differ from one individual to another. All causes of trauma have three aspects in common namely: an external cause, violation and loss of control (Suri, 2012). *An external cause* implies that trauma is not inflicted on oneself by oneself but by another or external circumstance (Suri, 2012). A traumatic event or experience that is sudden and unpredictable is also categorised as an *external cause*. *Violation* refers to something or someone that is intrusive in an individual's life be it physically, emotionally, psychologically which can be a major source of distress (Suri, 2012). *Loss of control* refers to the nature of the traumatic experience occurring suddenly and unexpectedly when the person is unprepared to face a situation (Suri, 2012). This often leads to individuals feeling overwhelmed, helpless and feeling vulnerable to the cause of the trauma (Suri, 2012).

2.3 UNDERSTANDING SECONDARY TRAUMATIC STRESS

Secondary Traumatic Stress (STS) has been given various terms throughout history: traumatic counter transference, compassion fatigue, secondary victimization, vicarious traumatization.

STS is stress that results from knowing about a traumatic event and feeling a sense of obligation in wanting to assist a traumatized person (Figley, 2002). In other words, people can be traumatised without being physically injured or threatened. Figley (2002) indicates that compassion fatigue is identical to secondary traumatic stress (STS) and is used interchangeably. Professionals such as teachers, nurses, social workers, doctors and emergency personnel are at risk of experiencing secondary traumatic stress since their work requires them to assist those who have experienced some form of a traumatic event (Figley, 2012; Stamm, 1999). Greinacher et al., (2019) highlight that PTSD is a most frequently researched condition amongst emergency service personnel, and STS are prone to secondary traumatization due to constant exposure to emotionally challenging incidents on duty. The constant traumatic scenes may overwhelm the emergency service personnel ability to adapt and cope which may lead to occupational stress and physiological changes. Similarly, the traumatic event experienced by a victim often leads to helping professionals and non-professionals learning about the damaging and tragic event which results in a shared emotional burden of helping the traumatised. (Bride, 2012).

The negative impact of secondary trauma often results in counter-transference reaction amongst therapists or care givers and burn out (Bride, 2012). Bride (2012) describes burnout as a syndrome of emotional exhaustion and cynicism that occurs which emergency service personnel may be prone to, due to the high-pressure environment that they work under. In severe instances where symptoms result in significant distress or negative impact on functioning, STS may require diagnosis of PTSD (Figley, 2012).

Figley (2012) further discusses the difference in diagnostic criteria for primary and secondary traumatic stress disorder. He explains that the *stressor* is the only significant difference. The diagnostic criterion for primary traumatic stress disorder would be an individual experiencing a distressing event that is traumatic to them as a

victim (Figley, 2012). With secondary traumatic stress, the individual experiences a distressing event as a result of experiencing other people's pain and trauma. This can be in the form of indirect exposure through bearing witness to a traumatic incident and internalizing the effects (Figley, 2012). The difference between primary and secondary traumatic stress is the following: with primary traumatic stress, the trauma is experienced directly by the victim, whereby the victim relives the event slowly, vividly and repeatedly, whereas with secondary traumatic stress the trauma is experienced as a result of witnessing other people's pain (Figley, 2012). The characteristics and impact of traumatic stress will be discussed next.

2.3.1 CHARACTERISTICS AND IMPACTS OF TRAUMATIC STRESS

This section explores the characteristics of traumatic stress and how it manifests in each person's life. Below is a table which explains the characteristics and impact further explained.

2.3.1.1 RE- EXPERIENCING TRAUMATIC EVENTS

With primary traumatic stress disorder, the victim recollects the event and dreams of the event. With secondary traumatic stress the traumatised person will recollect the traumatising event as well as experience dreams of the traumatising event (Stamm, 1999).

2.3.1.2 AVOIDENCE/NUMBING OF REMIDERS OF EVENT

With primary and secondary traumatic stress, the individual attempts to avoid thoughts and feelings related to the incident (Stamm, 1999). The individuals withdraw from daily activities by detaching themselves from those around them (Stamm, 1995).

2.3.1.3 PERSISTENT AROUSAL

With primary and traumatic stress disorder the individuals have difficulty falling asleep; they become hyper-vigilant and experience problems in concentrating (Stamm, 1995).

STS has the potential to contribute to staff turnover within an organisation as individuals experiencing this type of stress have been observed to show high incidences of absenteeism and feel a sense of being overwhelmed. This leads to emotional exhaustion and chronic fatigue (Friedman, 2015). Yassen (1995. p.184) cited in Masson (2016) categorises the impact of STS on an individual by identifying symptoms under the following headings namely: cognitive, emotional, behavioural, spiritual and physical. These symptoms are widely reported to increase staff turnover and hamper activities to retain employees (Friedman, 2011). Victims become overwhelmed which leads to emotional exhaustion and chronic fatigue (Friedman, 2015). Individuals experiencing this type of stress have been observed to show high incidences of absenteeism.

2.4 POST TRAUMATIC STRESS DISORDER CLASSIFICATION (PTSD)

As mentioned earlier, STS can lead to PTSD. This section looks in detail at studies on PTSD. Charles Figley is one of the gurus when studying the field of traumatology as he was a Vietnam War veteran and anti-war protestor (Jones, 2014). Charles Figley completed a doctorate degree on PTSD in order to demonstrate that the toll of war went far beyond the battlefield. This study enabled numerous schools of thought to gain better insight into psychological trauma.

The Diagnostic and Statistical Manual (DSM) includes the diagnosis of post-traumatic stress disorder (PTSD). This views common symptoms experienced by a wide variety of traumatised persons as a psychiatric disorder which can be accurately diagnosed and treated (Wilson, Friedman & Lindy, 2001). PTSD symptoms listed in the DSM are used by clinicians to assist those suffering from a traumatic experience or exposure to a traumatic incident (Wilson, Friedman & Lindy, 2001).

In an effort to prevent the epidemic of shell shock experienced by soldiers in 1914-18, the term was banned by the civil and military authorities in 1939 and pronounced that no war pensions would be granted for psychiatric war injuries. This resulted in soldiers traumatized by stress as a result of combat being diagnosed as suffering from exhaustion which resulted in soldiers being retained within the army.

The figure below highlights the various terms used to describe war syndromes resulting from psychological trauma experience by soldiers during war periods (Linden & Jones, 2014).

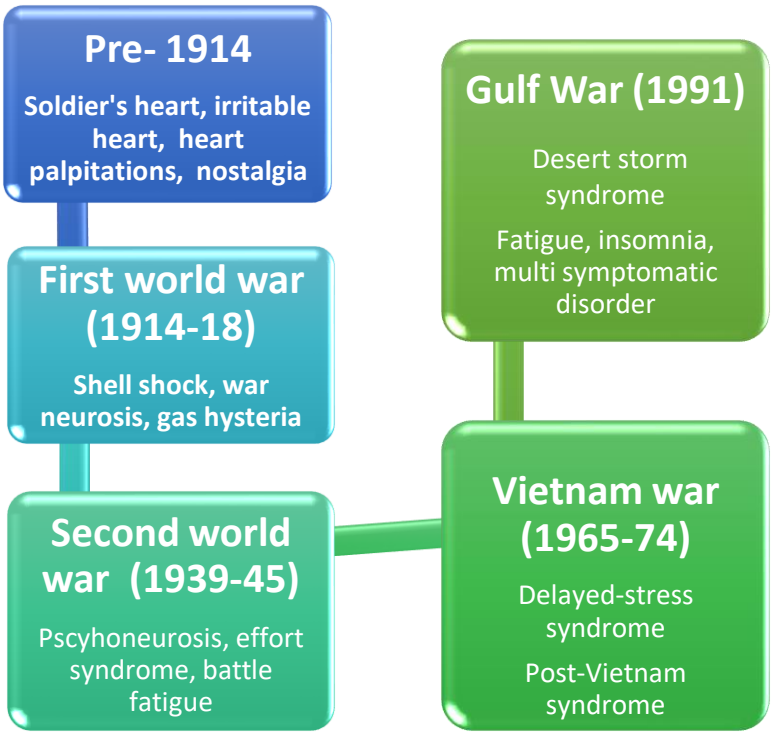

Figure 2.1: War syndromes characterised by unexplained medical symptoms from Jones & Wessely (2005)

In 1952, during the Korean War, the Diagnostic and Statistical Manual I (DSM I) of the American Psychiatric Association classified severe stress reactions as a psychological disorder (Brandell, 2011). The basis for the psychological disorder was a result of soldiers being exposed to severe emotional stress, including psychological stress, experienced during combat. Combat stress was removed from the DSM II during the Vietnam War which took place from 1965-1974 without any official reason (Brandell, 2011). In 1962, during the Vietnam War, the term “transient situational disturbance” was introduced, which included all acute reactions such as brief psychotic episodes as a result of stressful exposure to the war. Due to wide-ranging sympathy from the public towards soldiers who broke down psychologically in battle, this resulted in war veterans receiving war pensions for psychological disorders (Linden & Jones, 2014). Shell- shock became the first official acknowledgement of war-related psychiatric injury (Linen & Jones, 2014). In 1980, the Diagnostic and Statistical Manual (DSM III)

of the American Psychiatric Association classified PTSD. It had originally been termed “Post Vietnam syndrome” or “delayed-stress syndrome”, they symptoms having been identified in soldiers returning to the United States (Linden & Jones, 2018). PTSD was viewed as a specific psychological disorder that acute or chronic and that was caused by a traumatic event (Herman, 1997). In 1980 PTSD was acknowledged as a psychiatric disorder (Herman, 1997).

The figure below cited by Jones and Wessely (2006) illustrates the various ways in which trauma experienced by soldiers has been interpreted by psychiatrists. The ‘immediate’ refers to the terms used to describe the effects of trauma at the time of the event while ‘delayed or chronic’ outcomes of exposure to trauma describe other terms later used in order to diagnose PTSD

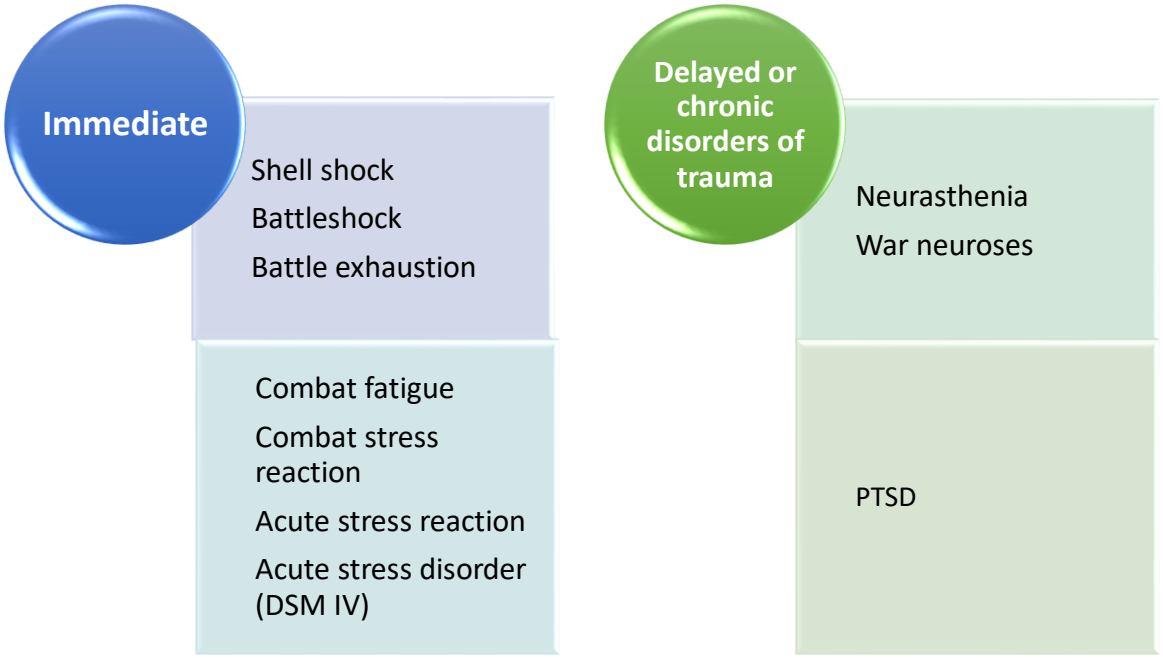

Figure 2.2: Immediate and delayed disorders of trauma adapted from Jones and Wessely (2006)

The DSM played an important role in clarifying the misconception that PTSD is suffered mainly by soldiers returning from combat (Brandell, 2011). The DSM also clarified that both men and women can suffer from PTSD (Brandell, 2011). In exploring Chronic Stress Disorder and how it is diagnosed, the DSM V states that symptoms related to chronic stress disorder are delayed from the time a traumatic event occurs, but are evident six months after the traumatic experience.

There are six criteria within the DSM V, namely, criterion A to criterion E. These are used to diagnose individuals who report symptoms of trauma. These include events related to exposure to war in a combat zone, exposure to sexual violence and severe motor vehicle accidents or observing or witnessing a threatening or serious injury (American Psychiatric Association, 2013).

Criterion B describes re-experiencing symptoms which become distressing to the individual. Criterion B1 describes a traumatic event that can be re-experienced in various ways where the individual has recurrent, intrusive recollections of the event (American Psychiatric Association, 2013). Intrusive recollections in PTSD are applicable to involuntary and distressing memories (American Psychiatric Association, 2013). The emphasis is on recurrent memories of the event that usually include sensory, emotional, physiological and behavioural components (American Psychiatric Association, 2013).

According to Criterion B3, the individual may re-experience the traumatic event for a few hours or even a few days (American Psychiatric Association, 2013). Criterion B4 states that the traumatic event is re-experienced from brief visual or sensory intrusions about parts of the traumatic event such as flashbacks, prolonged distress and heightened arousal (American Psychiatric Association, 2013).

Criterion B5 often occurs when the individual is exposed to triggering events that resemble or symbolize an aspect of the traumatic event (American Psychiatric Association, 2013). The triggering cue could be a physical sensation such as rapid heartbeat.

According to Criterion C1, the stimuli associated with the trauma are deliberately avoided by the individual through thoughts, memories, feelings or talking about the traumatic event (American Psychiatric Association, 2013). In Criterion C2, the individual tries to avoid situations or people who arouse recollections of the event (American Psychiatric Association, 2013).

Criterion D1 states that negative alterations in cognitions or mood, associated with the event, begin or worsen after exposure to the event (American Psychiatric Association, 2013).

According to Criterion D2, persistent and exaggerated negative expectations regarding important aspects of life are applied to oneself. This may manifest as a negative change (American Psychiatric Association, 2013).

D3 states that individuals with PTSD may have persistent erroneous cognitions about the causes of the traumatic event that lead them to blame themselves or others (American Psychiatric Association, 2013). Criterion D4 explains that a persistent negative mood e.g. fear, horror, anger, guilt, shame, either begin or worsen after exposure to the event (American Psychiatric Association, 2013). According to Criterion D5, the individual may experience markedly diminished interest or participation in previously enjoyed activities (American Psychiatric Association, 2013). Criterion D6 describes the feeling of detachment or estrangement from others as a result of the trauma, while Criterion D7 describes the situation where the individual has an inability to feel emotions (American Psychiatric Association, 2013).

According to Criterion E1, the individual with PTSD may be quick tempered and may even engage in aggressive verbal or physical behaviour (American Psychiatric Association, 2013). Criteria E2-E3 state that an individual is often characterised by heightened sensitivity to potential threats that are related to a traumatic experience such as a motor vehicle accident and those related to a traumatic event (American Psychiatric Association, 2013). Criterion E4 describes how an individual with PTSD may be very reactive by displaying a heightened response to stimuli such as loud noises or any stimuli (American Psychiatric Association, 2013). Criterion E5 describes an individual with PTSD who experiences concentration difficulties which include difficulty remembering daily events, such as one's telephone numbers, or forgetting to focus on a task, or inability to follow events, such as a conversation, for a lengthy period (American Psychiatric Association, 2013). Criterion E6 describes the individual who experiences problems with sleep which may be associated with nightmares and safety concerns and with increased arousal (American Psychiatric Association, 2013).

2.4.1 CRITIQUE OF THE PTSD CONCEPT

The PTSD has been criticised for lack of cultural sensitivity and its reduction of the complexity of damage in victims who experience multiple and prolonged trauma (Drozdek, 2012). The PTSD concept ignores the socio-political cultural context in

which trauma occurs and defines trauma as an abstract construct which is detached from a cultural and historical background of a community or country (Drozdek, 2012). Another critique on the PTSD concept is that it offers a refined perspective regarding the post-traumatic damage on the individual, as the focus remains exclusively on the survivor while forgetting the impact of post-traumatic destruction of individual's society (Drozdek, 2012). The concept of PTSD pays insufficient attention to translation of these experiences into personal, culture-specific idioms or expressions of distress from various cultures (Drozdek, 2012). This results in marginalization or exclusion of non-Western survivors from treatment services

2.5 THEORETICAL FRAMEWORK UNDERPINNING THE STUDY

The ecological systems theoretical framework has allowed the researcher to better understand and interpret findings from the research study. Authors such as Figley (1995), (2002), Kirst-Ashman and Hull (2012), Kirst-Ashman and Zastrow (2012) provide a theoretical framework for STS, namely the ecological framework of trauma.

System theory is valuable in the social work profession as it assists the social worker to assess and derive holistic interventions which can improve the functioning of the client's system (Kirst- Ashman, 2013). Kirst-Ashman (2012) defines a *system* as a set of elements that form a systematic and interconnected by a type of functional relationship. The ecological systems theory was developed by Bronfenbrenner to explain how a child's environment affects their growth and development (Lederer, Auntry, Day & Oswalt, 2015).

In ecological systems, the main concept is "Person in Environment" (PIE). This concept implies people reside in an environment which can affect the outcome or output. The ecological perspective forms part of the social work body of knowledge in explaining and describing human interactions with other systems (Kirst-Ashman & Hull, 2010). The ecological systems theory provides a perspective that provides an understanding of PIE transactions at various systems levels. Walker (2012) describes system theory as providing an understanding of PIE and how an individual interacts with various systems and its levels and adopts useful concepts from the ecological perspective by describing human interaction in relation to other systems. Systems theory assists social workers in better understanding the relationship between persons

and the environment which can either be positive or negative (Oswalt et al, 2015). This is supported by Kirst-Ashman and Hull (2013) who describe PIE perspective as the theoretical foundation for professionals to conduct assessments and relevant interventions in micro, mezzo and macro practice.

There are three systems which comprise the ecological system, namely: microsystem, mezzosystem and macro system. The microsystem is a small system with the focus on the relationship between the person and the environment; mezzosystem focuses on the relationship that groups or families have with each other and the environment with which they interact; and macro system focuses on the communities, organizations and society (Kirst - Ashman, 2012).

Kirst-Ashman (2013) highlights the relevance of systems theory as an inter-disciplinary study of complex systems with the main focus on the dynamics and interactions amongst people in their respective environments. Social workers make use of system theory to identify how a healthy system functions and the negative effects of a system which is not functioning correctly. It is also used to develop a suitable framework for interventions. In order to clearly understand systems theory so as to decide on intervention strategies, various terms are used, namely: *system, dynamic, interact, input, output, homeostasis,* and *equifinality* (Zastrow & Kirst-Ashman, 2012).

Systems theory enables the social worker to look beyond the presenting problem in order to decide on intervention strategies or redress. As there are a number of contributory factors which can negatively or positively affect the functioning of an individual, an eco-map provided by the therapist should be utilised to highlight the stressors and other hindrances the client interacts with (Kirst- Ashman, 2012). Systems theory enables social workers to view a client's system as dynamic and diverse due to the nature of problems, challenges and issues which are flexible and subject to change. The nature of systems is that there is constant *interaction* with each other. The systems perspective provides the worker with a framework that extends beyond the individual/person to the interaction between the individual/person in environment. There has to be a constant *flow* or *equal flow of* communication received from other systems in the form of input (energy or information) and output (flow emitted from a system) within the system, in order for *homeostasis* to be maintained, resulting in balance or a state of *equilibrium* (Kirst – Ashman & Hull, 2012).

2.6 MODELS OF TRAUMA

2.6.1 TRAUMA TRANSMISSION MODEL FIGLEY (1995 & 2002)

This study adopted the trauma transmission model as a theoretical framework for understanding the phenomenon STS. According to Figley (2002) the concept of STS developed from systems theory; however STS was first identified as secondary victimization and compassion fatigue. These concepts were critical in developing the compassion fatigue model which portrayed trauma accumulation and transmission amongst therapists, emergency service personnel, the clergy, disaster workers, police officers and many others.

Ludick and Figley (2017) describe STS as a highly complex and often an inevitable experience when working with the suffering and is most often present when the sufferer has been exposed to a haunting reality. Other careers such as emergency service personnel or first responders provide support to patients who are traumatised and in need of health services and the routine trauma they are exposed to may potentially place them at risk of compassion fatigue. STS is notable when the care worker utilises the necessary empathic response to assess and intervene in assisting and understanding the traumatized (Ludick & Figley, 2017).

The key focus of Figley's (2002) framework is empathy. This enables the therapist or helping professional to better recognise the pain and suffering of others. Figley's (2002) framework is based on the assumption that empathy and genuineness form part of the driving forces which effectively assist patients or clients who are traumatised and suffering. The diagram below reflects the process model of compassion fatigue by Figley (2002).

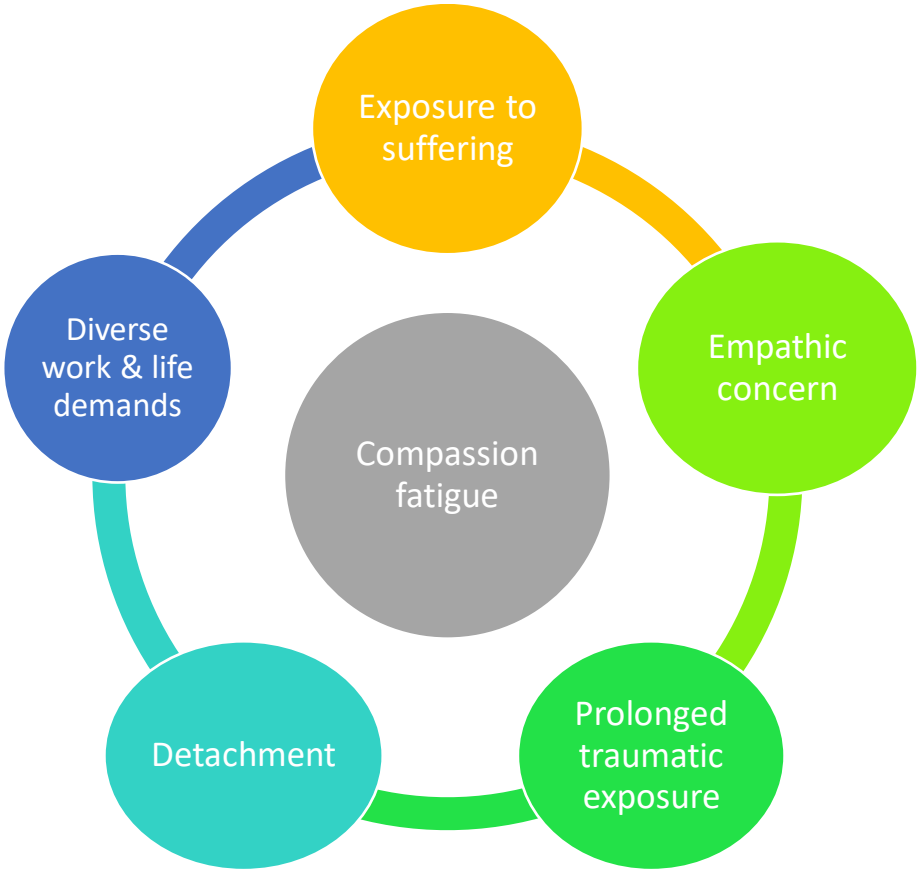

Figure 2.3: The compassion fatigue process model adapted from Figley (2002).

The trauma transmission model also reflects contributory factors of compassion fatigue, mainly from prolonged exposure to the victim, diverse life demands. Prolonged exposure to suffering refers to which the worker interacts with suffering who seek services (Figley, 2002). Prolonged exposure to suffering often leads to STS: the helper/therapist or first responder takes on the client's suffering and internalizes the incident to which their client has been exposed. A helper/therapist or first respondent can be exposed to suffering in various ways such as direct practice. Empathetic concern plays a significant role as the helper provides support and assistance in order for the client to better manage and handle the traumatic experience. Empathic concern is described as providing a high level of compassion and concern in helping clients meet their needs.

Others detach themselves from their work which in turn may lead to compassionate fatigue. The therapist's or helping professional's nature of work requires them to detach or disengage from the incidents they deal with through supervisory support and

through adaptive coping strategies (Figley, 2002). According to Ludick and Figley (2017) detachment is essential for building resilience in a therapist client in order to let go of the client's suffering. Detachment is defined as the act of switching off mentally and not being engaged physically or mentally with work-related matters (Ludick & Figley, 2017).

A study conducted by Pisanti, Montgomery and Quick (2018) found detachment positively correlated with well-being, low fatigue and enhanced mood, however it was discovered that not all individuals shared the same ability to detach or disengage. It was found that clients who were diagnosed with PTSD often had difficulty disengaging from trauma. This inability to disengage often hindered their attentiveness to friends, family, and their experience of positive emotions. Emotional numbness and depression as a result of the traumatic exposure often resulted (Aupperle, Melrose, Stein, & Paulus, 2012).

2.7 COPING AND DEBRIEFING

Coping strategies are important when dealing with the aftermath of trauma. One of the most common interventions to use to assist emergency service personnel is trauma debriefing. Allen (2005) suggests the following adaptive and healthy coping methods for assisting a traumatised person:

Seeking support in the form of professional help can help the person to find meaning in a traumatic situation. The traumatised individual can also internalise emotions experienced as a result of the trauma which enables meaning to be created as a result of the traumatic experience (Allen, 2005).

Problem solving involves emotion-focused coping that enables a traumatised person to control their emotional state. This goal is achieved by enabling the traumatised individual to identify and express emotions rather than avoiding them (Allen, 2005).

Developing a ***sleeping routine and relaxation techniques*** are considered as one way of assisting a traumatised person to cope with trauma (Allen, 2005). Developing an exercise routine decreases anxiety and depression which enables the individual to regain a sense of control which is crucial for a traumatised person (Allen, 2005).

Guided imagery enables a traumatised person to develop images that create a safe place and to experience relaxation which reduces anxiety (Allen, 2005).

Strategies such as ***meditation*** reduce anxiety, while ***bio-feedback*** is another technique used to assist a traumatised person to gain more control over the traumatic experience (Allen, 2005). It is important for therapists to integrate the various skills and techniques taught in order to provide sufficient self-care to cope recover from trauma (Salston & Figley, 2003).

2.7.1 TRAUMA DEBRIEFING

Trauma debriefing is the emotional defusing or expression of feelings in a controlled and safe environment. The traumatic symptoms the person is feeling vary from normal reactions to abnormal responses (American Psychiatric Association, 2013). Psychological debriefing (critical incident stress debriefing is an approach) is a form of crisis intervention which was originally designed by Jeffrey T. Mitchell. Its aim was to help emergency personnel who were involved in assisting victims in a trauma situation by better processing their thoughts and emotions that result from exposure to trauma as a result of routine work (Missouridou, 2017).

The debriefing process consists of a group of victims who are enabled to remember, by reconciling and expressing their experiences in a safe and controlled environment (Missouridou, 2017). The debriefing process takes place between 24 and 72 hours after the traumatic incident has occurred. Debriefings that have occurred earlier than this have not been successful due to the victim being in a state of shock and not being able to discuss their feelings of the event. Debriefings conducted a few weeks after the traumatic incident are still deemed successful (Missouridou, 2017). The debriefing is led by professionals such as social workers and psychologists. Psychological debriefing can facilitate the return of an employee back to normal working conditions at work, as the debriefing is viewed as cost effective in equipping the employee and serving the interests of the organisation.

During psychological debriefing the facilitator restores control by creating a safe space for victims to express their experience by increasing support for each other and outlining normal reactions to trauma (Robinson, 2012).

The advantages of debriefing amongst employees are: debriefing reduces the incidence of sickness and absenteeism within the workplace. It has been perceived to reduce personal and marital conflict that may arise within the marriage setting; it alleviates victims' feelings of fear and anxiety in requesting help; and, it assists the victims who are experiencing a sense of loss and control over their lives. This inclusive of those who are experiencing long term distressing effects as a result of the trauma (Dhladhla & Van Dyk, 2009). Stamm (2002) suggests that organisations which recognise the impact of STS, and address it, assist employees in maintaining mental well-being and improve organisational turnover.

The healing effect of debriefing within an occupational setting is that it establishes hope for the victims and helps them realize that their feelings are normal and temporary. In this way universality is attained as the victim or survivor is likely to acquire an understanding that trauma is experienced by everyone (Dhladhla & Van Dyk, 2009).

Trauma debriefing also provides opportunities for expression of feelings which leads to a cathartic experience. Group cohesion is achieved as the employees share a common experience and psycho-education is provided for the employees to enable the healing process to unfold (van Dyk & van Dyk, 2010). Group debriefing is perceived as beneficial for employees dealing with traumatic and stressful incidents (Missouridou, 2017). Debriefing was developed as one part of a system of employee support in the workplace.

The ecological perspective looks at the workplace as a health-promoting environment (Stamm, 2014). Bober (1996) as cited in Stamm (1999), state that the workplace should serve as a recovery environment for those who are traumatised with the assistance of various professionals being made available. It is important to note that those dealing with trauma often bear witness to people's suffering and traumas (Figley, 2012 p. 38) Internal training of staff members can develop their understanding of STS. Debriefing assists in providing understanding and awareness of the phenomenon by identifying relevant prevention and reduction tools (Stamm 2002). Debriefing plays a crucial role in enabling emergency service personnel to gather perspective on a challenging scene or incident which requires containment and venting. Yassen (1995); Salston and Figley (2003) included an ecological model for prevention of symptoms

related to STS, by suggesting that clients should opt for productive ways to cope and increase fulfilment by determining a self-care routine, gather support to enhance resilience as a professional, setting realistic attainable goals and boundaries.

This is echoed by Tuckey and Scott (2014) who suggests that debriefing sessions rendered on a regular basis result in a safe environment which allows for employees to reflect better on communication and on other systems each individual interacts with.

2.7.2 HISTORICAL DEVELOPMENT OF DEBRIEFING

Some uses of debriefing were described in World War 1 (1914- 1918) and World War 2 (1939-1945) (Robinson, 2012). It was discovered that psychiatrists could better assist soldiers suffering from acute combat stress upon returning from the battlefield. Psychiatrists moved themselves closer to the frontline, thereby gaining quicker access to soldiers at the battlefield. This led soldiers to recover quicker and return to the battlefield. In the mid-1950s in the United States, crisis intervention theory (body of knowledge) was developed aimed at assisting individuals in distress and to develop coping strategies towards the experienced trauma.

Models of debriefing moved from therapeutic direction into the direction of promoting general self-enhancement, self-help groups and peer support (Robinson, 2012). This shifted the focus from trained professionals, such as therapists, to recognizing and placing value on the support that people in a similar ordeal or predicament can provide to each other. A number of interventions which have been prescribed for debriefing share a common aim but with slight differences in components of the debriefing model (Robinson, 2012). The Critical Incident Stress Debriefing (CISD) model by Jeffrey Mitchell and the psychological debriefing model by Atle Dyregrov will be described below.

2.7.3 MODELS OF DEBRIEFING

Critical incident stress debriefing (CISD) is seen as one form of support. The other forms include general staff education around stress and coping, individual support, referral for further professional assistance where appropriate and family support (Robinson, 2012). Debriefing has also been applied as a procedure for individuals and

groups. This includes victims of motor car accidents, burns and sexual assault referral for professional assistance where appropriate and family support. (Robinson, 2012).

It is important to note that some procedures have been misinterpreted in the workplace and labelled as debriefing but they have different aims and processes. This encompasses operational meetings, disciplinary meetings and briefing sessions (Robinson, 2012). Disciplinary meetings and briefing sessions aim to take measures and change behaviour of employees, while debriefing aims to be supportive and allow the individual to express themselves freely regarding psychological trauma without fear of criticism (Robinson, 2012).

2.7.3.1 MITCHELL'S MODEL

Mitchell developed a seven stage model for critical incident debriefing consisting of a Complete, methodical and combined multi-facet crises intervention platform (Regel, Joseph, & Dyregrov 2007). The Mitchell model forms part of the critical incident stress debriefing that is used in the debriefing of groups who have been exposed to a traumatic incident (Van Dyk & Van Dyk, 2010). This model was initially designed for emergency service workers as an opportunity to discuss traumatic and stressful incidents that occur in the line of duty (Robinson, 2012). This model is also designed for small and homogeneous groups and helps to reduce distress and restore group cohesion (Mitchell, 2004; Van Dyk & Van Dyk, 2010). The seven phases comprise the following: (1) the introductory stage, (2) the fact stage, (3) the thoughts stage, (4) the reaction stage, (5) the symptom stage, (6) the teaching stage; and (7) the re-entry stage (Mitchell, 2004).

STAGE 1: THE INTRODUCTORY STAGE

This is the first stage of the critical incident stress debriefing (CISD) model whereby team members are introduced to the debriefing process. The aim of the first stage is to create a safe and supportive environment for individuals to be able to express themselves freely (Mitchell, 2004; Van Dyk & Van Dyk, 2010; Ibrahim, Kamsani & AznizaIshak, 2016). This is achieved through the facilitator allowing members to introduce themselves, provide guidelines of the process, and clarify expectations and the purpose of the debriefing approach. Participants are reminded that participation is

voluntary with a particular focus on communicating the principle of confidentiality and the duty of each participant to respect privacy and confidentiality of issues shared during the debriefing (Mitchell, 2005; Van Dyk & Van Dyk, 2010; Ibrahim, Kamsani & AznizaIshak, 2016). The facilitator must therefore inform participants that debriefing is not a logistical analysis of the event (Plaggermars, 2000) but a normalising of the emotions of individuals in order to help them to return to normality (Mitchell, 2005).

STAGE 2: THE FACT STAGE

This phase is characterised by the establishment of facts related to the traumatic incident by asking questions such as “Where were you deployed?” (Van Dyk & Van Dyk, 2010). Caution is provided to the facilitator to be aware that emotions about the incident could come to the fore and that such emotions should be encouraged and viewed as normal reactions to trauma (Rose & Tehrani, 2002; Van Dyk & Van Dyk, 2010). Although the facilitator would encourage open talk, the emotions expressed are impersonal as they relate to the feelings about the event and thus excessive detail is discouraged as facts are not the essence of CISD (Mitchell, 2005; Van Dyk & Van Dyk, 2010; Ibrahim, Kamsani & AznizaIshak, 2016)

STAGE 3: THE THOUGHTS STAGE

The thoughts phase is the “transition from a cognitive domain towards an effective domain” (Mitchell, 2005, p.9). In this phase, individuals are offered a chance to express their thoughts about the incident and discuss the personal meaning of the event for them (Mitchell, 2005; Van Dyk & Van Dyk, 2010; Ibrahim, Kamsani & AznizaIshak, 2016). This phase is characterised by a focus on decision making (Mitchell, 2004).

STAGE 4: THE REACTION STAGE

Mitchell (2004) describes this phase as the heart of the CISD. The focus is on the impact the incident has had on the participants (Mitchell, 2004). This phase will be characterised by emotions such as anger, frustration, sadness, loss, confusion and other emotional, behavioural and physical reactions resulting from the traumatic event (Mitchell, 2004; Van Dyk & Van Dyk, 2010; Ibrahim, Kamsani & AznizaIshak, 2016). The facilitator may pose questions such as “What is the very worst thing about this

event for you personally?" This question is crucial in allowing participants to express their true emotions about the meaning they attach to the incident and how they felt about it. Schulz, van Wijik and Jones, (2000) further allude that it is during this phase whereby individuals who require one-on-one follow up are identified.

STAGE 5: THE SYMPTON STAGE

The symptoms phase explores the symptoms experienced by participants since the occurrence of the incident. Its main purpose is to restore the functioning of individuals to normality, relaxation and normal responsibilities and life (Mitchell, 2005; Van Dyk & Van Dyk, 2010; Ibrahim, Kamsani & AznizaIshak, 2016). The focus is primarily on participant's thoughts on their cognition, physical, emotional and behavioural experiences (Van Dyk & Van Dyk, 2010). This phase sets the tone for the succeeding phase on teaching and educating participants on the symptoms they experience (Mitchell, 2005; Van Dyk & Van Dyk, 2010; Ibrahim, Kamsani & AznizaIshak, 2016).

STAGE 6: THE TEACING STAGE

This phase is concerned with the normalizing of symptoms by providing psychoeducation on participant's reactions and stress management information to help participants deal with their recurring issues (Van Dyk & Van Dyk, 2010).

STAGE 7: THE RE-ENTRY STAGE

This is the last phase whereby issues discussed are summarised and final expectations, information, plan of action, guidance and thoughts on how to progress and address recurring symptoms are presented (Mitchell, 2005; Van Dyk & Van Dyk, 2010; Ibrahim, Kamsani & AznizaIshak, 2016). Finally, individuals who are identified that require extra therapeutic support, are referred to services available in their community (Van Dyk & Van Dyk, 2010).

2.6.3.2 DYREGROV'S MODEL OF PSYCHOLOGICAL DEBRIEFING

Dyregrov's model of psychological debriefing (PD) is based on Mitchell's model except for three main differences. The PD model emphasises the normalization of reactions

and returning participants in the debriefing process to duty (Van Dyk & Van Dyk, 2010). The PD model is viewed as being effective in helping individuals to recover from traumatic stress and the prevention of disorders, such as PTSD, developing subsequently (Dyregrov, 1997; Dyregrov, 1998; Arendt & Elklit, 2001). Similar to the model proposed by Mitchell (Van Dyk & Van Dyk, 2010), the PD model has a goal of screening individuals who would require further therapeutic intervention during the debriefing process. Arendt and Elklit (2001) list the following as goals of the PD model. It aims to normalize reactions of traumatised individuals, encourage the verbalization of their experiences of trauma and to improve group support and cohesion (Dyregrov, 1997; Dyregrov ;1998 Everly & Mitchell, 2001).

Arendt and Elklit (2001) further allude that the PD model has an economic incentive for organisations as its utilisation has been directly linked to reducing turnover of staff and saving resources. This is how organisations should react to traumatic incidents faced by their employees. They should provide relevant assistance to help employees return to normality and resume their duties and thus reduce absenteeism and increase productivity.

Various authors (Dyregrov, 1998; Arendt & Elklit, 2001; Van Dyk & Van Dyk, 2010; Ibrahim, Kamsani & AznizaIshak, 2016) argue that there are three main differences between the PD and Mitchell's models of debriefing. The first difference is that the PD model initiates the debriefing process by examining what happened before the event occurred whereas Mitchell's model begins discussions where the event started (Dyregrov, 1998; Van Dyk & Van Dyk, 2010; Ibrahim, Kamsani & AznizaIshak, 2016). Questions such as "How did you find out about this event" are posed to the participants before discussing the actual event (Dyregrov, 1998).

The second difference is that the PD model focuses on the "cognitive decision making process of the individual during the event" (Van Dyk & Van Dyk, 2010, p.9). It aims to understand the thinking process that the individual was undergoing during the event and moves towards rationality that influenced the individual's behaviour. In this process the individual is able to defer blame from themselves about the event and view the event from an objective juncture (Dyregrov, 1998; Arendt & Elklit, 2001; Ibrahim, Kamsani & AznizaIshak, 2016). In order to lead participants to engage at a cognitive level, the facilitator could pose questions such as "Why did you decide to do

that?" or "Why did you decide to stay behind and help your colleagues to exit the burning building?" (Ibrahim, Kamsani & AznizaIshak, 2016).

The third difference is that the PD model focuses on sensory information by focusing on questions such as "What did you hear, smell, taste and see?" (Van Dyk & Van Dyk, 2010). Dyregrov's model placed more emphasis on the "reaction and responses of the individuals than Mitchell's model does and it is therefore suggested to be safer for the participants" (Rose, & Tehrani, 2002, p. 65).

The table below highlights the steps of the PD Model process as adapted from Taylor (2001, p.9):

TABLE 2.1 STAGES OF PD MODEL ADAPTED FROM TAYLOR (2001)

Stage of PD Model	Process
Introduction/Rules	Outline of process is explained, participants are urged to talk
Expectations/facts	Discussion of what happened prior to the incident and during the incident
Thoughts/Decisions	Emphasis on discussing decision-making process during the incident
Sensory Impressions	Sensory information about the scene is discussed
Emotional Reactions	Emotional emphasis when talking about feelings and fears about the trauma
Normalization	Emphasis on normalizing behaviour and feelings
Future planning/coping	Future plans for coping strategies to manage stress are discussed
Disengagement	Answering of questions and a summary of the session is provided

2.6.4 DEBATES ON EFFICACY OF DEBRIEFING

The efficacy of debriefing was questioned in the mid-1990s in a number of studies which originated in Australia. The efficacy and criticism of debriefing will be discussed in the paragraph below.

2.7.4.1 POSITITIVE EFFECTS OF DEBRIEFING

Robinson (2012) states that there are studies in peer-reviewed journals, which reported positive outcomes from debriefing interventions. Interventions included individuals showing benefits of reduced anxiety, better understanding of the traumatic event with others and support received from others in a group setting during the debriefing session.

2.7.4.2 NEGATIVE EFFECTS OF DEBRIEFING

Psychological debriefing has been criticized on the grounds that the intervention worsens the victim's symptoms. Robinson (2012) states that some studies perceived debriefing as a one-time intervention where individuals who experienced psychological trauma, not limited to motor car accidents, burns and physical assault, reported that those who received debriefing were found to develop worse trauma symptoms. Wessely and Deahl (2003) believe it increases the risk of victims developing long-term psychological symptoms following a traumatic event. This claim is supported by Cochrane (2012) who included 11 studies contrasting psychological debriefing with no-intervention controls. The trauma symptoms were evident months and years after the intervention session. This led to the conclusion that debriefing is harmful (Robinson, 2012).

It was also argued that not all individuals in a group setting may benefit from discussing the contents of an ordeal as some individuals felt worse and not better after listening to what others had gone through (Robinson, 2012). In fact, individuals may be re-traumatized when exposed to graphic details of an incident which may interfere with normal natural helping networks that would otherwise operate (Robinson, 2012).

Further findings of Wessely and Deahl (2003) concluded that psychological debriefing as an intervention could not prevent PSTD; moreover, it was harmful to the participants resulting in them becoming symptomatically worse (Robinson, 2012). Critics found that psychological debriefing has a minimal effect in addressing the mental health needs of the victims (Robinson, 2012).

2.8 ROLE OF OCCUPATIONAL SOCIAL WORKER

The role of occupational social workers within organisations has become more significant as organisations aim to increase productivity and help their employees deal with personal issues that impact on their ability to perform (DPSA, 2011). Employers are constantly investing in reactive and proactive psychosocial programs that are geared towards increasing retention rates and ensuring healthy psychological well-being of employees (DPSA, 2011). In the dynamic and versatile world of work, occupational social workers are needed to close certain gaps that make organisations ineffective. The section below will describe how occupational social workers can close certain gaps and be an effective business partner to make organisations more effective. The occupational social worker plays the role of broker, advocate, mediator, trainer, consultant and evaluator (Terblanche, 2009). In the role of broker, the occupational social worker links clients within an organization who require assistance with existing resources both inside and outside the unit (Straussner & Calnan, 2014; du Plessis, 2001). This role is important when referring clients within an organisation to other services. As an occupational social worker it is important to know the resources in the community so that the social worker can refer employees to certain services to which the organization does not have (du Plessis,2001). Thus the role of networking, keeping good relationships and adhering to professionalism when dealing with stakeholders is significant. In the role of an advocate the occupational social worker assists clients to obtain resources and services that they are unable to obtain on their own (Straussner & Calnan, 2014). The role of a mediator comes into play when there is conflict within the unit or organisation that needs to be resolved (du Plessis, 2001). In conflict management the occupational social worker is able to conduct an assessment of what may be causing conflict within the organization and make appropriate recommendations for their resolution (Straussner & Calnan, 2014; du Plessis, 2001). The occupational social worker would assist in bringing peace and stability within the workplace by defusing the conflict and offering training and support for clients who require mediation services (Terblanche, 2009). The occupational social worker, acting as a mediator, will assist employees to resolve conflict within a team (Terblanche, 2009).

In the role of teacher or trainer, the occupational social worker strives to provide the clients with adequate information that will give them better knowledge of programmes that are run within the unit or in-house (Straussner & Calnan, 2014 & Terblanche, 2009) such as employee assistance programmes (Terblanche, 2009). The role of the social worker as consultant within the organization would be to provide the organization with interventions that will enable the organization to function optimally (du Plessis, 2001). The occupational social worker helps to bring new ideas and innovations within the organisation to better assist in improving relations and adhering to workplace policies (du Plessis, 2001). This is done by utilising appropriate quality improvement tools, techniques and strategies to increase operational functions as well as providing the organization with adequate information on the gaps and inconsistencies. (Terblanche, 2009). With all this information, an occupational social worker will be able to be an effective consultant as she/he gathers information on the policies, legislation and environmental dynamics that give rise to the organization (Straussner & Calnan, 2014; DPSA, 2011 & Terblanche, 2009).

2.9 OCCUPATIONAL STRESS AND MODELS THAT FOCUS ON THIS CONCEPT

Stress will be defined in conjunction with occupational stress. Figley (2012) defines stress as an unpleasant state of strain, tension as a result of a stressor. “Occupational stress is described as the mind-body arousal resulting from the physical and psychological demands associated with the job’’ (Naude & Rothmann, 2006 p.2). This definition is supported by Abbe, Harvey, Ikuma and Aghazadeh (2014) who describe occupational stress as occurring when employees experience excessive amounts of negative stress in a working environment. Patching and Best (2014) highlight occupational stress as harmful, physical and emotional responses that take place as a result of demands of a job which do not align with the strengths and capabilities or needs of an employee. Suitable interventions are required to eliminate or reduce occupational stress in the work environment to better enable an employee to perform optimally. Occupational stress can often lead to fatigue, poor work performance, high absenteeism, reduced productivity and even injuries (Patching & Best, 2014).

Drewitz-Chesney (2019) mentions that there is a paucity of research on work environments and stressors related to strenuous work tasks by experienced emergency service personnel. It is essential to also highlight that studies focusing on

emergency service personnel have solely focused on both genders. The researcher has identified this as a gap in research hence the researcher has opted to focus solely on studying male emergency personnel. Mc Farlane, Williamson and Barton (2009) suggest that organisational stressors often contribute more to the development of PTSD, occupational injuries and stress amongst emergency service personnel.

Although occupational stress is described in numerous models, only four are briefly highlighted here namely: the transactional model, micro/macro model, job demand control model and effort–reward imbalance model to further explore the phenomena.

2.9.1 TRANSACTIONAL MODEL

Lazarus and Folkman's theory of stress and coping (1984) focuses on stress transitions and the manner in which people cope. They highlight that traditionally, stress is perceived as a stimulus, however, new research describes mental stress as transactional. The transactional framework focuses on cognition, appraisals and perceptions and other stressful events that take place within an environment. These influence how an individual analyses, interprets and processes stress (Lazarus & Folkman, 1984). The primary focus is on the cognitive process between the person and the environment such as thinking about an incident and deciding if one has the personal capacity, such as the resources, or a coping technique to handle the incident (Lazarus & Folkman, 1984). The transactional process focuses around the thoughts and awareness which impact the individual's stress response.

2.9.2 MICRO/MACRO MODEL

Abbe et al. (2014) describe the micro/macro model as follows: the micro stressors are daily stressors in an individual's life such as deadlines at work and being stuck in traffic, while macro stressors consist of major life changes (Abbe et al., 2014). The micro/macro model describes acute stressors and chronic stressors in the workplace. Acute stressors in the workplace are usually of a temporary nature such as an employee experiencing victimisation in the workplace and/ or any situation that may cause distress to an employee (Koslowsky, 1998). Chronic stressors arise from acute stressors and are viewed as a permanent part of the workplace environment. Chronic stressors are examined over time in an organisation (Koslowsky, 1998) to study their nature and how they impact on the organisation.

2.9.3 JOB DEMAND CONTROL MODEL

The job demand control model discusses stress and strain in relation to psychological stress in completing tasks in the workplace (Koslowsky, 1998). This model looks at the interaction between stress and strain levels involved in accomplishing workload and the employee's potential to control and accomplish the tasks (Koslowsky, 1998). Figure 2.1 Illustrates that environmental factors resulting from work and personal factors, such as type of occupation, number of hours worked per day and responsibility an individual is entrusted with, often lead to occupational stress when demands exceed abilities (Nabiye, 2010). If occupational stress is not well managed, as a result of the pressures, it may result in job performance being affected (Khosravi, et al., 2014).

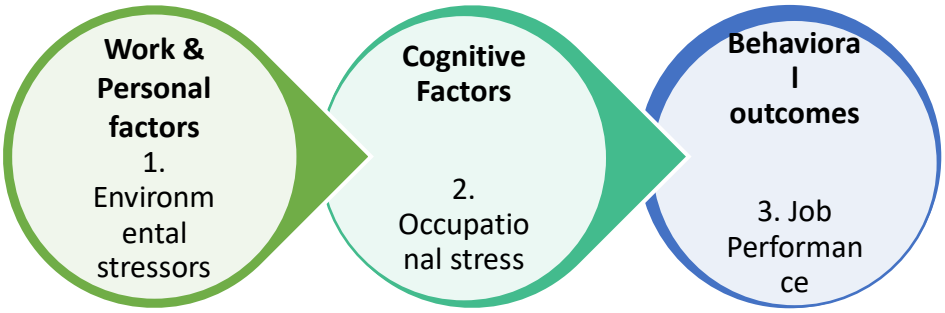

Figure 2.4 Job Demand Model (Nabirye 2010)

Further literature on occupational stress is supported by a study which focused on the effect on the organisation management Khosravi et al., (2014). They aimed to discover the causes of occupational stress within an organisation and the implications for job performance, intentional leave taken from work and absenteeism. The findings uncovered that occupational stress had no direct effect on absenteeism or intentional leave, however it did have a direct negative effect on job satisfaction. The study concluded that in order to reduce occupational stress, job satisfaction needed to be increased. If job satisfaction was increased it could lead to an organisation experiencing a reduction in the level of employee's intentional leave and absenteeism.

In order for a healthy organisational structure to be established, job satisfaction is an essential component to produce quality employees in the workplace.

2.9.4 EFFORT – REWARD IMBALANCE MODEL

In order for healthy conditions to be achieved in the workplace, it is essential that an employee's skills, abilities and resources match the demands of the respective job. The work environment should also meet the worker's needs, knowledge, and skills. A lack of fit within the work environment can result in greater strain.

The effort-reward imbalance model (ERI) focuses on the reciprocal relationship between efforts and rewards within the workplace. According to Mustafo, et al., (2015), the ERI model claims that work characterised by high effort and low reward reflects a reciprocity deficit between high costs and low benefits. This could result in negative emotions being experienced and exposed by employees. The feelings encountered by the employee as a result of experiencing a reciprocity deficit, may result in an imbalance leading to occupational stress. Mustafo et al. (2015) suggest that employees who perform excessive work or who are over-committed with tasks, will respond with more strained reactions to an effort imbalance, in comparison with less over-committed individuals within an organisation.

Demands from the environment often exceed the available resources resulting in occupational stress or a form of adaptive or maladaptive coping depending on the employee's resilience interpretation of the environment's effects or stressors (Nabirye, 2019) Stress is a part of any work environment. However, increased and unmanaged stress levels due to workplace challenges may result in experiences of low rewards for an employee (Mustafo et al., 2015). It is essential to note that the work environment conditions that produce stress, can be managed by adopting adaptive coping strategies which will benefit the employee.

Figure 2.5 illustrates the imbalance between high effort and low reward as discussed in the above paragraph as a result of occupational stress.

Figure 2.5: Effort-Reward Imbalance Model by Siegrist (2001) illustrating high effort in relation to low reward

The ERI Model illustrates that dealing with excessive workload that exceeds the employee's ability to manage pressure and arrange work can be stressful and result in occupational stress. Lee and Wang (2002) argue that employees who lack enough work experience may experience lack of confidence or competence in their work roles or workloads. Workload has been identified as a frequent stressor which may result in occupational stress due to an employee not managing pressure and work demands.

2.10 THE IMPACT OF STRESSORS ON EMERGENCY SERVICE PERSONNEL

Occupational stress is one of the major stressors emergency personnel are exposed to. This section will explore the occupational stress amongst emergency service personnel in line with relevant models.

2.10.1 OCCUPATIONAL STRESS AND SYMPTOMS OF STS EXPERIENCED BY EMERGENCY SERVICE PERSONNEL

Emergency service personnel are faced with stressful situations in their line of duty when attending to patients involved in life threatening emergencies. This results in trauma impacting on them physically, emotionally and psychologically (Wheater & Erasmus, 2017). Fieldheim et al. (2014) further mention that emergency service

personnel are exposed to an unpredictable and demanding work environment which requires them to become quick decision makers when attending to a critical incident.

Due to the trauma experienced in their line of work, it often leads to emergency service personnel experiencing the effects of trauma that result in occupational stress, sleep disturbances and fatigue. Literature by Ludick (2013) states that emergency workers and other helping professions with STS symptoms exhibited varying degrees of PTSD. All these traumatic exposures contributed to increased stress levels, high levels of absenteeism and increased sick leave in order to cope (Calhoun & Tedeschi, 2006; Ludick, 2013). This is also emphasised by Porter (2008) who states that the type of work undertaken by male emergency personnel and work demands contribute to them experiencing occupational stress. These have an impact on the emotional and physical health of emergency service personnel.

On the other hand, to highlight the severity of STS in the emergency sector, numerous studies focus on other professions such as those in the medical field. A study by Machado (2018) regards emergency service personnel as forming part of the health professionals as they are continuously confronted and care for patients suffering traumatic injuries and who are critically ill, while experiencing emotional distress themselves. A study by Machado (2018) of 128 nurses explored how compassion fatigue, burn out and job satisfaction contributes to the development of STS. The study's findings revealed that nurses working in an emergency department had higher levels of compassion fatigue and burnout which increased their risk of developing STS (Machado, 2018).

A study by Donnelly and Chonody (2014) validated a tool assessing work-related chronic stress amongst 1633 emergency service personnel. The study found that exposure to workplace stressors may lead to psychological distress, stress related to PTSD as well as occupational stress amongst emergency personnel.

A study conducted by Mosadeghrad (2013) aimed to identify the factors and effects of occupational stress on employees well-being amongst employees employed in a local hospital in Iran. The study found that work-related and interpersonal stress were impacted by environmental factors such as heavy workload and conflict amongst employees. The study further highlighted the impact of occupational stress on employees and illustrated the negative effects of poorly managed stress which could

impact the well-being of employees (Mosadeghrad, 2013). Hoboubi et al., (2016) studied the impact of job stress and job satisfaction on workforce productivity in an Iranian Petrochemical Industry and found that occupational stress usually influences an employee's behavioural and his/her mental and physical outcomes. All these have a direct impact on job satisfaction, and productivity within the organisation. Occupational stress may be experienced differently as each person's experience is unique.

Emergency personnel work in high-risk environments which expose them to life-threatening situations such as the devastating impact of fire, or being confronted with dead or dying people at a scene (Regehr, Hill, Goldberg & Hughes, 2014). The focus of many previous studies examined the types and consequences of traumatic exposures experienced by emergency personnel (van der Ploeg & Kleber, 2014). Research studies have shown that acute stressors may lead to serious mental disturbances, in particular PTSD (van der Ploeg & Kleber, 2014). According to Beaton and Murphy (1998), ongoing exposure to trauma has the potential to threaten the health and well-being of those working in high-risk environments. Emergency personnel involved in attending to unsuccessful life-threatening procedures such as cardio-pulmonary resuscitation of a patient were found to suffer from PTSD reactions. In a study conducted by Minnie, Goodmman and Wallis (2015) found that 93% emergency service personnel found it traumatic when a patient passes away in their care when attending to a distress call, this causes some guilt and flashbacks of vivid memories of a scene. Emergency service personnel experienced vivid, involuntary and uncontrollable thoughts, and feelings pertaining to their failed attempts (van der Ploeg & Kleber, 2014). Emergency personnel (85%) who were exposed to a traumatic incident in the previous five years involving children and dealing with hopeless patients, suffered fatigue and severe PTSD (van der Ploeg & Kleber, 2014). Conclusions drawn from the study conducted by van der Ploeg and Kleber (2014) regarding acute and chronic job stressors among emergency personnel, found that emergency personnel were at risk of developing health problems. When implementing workplace interventions, the social aspects that impact on their functioning should be taken into account (van der Ploeg & Kleber, 2014).

The nature of work and occupational demands placed on emergency service personnel can result in reduced performance and job satisfaction. A study conducted

by Khosravi, (2014) states that occupational stress arises when work demands exceed an employee's abilities. In other words, the type of role performed by an employee can affect their performance, especially when the employee does not have the capacity to perform the duty and receives limited support from the employer. The study further identified that occupational stress can adversely reduce an employee's job satisfaction. This reverses the gains of attaining high morale amongst employees as job satisfaction is associated with perceptions of increased reward and recognition. Occupational stress can therefore be reduced by providing support to employees through interventions such as capacity building workshops and creating awareness around effective communication in the workplace (Khosravi et al., 2014).

A South African study conducted in Ekurhuleni has shown that emergency personnel suffer from burnout and occupational stress as a result of traumatic scenes to which they are exposed (Mashigo, 2010). A recent study on post-traumatic stress has demonstrated that South Africa has high incidences of violent crime; moreover, lack of counselling for the victims of crime may potentially cause psychological trauma which may result in secondary traumatic stress (Elntib & Armstrong, 2014). These two studies have highlighted the effect that trauma has on victims and emergency personnel who have to attend emergency scenes.

Due to living in a fast-paced society with numerous demands from various spheres not limited to physical, psychological and environmental stimuli, stress has become part of normal life. In studying stress, Selye (1956) observed a variety of patients with illnesses that corresponded with stress-related symptoms (Fink 2017). Selye's ideas represent fundamental stress theory that suggests that stressful life events may be linked to physiological stress (1956). A stress response is invoked by a stressor which refers to a stimuli or event that provokes a stress response in an organism (Fink 2017). Stress can be emulated in various forms and impacts individuals in different ways, i.e. physical and/or psychological. Likewise, the response of individuals to stress can either be physical and/or psychological. Physical stress is commonly known as physiological stress. It occurs when an individual experiencing stress has a physiological reaction to stimuli e.g. back and shoulder pains or headaches (Fink, 2017). An individual can be affected in a psychological manner when an incident affects an individual's family or communities function adversely (Fink, 2017).

According to Matthieu and Ivanoff (2006), due to the fast pace of society, various forms of stress relating to work, family, financial, chronic stress and symptoms of post-traumatic stress, have become a common denominator in the problems experienced by employees within organisations.

Literature by Weisaeth and Eitinger (1993) highlighted that disasters can affect anyone of any age group. They further indicate that the emergence of stress requires the utilisation of various coping strategies to reduce the effects of the stimuli. The following paragraphs will discuss studies from various authors views on psychological trauma and the kind of impact if has on an individual.

2.11 COPING MECHANISMS BY EMERGENCY SERVICES PERSONNEL

The previous studies support that emergency service personnel opt for various forms of coping strategies to better cope with traumatic exposures within the workplace. It is crucial to note that the above-mentioned studies as well as other studies focus on both genders and not specifically on male emergency service personnel or other professions such as nursing.

In order to understand workplace stress and PTSD in emergency medical services and how it may affect emergency service personnel, Donnelly (2012) conducted a study and found that there was a strong correlation between increased chronic stress, critical incident stress, post-traumatic stress and alcohol intake.

According to a study conducted by Holland (2011) to examine the dangers of detrimental coping amongst 180 emergency service personnel, it was suggested that avoidance and distancing oneself was the coping method most favoured by participants. Missouridou (2017) recorded the emotional responses of nurses to secondary post-traumatic stress and found that patient's trauma evoked intrusive emotions in nurses. They further highlighted the difficulty experienced by nurses in managing their emotions and how they would either be disengaged or over-involved in client's trauma. It was discovered that limited understanding of trauma resulted in a nurse's ability to interact more in-depth with patients. A suitable intervention was highlighted as a need to have ongoing awareness sessions in the workplace in order to reduce nurses experiencing secondary stress reactions (Missouridou 2017).

Increased understanding of secondary stress reactions would result in improved interactions with patients and care.

2.12 ROLE OF OCCUPATIONAL SOCIAL WORKER IN DEALING WITH TRAUMA

Emergency service personnel including firefighters and police are at an increased risk of developing PTSD and other stressors such as occupational stress as a result of their demanding work environment (Drewitz-Chesney, 2019). Authors McFarlane, Williamson and Barton (2009) mention that emergency service personnel have the highest incidence of PTSD. According to Staniloiu and Feinstein (2017), out of 3755 emergency service personnel, 825 emergency personnel were likely to develop PTSD in their lifetimes. It is important to note that literature regarding the role of occupational health nurses working with emergency service personnel has been largely focused on isolated disasters and does not address the daily work environment of emergency service personnel's contribution to high rates of PTSD.

The role of occupational social workers within organisations has become more significant as organisations aim to increase productivity and help their employees deal with personal issues that impact on their ability to perform (DPSA, 2010). Employers are constantly investing in proactive psychosocial programs that are geared towards increasing retention rates and ensuring healthy psychological well-being of employees (DPSA, 2010). In the dynamic and versatile world of work, occupational social workers are needed to close certain gaps that make organisations ineffective. The section below will describe how occupational social workers can close certain gaps and be an effective business partner to make organisations more effective.

The occupational social worker plays the role of broker, advocate, mediator, trainer, consultant and evaluator (Terblanche, 2009). In the role of broker, the occupational social worker links clients within an organization who require assistance with existing resources both inside and outside the unit (Straussner & Calnan, 2014 & du Plessis, 1999). This role is important when referring clients within an organisation to other services. As an occupational social worker it is important to know the resources in the community so that the social worker can refer employees to certain services to which the organization does not have (du Plessis, 1999). Thus the role of networking,

keeping good relationships and adhering to professionalism when dealing with stakeholders is significant. In the role of an advocate the occupational social worker assists clients to obtain resources and services that they are unable to obtain on their own (Straussner & Calan, 2014).

The role of a mediator comes into play when there is conflict within the unit or organisation that needs to be resolved (du Plessis, 1999;). In conflict management the occupational social worker is able to conduct an assessment of what may be causing conflict within the organization and make appropriate recommendations for their resolution (Straussner & Calnan, 2014; du Plessis, 1999;). The occupational social worker would assist in bringing peace and stability within the workplace by defusing the conflict and offering training and support for clients who require mediation services (Kurzman, 2008; Terblanche, 2009). The occupational social worker, acting as a mediator, will assist employees to resolve conflict within a team (Kurzman, 2008; Terblanche, 2009).

In the role of teacher or trainer, the occupational social worker strives to provide the clients with adequate information that will give them better knowledge of programmes that are run within the unit or in-house (Straussner & Calnan, 2014; Kurzman, 2008; Terblanche, 2009) such as employee assistance programmes (Maribe, 2006; Terblanche, 2009).

The role of the social worker as consultant within the organization would be to provide the organization with interventions that will enable the organization to function optimally (du Plessis, 1999; Maribe, 2006). The occupational social worker helps to bring new ideas and innovations within the organisation to better assist in improving relations and adhering to workplace policies (du Plessis, 1999; Maribe, 2006). This is done by utilising appropriate quality improvement tools, techniques and strategies to increase operational functions as well as providing the organization with adequate information on the gaps and inconsistencies. (Maribe, 2006; Kurzman, 2008; Terblanche, 2009). With all this information, an occupational social worker will be able to be an effective consultant as she/he gathers information on the policies, legislation and environmental dynamics that give rise to the organization (Straussner & Calnan, 2014; Maribe, 2006; DPSA, 2008; Kurzman, 2008; Terblanche, 2009).

2.13 TOWARDS UNDERSTANDING RESILIENCE

The concept of resilience gives us a clue as to why some benefit from PD and others do not. The concept of resilience is one that has also been highly contested with authors offering varying definitions and explanations of the concept (Carlson, Cacciatore & Klimek, 2012; Fletcher & Sarkar, 2016; 2014; Van Breda, 2018). This has led to difficulties in finding consensus on a definition that will ensure uniformity in understanding and researching resilience (Van Breda, 2018). Various definitions of resilience have been considered and explored to gain a better understanding of the concept. The succeeding section will explore a variety of definitions and then offer a suitable definition that will underpin the study.

Resilience is "the capacity of a system to absorb disturbance, undergo change, and retain essentially the same function, structure, identity, and feedbacks" (Longstaff, Armstrong, Perrin, Parker & Hidek, 2010, p. 2). On the other hand, resilience is referred to as the ability to adapt to changing conditions and withstand and rapidly recover from disruption due to emergencies (Koliou, van de Lindt, McAllister, Ellingwood, Dillard & Cutler (2019). Authors Spira and Drury (2012) describe resilience as the ability of an individual to become stronger after a stressful incident and bounce back from a stressful incident, by coping with stress and adversity. Social workers are expected to be prepared to promote suitable interventions for individuals, groups and communities who experience various forms of adversity, for example trauma. According to Greene (2007) resilience is associated with the positive psychology movement which believes in the power of human resilience to triumph and function in the face of any adversity including trauma.

The difference in definitions is significant in describing behaviour and the origins of resilience within individuals and other entities. The definition by Longstaff et al. (2010) emphasises resilience as an after-event component, meaning that resilience is exerted only after an adverse event occurs. It does not comprehend resilience as comprising the ability to anticipate and plan how to deal with adverse and/or traumatic incidents (Carlson et al., 2012). Koliou et al, (2019) emphasises the before and after event component (Carlson et al., 2012). This component is crucial as it emphasises a resilient character as one that is able to anticipate and plan how to respond to disruption caused by emergencies.

For the purposes of the study, the holistic definition offered by Southwick et al., (2014, p.11) is used: resilience is “a conscious effort to move forward in an insightful and integrated positive manner as a result of lessons learned from an adverse experience”. The theoretical focus will be intertwined with Carlson et al. (2012, p.17) which holds that resilience is the “ability of an entity to anticipate, resist, absorb, respond to, adapt to, and recover from a disturbance”. The crucial factor in the defining of resilience is focused on the ‘before event’ component of having the ability to anticipate disturbance. Although an individual may be able to anticipate certain events such as looming industrial action, planned retrenchment, planned surgery, there are certain traumatic events one cannot anticipate, such as experiencing or witnessing violent death, serious accidents (Southwick et al., 2014).

Resilience is not automatic, it is shaped and moulded at multiple levels by factors such as genetics, epigenetic, developmental, demographic, cultural, economic and social (Southwick et al., 2014). A study conducted by Gillespie, Phifer, Bradley and Ressler (2009, p.2) revealed that experiences of child abuse have the potential to “pathologically alter the function of the hypothalamic-pituitary-adrenal (HPA) axis” and that abused children who developed depression as adults show “elevated secretion of adrenocorticotropic hormone (ACTH) and cortisol” (p.2). This study is significant in showing the link between the alteration of genes and hormonal imbalances in abused children and how it later affects their ability to build strong resilience.

Similarly, the ability to recover from PTSD appears to be related to numerous factors around childhood experience. This places the role of genes and gene interaction in childhood at the centre of building resilience and as one of the most important determinants to study and understand resilience theory. For the purposes of this study, the findings by Gillespie et al. (2009) allows us to understand that the resilience or lack thereof of fire fighters is closely linked to an individual’s childhood environment (Southwick et al., 2014).

Factors such as biological, upbringing and exposure influence the development of resilience to PTSD from (Spira & Drury 2012, p. 560). Drawing from the multiple level analysis of resilience, developmental and demographic factors are crucial in understanding resilience. Researchers agree that resilience is a process rather than an inert construct (Mampane, 2014; Van Breda, 2018). Resilient behaviour is

understood and analysed in the context of the environmental factors an individual is exposed to as well as the understanding and knowledge of their development (Masten, 2007) and ability to make positive adaptations after experiencing a disturbance (Masten & Obradovic, 2006; Mampane, 2014).

This has been emphasised by Ungar (2008, p.218) that “aspects of resilience exert differing amounts of influence on the child’s life depending on specific culture and context in which resilience is realised”. In order to understand the impact of developmental factors and cultural context’s influence on building positive resilience, findings by Mampane (2014) are helpful. Her research enlightens us about the importance of positive role models and social support, high levels of confidence and an internal locus of control, toughness and commitment when faced with adversities, having the desire to achieve, achievement being recognised by school teachers and parents, and lastly, adolescent’s ability to identify and utilise resources which resonated with their individual strengths. These findings are significant in helping us understand how childhood factors and positive development in children contribute to building adults that are adaptive and resilient.

The findings by Mampane (2014) are echoed by Southwick et al. (2014, p.11) who emphasise childhood development protective factors such as “healthy attachment relationships and good caregiving, emotion regulation skills, self-awareness, the capacity to visualise the future and a mastery motivation system that drives the individual to learn, grow and adapt to their environment” as successful determinants of resilience. In understanding the resilience of fire fighters, it is crucial to closely examine their childhood development and demographic factors in how they were raised, the social support offered within their social environment and their ability to master and accomplish tasks. This would then illustrate the point that resilience is a process (Van Breda, 2018) and emanates not only from current circumstances but developmental factors as well.

In determining the success of individuals in overcoming adverse events, caution should be taken to examine and understand that resilience is influenced by multiple factors. These multiple factors act as determinants in building and shaping resilience within individuals. They are based on personality, specific challenges encountered, resources available to overcome the stress/trauma and the environmental context of

the individual (Carlson et al., 2012; Southwick et al., 2014). For example, some of the determinants of resilience that are relevant for emergency medical personnel in South Africa may differ from those that are relevant in high-income communities in London, United Kingdom. Thus, this should be taken into consideration when determining and examining relevant resilience factors faced by individuals.

Lastly, Southwick et al. (2014, p.12) reported that resilience is "associated with the ability to employ a variety of coping strategies in a flexible manner and to use corrective feedback to adjust these strategies". The ability to learn new coping strategies is paramount in the quest for increased resilience and is especially significant for emergency medical personnel in understanding and improving their coping strategies.

2.14 GENDER ROLES AND RESPONSE TO STRESS

The study of gender and gender roles emanates from feminist theory and particular attention on the meaning associated with being a man (Rowbottom, Brown, Cachia 2012). Research (Pleck, 1995; Mussap, 2008; Rowbottom et al, 2012) shows there is a difference between sex and gender. Whereas sex is related to the biological description of human beings based on genetics and reproductive organs, gender is concerned with "social, cultural & psychological characteristics that have come to be aligned and associated with male and female sexes" (Rowbottom et al 2012, p.1). Gender concerns itself with the roles that are assigned to males and females and the expectations for their behaviour in a socially, culturally and psychologically acceptable manner. The definition of gender is significant for this study with the particular focus on the *psychological characteristics* assigned to males and females and gives an indication that there are different expectations of how females and males process and respond to psychological and mental health issues such as stress, depression and anxiety (Reilly, Awad, Kelly & Rochlen 2018: Jamil, 2013).

The discussions and debate on gender and the roles ascribed to both males and females is driven by mainly the essentialism and constructionism theoretical positions (Rowbottom et al, 2012). The essentialism position holds that gender roles are embedded within an individual and "views it as something that is innate, and therefore consistent and internal, unaffected by the social context in which the individual

operates" (Rowbottom et al, 2012, p.2). This approach does not cater for environmental influences to shape the behaviour and characteristics of the different genders and rather promotes the idea that individuals are born with innate knowledge and understanding of how they should conduct themselves in society. The constructionism approach is based on the social learning theory which views gender as something that is "learned by interaction with the environment and is therefore contextually specific" (Rowbottom et al, 2012, p.2). For example, a girl child who lives in an impoverished community could be tasked with household duties while a girl child in a Middle Class Western Community is encouraged to think and view life beyond gender limitations and to compete with men. For the purpose of this study, focus will be given to the social constructivist approach to understanding gender and how gender influences reactions to and coping with psychological stress.

The construction of gender roles is embedded in how human beings are socialised to behave in line with societal expectations of what it means to be masculine or feminine (Kőker, 1996 & Pleck, 1995). These roles in turn shape the attitudes, preferences, emotional & physiological reactions and behaviours of men and women (Moore & Stuart, 2004). They thus create differences in how stressful events are interpreted from a cognitive and emotional perspective by both men and women (Mussap, 2008). In the early 1980s prominent researchers developed gender-based scales that listed different behaviours that described the traits of stress amongst men and women (Eisler & Skidmore, 1987: Eisler & Skidmore & Ward, 1988: Gillespie & Eisler, 1992).

For men, the following characterises were viewed as stress-causing traits in line with the Masculine Gender Role Stress Scale (Eisler & Skidmore & Ward, 1988): appearing physically inadequate, expressing emotions, being subordinate to women, being intellectually inferior and failing to perform in their work and sex life (Mussap, 2008). These are important traits to note and how they impact on the behaviour of men and how they interpret the seriousness of stressors. Mussap (2008, p.34) alludes that the need for men to focus on "status, physical dominance and the need to repress characteristics associated with femininity is consistent with the observation that men are more prone than women to anger, violence, risk-taking and anti-social behaviour".

The observation by Mussap (2008) is consistent with the view held by Reily et al. (2013) that men are discouraged to desist from expressing self-conscious emotions

such as shame as the trait shame has been associated with mental health issues such as suicide, depression and anxiety (Orth, Robins & Soto, 2010). Therefore, masculinity socialises boys to deny and avoid such emotions which has the potential to be exhibited through negative emotions as held by Mussap (2008). Such expressions of distress may be viewed as hostility and the breakdown of self-conceptualizations of masculinity (Reily et al., 2013). In effect, we now understand that gender will influence the response and recognition of trauma and stress symptomatology by EMS personnel and this in turn influences how interventions are designed to aid them. In essence, conforming to gender roles plays a significant role in psychological well-being (Makhalik et al., 2003) and the way individuals cope with “stress originates from the way men and women develop gender-appropriate schemes as children and the way in which parents reinforce gender-typical behaviour (Jamil, 2013). This chapter has outline the extensive body of knowledge around STS. In the following section the theoretical framework of the study together with the theoretical framework will be focused on.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

Research design encapsulates an outline and structure of the research project (Creswell, 2014). The researcher uses a step by step outline to explain what has been executed in the study (Creswell, 2014). The discussion in this chapter covers the research method (in-depth interviews) together with reflections and experiences gleaned from the research process. The strengths and limitations of the research approach are discussed. The chapter concludes with a description of the sampling technique, the pre-testing process, data accumulation and ethical considerations.

3.2 RESEARCH QUESTIONS

- How do emergency service personnel experience secondary traumatic stress (STS) from the situations to which they are exposed while on duty?
- What effect does STS have on the personal lives of emergency service personnel?
- How does secondary trauma influence the work functioning and professional lives of emergency service personnel?
- How do emergency service personnel cope with secondary trauma?

3.3 AIMS AND OBJECTIVES

3.3.1 PRIMARY AIM

The primary aim of the research was to explore the nature of STS experienced by male emergency service personnel at the Vosloorus service station in Ekurhuleni Municipality.

3.3.2 SECONDARY OBJECTIVES

- To explore how emergency service personnel experience trauma.
- To explore the effect secondary trauma has on the personal lives of the emergency service workers.
- To determine ways in which secondary trauma influences professional functioning of the emergency service personnel at work.
- To explore how emergency service personnel cope with secondary trauma.

3.4 QUALITATIVE PARADIGM

The qualitative research design requires detailed observation from the researcher (Ponelis, 2015). The strengths of the research design for the study are highlighted below. Qualitative exploratory research allows the researcher to structure the interview schedule and to put open-ended questions to participants. The open-ended questions together with the probing of participants enable participants to be flexible and respond using their own language and words rather than responding in a rigid manner. This approach allows for data to be gathered and analysed without compromising the quality.

This approach is supported by Ritchie, Lewis, McNaughton Nicholls and Ormston (2014) who argue that qualitative research design is perceived as a valid and cherished method for analysis of social behaviour. This research design is effective for questions where pre-emptive reduction of data will inhibit further discovery (Creswell, 2014). In The study the researcher learnt from the participants in the context in which they experience STS. The meanings and memories they hold enable the participants to interpret their unique and subjective experiences, thus allowing the researcher to discover the participants' perceptions, and interpret the responses received.

Furthermore, the research design enabled the researcher to utilise the correct research methods of interpreting data by focusing on the emerging themes and challenges experienced by the participants. Participants provided the researcher with

privileged information which allowed the researcher to gain insight into the participants' working environment and phenomena namely secondary traumatic stress (STS).

3.5 RESEARCH DESIGN

In order to explore and understand the nature of trauma experienced by emergency service personnel, a case study design was deemed appropriate. According to Ritchie, et al (2011) case study design assists in studies aimed at detailed exploration of a research phenomenon. Utilising case study design was particularly suitable for studying secondary traumatic stress (STS). The researcher utilised the case study design, which looked intensively at male emergency personnel by drawing on relevant information of the bounded system of the Vosloorus service station in Ekurhuleni (Lacey & Luff, 2009).

Qualitative research is based on making observations that are summarized and interpreted in a narrative report (Strydom, 2011). This design enabled the researcher to obtain an in-depth understanding of the work experiences and views of male emergency service personnel at the Vosloorus Service Station. Creswell (2014) highlights one of the advantages of the qualitative approach is that it enables the researcher to structure the interview schedule by using open-ended questions. The open-ended questions together with probing of the participants' responses allows for participants to respond using their own language and words, rather than responding in a rigid manner.

The study was exploratory in nature as there is a paucity of studies conducted on the trauma experienced by male emergency service personnel at the Vosloorus service centre. The study was descriptive as it enabled the researcher to describe the type of trauma that emergency service personnel are exposed to. This design enabled the researcher to capture the emotional perceptions, experiences and strategies that the emergency service personnel use to cope with trauma. A study of this nature was aimed at producing a detailed case study (Strydom, 2011).

3.6 DESCRIPTION OF THE POPULATION

Vosloorus is a township located in the Ekurhuleni Municipality. It was established in 1963 as part of forced removals in line with the Group Areas Act of 1950 (Brookes, 2014). The township was established after Africans were moved from Stirtonville which was located close to a white town. In 1983 Vosloorus received full municipal status (Brooke, 2014). Ekurhuleni Municipality forms the local government of East Rand region of Gauteng province and is highly urbanised occupying 1 925 km² (Stats SA, 2018). Vosloorus township houses a population of 163216, other surrounding townships such as Katlehong and Tokoza form part of the large number of urbanised townships in Ekurhuleni (Stats SA, 2018). The map below illustrates the towns surrounding Vosloorus township and fire station.

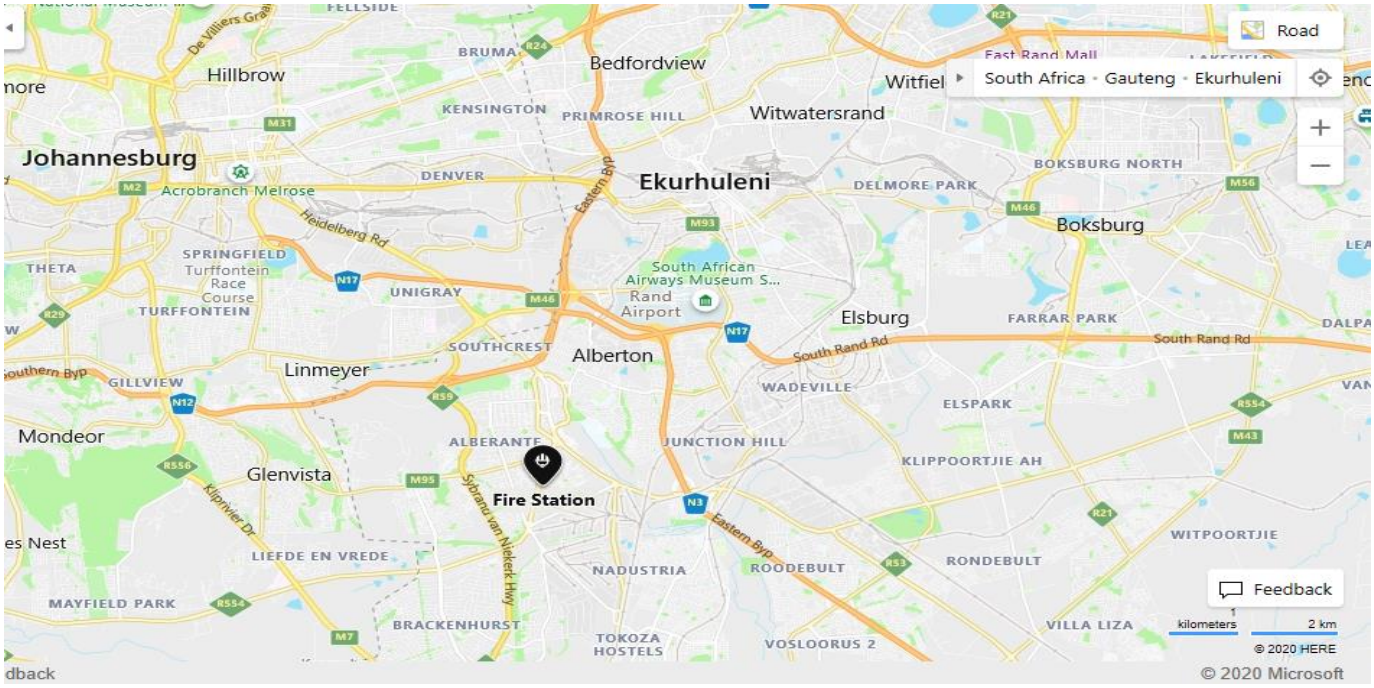

Figure 3.1 Vosloorus Township situated in Ekurhuleni Municipality Stats SA, (2011)

According to the South African Emergency Service Institute (SAESI) the Ekurhuleni Region (East Rand) has 28 service points to which emergency service personnel are assigned, with reference to a specific demarcation (Saesi,2018). Each demarcated service point attends to medical and fire issues within its respective area. The service points are listed as follows: Alberton, Bedfordview, Benoni, Boksburg Central, Brakpan, Commercia, Daveyton, Duduza, Edenvale, Etwatwa, Farranani, Farrarmere, Germiston Central, Hlahatsi, Kempton Park, Lawley, Nigel, Northview, Olifantsfontein,

Orange Farm, Palm Ridge, Primrose, Rynfield, Springs, Tembisa, Thokoza and Wadeville (Saesi, 2018). The researcher selected the Vosloorus service point which is a satellite office to the Boksburg Central and is easily accessible to the researcher.

The emergency service personnel in Ekurhuleni are professionally trained. All emergency personnel are in possession of a code 10 driver's licence, Fire Fighter 1 and 2, Hazmat operational Awareness and one the First Aid levels 1-3. One employee was qualified for advanced life support, in addition, each had successfully passed a physical test in order to assist victims in these situations. All emergency personnel are in possession of a certificate of competency accredited by the South African Emergency Service Institute by providing relevant training centres that provided the education and training aligned to the qualification

Emergency service personnel must be registered with the Health Professionals Council of South Africa (Emergency Medical Service Regulations, 2017). Their professional registration empowers them to perform their functions of life saving, or any act reasonably necessary to prevent bodily harm close to a road or street, enter or break into premises, damage and destroy any property (Emergency Medical Service Regulations, 2017). Emergency service personnel are employed as shift workers in line with the relevant labour law which allows for a 12 hour shift with rest days equivalent to the number of days' worked; for example, emergency service personnel work for a period of 16 days on shift and 16 days off.

3.7 RESEARCH METHODOLOGY

3.7.1 SAMPLE

Purposive sample was used when selecting participants. Purposive or judgemental sampling is sampling on the basis of attaining prior knowledge of the population that will be studied as well as the components that form part of the study, which includes the purpose of the study (Babbie, 2013). The selected sample consisted of male emergency medical technicians or fire fighters who have been employed for over a year in the field.

3.7.2 SAMPLING PROCEDURE

The researcher interviewed 20 male emergency service personnel, who have worked for more than a year in the field, as it was perceived that they have an understanding of their work requirements and have been exposed to trauma as part of their work.

Males were selected purposively as the researcher sought to obtain more insight on how male emergency personnel cope with routine trauma in the workplace. The researcher chose to interview male participants only in order to gather knowledge on the impact trauma has on them, particularly as the majority of emergency service personnel are males. This was purposively designed to reduce the paucity in studies with a particular focus on men as suggested by Mejia (2011, p.32) that "there has been a great deal of attention given to the application of feminist therapy in treating women but there is little written about feminist therapy and its application in treating men''.

Feminists have proposed that men and women experience trauma and its long term effects due to distinct patterns of gender socialization (Brown, 1990; Sharper and Heppner, 1991 cited in Mejia, 2011). The researcher selected men as they are usually socialized to be tough, fearless and denying of vulnerability, so that men's responses to trauma are more likely to internalise the emotional pain whereas women tend to externalise their pain (Mejia, 2011). The participants in the study were required to report for duty at the Vosloorus service point.

The researcher interviewed 20 male emergency service personnel based at the Vosloorus Service point. Higher ranking officials were not included as they perform managerial roles that deal with managerial and administrative functions, and consequently do not attend to some scenes on a daily basis.

3.7.3 RESEARCH INSTRUMENTATION

The researcher utilised a semi-structured interview schedule which was guided by the aim and the secondary objectives of the study. Greeff (2014) describe a semi-structured interview as a tool to attain more information about the participants' beliefs, thoughts and perceptions on the subject at hand. The semi-structured interview was the most suitable method that provided the researcher with the opportunity to probe deeper and seek better understanding of the participants' experiences. The interview

schedule consisted of a demographic section followed by ten open-ended questions. Each interview took between 30-45 minutes due to the interview schedule being in English. In some interviews some participants requested that some questions be phrased in isiZulu due to minimum English comprehension while others found some questions to be too technical. Other participants understood the interview schedule however they preferred to respond in isiZulu as the participants provided richer responses when answering the posed questions in their own mother tongue. The semi -structured interview schedule for this study is set out in Appendix E

The following paragraph will highlight the strengths and limitations of a semi-structured interview schedule.

3.8 STRENGTHS AND LIMITATIONS OF SEMI- STRUCTURED INTERVIEW SCHEDULE

The purpose of a semi-structured interview schedule is to gather in depth personal accounts of participants by better understanding the personal context of each participant by allowing each participant to express their response in a suitable language (Ritchie et al., 2014). Semi- structured interview schedule enables a researcher to better understand complex processes and other issues related to the research study (Ritchie et al., 2014). The previous sentence is supported by Boeije (2014) who further mentions that a qualitative interview allows for the researcher to learn more about participant's perspective when posing a question, usually the interview is able to follow a process when rapport is established. The following will discuss the limitations of a semi- structured interview schedule as follows. If the researcher does not possess sufficient interview skills and probing technique in order to deepen the response of the question it limits the quality of the data being collected (De Greeff 2014). Another limitation is if the researcher has not sufficiently prepared the interview questions, the interview questions may be viewed as leading, this limitation was dealt with by the researcher preparing sufficiently before the interview and making use of a suitable South African official language to avoid leading. Author De Greeff (2014) explains the interview requires personal interaction and cooperation from the participant and interviewer, however a limitation may arise if a participant may be unwilling to share or the questions that do not elicit the desired response from participants. The research process cannot be turned into a therapy session; however,

the interview may limit the amount of information shared by the participant which may lead to the participant feeling overwhelmed (De Greeff, 2014)

3.8.1. PRE-TESTING THE RESEARCH TOOL

The focus of the pre-test was to test the validity of the research instrument which was intended to be used in the main study and to assist in fine-tuning the questions for the study (Babbie, 2013). A pre-test was conducted with three male emergency service personnel from the Vosloorus service point. The semi-structured interview schedule was used to ask the participants questions relating to the study. Participants who took part in the pre- test were not to be used in the main study. Once the questions on the semi- structured interview schedule were posed to the participants, the researcher gathered and reviewed the responses given to see whether the questions could be adjusted to suit the study. The researcher requested feedback from the participants in terms of their impressions on the kind of questions asked within the interview schedule, what questions were appropriate, what worked and what changes could be made to improve the study. No changes were made to the initial semi- structured interview schedule questionnaire.

3.8.2 RESEARCH PROCEDURE

The researcher began by first submitting a research proposal to the Ekurhuleni Emergency Department located in Bedford view for approval to conduct the study. This was followed by the researcher obtaining approval from the Office of the Divisional Head: Emergency Services to conduct the research study. An appointment was made to see the station commander and the platoon commander (Shift manager) to explain the research study as well as the need to conduct a pre-test in preparation for the main study. The researcher was introduced to the emergency service personnel as well as management by the station manager. The researcher was then requested to be available each day after the parade had taken place as emergency service personnel are scheduled to work on different shifts per week. The parade begins at 7am in the morning for the day shift and 7pm in the evening for the night shift, with 15 minutes where announcements are made and instructions issued to the emergency service personnel that need to be noted before they commence duty.

After the parade the respective station manager on duty announced the research study and requested for those interested in the study to contact the researcher. It was stressed that it was a voluntary study and that permission had been granted by the University's Human and Ethics Committee as well as the Office of the Divisional Head: Emergency Services. The participants were also encouraged to speak to the researcher if additional clarity was required regarding the relevance of the pre-test questionnaire and to confirm confidentiality. The researcher's contact numbers were made available to participants who wished to form part of the pre-test or be part of the main study.

Participants appreciated that they could express themselves in their home language, which enabled the researcher to obtain further information relating to their experiences of trauma in the workplace. For the initial study, the researcher interviewed 20 participants while on duty at a time suitable to them. The data collected in the study were analysed using thematic content analysis; the interviews were transcribed and analysed by identifying themes presented in the research study.

3.9 METHODS OF DATA COLLECTION

The method of data collection used was individual face-to-face interviews. This suggests that the human senses are first-hand measuring instruments in research (Mouton, 2009). This approach enabled the researcher to observe cues from the participants which assisted the researcher in gathering data and conducting an assessment. The type of data collected was attained from the interview transcripts. The interviews were tape recorded. The data is securely kept in a password-protected computer as a security measure to protect the data.

3.9.1 DATA ANALYSIS

Thematic content analysis had been utilised to analyse the audiotapes of the transcribed interviews as it forms part of qualitative data analysis in the study to have better insight of the phenomenon. Data collection produces new knowledge about the population which is being studied (Mouton, 2009). According to Terre Blanche, Durrheim and Painter (2006), thematic content analysis consists of five steps that will be elaborated below.

Step 1 *familiarisation and immersion*: This step involves the development of ideas and theories about trauma experienced by emergency service personnel. Participants to label each category.

Step 2 *interpreting:* This involves interpreting the categories and rearranging the main themes into several sub-themes (Terre Blanche et al., 2006). This assisted the researcher to uncover an array of issues that were discovered within the data (Terre Blanche et al., 2006).

Step 3 *coding*: The researcher coded the data by breaking up data into labelled themes and sub-themes (Terre Blanche et al., 2006).

Step 4 *exploring:* This step seeks to compare the sub-themes which are grouped together, various themes and sub-themes may be identified (Terre Blanche et al., 2006).

Step 5 *interpretation and coding*: An independent researcher looks through the research so as to be objective and to find weak points as well as to check that the researcher has not over-analysed the data (Terre Blanche et al., 2006).

3.10 TRUSTWORTHINESS OF THE RESEARCH STUDY

"Trustworthiness is the ability of a qualitative study to accurately represent the experiences of the participants" (Mcur & Mulaudzi, 2015 p. 102). Authors such as Lincoln and Guba (2000) highlight that all research must respond to principles that stand as criteria against which the trustworthiness of the project can be evaluated. The principles presented by Lincoln and Guba (2000) can be viewed as a classical contribution to the qualitative approach in research. For the purpose of this study the researcher utilised the four aspects of trustworthiness in verifying data as proposed by Lincoln and Guba in Korstjiens and Moser (2017), namely: credibility, transferability, dependability and conformability.

3.10.1 CREDIBILITY

According to Korstjiens and Moser (2017) credibility is the extent to which the research study has captured an authentic account of the research participants' perceptions and experiences as reflected in the conclusions that emerged from the study. In order to

enhance the credibility of the study, the researcher made use of member (participant) checks. The researcher returned back to some of the participants to clarify a response and obtain a true interpretation from the participant in order to transcribe what is correct. To further increase the credibility of the study, the researcher tape recorded the interviews and transcribed the data.

3.10.2 TRANSFERABILITY

Anney (2014) defines transferability as the extent to which findings can be repeated consistently in different setting. The researcher made use of purposive sampling which enabled the researcher to obtain detailed descriptions of the phenomenon and not to generalise the outcomes in order to understand the perceptions of participants. Transferability in this study would be unlikely as each emergency personnel's experiences and responses were subjective and authentic.

3.10.3 DEPENDABILITY

Moon, Brewer, Januchowski-Hartley, Adams and Blackman (2016) states that dependability is the extent to which similar findings would be gained if the study was to be repeated with the same or similar respondents when utilising the same method as per the study in order to obtain the same results. To enhance the dependability of the study the researcher described exactly how the research was conducted and how the specific conclusions were reached. The researcher received permission from all participants in the study to record each interview (Appendix D). After each interview the researcher listened to the audio recording and made field notes while conducting each interview. These notes enabled the researcher to make reference in the findings and analysis chapter.

3.10.4 CONFIRMABILITY

According to Mcur and Mulaudzi (2015) steps must be taken to ensure that the findings are a result of the experience and ideas of the informants, rather than the preferences of the researcher by ensuring the objectivity of data, findings, conclusions and recommendations are adequately supported data. In order to verify the findings, the researcher's supervisor utilised correspondence check to confirm the researcher's

categorization of themes in the thematic analysis. The researcher also made all transcripts, with direct quotes from participants, as well as field notes and recordings for safe keeping for future reference. Authors such as Mcur and Mulaudzi (2015) mention that confirmability aims to ask whether the finding of a study can be confirmed by another person.

3.11 ETHICAL CONSIDERATIONS

Consideration of ethical issues within a study forms an essential part of the research process, as researchers have the responsibility to the participants to be truthful and accurate in reporting the research (Gravetter, Wallnau, & Forzano, 2018). According to Strydom, (2011) defines ethics as guidelines which oversee the behaviour of researchers when conducting research. Authors Gravetter et al, 2018 highlight that the behaviour has to be displayed in accordance with the code of conduct and principles that form part of the discipline, as it is the researcher's responsibility to always conduct him or herself in an ethical manner. The following ethical principles were addressed in this research:

3.11.1 NO HARM

The most important rule within social research is avoiding bringing harm to any participants within a study (Babbie, 2013). In social work, protecting clients from danger and harm forms part of the standards of conduct for social workers. The researcher ensured that the study did not harm the participants emotionally or psychologically or hinder them in any way. The researcher made counselling and debriefing sessions available with an external organisation to any participant who experienced distress arising from the interview. During the interview the details of the counsellor were provided each participant, however none of the participants made use of the available service.

3.11.2 INFORMED CONSENT TO RESEARCH

The researcher attained consent from each participant. The consent document detailed what the study is about and assured the participant of confidentiality and privacy should they agree to participate in the study. The participants were not

compelled to take part in the study. The participants took part in the study voluntarily and had the right to withdraw at any time during the interview.

3.11.3 CONFIDENTIALITY AND ANONYMITY

Babbie (2013) refers to privacy and confidentiality as protecting the participants' well-being, and their identities within the study. As the researcher was aware of the identities of participants, the researcher was not able to guarantee anonymity; however, the researcher was able to preserve confidentiality. Biestek (1961, in Banks, 2006) describes confidentiality within the social work profession as preserving a client's information in a professional manner. The participants within the study were assured that privacy and confidentiality form an essential part of social work ethics. The participants were informed of their rights in terms of confidentiality and how the information provided by them would be respected and handled in a professional and ethical manner. Confidentiality is connected to anonymity which refers to names and other unique identifiers in a research study (Boeije, 2014). To ensure that confidentiality and anonymity were adhered to, the researcher did not use the participants' names when writing the final report but instead referred to emergency service personnel by numbers e.g. P1 – P20 when making notes on each participant. Boejie (2014) mentions that only the relevant researcher or research team would be able to identify the researched participants by using a code book with unique identifiers.

3.11.4 INSTITUTIONAL APPROVAL

The researcher requested permission in writing from the Ekurhuleni Municipality through the Office of the Divisional Head: Emergency Services, prior to conducting the study. The letter detailed the purpose of the research proposal. The proposal was reviewed by the Ekurhuleni Municipality, Office of the Divisional Head: Emergency Services to see if the study was in line with its objectives as an organisation and the benefits thereof. The researcher submitted the proposal to the ethics committee and a suggestion was made by the committee to make suggested changes to the committee's satisfaction.

The research supervisor responded to the ethics committee justifying the importance of a large number of participants. The research study adhered to the guidelines provided by the University's Human research ethics committee for non-medical research.

3.11.5 COMPETENCE

Researchers are expected to conduct research within their own scope of competence (Gravetter et al, 2018). The researcher conducted research within the field of social work research; this was monitored and guided with the assistance of the research supervisor who enabled the researcher to be competent when conducting and writing the research study.

3.11.6 RECORD KEEPING

The researcher stored the information gathered as well as the transcripts in a safe and secure location where confidential information will not be made available to anyone other than the supervisor. The information will be kept for a period of five years if no publications emanate from the study, or for two years following any publications.

3.11.7 DECEPTION OF PARTICIPANTS

Gravetter et al, (2018) define deception as misleading participants within a study by withholding information or offering incorrect information even when participants have refused to be a part of the study. The researcher remained truthful at all times and did not withhold information or convey incorrect information to participants in order to suit the outcomes that the researcher wished to achieve. The researcher conducted the study honestly, truthfully and objectively at all times, abiding by the ethics within research and the social work profession.

3.11.8 DEBRIEFING OF PARTICIPANTS

Strydom (2011) describes debriefing session as sessions where participants get the opportunity once the study is conducted to work through the participant's feelings and experiences. Debriefing entails being taken through a reflective process directed by a

clinician especially in a qualitative study where participants discover things about themselves which the participants had not been conscious about in their lives (Strydom, 2011).

In this study, debriefing was required as the study could evoke re-traumatization as a result of the researcher's questions. The researcher organised a social worker , namely Mrs Cindy Kree using the following number (011) 820 8300 who would conduct the debriefing free-of-charge, should it be necessary for participants. Debriefing occurred on a voluntary basis and participants were not coerced to attend. During the study none of the participants requested to make use of the debriefing services.

3.12 SUMMARY

In this chapter the researcher has described the research methodology using a qualitative research design. This was achieved using a semi-structured interview schedule. Trustworthiness of the research study following the four criteria by Lincoln and Guba (2000) namely credibility/authenticity, transferability, dependability and conformability. Ethical considerations formed a crucial part of the research process, consent being obtained from all participants. Participants were informed that debriefing was available to those who required it, at no cost. Information gathered as well as the transcripts were stored in a safe and secure location; confidentiality was adhered to.

CHAPTER FOUR

DISCUSSIONS AND FINDINGS

4.1 INTRODUCTION

This chapter presents and discusses the findings of the study to explore the nature of secondary traumatic stress experienced by male emergency personnel at the Vosloorus service station in the Ekurhuleni Municipality. The findings are presented and discussed using illustrative quotes and themes that were identified using thematic analysis to respond to the objectives of the study. These objectives included: to explore how emergency service personnel experience trauma**;** explore what effect secondary trauma has on the personal lives of the emergency service workers; determine ways in which secondary trauma influences professional functioning of the emergency service personnel at work; and, to explore how emergency service personnel cope with trauma. Author Pilemalm (2010) have identified a gap in the daily capturing of the type of incidents emergency service personnel are faced with on a daily basis.

4.2. DEMOGRAPHICS OF PARTICIPANTS

Table 4.1 demonstrates the demographic information of the 20 participants that took part in the study. All the participants had obtained grade 12 which is the minimum entry qualification required to train as an emergency service worker. They also had attained subsequent certificates as Basic Ambulance Attendant, Fire Fighter level 1 and 2 and HAZMAT Operations. One participant held a National Diploma in Emergency Care while another had obtained a Bachelors of Technology degree. These qualifications certify that they have all have met the competency requirements.

Table 4.1 also shows that six participants have between one to five years' working experience; eight participants have six to 10 years of experience while two participants have between 10-15 years of experience. Only four participants have between 21-25 years of experience. The demographics illustrate the great wealth of working

experience of the participants which is reflected in the rich and qualitative knowledge that the participants shared in the study.

TABLE 4. 1: DEMOGRAPHICS OF PARTICIPANTS BY AGE, GENDER, RACE, QUALIFICATIONS AND YEARS OF EXPEREINCE (N=20)

Demographic Factor	Sub Category	Number of participants*
Age	25-30	4
	31-35	4
	36-40	4
	41-45	5
	46-50	3
	Age not specified	1
Gender of Participant	Male	20
Race	Black	20
Qualifications	Grade 12	20
	Basic Ambulance Attendant	20
	Fire Fighter 1 and Fire Fighter 2	20
	HAZMAT Operations	20
	N Diploma in Emergency Care	1
	B- Tech Qualification	1
Number of years work experience	1-5	6
	6-10	8
	11-15	2
	16-20	0
	21-25	4

All 20 participants of the research study were male emergency personnel who at the Vosloorus service station who have served over a year in service

4.3. THEMES EMANATING FROM THE STUDY

Themes emanating from the study are listed below.

4.3.1. THEMES

The findings will be presented using the eight main themes that emerged from the data, namely:

1. Understanding psychological trauma
2. Challenging calls pertaining to motor vehicle and pedestrian accident
3. Coping strategies: Avoidance, denial as a defence mechanism, desensitization, blocking, humor, debriefing, , alcohol, exercise as a coping strategy, emotional resilience
4. Impact of traumatic scenes on the home environment
5. Workplace support

To ensure anonymity of the participants' identities, direct quotes from participants will be presented using pseudonyms and not participant's real names. The majority of these themes are enriched by participants' own experiences. These are reflected in Table 4.2

TABLE 4.2 THEMES EMERGING FROM THE STUDY.

OBJECTIVE OF THE STUDY	THEMES
1. To explore how emergency service personnel experience trauma	**Theme:** Understanding of psychological trauma
2. To explore the types of challenges calls related to routine trauma which emergency personnel experience	**Theme:** Challenging calls pertaining to motor vehicle and Pedestrian motor vehicle accident **Theme:** Calls involving physical trauma **Theme:** Calls involving challenging patients and community members
3. To explore coping strategies utilised by emergency service personnel when coping with STS	**Theme: Coping strategies:** Avoidance, denial as a defence mechanism, desensitization, blocking, humor, debriefing, , alcohol, exercise as a coping strategy, emotional resilience
4. To explore the kind of effect STS has on the personal lives of EMS	**Theme:** Impact of traumatic scenes on the home environment and on spousal relationship
5. To explore workplace interventions which may influence functioning of the emergency service personal	**Theme**: Counselling & workplace support.

4.4 TO EXPLORE HOW EMERGENCY SERVICE PERSONNEL EXPERIENCE TRAUMA

The first objective of the research study was to explore the participants' understanding of psychological trauma, participants were asked to describe their understanding of trauma and their experiences thereof. The study revealed that not all 20 participants understood what psychological trauma is in how it was explained to the researcher.

4.4.1 UNDERSTANDING OF PSYCHOLOGICAL TRAUMA

The definition of trauma has evolved over the centuries. Trauma literally means wound and until the late ninetieth century it referred to physical injuries (Young 2004). Psychological trauma has been referred to as something invisible that affects the mind, or that which disrupts an individual's functioning or being productive to the same degree as another who has not experienced psychological trauma (Young,2004). In a review of 111 research papers conducted by Dunn, Amlôt, Greenberg & Rubin (2016) it was discovered that occupational stressors as a result of emergency service personnel exposure to numerous scenes resulted in a form psychological impact. On the one hand Norman, Means-Christensen, Craske, Sherbourne, Roy-Byrne, & Stein, (2006) & Ludick (2013) describe the effects of psychological trauma which can be linked to poor physical health and mental health, chronic fatigue, insomnia, excessive weight fluctuations, dissatisfaction in the workplace resulting in avoidance behaviour, absenteeism, burnout and low productivity. On the other hand, Dunn et al (2016) mentioned that emergency service personnel are resilient and able to handle challenging scenes despite experiencing psychological trauma due to the specialised training and level of preparedness by working amongst each other in teams to help support each other.

All 20 participants related how they experienced psychological trauma resulting from pressure from the scenes they experienced on duty. Twelve participants described psychological trauma as being "invisible" while it "affects the "mind" whilst others reflected a not a clear understanding of psychological trauma using. Some quotes from participants are given below to illustrate this.

Participant 5 indicated that:

"Eh, the psychological trauma is according to my understanding something that disturbs you but you are unable to notice or see it with your eyes because you are the person suffering but other people by looking at you as they are used to you, they notice that you are suffering psychologically. You don't do things as usual."

This view was echoed by participant 7 who described trauma in the following manner:

"Um, I think it's more of, lets' say, you've been in an incident or a situation that was disturbing, like the flashbacks in your brain when you are at home or alone. You can't take it out of your mind".

Participant 17 stated that:

"I think it's like when something happens and it's constantly on your mind in the back of your head and it affects other things that you do because you constantly think about it".

In essence participants viewed trauma as significantly affecting their psychological wellbeing as accurately captured by participant 12 stating that:

"It is trauma that affects the mind".

Of the twelve participants, four participants further described psychological trauma by referring to symptoms such as "flashbacks in the brain", "replaying of the scene when isolated or alone". Participants described how the visuals of the scene were psychologically traumatic, especially if blood was involved. This finding is consistent with the view that trauma is an internal wound which cannot be seen yet it brings about intrusive memories that can be triggered by familiar environmental stimuli (American Psychiatric Association, 2013). Participants' description of trauma, although generic, illustrates awareness of trauma and how it was impacting on their psychological wellbeing. With the above, the researcher illustrated that, even though participants could not provide a clinical description of psychological trauma, they each described a lived experience as a result of the nature of work and calls attended to when on duty.

Twelve participants' interpretation of psychological trauma leaned more towards physical trauma than psychological trauma. It is important to note that the views varied

amongst participants, with only four participants being able to accurately describe symptoms of psychological trauma.

Participants' responses on traumatic incidents at work that had a significant impact in their work and personal lives. Participants were able to narrate experiences which linked directly their personal experience where patients who logged call to fire station experienced a form of physical trauma, the patient's physical trauma which would led to emergency service personnel would experiencing psychological trauma as a result of the physical traumatic incidents emergency service personnel attend to in assisting patients. Literature on the impact of psychological trauma among emergency service personnel has highlighted the possibility for burnout and STS due to the pressure and stress as a result of the routine trauma (Slattery & Goodman, 2009).

Participant 9 narrated his experience of psychological trauma after a patient passing away after a stabbing incident by stating that:

"Ja I arrived at the scene in the tavern, the patient was still able to speak. When they have stabbed…I once got someone being stab a huge hole in the chest from there the patient collapsed. The patient was able to speak but after that he became unconscious. Until the patient passed away but not on our hands"

The stabbing incident shows that even though the emergency service personnel tried to assist the patient, unfortunately the patient passed away while the emergency service personnel was on site attending to the scene.

Participant 13 described his experiences which he finds caused him psychological trauma by recalling his encounter with explosive fire incident, stating:

"Okay let's start with fire, eh the difficult one is the factory fire because it takes much time when it is a huge fire and difficult fire to extinguish. It needs man power, many resources, a lot of water, you see, yeah that's very challenging. Then coming to ambulance, a stressful call for me would be a medical call, because you cannot just calculate what is happening with the patient physically with the naked eye. Yeah. A trauma call is much better because you are dealing with what you can see, stop the bleeding, dress it up, fix it. Yeah the medical call is a difficult one because the patient can say she have a sharp pain on her chest, suddenly she said the pain is related to the back, you see"

Participant 6 elaborated on his difficult psychological trauma experiences when attending to a medical call to attend to a patient:

"Yeah like, pregnant patients, maybe you find that the patient is having a bridge whereby you find that the hand or a leg of a baby is outside but the whole body is still inside the mother. Only to find that I am not sure where the head of the baby is, it is not easy to take out that patient.".

The difficulty of scenarios, its psychological impact and triggers that result in trauma were accurately described by participant 18 who recalled:

"The most challenging call back to respond to is going to squatter camps. Those people have short tempers, they're always angry about service delivery. So if you get there late, and you have to declare the person there, you must make sure that you call backup. With fires, especially house fires, you never know what to expect, like maybe something inside it going to explode".

Emergency service personnel as explained by participant 18 are exposed to scenes that may be deadly at times due some motor vehicle accidents result in cars burning up in fumes as a result of the impact caused.

When asked to further describe his understanding of psychological trauma, participant 9 alluded by reaffirming that*: "Is it not when a person has a problem mentally? I think so, it's something like that."*

This is supported by one of the participant's 13, 18 explanations who expressed their individual interpretation of experiences psychological trauma within the field:

"Eh, I am not quite sure whether I am answering you correctly or I understand the question. Psychological trauma is always thinking about something that happened in the past and keeps on coming back, having flashbacks." (Participant 13).

Furthermore, participant 18 simply described his behavioral traits when experiencing trauma by listing the following: "*Yes, I have a short temper, stress and a bit of anxiety with what I see when on ambulance duty".*

When participants explained what trauma was their explanations showed that they did understand psychological trauma based on their own workplace experience. While it is important to note the limited conceptual understanding of psychological trauma by the participants, the researcher took into cognizance that the participant's subjective experience was not described in clinical terms. The greater significance relates to the participant's subjective lived experience that describes the various symptoms and understanding of psychological trauma. Participants may not have been able to describe or articulate a clinical understanding of the phenomenon but they have lived the experience because of the nature of the work.

4.5 TO EXPLORE THE TYPES OF CHALLENGING CALLS RELATED TO ROUTINE TRAUMA WHICH EMERGENCY PERSONNEL EXPERIENCE

The findings revealed that exposure to traumatic incidents such as death and accidents in the workplace are an inevitable part of the work of emergency service personnel. As a result, this places them at high risk for stress and burnout. In lieu of various routine calls male emergency service personnel are exposed to, distressing incidents at work related to motor vehicle and pedestrian vehicle accidents form part of challenging calls experienced on duty was a recurring theme amongst them. Challenging calls on duty sometimes may occur result when emergency service personnel attend to managing physical trauma of patients they attend to depending on the severity of the incident. The study showed that participants felt challenged by attending to dispatch calls relating to difficult patients with symptoms of mental health and other acute health challenges in communities. Participants in the study expressed to the researcher that at times patients or even community members would resort to violence as a result of feeling that emergency service personnel have delayed when responding to an incident.

4.5.1 CALLS REALTING TO DISTRESSING INCIDENTS AT WORK: MOTOR VECHILE ACCIDENTS AND PEDESTRIAN VECHILE ACCIDENTS

Some of the incidents experienced by emergency service personnel are exposure to violence and the gruesome nature of scenes that they are called to, such as those on the N3 road (National road 3) is in proximity of 2minute drive (1.8 km) from the

Vosloorus service station. The findings in the study reveal that thirteen participants identified N3 road as having a high rate of pedestrian and motor vehicle accidents which amount to distressing incidents at work:

"I think it was about three years ago when a car was involved in an accident on the N3 highway. When the accident was reported the call came straight to the control room. Then when we going there we just saw flames on the N3. On arrival we saw that there were two people trapped in the car. The car was engulfed with flames and still burning. Then those people burnt to death inside the car." (Participant 2).

Participant 11 shared his story about his experience on the N3 highway highlighting "Eh! it was lots of fire inside the car on the N3, we found out that the child has already passed away this affected me a lot"

As Cornille and Woodard Meyers (1999) have noted, depending on the level of exposure and the trauma-related exposure as a result of scenes emergency service personnel respond to, STS will develop (MacRitchie, 2006). Moreover, Maabela (2015) states that an increased level of work-related trauma and stress is linked to emergency service personnel with less work experience. According to Schiff and Lane (2019) mentioned a higher incidence of PTSD symptoms that frontline workers such as first responders in an emergency under-report traumatic stress related to workplace experience. Literature by Minnie, Goodman and Wallis (2015) highlight that emergency service personnel felt traumatised and negatively affected by incidents which involved children which they took personally due to being parents or being a guardian to a relative. This finding was found among employees who were young, particularly those within the first four years of employment.

However, the research data for the present research study, found that thirteen of the participants spoke about experiencing symptoms of STS as a result of the routine trauma they are exposed to while on duty despite the number of years they have been employed in the field. The majority of participants had an average work experience of 10 years in the field.

The participants below reflect the types of traumatic scenes emergency service personnel are exposed to on the N3 road:

"The N3, so, two cars were involved there and there's a thing that makes… felt so bad the woman who was sitting in the front seat of the taxi, she had multiple fractures. I can say, eh... I was so stressed, the only thing I can say. Hey... I don't know how I can put it now, it was bad man, the way it was, even me I was so stressed". (Participant 1)

Participant 7 also stated that *"Motor vehicle accident whereby you find that people are trapped and sometimes there are multiple patients."*

Thirteen emergency service personnel in the study spoke about experiencing symptoms related to STS as a result of exposure to traumatic incidents however they were able to continue with their work functions and execute relevant work duties despite experiencing the STS symptoms. This suggests that emergency service personnel are resilient in nature. In addition, Ford (2009) mentions that resilient individuals opt to become resilient as this makes them feel equipped to handle a traumatic incident. Resilience enables a traumatized individual to bounce back and continue after a traumatic incident or ordeal. In order for a person to be aware that they are resilient, they need to face some form of risk or adverse circumstances as emergency service personnel in their exposure to routine trauma in their line of duty.

Emergency service personnel are exposed to numerous traumatic incidents on the N3 road in the line of duty. Table 4.3 gives a breakdown of the number and types of incidents emergency personnel experience on the N3 road together with illustrative quotes.

TABLE 4.3 DISTRESSING INCIDENTS AND INJURIES THAT PARTICIPANTS DEAL WITH AND ILLUSTRATIVE QUOTES (N=NUMBER OF PARTICIPANTS)

Number of participants	Type of incident and injury incurred	Illustrative quotes
N= 7	Motor vehicle accident and patients were dead due to impact	"Last year in December uyabona mus kuma (you see) MVA whereby you see trapped passengers or occupants in a car whereby abanye bafile (they are dead), you have to follow e process to declare people dead and wait for SAPS to arrive and take over. Only the skin was left but the whole body was scattered all over. So you know that kind of a thing can be stressful and we are there to protect the area,

		so at the end of the day, we had to pick up those pieces from the street.
N= 6	Pedestrian motor vehicle accident	It was a PVA, so what happened was, a woman was involved in an accident on the N3, when we arrived there, we found the patient was piece by piece and you can't identify the body. Everything was scattered, we knew what we had to do and to gather the body parts and wait for police. It was business as usual I must say. It was in Durban on the N3. It was an accident involving a car and a pedestrian. The guy crashed into that person and when we got there, we only found half the body. No head, he had half his hand, his legs were amputated and his skin had peeled off. We had to look for the missing body parts.

These findings reveal that emergency service personnel are exposed to various forms of stressful environments and situations. Emergency service personnel cannot anticipate the severity of the scene that they are likely to meet on the N3 when called to attend. The N3 route is a very busy road in South Africa with high volume of cars and trucks moving between Johannesburg and Durban (Arrive Alive, 2019). The researcher will highlight two accident scenes as an illustration to portray the type of incidents emergency service personnel attend to when attending to the N3 Highway. On 27 May 2019 Arrive Alive (2019) reported that nine patients had sustained fatal injuries and 25 patients had sustained injuries ranging from minor to critical in a multi-vehicle including trucks were involved in a collision on the N3 road in Vosloorus. Mr William Ntladi who is the media liaison for disaster management in Ekurhuleni informed Media 24 that 12 vehicles namely six trucks one truck was on fire, two mini buses and three light motor vehicle were involved in the multi vehicle crash. Due to

the severity of the scene no further medical assistance could be rendered for the 21 deceased patients some were lying scattered on the road others were inside motor vehicles and one patient severely burnt who could not be identified (Arrive Alive, 2019). All 21 patients were declared dead by emergency service personnel (Arrive Alive, 2019).

On the 16 August 2019 Arrive Alive (2019) reported that two men were lying on the road and declared deceased at the scene when motorbike collided with a pedestrian on the N3 road in Vosloorus. The minimum speed on the N3 road is 80 km per hour and the maximum speed 120km per hour (National Road 3 De Beers Pass Section, 2014). The N3 national road consists of heavy and light motor vehicles which allows for movement of goods and services from Durban harbor to Johannesburg and other provinces namely Limpopo, North West and Mpumalanga (National Road 3 De Beers Pass Section, 2014). In the 2014 Environmental Impact Assessment Report N3 road was described as “South Africa’s primary corridor with a description of the highest logistic services with distributing goods valued at 45 million tons between Durban and Johannesburg” (National Road 3 De Beers Pass Section, 2014, p. 1).

The N3 road is the main corridor between the Durban Port and Johannesburg and over 58 million tons of cargo travel in trucks and vehicles between the two cities ranges between 5800- 13500 on a daily basis (National Road 3 De Beers Pass Section, 2014). Literature from authors (Roth, Reed & Zurbuch, 2008; Mildenhall, 2012) affirms that some emergency service personnel suffer from STS and occupational stress due to being exposed to many deaths, illnesses as well as witnessing the injuries of patients at the scene.

4.5.2 CALLS INVOLVING PHYSICAL TRAUMA

Participants’ quotes below indicated that managing physical trauma is easier to deal with when compared to dealing with the psychological trauma from an incident. Eight participants referred to physical trauma as being more manageable compared to psychological trauma which is internal and invisible.

“A trauma call is much better if you are dealing with a wound that you can see, it’s simple, you need to stop the bleeding, dress it up, you see mara e psychological trauma no, goba its inside you and your brain.” (Participant 19).

"A trauma call is better because you see the patients you dealing with and you can help them at the scene like stopping the bleeding and done." (Participant 13).

Due to the nature of work some emergency service personnel experience psychological distress when attending to victims of trauma (Wheater, 2015). A personal communication (2017) with the station manager Mr Skhosana, stated that there is increasing demand for service rendered by emergency service personnel in the Vosloorus community at each daily work shift which. The increased demand tends to place significant pressure on the emergency service personnel's mental wellbeing in order to performance in delivering service to the community. Stanley et al (2016) highlight that emergency service personnel experience job- related stressors and various forms of traumatic exposures that may in increased risk for PTSD and other mental health challenges. It is noted that as a result of violent crimes, mental health challenges and the substance abuse rate increasing in the community emergency service personnel are still expected to attend various calls related to incidents related to physical trauma. In support of the previous statement regarding the increase demand for emergency personnel in the community, literature by Minnie, Goodman and Wallies (2015) mentions that emergency service personnel experienced emotional reactions of anger, sadness, feeling drained after a scene which they reported as challenging

4.5.3 CALLS INVOLVING CHALLENGING PATIENTS AND COMMUNITY MEMBERS

Patients wait an increasingly long time for the ambulance to arrive depending on the availability of resources at a service station at any given time. Community members tend to be in a rage or abusive towards emergency service personnel by the time the ambulance arrives to assist the injured patient who made the distress call. At the scene, the emergency service personnel remain calm and professional to avoid conflict and do not respond to the enraged community members. The findings illustrate that six participants have encountered hostility in the form of insults and assaults from community members as a result of the frustration of having to wait for the ambulance to arrive. The quote below supports this statement.

"Then what you find that when arriving at the house, we get insulted and all sorts of things. It is stressful because you don't know what to expect sometimes, when you

come, you have passion for this work, you end up back-chatting to them, you see sometimes you are hit and you hit back too". (Participant 3).

"When I arrive at the house for a call or community… these people don't understand that I am trying to help them, they swear and make noise saying paramedics don't know their job and throw stones at the ambulance and us". (Participant 5)

Due to requests for medical assistance by community members, emergency service personnel are required to attend to distressed patients who are at risk or are unable to arrive at health care facilities for medical attention. Emergency service personnel at times experience violence or are attacked by the patient they are trying to assist. Holgate's (2015) survey also reveals that emergency personnel were assaulted while on duty: 20% described verbal abuse from patients, 45.5 % physical abuse which included swearing, spitting and biting. The primary goal of an emergency service personnel when attending a scene by providing medical assistance as well as minimise disruption in the community.

Unfortunately, in the past year emergency service personnel have been viewed as targets by criminals who attempt to misuse and vandalize emergency vehicles as well as assault and disrupt emergency personnel from executing their respective task when attending to a call (Arrive Alive, 2019). Participant 18 indicated that a call dispatched to the Vosloorus service station was misrepresented as that of an elderly woman suffering from an acute medical condition. Upon arrival it was discovered that the distress call made by a community member was not a distress call but a strategy to get the emergency service personnel at the scene in order take a mental health patient to hospital for relevant assessment as the community felt they could not handle the patient. Participant 18 noted the following in the illustrated quote:

"I was dispatched to attend a medical call only to find that the person who called lied and it was not an injured patient, it was a psychiatric patient. The family could not tie him so I tried to make him relax so I could tie him and put him in the ambulance…he bit me on my hand and hit me as he was violent and the family didn't help me". (Participant 18)

The findings emphasise that community members tend to distance themselves from mental health patients as they feel unable to render them relevant support. Emergency service personnel are continuously exposed to environments which include violent

patients or aggressive bystanders at a trauma scene which impacts on emergency service personnel (Wheater, 2015). In a study conducted by Minnie, Goodman & Wallis (2015) it was established that emergency service personnel often felt the impact of a traumatic incident immediately or with others it took several days. The psychological impact of such calls on the emergency service personnel results in many finding various coping strategies ranging from adaptive and maladaptive coping strategies. Below is a table summarizing a few assault and robbery incidents experienced by emergency service personnel from various province across South Africa in three provinces.

TABLE 4.4 ASSAULT AND ROBBERY INCIDENTS EXPEREINCED BY EMERGENCY PERSONNEL WHILE ON DUTY ADOPTED FROM THE STAR (2019) AND CAPE TALK (2019)

Date of incident	Municipality	Incident on duty
25.03.2019 27.03.2019	Western Cape Municipality	A team of emergency service personnel were held at gunpoint while attending to a distress call in Khayalitsha Emergency service personnel assaulted by robbers while attending to a distress call
27.06.2019 29.06.2020	City of Johannesburg	Emergency service personnel attacked and robbed at the scene in Dobsonville Soweto Emergency service personnel assaulted at a scene in Diepsloot
23.07.2019 06.08.2019	Ekurhuleni Municipality	Emergency service personnel involved in a vicious attack at a scene Emergency service personnel attacked and beaten by a community mob and coerced to transport a deceased patient to Thelle Mogoerane Regional hospital in Vosloorus

Due to the numerous violent attacks and robbery on emergency personnel throughout the country which resulted in some emergency service personnel attending scenes armed with personal firearms and pepper sprays to protect themselves against

community members. As a result of the violence experienced by emergency service personnel on duty. The South African Emergency Personnel's Union (Saepu) had concerns regarding their safety and protection of emergency personnel. The safety concerns raised by Saepu led to the City of Johannesburg municipality and other Ekurhuleni municipality Emergency management services (EMS) management suspend ambulance services to some respective communities in order to prioritize the safety of emergency service personnel and preserve the remaining vehicles and equipment from being stolen and vandalized by the community. Dr Shaheem De Vries, head of EMS at Western Cape Health Department highlighted the two separate incidents summarized in the above table where two teams of emergency service personnel were held at gunpoint, robbed and assaulted after their physical belongings were stolen (Cape Talk, 2019). De Vries described the incidents being quite brutal and traumatic as emergency service personnel have been assaulted physically and at times a gun is held to their mouth while being robbed of their possessions and equipment in the vehicle while they watch helplessly (Cape Talk, 2019). A study by Bigham et al., (2014) illustrate studies from Australia, Sweden and the United states; Canada where emergency service personnel described episodes of sexual, verbal and physical assault in the workplace. Most participants (75%) reported experiencing violence in the workplace in the past 12 months from patients (Bigham et al., 2014). Further findings established that the common form of violence reported was verbal assault (67%), followed by intimidation (41%), then physical assault (26%), sexual assault (14%) which were perpetrated by patients or community members at a scene (Bigham et al, 2014).

4.6 TO EXPLORE COPING STRATEGIES UTILISED BY EMERGENCY SERVICE PERSONNEL WHEN COPING WITH SECCONDARY TRAUMATIC STRESS

The study identified different types of coping mechanisms that are used by emergency service personnel. Authors Lazarus and Folkman (1984), highlight theory concerning the nature of coping. In this study it was noted that emergency service personnel resulted in adaptive, maladaptive or even a combination of both to cope. Maladaptive behaviour is the type of behaviour that hinders an individuals to adjust to a new behaviour which results in unproductive or dysfunctional behaviour (Rajkumar,Vidhushavashini & Gosh, 2015)

Virginia Satir, a prominent therapist cited in Thompson et al., (2010 p. 459) stated that when addressing coping strategies, it is important to note that “problems are not the problem; coping is the problem” implying that individuals cope differently under different circumstances. Literature by Russel and Cowan (2018) states that there are positive or adverse coping strategies utilised emergency workers or helping professionals when working with distressed or traumatized patients.

Coping strategies consist of behavioural and cognitive attempts to manage challenging circumstances which exceed an individual’s resources or strength (Fritch, Mishkind, Reger & Gahm, 2010). There are two types of coping which emerged as essential when handling stressors namely problem focused coping and emotion focused coping. Emotional focused coping refers to efforts to recognise or reduce the impact of a stressor such as using of humour or positive reframing as a way to overcome and accept the circumstance and problem focused coping involves the individual takes active measures to be resilient to develop ways to reduce the stressor (Mulligan, 2014). According to Folayan et al, (2016) each individual selects a coping strategies which can be emotional such as excessive eating, confrontation or avoidance- based such as behavioural disengagement, isolation, substance abuse and suppression. Adaptive strategies an individual can adopt are usage of humour, journaling, seeking social support and religion it is important to note that coping with various stressors differs by age, gender context Folayan et al, (2016).

The following coping strategies were highlighted by participants in the study namely: Avoidance, denial as a defence mechanism, blocking, desensitization, humour, debriefing, alcohol consumption and smoking, exercise, and emotional resilience.

4.6.1 AVOIDANCE

In context to emergency service personnel, the symptoms of STS are usually identified to those resulting from symptoms of primary traumatization such as experiencing intrusive thoughts or memories of an accident scene and avoidance of people or scenes which may trigger memories of an incident (Greinacher, et al, 2019). The findings illustrate that avoidance is used as a coping strategy by three participants in the study below as illustrated below:

"Okay, like when I am talking on call I get really neutral see to the patient first". (Participant 11).

The above illustrative quote is supported by Minnie, Goodman and Wallis (2015) state that some emergency service personnel tend to opt for avoidance as coping mechanism by directing the focus on patient management and medical attention required by the patient's condition in order to reduce emotional involvement with the patient.

"I wouldn't say so necessarily, because most of us have learnt how to crush this thing or things we see on call. So we can separate work from our home life or it will affect us at work we or while being at home" (Participant 17).

Avoidance is depicted in various forms such as remaining calm and numbing out emotion when around people, or when alone. This statement is supported by Sanders, McKenna, Lewis and Quick (2012) who mention that some emergency service personnel tend to block their feelings and thoughts to avoid reliving or thinking about the traumatic scenes they have witnessed. Avoidance approach is a defense mechanism to shut down or to battle with conscious thoughts as a result of fear. (Sanders et al., 2012).

4.6.2 DENIAL AS DEFENSE MECHANISM

Four participants expressed denial as a means of coping with the effects of trauma.

Quotes from them are given below:

"So I just accept that this is life…and I can't do anything about that". (Participant 10)

"You have to just believe in yourself, that's it". (Participant 2)

"You sometimes, actually I'm living alone, you heal yourself. You know…I stayed away from work". (Participant 4)

Denial enables a person to experience temporary relief as their feelings and thoughts about the scene are suppressed in order for them to function and perform daily tasks. A study conducted by Minnie, Goodman and Wallis (2015) in Cape Town Metropole found that emergency service personnel often suppress their emotions in order to live up to society's expectation of the need to be perceived as courageous and resilient.

Participants regard accepting or normalizing the effects of trauma as part of a normal way to cope. Sheafor and Horejsi (2012) defines a defense mechanism as a control procedure which seeks to minimize or eradicate the effects of a distressing or a displeasing encounter.

4.6.3 BLOCKING

One of the coping strategies found in the study was blocking. In a study conducted by Minnie, Goodman and Wallis (2015) it was noted that making use of a coping strategy may vary from emergency personnel to the other depending on the traumatic incident they are faced with, as coping is a process.

The finding found that five participants opted for *blocking* as a coping strategy as illustrated below:

"Ja. I just relax and not let it out as I am a man." (Participant 20).

The findings in the study suggest that men are required to adapt to roles and expectations that society expects them to carry out (World Development Report, 2012). The following quotation from the study reflects the manner in which each participant rationalizes blocking noted as follows:

"*I just choose to block it out there is nothing much to do as a man, at least you women can talk and share with each other".* (Participant 3).

The unwritten rule of how a man is expected to react under any circumstance, raises conflict at times for emergency service personnel. In addition, environmental factors such as cultural factors and ethnicity contribute to the manner in which emergency service personnel react emotionally to patients during calls (Dutton & Rubinstein, 1995).

The findings suggest that a total of eight participants perceived themselves as not requiring psycho-social support services or sharing the traumatic incident which took place in the workplace which they had experienced as reflected in the following quotes below:

"But in my 35 years of experience… I've never…wanted to go there. Because I never had any stress". (Participant 10).

"Since I started working here, I don't remember of anything that affected me." (Participant 11) a culture of silence becomes a norm in the workplace which entrenches the idea that there is no need for debriefing and counselling to assist them as they don't view it as necessary and thus leaves them vulnerable.

Mashigo (2010) highlighted that vulnerability amongst emergency service personnel can be identified as a stressor, while risky behaviors can be categorized under trauma.

Research shows that men report less incidents of PTSD than women. Women, however, easily express their difficulties in areas of health, finance and emotions unlike men who generally retract and opt to remain silent and not express themselves (Lynch, 2007). This coincides with Irish, Fischer, Fallon, Spoonster and Sledjeski (2011) who highlight that there are distinct differences in both genders when responding to trauma. In this study, some participants opted for various forms of coping mechanisms such as repression or avoidance of traumatic incidents. Some participants hold the view that women are better at coping with trauma as they have the opportunity to speak to other women about traumatic incidents that impact them.

The above quotations provided by the participants suggest that black male emergency service personnel experience a reduced impact of PTSD compared to other races. A study by Roberts et al., (2011) contrasted exposure to trauma as well as the risk of PTSD in the US population among White, Black, Hispanics and Asians. The outcome was documented as follows: "a high (8.7%) PTSD lifetime prevalence rate among blacks and low (4.0%) among Asians" (Roberts et al. 2011). The above study concluded that being prone to trauma has been linked to a type of event such as the death of a spouse or close family relative (Maabela, 2015, p. 24). It was also found that other racial groups were more prone to effects of trauma of a close family member, however amongst black racial groups the risk of PTSD was higher (Maabela, 2015, p. 24). In addition to the participants quotes below, some opt for unsuccessful or ineffective coping mechanisms to avoid reliving the traumatic experience. Some participants preferred to repress their thoughts, some opted to make use of humor, and others ignored or avoided substantiating or elaborating on their thoughts.

4.6.4 DESENSITIZATION

The literature highlights that emergency service personnel tend to express some behavioral changes such as emotional numbing, mood swings, hyper-vigilance and a form of passiveness towards their family members (Wheater, 2015). When comparing responses provided by participants, emotional numbing is a common coping strategy.

Wheater (2015) suggests that the emotional numbing of emergency personnel causes some family members to feel isolated; they develop a sense of helplessness due to the behavioral changes exhibited. Iwu (2013) further alludes to emergency service personnel displaying various behavioral changes as a result of occupational stress, post-traumatic stress symptoms, maladaptive coping strategies and a lack of support. Based on the participants' interviews, four expressed emotional numbing coping strategy in the following way

"Yeah it does, there was one stage whereby my daughter was burned by water on the hand and then I just treated her said it's something small but only to find out that in the morning it was something big so, it just came back in my mind that I am used to seeing huge things that it affects me in my head" (Participant 12).

The above illustrative quote suggests that participants experience feelings of being overwhelmed and, at times, they tend to neglect their family members and displace their emotions.

Clinical observations and research conducted by Dekel and Monson (2010) mention that the effects of STS are not limited to the emergency service personnel after experiencing a scene. However, the impact creates a ripple effect impacting on their spouse, children and other family members. This is linked to the Family Systems theory which focuses on the level of impact a system incurs when a member of the system experiences STS. Based on the findings in the study it seems that some of the participants' family members have not been taught how to cope with being exposed to graphic information shared by their spouses. This leads to some family members being affected in the same way as the emergency service worker. They, too, require assistance just as the emergency service worker. Emergency workers often detach themselves or avoid members of their family in order to cope effectively with the incident they are exposed to.

Three other participants displayed symptoms of burnout as a result of the nature of their work. This is reflected in responses from participants below:

" I end up shouting at the kids and now they feel like when I am at home it is not nice cuz I snap a lot. I feel ukguthi ngi khatele (I feel that I am extremely exhausted). I have to try calm down". (Participant 6)

This finding is highlighted by Rotenberg, Tuck and McKenzie (2017) who states that "Repeated encounters with psycho-social stressors initiate a stress response in individuals which influence the body such that it is in a continuous state of psycho-physiological arousal".

4.6.5 HUMOUR

Humour is considered as one of the coping mechanisms used by survivors of traumatic events. This study revealed that the respondents used humour as a coping mechanism when experiencing a traumatic event. Six participants identified humour as one of the coping mechanisms used after surviving a traumatic experience. This is how they described their experiences:

"There is something that I do, something like… um… Playing music, playing this WhatsApp thing, chatting with other people about it or finding funny moments" (Participant 6).

"Umm...the issue of coping then normally we are allowed to discuss whatever the situation we have, for the sake of not keeping it to yourself, I think by so doing they are trying to ascertain ourselves by so doing, and even if we can make a joke out of it its fine and laugh". (Participant 5).

Humour releases suppressed emotions, relieves anxiety and transforms negative feelings experienced by the individual. Other significant authors such as Kuiper (2012) and Bauckham (2014) who support the effectiveness of humour as a buffer, discovered that it enabled medical personnel to distance themselves from stressful incidents.

4.6.6 DEBRIEFING

Debriefing, as one of the interventions to overcome recent trauma, has been known to have positive health effects which include lowering blood pressure, reducing anxiety, fear, improving respiration amongst patients and releasing an increase of

endorphins (Bauckham 2014). The emergency service profession is intense and requires a high level of resilience. Debriefing of employees may enable some emergency service personnel to benefit from the process by receiving emotional support such sharing gruesome details pertaining to the scenes they each respond to. The individual shared experiences on traumatic scenes at the various scenes during the debriefing session may foster a strengthening of relationships to better support and assist each other to perform effectively in the workplace. (Mashigo, 2010). Strengthening of relationships also creates a learning opportunity where emergency service personnel can bench mark each other, and in so doing it may foster resilience and enable a better coping strategy when working as a team. From the findings it was discovered that nine emergency service personnel opted for *debriefing* from other colleagues. A study by Folayan, Caceres, Sam-Agudu and Morolake (2016) suggests that an individual's resilience and mental well-being enables them to cope better with exposure to stress and pressure.

(The participants stated the following relating to debriefing:

"Ah…most is that you should talk about it, and share it amongst other colleagues". (Participant 8).

"Speaking to people at work helps me" (Participant 12).

"After coming from a scene, there's these two guys I usually talk to. We normally talk about it, try to get it out of our system: what happened? What went wrong? We just try to get it out of our system" (Participant 19).

The view held by participants is supported by Mashigo (2010) who emphasizes the importance of strengthening relationships and mutual support amongst emergency service personnel as this brings comfort and understanding due to their sharing the same context. Kail, (2014) shares this view when he says that emergency service personnel lean more towards their co-workers for emotional support, comfort and connectedness (Kail, 2014). The literature has established that informal conversations around the type of calls the emergency personnel are exposed to, enables them to debrief informally with great effect. Social support provided by co-workers is perceived as more valuable (Slattery & Goodman, 2009). This is supported by Wheater (2015) who suggest that a social support system such as friends, family and colleagues understand the context that the person working in emergency situations is exposed to.

4.6.7 ALCOHOL CONSUMPTION AND SMOKING

Emergency service personnel experience stress, pressure and violence when attending to some scenes a study by Haddock et al., (2017) found high prevalence of occupational related and other medical health challenges compared to the general public. Haddock et al., (2017) mentioned that both male and female emergency service personnel are associated with heavy drinking which often results in negative occupational outcomes such as poor performance, absenteeism and reporting late to work.

Substance abuse such as alcohol and drug abuse form part of maladaptive behavior has been utilized as a suitable solution by some participants in the study. In order to cope with exposure to trauma individuals usually employ coping strategies to reduce stressors.

The findings from the research found that nine participants consumed substances such as alcohol to numb or repress the traumatic scenes to which they have been exposed. The participants found consuming substances such as drinking and smoking drugs, or sharing jokes, solutions to handling trauma. The quotes below from participants in the study illustrate this:

"Most of us paramedics, we drink a lot of alcohol to cope. We are also high speed drivers. I also get affected and I do drink, but not a lot because we don't cope the same way" (Participant 14).

"I just try to forget it. I also drink too much and smoke" (Participant 17).

"I cannot say it does not affect us it does most paramedics drink a lot, high speed but I drink but not a lot" (Participant 20).

"As an individual? Uhm, I smoke. Mmm, I smoke weed. No, no, I don't use anything, I smoke then is keep my cool and be calm" (Participant 3).

Emergency service personnel face numerous occupational hazards, with emergency medical technicians being exposed to greater risks of developing life style diseases, mental health challenges and physical disorders (Tobacco Free Life Organization,

2018). The use of cigarettes, alcohol and other substances such as drugs is chosen as a coping mechanism to deal with the everyday stressors resulting from dealing with traumatic incidents and injured patients as well as demands from family members (Tobacco Free Life Organization, 2018). Setlalentoa and Strydom (2015) has cautioned against using alcohol and substance abuse as a coping strategy to remedy stress at work. Setlalentoa and Strydom (2015) concurs with Mashigo (2010) that alcohol is an ineffective coping strategy as it is dangerous and provides only temporary relief from physical symptoms. Unfortunately, once the alcohol is expelled by the body, it leaves the participant with the initial emotional scar. Due to alcohol being perceived as an ineffective coping strategy, it may result in participants using an increased quantity of substances such as drugs (illicit and over the counter medication) who then become addicts in order to ensure a relaxed or numbed experience.

4.6.8 EXERCISE AS A COPING STRATEGY

Six participants in this study mentioned exercise as a stress-reduction technique. The responses from participants below illustrate how they use it to reduce stress, tension, anxiety and depression:

"We have a gym whereby we go to; we have a swimming pool as well (Participant 5).

"And I am not stressing. I have noticed that when you gym, you release the stress" (Participant 14).

"I do cope. There is nothing that I do specifically to help me cope, I just exercise once a week. I also take walks it helps release the tension" (Participant 18).

According to literature, the mental health benefits of exercise have been known to cause neuro-chemical changes (Harvard's Men's Health Watch, 2011). Exercise is considered beneficial to the mind and body in reducing stress and maintaining physical fitness (Anxiety and Depression Association of America, 2018). Exercise reduces mental fogginess, fatigue, improves alertness and cognitive functioning (Anxiety and Depression Association of America, 2018). It has been established that exercise produces endorphins which is a chemical produced by the brain that acts as a natural painkiller. It improves sleep and decreases stress (Anxiety and Depression

Association of America, 2018). Exercise can be seen as a tension-reducing strategy which is also rewarding and relaxing.

4.6.9 EMOTIONAL RESILIENCE

Findings from the study reflected that five participants indicated that they cope effectively with the stress and pressure endured as a result of their occupation. The following quotations are supported by Collins (2009) who described emotional resilience as the general capacity for flexibility and resourceful adaption when faced with external factors such as challenges, hardships and stressful work experience.

The quotations below illustrate that pressure is internalized differently by participants in the study as a result of experience and coping with traumatic incidents.

"So far I can say no I am coping, I have not come across anything where I can't cope with as I talk to others who can help if I am not fine". (Participant 13)

"I am coping just fine now unlike before because I now have experience." (Participant 15)

"I can't think of any other incident because most other incidents I was able to cope with them" (Participant 8).

This is supported by Pienaar et al. (2009) who found that personality traits amongst participants played a role in determining the manner in which they coped. Looking at the South African context, Georgiou (1997) in a study focusing on the Johannesburg Emergency Management Service employees, discovered that technicians reported that they were not affected by traumatic incidents they were exposed to in the workplace due to the number of years of experience. However, some were acquainted with traumatic scenes and others blocked the experience and refused to be emotionally involved as it would cloud their judgment (Georgiou, 1997).

4.7 TO EXPLORE THE KIND OF EFFECT SECONDARY TRAUMA HAS ON THE PERSONAL LIVES OF THE EMERGENCY SERVICE PERSONNEL

Although emergency service personnel find various coping strategies or defense mechanisms to manage the impact of traumatic scenes to which they are exposed, different stressors from the workplace affect various systems they interact with such as the home environment which also impacts on family relationships.

The impact of traumatic scenes is not only limited to the person who was exposed to the scene. These events have an impact on the persons with whom the person interacts, namely: family, friends, church, caregivers etc. (Porter, 2013). The interaction of systems is in accordance with Family Systems Theory which focuses on the various systems which interact together and the impact each system has on another.

4.7.1 IMPACT OF TRAUMATIC SCENCES ON THE HOME ENVIRONMENT

From the responses provided below, it is evident that the nature of work performed by the emergency service personnel is highly pressurised and stressful which tends to impact on the family structure as well as other crucial areas. According to a study conducted by Kali (2014), who discovered that many emergency service personnel opted not to speak about the traumatic experiences to their family members or partners so as to "protect" the family from being traumatised. From the findings ten participants expressed the impact of traumatic experiences on their family's participants below noted the following:

"Sometimes truly speaking, it affects, if you can check especially us fire-fighters are like the police. Most of them they divorce, they fight with their wives and I think it is as a result of the scenes which they encounter". (Participant 20)

"Yes, with me it does have an impact. It is communication breakdown in the household as I am tired and I can't share my thoughts. It makes you feel powerless". (Participant 2)

"Yeah. This one is affecting a lot, most of the time it affects my wife; after a hard day I can't sit down and relax until I know that the house/yard has no obstacles or things around". (Participant 11)

"Sometimes the things we see at work affect how I talk to the kids and my wife. She asks a question, it's like I get irritated and shout "(Participant 9)

"This job my partner does not like as I have changed. We're no longer the same like we used to, now it's like si hlala si serious endlini (we are always serious in the home) and agkukho mnandi ngoba angikhulumi naye (the home is no longer warm as I don't communicate or interact with her on issues affecting me) … it's like I am just there nje. (Participant 16)

Based on the above descriptions provided by the participants, marital or spousal relationships suffer as a result of communication breakdown and avoidance strategies. The literature supports the fact that the spouses of emergency service personnel, experience continuous concern with regard to their spouse's safety in the workplace and the nature and extent of trauma that they are exposed to in the working environment (Kali, 2014). The majority of the participants (12 of the 20) in the study acknowledged STS negatively influencing their relationships with their partners as a result of the nature of work they are exposed to, illustrative quotes are used in the above description shared by participant 2,9,11,16 & 20 16 to reflect the effect of STS on spousal relationship. Mathieu (2017) describes STS as a phenomenon whereby individuals become traumatized not by directly experiencing a traumatic event, but by hearing about a traumatic event experienced by someone else. Such indirect exposure to trauma may occur in the context of a familial, social, or professional relationship. Mathieu (2017). The negative effects of secondary exposure to traumatic events are the same as those of primary exposure including intrusive imagery, avoidance of reminders and cues, hyper arousal, distressing emotions, and functional impairment. In the most severe instances, where symptoms result in significant distress or impairment in functioning, STS may warrant a diagnosis of PTSD (Mathieu, 2017).

4.7.2 IMPACT OF STS ON SPOUSAL RELATIONSHIP

Ford (2009) highlights that family and social support is crucial in coping with traumatic incidents. Moreover, stresses that social support is sought out by those who have a

high level of confidence in themselves (Ford, 2009). When looking at the risk and resilience perspective by Green (2007) suggests that not being provided with social support and psychosocial support may be a risk factor or become a threat to one's wellbeing, however adequate social support facilitates resilience in individuals. The risk and resilience perspective by Green (2007) can be likened Hobfoll's Conservation of Resources model which suggests that individuals have the ability for preparedness by gathering sufficient resources to withstand challenges or adversity that they come against, this fosters resilience in order to withstand stressors (Folayan et al, 2016)

In this study six participants who opted to seek additional familial support or other social networks and who seemed to cope more efficiently with their duties as a result.

"Ah… to me…I always speak to my partner…" (Participant 2).

"My wife listens to me as she wants to always know what happens to me at work." (Participant 19)

"Support is there, I can say my girlfriend cares and hears me". (Participant 14)

Having a support system became cathartic for the participants to better cope with the stress and pressure of work. Kali (2014) highlights that when emergency service personnel express the impact of pressure as a result of the various environments, to their significant others, it enables their spouses to become enlightened about the challenges and the risks they are exposed to in the line of duty. The importance of social support is that it bolsters an individual's capacity to be resilient by developing the ability to overcome challenges and frustrations. Followed by a benefit of improved wellbeing which promotes resilience to stress by promoting effective coping strategies. Dunn et al., (2010) suggests that emergency service personnel respond differently to various disasters and incidents, therefore they found it easier to talk about their various on duty experience as emergency service personnel had were identified as experiencing greater levels of PTSD than emergency service volunteers as well as other professional spaces.

The above responses from participant two, 14 and 19 identify that participants who relied on their family members or spouses for support, were more aware of their feelings resulting from the impact of traumatic experiences from the workplace. From

the study six participants have shown that they each adjust in their own unique way to the impact of traumatic incidences due to both their socialization and belief system.

The above observation is supported in the literature of Klarić, Kvesić, Mandić, Petrov, and Frančišković, (2013) who state that marital spousal relationships are demanding by nature and that spouses are viewed as being at high risk of STS as a result of trying to understand the context and environment their partners endure. Spouses attempt to be compassionate towards their partners in order to connect emotionally to the trauma they experience in the workplace (Klarić, et al., 2013).

Spouses tend to choose not to be debriefed when they are left with the vivid images of the incidents their spouses are exposed to. Author Kali (2014) states that some emergency service personnel who are open to sharing their experiences with partners tend to create an emotional burden or distress for partners and other family members which increases the strain in their relationships. Author Harper (2013) supports Mclean and Breen (2009) who states that family support is a major contributor to stress reduction amongst emergency personnel, however spouses are not immune from experiencing the effect of the traumatic information shared with them. Mclean & Breen (2009) suggests that married individuals displayed a lower prevalence of depression when contrasted with divorced, cohabiting partners or single people. Authors Minnie, Goodman and Wallis (2015) indicated that some emergency service personnel relied on their families and friends as a support structure to assist them in debriefing after experiencing traumatic incidents.

On the other hand, other emergency personnel found it easier to debrief with their colleagues who had better understand of the context they operate in due to established trust, open communication and shared work experience (Harper, 2013). This is supported by Minnie, Goodman and Wallis (2015) who reported that 45% of the participants from their study stated that sharing traumatic calls and incidents related to their duty was found to be a key mechanism for managing emotions as this could occur on an ad hoc basis or informally.

4.8 TO EXPLORE WORKPLACE INTERVENTIONS WHICH MAY INFLUENCE PROFESSIONAL FUNCTIONING OF THE EMERGENCY SERVICE PERSONNEL

Du Bois and Miley (2011) propose that when a system functions collectively more results are achieved in the organisation. A social system is an organized system made up of mechanisms that interact with each other over a period of time (Du Bois & Miley, 2011). A social system looks at the closeness, interaction and communication pattern that takes place within a family. Interdependence would also imply that the family is dependent on its family members to make sense of the world and to function.

Emergency service personnel in the study mentioned experiencing STS symptoms, there is a need to improve the synergy of the systems with which the participants interact within the organization. The findings in the study suggested that fourteen participants would prefer that debriefing or counselling be provided consistently on a daily basis at the service station. Literature by Slattery & Goodman, (2009) suggests that good supervision and psychosocial support has the ability to normalize the feelings experienced by employees and better identify and refer challenging cases to a therapist. Psychosocial support would assist in reducing the need to share their traumatic incidences with their family members and others and it would enable the psychological trauma to be contained and managed correctly.

4.8.1 COUNSELLING SERVICE AND TRAINING SUPPORT

Nine participants recommend a wide continuum of workshops which include working with mental health patients and understanding and managing trauma in the workplace. The psychological stress and trauma which the participants experience at work, impacts negatively on the family system. Eight participants discovered that they would more easily rage at or vent their frustrations on their family members and spouse. Of the twenty participants, six participants felt there is inadequate support from management in support of the challenges employee face on duty. Some participants mentioned that there is much shifting of blame and no proper structure that forces management to be held accountable in addressing employee's wellness needs and in monitoring and evaluating the impact thereof. Table 4.5 below provides quotes to illustrate the discussion in the previous paragraphs.

TYPE OF WORKPLACE INTERVENTION	ILLUSTRATIVE QUOTE
Counselling services*	”To understand what to do when we experience trauma because this is the thing that we do every day but cannot get used to it. So, if maybe we can get classes or a workshop that will make us understand trauma, sometimes when they hire you, they take you to Ekurhuleni and people think it’s a nice job but when they start working it becomes a problem because it is very easy to do practical. You find others when they are supposed to treat a patient at the scene they start vomiting and doing funny things. (Participant 11)” ”They need to give us counselling, especially after we respond to calls such as those of psychiatric patients. Yeah even the medication they have to give to us for transporting meningitis patients, because it is transmissible. There is a young man we used to work with, he died because he didn’t know that he was transporting a meningitis patient, they didn’t give him the medication in time then he passed on. (Participant 3) Sometimes you cannot compare municipalities, because what I know about Jo’burg you come across things that are very traumatic. Sometimes you fetch people from the station, you have to digest mentally because you going to take time. So first you have to process everything. Before you can even go home, you need to take counselling and I mean it could even take at least 2 hours for the counsellors to arrive. Sometimes you can't just say, ‘I need a counselor’ so these things should just happen before you have to ask for one, someone should be there to say let's go talk. But with the way it works now, I have to request first-ever process is very long. (Participant 7)
Workplace training on trauma**	We don’t do that, we don’t do that because of… actually the department need to give our officers more training on management, how to deal with the trauma, I think they need more training. (Participant 20) ” Our managers must make a plan for us to get training so we can know more *nge* trauma (more about) and other things that affect our work. (Participant 17)

*Number of participants = 14

** Number of participants = 8

TABLE 4.5 PARTICIPANTS’ WHO SUGGESTED SOLUTIONS FOR COUNSELLING SERVICES AND WORKPLACE TRAINING

Social support systems such as family, friends and the organisation which emergency service personnel interact with, have been noted to improve resilience as well as the quality of life during stressful times (Hepworth, Rooney, Rooney & Strom-Gottfriend, 2013). Participants’ experiences may impact negatively on their children and their marital relationships.

Ten participants mentioned that the Ekurhuleni Emergency Fire Department needs to provide them with the opportunity to receive psychosocial services and training. However, due to lack of resources, or the municipality not prioritizing the implementation of services to emergency service personnel. Author Minnie, Goodman & Wallis (2015) highlights that training emergency service personnel would equip them to cope with traumatic scenes which they are exposed to as well as the emotional effects. Frequent and indirect exposure to routine trauma can impact on the emergency service personnel's work which may result in burnout and increased stress, hence a need for resilience training in the workplace (Atkins & Burnett, 2016). In order to foster resilience rendering specialized training for emergency personnel can capacitate them to improve coping strategies in order to buffer against the effect of stress and pressure that forms part of their work (Atkins & Burnett, 2016). Moreover, municipalities are mandated to provide basic services to communities, inclusive of emergency services. In order to provide such services, they need sufficient financial assets and human resources at their disposal. The lack of resources has the potential to hamper the quality and quantity of services to communities and impacts on service delivery targets and specifically the response time to critical incidents. In effect, the lack of resources and inefficient response time can lead to disagreements and conflicts by community members as described by participants.

Six participants found that receiving counselling from the Chaplin employed by the emergency service personnel as being cathartic. The counselling received from the Chaplin enabled them to work though traumatic experiences. Participants is expressed the following in the quotation below:

"I think maybe every few months we should come to work and push us to attend these sessions and talk to the Chaplin. They need to get more staff to deal only with P1 patients. Because people end up losing their lives." (Participant 17)

"I'd love for them to improve on getting or hiring people who are trained to counsel us or talk to us see where we are in the mental state so that we always be in line. Chaplin has helped a lot to make me feel fine and to understand my work I don't know how they will do it but that would be pretty nice for us. I think that it would be helpful and it will be less stressful at home because the people who are at the other end of the firing line are the people you see when you get home. Support is needed. The kids become

your firing line, because you get home and they want to play and you don't want to play because you have that thing you saw in the back of your head. Having someone to talk to is important because it helps you separate. Because there's one guy I know who is telling me about the first time he had to touch a dead body and it was the first time; I had to be there for him and there was no time to be there for him afterwards." (Participant 19)

4.9 SUMMARY

This chapter has presented empirical findings through a thematic content analysis process. From the findings a number of topic/issues regarding the culture, climate and role of male emergency service personnel were identified. The following themes emerged as a result of the interviews conducted namely: understanding psychological trauma, distressing incidents at work, challenging calls on duty, coping strategies utilised by emergency service personnel, Impact of traumatic incidents on the home environment and workplace support which enabled emergency service personnel to become resilient when facing stressors. According to Southwick, Bananno, Masten, Panter-Brick & Yehuda (2014) found that resilience changes over time as a function of development and interaction with the environment, however adequate resources and psychosocial support needs to be provided in order to develop mastery perspective on risk and resilience.

The overarching themes had subthemes. There are similarities in previous studies undertaken by Mashigo (2015), Wheater (2015) and Maabela (2015). The main findings and conclusions of the study will be discussed in chapter 5, together with recommendations to the Ekurhuleni emergency service

CHAPTER FIVE

MAIN FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

“While the Department of Health attempts to move toward a less hospicentric model of health care, where health problems are prevented through early intervention, emergency medical services will always be required and will remain a functional component of any functional health system.” Treatment Action Campaign (2015)

5.1 INTRODUCTION

This chapter will summarise the core findings. The main conclusions, recommendations derived from the study will be presented. It is important to state that emergency service personnel are faced with numerous challenges due to the nature of their work. Many of them experience STS and resort to various forms of coping strategies as a way of attempting to reduce the trauma and the impact of various traumatic scenes to which they are exposed. A focused approach is required in order to effectively tackle and reduce the negative effect of STS.

5.2 SUMMARY OF MAIN FINDINGS

The main findings of the study will be discussed in line with the research question as well as the specified aims and objectives.

5.2.1 TO EXPLORE HOW EMERGENCY SERVICES PERSONNEL EXPERIENCE TRAUMA

The study revealed that all participants understood psychological trauma. The participants related to psychological trauma as a result of pressure from the scenes they each experienced on duty as well as personal experiences. Not all participants could illustrate their understanding of psychological trauma by each providing a correct interpretation of psychological trauma and recalled both personal incidents and

incidents that occurred in their line of duty. The term psychological trauma confused some participants who were intimidated by the jargon which made some participants to doubt themselves on whether they have a full understanding of psychological trauma or not.

5.2.2 TO EXPLORE THE TYPES OF CHALLENGING CALLS RELATED TO ROUTINE TRAUMA WHICH EMERGENCY PERSONNEL EXPERIENCE:

The study revealed that the Vosloorus service station is 1.8 km's (2-minute drive) from the N3 road. The N3 road has a high number of distressing calls related to motor vehicle accidents and pedestrian motor vehicle accidents which leave passengers severely injured or deceased (Arrive Alive, 2019). The N3 road has the highest number of incidents to which emergency services personnel attend when compared with other roads.

Participants in the study described symptoms related to STS as a result of traumatic incidents which they are exposed to when on duty. The majority of the participants alluded to challenges around managing mental health patients and dealing with the aftermath of a burnt or dead child. The bulk of the participants mentioned that having to assist children made them emotional and affected their ability to function in the workplace. Some participants described physical trauma calls as the most challenging calls to attend to, especially calls that involved stabbed patients. Other participants perceived physical trauma calls as much more manageable since they could be dressed and treated much more easily than psychological trauma which was abstract. According to Drewitz-Chesney (2019) mentioned that several studies suggest that emergency service personnel are at risk of developing symptoms related to STS, mental health disorders when exposed to traumatic calls.

Findings in the study indicated a lack of understanding by the communities regarding response times by emergency services personnel to scenes. Communities perceive emergency services personnel as having a delayed response. The community's perceived delayed response is due to their lack of knowledge of the process once their call is placed. When the community place a call, their call is received at the central dispatch unit in Bedfordview. Here the call is categorised and registered before being diverted to the relevant service station in Ekurhuleni municipality where it is attended

to by emergency services personnel. Community members are not aware of this process; many assume that when they dial the emergency number 112, the call is attended to by the direct service centre. By the time the emergency services personnel respond to a scene, conflict is imminent as community members in unsafe communities, such as informal settlements, are already emotional and unwilling to cooperate with emergency services personnel to assist patients who require medical attention. In 2019, across South Africa, emergency services personnel were being physically attacked, robbed and assaulted by members of the community when attending to emergency calls. Emergency vehicles were being vandalised which resulted in the South African Emergency Personnel's Union (SAEPU) expressing concerns regarding the safety of emergency services personnel which led to the South African Police service escorting emergency services personnel to unsafe communities.

5.2.3 TO EXPLORE COPING STRATEGIES UTILISED BY EMERGENCY SERVICE PERSONNEL WHEN COPING WITH SECCONDARY TRAUMATIC STRESS

Gender expectations in society have placed strain on male emergency services personnel. Cultural factors play an important role in the ways males opt to cope with pressure and stress as a result of STS. Research by Russel and Cowan (2017) found that STS was notable across various occupations including therapists, emergency service personnel and other professions working with traumatised and distressed patients. As a result of STS being experienced by emergency service personnel and other professionals due to indirect exposure in the workplace, such exposure will inform suitable interventions and future research studies aimed at increasing resilience amongst towards emergency service workers (Russel & Cowan 2017).

Many of the male emergency service personnel presented with various defence coping mechanisms such as denial, repression, displacement and rationalization. In addition, various coping behaviours ranging from exercising, drinking alcohol, smoking, being reserved, being around friends and family members in order to be distracted from having to think about the traumatic scenes they had witnessed. Some participants are divorced or separated from their partners, many of these participants attributed their work stress as a contributing factor, while other emergency services personnel opted to debrief and seek support from their spouses to assist them in better

coping with traumatic scenes and pressures of work. However, despite the risk many of the participants are exposed to, a large majority have displayed resilience which has enabled them to cope better with STS. It was discovered that emergency service personnel are constantly exposed to emotionally challenging and unpredictable incidents when on duty (Greinacher et al., 2019). Due to the nature of some scenes emergency service personnel at times may be feel overwhelmed and unable to adapt and cope with high stress levels and workplace demands which may result in a need for more capacity building systems to be in place to adequately support emergency service personnel to cope with symptoms of STS. Authors Greinacher et al., (2019) mentions that PTSD is a commonly researched phenomenon amongst emergency service personnel, however apart from studies on primary traumatization, first responders namely emergency service personnel, policemen, firefighters and rescue personnel are prone to secondary traumatization.

5.2.4 TO EXPLORE WORKPLACE INTERVENTIONS WHICH MAY INFLUENCE PROFESSIONAL FUNCTIONING OF THE EMERGENCY SERVICE PERSONNEL

Based on the data analysis the researcher gathered, participants from the study expressed that an improvement in resilience-based programmes would better impact their functioning in the workplace. Literature by Slattery and Goodman (2009) highlights the workplace being perceived as best to promote emotional wellbeing programmes and support for employees. Many of the participants made reference to counselling services received from the Chaplain even though there are challenges with limited employee wellness services. Participants alluded to a need for more in-depth therapeutic services from social workers and psychologists who can better equip participants in better managing their work/life balance better. There is a need for qualitative and quantitative research to be conducted which can assist the municipality in coming up with suitable workplace programmes. Monitoring and evaluation of workplace programmes would form an essential part of measuring impact and effectiveness of these programmes on a bi-annual basis.

5.3 SUMMARY

Research studies and literature have indicated that emergency services personnel are exposed to traumatic and stressful work environments. With regards to the research study conducted by the researcher, the researcher established that not all participants understood psychological trauma however some were able to link it to each participant's lived experience. Due to the stressful nature of work of emergency services personnel, each participant developed their own coping strategies, some of these were adaptive while others were more detrimental and maladaptive in nature. Even though call centre operators are trained to provide verbal advice on the telephone to various callers seeking medical assistance to enable them to provide some form of care such as first aid until the ambulance arrives at the respective scene. In addition to the traumatic scenes which they are exposed to, emergency services personnel are often robbed of their personnel possessions, assaulted, insulted and emergency cars stripped of equipment and vandalised when they are called to assist. The majority of emergency services personnel interviewed identified the need for workplace intervention to better manage the impact of traumatic experiences for their better functioning in the workplace.

5.4 RECOMMENDATIONS

In view of the foregoing main findings and conclusions on exploring the nature of trauma experienced and coping mechanisms developed by male emergency services personnel at the Vosloorus Service Station, the following recommendations are made by the researcher:

5.4.1 VOSLOORUS SERVICE STATION

An effective trauma counselling model, customised to fit the context of emergency services personnel, should be structured and utilised to raise awareness and enable emergency services personnel to deal with the impact of trauma in an improved manner. It is important to note that "STS is a highly complex and often unavoidable experience when working with patients who are suffering as exposure to suffering is

the first pathway as the potency of STS is considered in certain populations" (Ludick & Figley, 2017, p.2)

Even though numerous research studies on trauma–exposed populations mainly focuses on individuals rather than occupational groups such as first responders to scenes namely emergency service personnel, police and other occupations (Dunn et al, 2010). Emergency service personnel are continuously exposed to trauma the development of organisational programmes which would be derived from workplace polices would further enhance resilience, improve level of preparedness for potential psychological impact resulting from occupational stressors. It important to note that with traumatic events increasing across the world, organisations should consider improved readiness programmes to improve employee wellbeing and productivity (Dunn et al, 2010).

A mentoring programme should be developed. This will enable emergency services personnel to strengthen relationships amongst employees and management which in the process may lead to identifying good practice amongst themselves. This can be achieved by developing wellness champions. Author Minnie, Goodman & Wallis (2015) mentioned that emergency service personnel found debriefing and psychosocial support structures in their organisation not being adequate.

Community awareness training should be carried out. For example, first aid on how to take and store poisonous substances away from children and other members of society. Community members should be also provided with an educational workshop on how emergency calls are processed, how triaging is structured as well as the impact of crime on emergency services personnel and how it affects their ability to provide an effective and efficient service to the community.

Emergency services personnel should be trained on effective ways of managing trauma and the importance of self-care and other resilience-focused strategies. Literature by Minnie, Goodman and Wallis (2015) suggest that emergency service personnel are trained on holistic effects of traumatic incidents on the various systems they interact with as the training emergency service personnel are provided is mainly patient centred approach and focuses on diagnostics and not on psychosocial support and coping mechanisms.

Management at the service station needs to document and consolidate challenges experienced by emergency services personnel. This will enable management to better plan and draft training and developmental needs to improve the organisation.

5.4.2 OCCUPATIONAL SOCIAL WORK PRACTICE

Findings from the study suggested that resilience programmes, including workshops, need to be more focused with structured trauma debriefing sessions for emergency service personnel. Trauma debriefing training sessions should also be provided to Chaplains as they form part of the first responses to trauma experienced by emergency service personnel. It is important that employees are provided with telephonic counselling in a case where employees cannot have access to face-to-face counselling. Employee wellness days need to be marketed to employees for health screening, which will aid in obtaining work/life balance. Organisational climate seeks to understand the work environment and level of job satisfaction with regards to how employees feel about the organisation which reflect the established norms, values and attitudes that impacts positively or negatively on an employee's behaviour (Castro & Martin,2010). A suitable workplace policy which could play a role in the organisation better managing STS and foster an improved organisational climate in the workplace. Organisational climate explains the behaviour in the workplace (Davison, 2000).

5.4.3 THEORY AND RESEARCH

Findings from the study suggest further exploration of qualitative and quantitative research is needed as there is a deficit of literature on experiences of South African male and female emergency services personnel; the bulk of the literature is from overseas. More studies focusing on both genders on coping mechanisms and secondary traumatic stress should be conducted in order for emergency services personnel to be better supported in their respective work environments.

5.5 SUMMARY

Emergency service personnel form a large part of the health-strengthening system of the country. Due to job shortages and a high demand on the health system in South Africa, many of the emergency service personnel often begin as volunteers after

qualifying to be emergency service personnel. Emergency service personnel form part of the first line of response to any emergency. They are often provided with limited information about a scene, which creates some uncertainty around what to expect. Emergency service personnel are impacted greatly by STS which often leads to PTSD if not managed adequately.

It was discovered that STS impacts on the functioning in the workplace of many of the emergency services personnel as well as with other systems with which they interact. The impact of STS has led to many of the emergency service personnel adopting various forms of coping strategies in order to cope with the trauma. The secondary aims of the study confirmed that emergency service personnel continued to experience psychological trauma as a result of STS., due to a high society's pressure and expectations on men, it was discovered that male emergency services personnel continued to execute their tasks with excellence in rendering assistance to the traumatised.

The study has highlighted the relevance of research of STS amongst male emergency service personnel. The study made reference to a demand for community training on the role of emergency service personnel as well as to how community members can assist patients while awaiting an ambulance. Due to many budgetary constraints and cost-containment policies being in place in the municipality, many of the emergency service personnel are expected to execute their duties with limited psychosocial support structures. The outcome of this study is to highlight the critical need for trauma departments or centres to be made available to emergency workers in the hope of defusing and installing effective trauma management, as well as to continue to reinforce resilience amongst emergency services personnel so that it can contribute them raising nurturing healthy family structures and productive workspaces in society.

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Appendix A: Participant Information Sheet

Good day

My name is Maphuti Poopedi and I am a student registered for a Master of Arts degree in Occupational Social Work at the University of Witwatersrand. As one of the requirements for the degree, I am conducting research into the nature of trauma experienced by male emergency personnel at the Vosloorus Service Centre. It is hoped that the information provided may enhance understanding of the kind of trauma with which emergency personnel are faced.

I wish to invite you to participate in my study. Your participation is entirely voluntary and there will be no adverse consequences, should you decline to participate in the study. I shall arrange to interview you at a time and place suitable for you. The interview will last approximately an hour. You may refuse to answer any questions you feel uncomfortable with answering and may withdraw from the research at any time.

With your permission the interview will be tape recorded. No one other than my supervisor will have access to the tape recordings, and five years after the completion of the study the tapes will be destroyed unless the research is published. If the research is published the tapes will be destroyed after two years. Please be assured that your name and personal details will be kept confidential and no identifying information will be included in the final research report.

As the interview deals with trauma and traumatic issues, there is a possibility of you experiencing secondary traumatisation. Should you feel the need for counselling following the interview. I have arranged for counselling to be provided free of charge by a qualified social worker, Mrs. Cindy Kree. Her contact number is 011 820 0300. Please feel free to ask any questions regarding the study. I may be contacted on 011 820 0539.Should you wish to receive a summary of the results of the study; an abstract will be made available on request.

Thank you for taking the time to consider participating in the study.

Yours Sincerely

Maphuti Poopedi

Master of Arts Occupational Social Work Student

University of the Witwatersrand

School of Human and Community Development

Appendix B: Participant Consent Form

Participant Code:……

Consent form for Participation in the Study exploring the nature of trauma experienced by male emergency personnel at the Vosloorus Service Centre.

I ……, hereby consent to participate in the research project conducted by Maphuti Poopedi. I understand that my participation is voluntary and that I may refuse to answer any particular items or completely withdraw from the study at any time without any negative consequences. I understand that my responses will be kept confidential.

Name……..

Date……

Signature……

Appendix C: Consent form for the Audio Taping the interview

Participant Code:……

Consent form for the Audio Taping the interview for the Study

Exploring the nature of trauma experienced by male emergency personnel at the Vosloorus Service Centre.

I ……, hereby consent to the tape recording of the interview with Maphuti Poopedi. I also agree to allow direct quotes to be incorporated into the study, and understand that my confidentiality will still be maintained at all times. I understand that the tapes will be destroyed two years after any publication arising from the study or five years after completion of the study if there are no publications.

Name……

Date……

Signature……

Appendix D: Debriefing Confirmation Letter

Enquiries: Cindy Kree

Tel: 011 820 0300

26 February 2015

To whom it may concern

Re: Research request from Maphuti Poopedi, student number 820709

This letter serves to confirm that I Cindy Kree a qualified Social Worker will render debriefing sessions to the participants who will be taking part in this research.

Yours Sincerely

Cindy Kree

Appendix E: Interview Schedule

Interview Schedule for exploring the nature of trauma experienced by male emergency personnel within the Ekurhuleni Region

Demographic Information

Age:

Race:

Qualification/s:

Work courses related to stress and trauma that have been attended*:*

Number of years' work experience within the emergency personnel setting*:*

1. Please could you describe a normal day with regard to your duties?
2. What types of challenging calls do you have to respond to when on duty?
3. When last did you experience an incident at work which caused you to be distressed? Please describe the incident.
4. In the past year/s did any incident that you attend to affect your functioning at work? If so, please describe the incident.
5. Did this incident impact on your functioning at home? If so, in what way ?
6. What is your understanding of psychological trauma?
7. What impact does the psychological trauma you experience have on significant others in your life such e.g. partner, parents, children etc.
8. How do you cope with traumatic scenes you respond to?
9. Do you receive any help from anyone in workplace to deal with work stress and trauma? If so, please explain.
10. Are there any improvements or suggestions you would like to be implemented in your work environment to help you deal with the trauma you may experience within the workplace setting?

Appendix F- Ethics Clearance Certificate

Research Office

HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)
R14/49 Poopedi

CLEARANCE CERTIFICATE	**PROTOCOL NUMBER: H15/04/06**
PROJECT TITLE	Exploring the nature of trauma and coping strategies experienced by male emergency service personnel at the Vosloorus service centre
INVESTIGATOR(S)	Ms M Poopedi
SCHOOL/DEPARTMENT	Human & Community Development/Social Work
DATE CONSIDERED	17 April 2015
DECISION OF THE COMMITTEE	Approved unconditionally
EXPIRY DATE	7 May 2017

DATE 8 May 2015 **CHAIRPERSON** _____ (Professor T Milani)

cc: Supervisor : Ms F Masson

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and **ONE COPY** returned to the Secretary at Room 10005, 10th Floor, Senate House, University.

I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee. **I agree to completion of a yearly progress report.**

_____ 20/05/2016
Signature **Date**

PLEASE QUOTE THE PROTOCOL NUMBER ON ALL ENQUIRIES

Appendix G- Permission letter from the Divisional Head of Ekurhuleni Emergency Department

Ekurhuleni
METROPOLITAN MUNICIPALITY

MEMORANDUM

Office of the Divisional Head: Emergency Services

3 Hawley Road
Bedfordview
P O Box 145
Germiston 1400
South Africa

Website: www.ekurhuleni.com

Ref:
Tel: (011) 999-0191
Fax: (011) 874-5164
Enquiries: S Du Rand

DATE: **25 FEBRUARY 2015**

TO: MMAPHUTI POOPEDI

SUBJECT: **APPLICATION TO CONDUCT RESEARCH FOR MASTERS IN OCCUPATIONAL SOCIAL WORK**

Your application to conduct research in Occupational Social Work at Vosloorus Fire Station is hereby approved on condition that:

1) Department: Disaster and Emergency Management Services will be made privy to the research outcome.

2) The information gathered during the research period and beyond shall be kept as classified information

3) No names of the patient will be used in the research document

4) Any information which might be viewed as classified shall be treated as such.

Your cooperation in this regard will be highly appreciated.

Regards,

S DU RAND
ACTING DIVISIONAL HEAD:
EMERGENCY SERVICES

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