Exploring psychological trauma management among paramedics in Gauteng

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Hons. BA (Industrial Psychology)

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COMMENTS

The reader is reminded of the following:

- The editorial style follows the format prescribed by the Publication Manual (6th edition) of the American Psychological Association (APA). However, a modified version of the format is used in line with the policy of the Programme in Industrial Psychology of the North-West University, Potchefstroom Campus. The format used for the research article is in accordance with the guidelines for authors for the South African Journal of Industrial Psychology (SAJIP).
- The revised research proposal forms the first chapter of the mini-dissertation. Therefore, this chapter is presented in a different voice when compared to subsequent chapters which report on actual findings.
- The mini-dissertation is submitted in the form of three chapters, which include one research article (chapter 2). Chapter 1 and 3 have numbered sections according to the formatting followed in the research unit, WorkWell.

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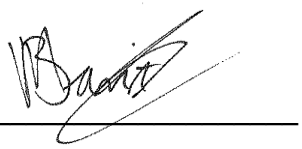
DECLARATION

I, Barend Petrus Gerhardus Maritz, hereby declare that "Exploring psychological trauma management among paramedics in Gauteng" is my own work and that the views and opinions expressed in this work are those of the author and relevant literature references as shown in the references.

I further declare that the content of this research will not be handed in for any other qualification at any other tertiary institution.



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LANGUAGE EDITOR DECLARATION

DECLARATION

I, Clarina Vorster (ID: 710924 0034 084), Language editor and Translator, and member of the South African Translators' Institute (SATI member number 1003172), herewith declare that I did the language as well as technical editing of the Mini-Dissertation of mr BPG Maritz, student at the North-West University, Potchefstroom Campus (student no 21768498).

Title of Mini-dissertation: ***Exploring psychological trauma management among paramedics in Gauteng***

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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

SUMMARY

Title:

Exploring psychological trauma management among paramedics in Gauteng.

Keywords:

Psychological trauma, trauma management, management programmes, workplace trauma, trauma incidents, paramedics, ambulance personnel, emergency medical services, Gauteng

Emergency medical personnel, or paramedics, are daily exposed to dangerous, hazardous and life-threating events. Constantly on a day to day basis, these medical professionals deal with various incidents that can be seen as traumatising events. These traumatic incidents often lead to psychological trauma, and the lack of a well-developed and aimed trauma management programme, may enhance negative working performance and coping within the working environment. Organisations employing paramedics should therefore have a well-established trauma management programme (TMP) available for employees, in order to help them process these daily trauma experiences. If a TMP is lacking within the emergency setting, possible consequences for paramedics include low work performance and productivity, turnover intension, and Post-traumatic stress syndrome (PTSD). Emergency personnel such as paramedics form a vital part in the pre-hospital environment, and it is therefore necessary that organisations take proper care regarding their employees.

The general objective entailed exploring psychological trauma, and the experience of a trauma management programme among paramedics. During this study, a qualitative research approach was utilised directed with a case study strategy. The sample consisted of 20 paramedics from which all were qualified and permanently employed for more than two months. The paramedics were classified as Advanced Life Support (ALS), Intermediate Life Support (ILS) and Basic Life Support (BLS). All of the participants resided in the Gauteng province, from different organisations and branches. Semi-structured interviews were conducted in order to investigate in-depth the paramedic's perspective regarding this phenomenon. The responses from participants were transcribed verbatim, and analysed in order to report on the findings.

It was established from the findings that paramedics experience trauma as an event that negatively affected their lives. These events were mainly due to abnormal scenes they were exposed to such as witnessing premature death, deceased people, suicide, deaths and injuries related to motor vehicle accidents and accidents in general. Paramedics indicated that TMPs are available in some cases within their working environment. These TMPs mainly consisted of counselling, however most of the participants did not make use of TMPs, when they were available. In other cases, there were no existence of any TMP, and that paramedics indicated that they mostly prefer to utilise their own coping mechanisms. This was strange because the main recommendations made by the paramedics regarding TMPs in the workplace, were the implementation of group debriefings and (face to face) counselling services.

In summary, it was therefore noted that organisations should invest in a well-aimed, well-developed TMP, designed for the paramedic field, taking into consideration the South African context. As mentioned by the paramedics, an effective TMP must include on-site face to face counselling, group debriefing sessions, awareness programmes, multiple stressor programmes, efficient job-preparation and regular training, sufficient resources, sufficient leave/rest days, hobbies, and talking/socialising with peers. This study furthermore contributes to the conceptualisation regarding trauma management and psychological trauma, specifically in the emergency services field. This study will also enhance awareness regarding these concept mentioned above, in order to take necessary care of their workforce. Therefore, if paramedic organisations implement an effective TMP, enhancement of well-being in the environment will be evident, and this will ensure an optimal functioning working environment. In addition, this study contributes to the current literature regarding trauma management among paramedics, specifically within the South African environment.

OPSOMMING

Titel:

Die verkenning van sielkundige traumabestuur onder paramedici in Gauteng.

Sleutelwoorde:

Sielkundige trauma, trauma, bestuursprogramme, werksplek trauma, trauma voorvalle, paramedici, ambulanspersoneel, nood mediese dienste, Gauteng

Nood mediese personeel, of paramedici, word daagliks blootgestel aan gevaarlike, onveilige en lewensbedreigende gebeure. Hierdie medici handel voortdurend op 'n dag-tot-dag basis met verskeie voorvalle wat gesien kan word as trauma gebeure. Die ervaring van sulke stresvolle insidente lei dikwels tot sielkundige trauma, en die gebrek aan 'n goed ontwikkelde en toegeruste trauma bestuursprogram, kan negatiewe werksprestasie en oorlewing binne die werksomgewing bevorder. Organisasies wat paramedici in diens neem moet dus 'n goed gevestigde trauma bestuursprogram (TMP) beskikbaar stel vir werknemers, ten einde hulle te help om hierdie daaglikse trauma ervarings te verwerk. As 'n TMP ontbreek in die nood omgewing, kan dit moontlike gevolge vir paramedici insluit, soos swak werksverrigting en produktiwiteit, omset-voorneme en posttraumatiese stres-sindroom (PTSS). Noodpersoneel soos paramedici vorm 'n belangrike deel in die pre-hospitaal omgewing, en dit is dus noodsaaklik dat organisasies behoorlike sorg neem ten opsigte van hul werknemers.

Die algemene doelstelling, tesame met verskeie spesifieke doelwitte, behels hoofsaaklik die verkenning van sielkundige trauma en die ervaring van 'n trauma bestuursprogram onder paramedici. Vir hierdie studie is 'n kwalitatiewe navorsingsbenadering gebruik deur middel van 'n gevallestudie-ontwerp. Die bevolking steekproefgrootte het bestaan uit 30 paramedici wat almal gekwalifiseerde en permanente werknemers was vir langer as twee maande. Die paramedici was geklassifiseer as ALS (Gevorderde Lewens Ondersteuning), ILS (Intermediêre Lewens Ondersteuning) en BLS (Basiese Lewens Ondersteuning). Al die deelnemers was woonagtig in die Gauteng provinsie, afkomstig uit verskillende organisasies en takke. Semi-gestruktureerde onderhoude is gevoer om die paramedikus se perspektief oor hierdie verskynsel in diepte te ondersoek. Die antwoorde van die deelnemers is woordeliks getranskribeer en ontleed om verslag te doen oor die bevindinge.

Gedurende verslagdoening van die bevindinge, is daar vasgestel dat paramedici trauma ervaar as 'n gebeurtenis wat hul lewens negatief raak. Hierdie gebeure is hoofsaaklik te wyte aan blootstelling aan abnormale tonele soos die waarneming van voortydige dood, gestorwe mense, selfmoord, sterftes en beserings wat verband hou met motorongelukke en ongelukke in die algemeen. Paramedici het aangedui dat TMPs in sommige gevalle beskikbaar is binne hul werksomgewing. Hierdie TMPs behels hoofsaaklik berading, hoewel die meeste van die deelnemers nie gebruik gemaak het van TMPs, indien dit beskikbaar was, nie. In ander gevalle, het geen TMP bestaan nie, en paramedici het aangedui dat hulle meestal verkies om hul eie hanteringsmeganismes te benut. Dit was vreemd, want die belangrikste aanbevelings wat deur die paramedici gemaak is rakende TMPs in die werkplek, was die implementering van 'n groepbesprekings en (aangesig tot aangesig) beradingsdienste.

Opsommend gesien is dus opgemerk dat organisasies moet belê in 'n goed toegeruste, goed ontwikkelde TMP, ontwerp vir die paramedici-veld, met inagneming van die Suid-Afrikaanse konteks. Soos genoem deur die paramedici, moet 'n doeltreffende TMP voorsiening maak vir aangesig tot aangesig berading, groepontledingsessies, bewusmakingsprogramme, verskeie stressor programme, doeltreffende werksvoorbereiding en gereelde opleiding, voldoende hulpbronne, voldoende verlof / rusdae, stokperdjies, en praat / kuier saam met eweknieë. Hierdie studie dra verder by tot die konseptualisering van traumabestuur en sielkundige trauma, spesifiek in die veld nooddienste. Hierdie studie sal ook bewustheid rakende die bogenoemde konsep verbeter, om die nodige sorg aan die werksmag te verskaf. Daarom, as paramedici-organisasies 'n effektiewe TMP implementeer, sal bevordering van welstand in die omgewing duidelik wees, en dit sal optimale funksionering in die werksomgewing verseker. Daarbenewens dra hierdie studie by tot die huidige literatuur rakende traumabestuur onder paramedici, spesifiek binne die Suid-Afrikaanse omgewing.

CHAPTER 1

Introduction

This mini-dissertation focuses on the exploration of psychological trauma management among paramedics in Gauteng. The following chapter entails a problem statement and discussion of the research objectives. Along with the above mentioned, the general objective and specific objectives are set out, and the research design is explained together with the division of chapters.

1.1 Problem statement

In South Africa, as in the rest of the world, psychological trauma is often experienced in the workplace (Naudé & Rothmann, 2003). Psychological trauma can be viewed as an emotional reaction after a specific event such as an accident, natural disaster or life threating circumstance (American Psychological Association, 2013). In the workplace numerous cases of trauma occur such as natural disasters, human-error incidents, retrenchment, construction, bullying and even death (Hoffman, 2012). The paramedic environment especially is one of the most stressful and traumatic work environments of all occupations reasoned, since paramedics are constantly exposed to traumatic events (LeBlanc *et al*., 2011). Typical traumatic events that paramedics are exposed to include: child abuse, mass casualties, disasters, infant *deaths* and high rise fires (Naudé & Rothmann, 2003).

In Australia, one paramedic in the Sydney region commits suicide each year, related to traumatic reasons (Ludwig, 2011). Between 1992 and 2003, approximately 100 paramedics committed suicide in the United States of America, also relating to traumatic circumstances (Ludwig, 2011). As opposed to other occupations such as nursing, about 342 nurses took their own lives between 1996 and 2000, compared to 146 doctors in Great Britain, according to Laurance (2000). Seven fire fighters committed suicide in Chicago over an 18-month period a few years ago (Peluso, 2012). In 2012 two police officers committed suicide linking to the Marikana traumatic events, according to Phiyenga (2013). Since the year 2010 there have been approximately 298 suicides among police officers in South Africa, as stated by Phiyenga (2013).

It therefor seems that there might be a relationship between working in a traumatic environment, saving lives and dealing with people in dangerous situations if the emergency services occupations are taken into consideration. The cases mentioned above regarding emergency services and traumatic events outside the emergency services, therefore prove that there is an issue in the workplace not only globally, but with specific reference to South Africa, that should be addressed. In order to address this issue effectively, proper research must be done regarding trauma management among paramedics in South Africa. Trauma is thus a reality in the workplace, and this study strives to explore trauma among paramedics in their daily working environment.

Shapiro (2012) states that trauma is disruption and distress within a human and may result in the developing of various disorders. According to Hardcastle and Brysiewicz (2013) the interaction between one human with another human, or with the environment, can result in a traumatic experience, with stress and depression as a result. James, Gilliland and James (2012, p. 8) define a traumatic event as "a perception or experiencing of an event or situation as an intolerable difficulty that exceeds the person's current resources and coping mechanisms". Trauma can also be seen as an event that occurs unexpectedly, out of the ordinary and creates long lasting problems, yet an idiosyncratic experience, in other words it differs from person to person (Williams, 2013). From an operational viewpoint, Williams (2013) argues that an event outside the range of usual human experience has the potential to easily overcome a person's normal ability to cope with stress.

Traumatic situations can directly be linked to acute stress (LeBlanc *et al*., 2011). Acute stress can be defined as a psychological, as well as a physiological experience according to LeBlanc *et al*. (2011). A psychological experience is an individual's experience of a situation far above their mental capabilities, which will have an influence on the individual's well-being through emotional distress or anxiety (LeBlanc *et al*., 2011). Williams (2013) explains that prolonged stressful living can cause havoc on our physical, emotional and psychological well-being. Taking negative well-being related to trauma in the workplace into consideration, significant results prove that a high occurrence of trauma in the workplace can be found due to bullying, violence, accidents, restructuring, suicides and layoffs according to Hoffman (2012). Leserman *et al*. (2005) indicates that people with severe life trauma, reports greater physical pain and less physical functioning, as well as a decrease in role and cognitive functioning. In addition people

with life trauma and exposure to stressful events, has low health-related functioning in their daily activities (Leserman *et al*., 2005).

Frueh *et al*. (1996) state that trauma management can be seen as a multi-component behaviour approach, that differs from person to person in order to enhance an individual's well-being. According to Frueh *et al*. (1996), trauma management consists of emotional and physiological reactivity, avoidance behaviour, emotional modulation and occupational adjustment. Emotional and physiological reactivity can be seen as a person's mind and body response to a specific stressor, according to Frueh *et al*. (1996). Furthermore avoidance behaviour can be seen as behaviour by a person when eliminating social activities or events (Frueh *et al*., 1996). Emotional modulation happens when a person reduces emotional responses relating to specific repeated events and occupational adjustments are when a person is changing or adapting his/her ways of doing a specific task (Frueh *et al*., 1996). Greenberg *et al*. (2010) argues that trauma management can also be seen as a support program in order to enhance "help-seeking" among people after a traumatic experience. Trauma management is the practical guidelines, structural assessments and beneficial colleague support, which can be associated with good psychological health (Greenberg *et al*., 2010). Greenberg *et al*. (2010, p. 431) also argue that trauma management must not be seen as a treatment, it should "rather aim to facilitate peer and unit support in the short term and, where necessary, direct personnel towards formal sources of help".

Williams (2013) argues that humans function in an optimal way until they experience trauma. After trauma is experienced the optimal functioning decreases and then an intervention may be required. According to LeBlanc *et al*. (2011), traumatic events enable individuals to feel disengaged and emotionally distant from their families, which include behaviour related to anger, irritability, fear and overprotective qualities. Williams (2013) warns that individuals must be prepared for situations that occur in a ripple effect involving multiple stressors, following each traumatic event. The physiological experience, mentioned above, results in an increase of cortisol (stress hormones) into various parts of the body, including the blood, urine and saliva, which will affect the whole body and may result in tiredness and physical depression (LeBlanc *et al*., 2011).

The American Psychiatric Association (2013) classifies in the DSM-V, that after trauma experiences, people have to indicate one of the following effects in order to be diagnosed as a person with PTSD (Post-traumatic stress disorder):

1. Repeated, spontaneous, disturbing and stressful memories regarding a traumatic event;
2. Frequent stressful dreams related to the traumatic event;
3. Flashbacks (Dissociative reactions) regarding the traumatic event;
4. Extreme and continuous psychological distress when confronting circumstances related to the traumatic event; and
5. Extreme and continuous psychological reactions when confronting circumstances related to the traumatic event.

According to the APA (2011) emotional responses are normal for people that have experienced traumatic situations and when the concept is understood, thoughts, feelings and behaviours can be dealt with effectively. The APA (2011) argues that shock and denial are normally the main responses each individual presents after traumatic situations. The APA (2011) describes the following as the impact of trauma on an individual:

1. Feelings are intense and unpredictable;
2. Thoughts and behaviour are affected;
3. Frequent emotional behaviours;
4. Social activities decrease; and
5. Physical symptoms are experienced.

It is therefore important that individuals that experience PTSD should be treated. According to Phiyenga (2013) 10,636 police officers in South Africa suffer from depression, and 2,763 from post-traumatic stress disorder. According to The Workplace Trauma Centre (2011), if trauma in the workplace is not treated, decreased productivity, high levels of health claims and low morale and turnover may be the end result. Greenberg *et al*. (2011) state that psychological wellness should be seen as a burning issue. Jones, Roberts and Greenberg (2003) argue that numerous organisations expose their employees to situations that are filled with psychological trauma. According to Greenberg, Langston, Iversen, and Wessely (2011, p. 184) trauma in the workplace "is not only a significant cause of morbidity, but also a detrimental impact on the economy". Many organisations make use of trauma management programmes in order to create

a climate for employees to address psychological wellness if needed, but it must be applicable to all target populations, as stated by Greenberg *et al*. (2011).

Greenberg *et al*. (2010) postulate that reduced organisational effectiveness is the result of psychological trauma and includes stress and low morale levels as well. Employees of specific organisations are bound to psychological dangerous situations and can be linked to the development of psychological disorders due to all the traumatic experiences. Ortlepp and Friedman (2002) state that trauma can form part of every organisation where traumatic events take place, which can result in traumatic stress responses that can include post-traumatic stress disorders (PTSD). Furthermore, in any work environment employees may also be exposed to secondary traumatic stress (STS) and become a great cost for the organisation (Ortlepp & Friedman, 2002). STS can be seen as distress that arises within an individual when helping or trying to help a person in a traumatised or life threatening situation (Secondary Trauma, 2010). In addition people closest to the primary person that experience trauma, may also be traumatised, due to the surroundings such as their colleagues, family and friends (Ortlepp & Friedman, 2002).

Paramedics are responsible to take care, stabilise and transport sick, injured and troubled individuals in emergency circumstances (The Bureau of Labour Statistics, 2012). According to The Bureau of Labour Statistics (2012) paramedics experience the most work-related injuries and illnesses due to their demanding working environment. LeBlanc *et al*. (2011) state that paramedics are exposed to traumatic events all the time and this leads to negative mental health, emotional state and social consequences. LeBlanc *et al*. (2011, p.11) report "the association between trauma exposure and response and acute stress is vital in the emergency services". This association may result in an ineffective work environment with burnout factors influencing the individual paramedic in a negative non-functional working state (Prati *et al*., 2011). Burnout can be seen as an ongoing chronic illness related to interpersonal and emotional stressors, defined by its dimensions namely exhaustion, cynicism and inefficacy (Maslach, Schaufeli & Leiter, 2001). Additionally, the negative outcomes regarding this problem can lead to turnover intensions from the paramedic's side because of all the negative well-being experienced (Prati *et al*., 2011). Regehr (2005, p. 97) reports "paramedics are not only exposed to human suffering and tragedy on a daily basis but are frequently in situations where their own safety is in jeopardy". This statement proves that trauma among paramedics must be seen as a serious matter.

Apart from noting that the working environment of emergency workers is one of the most stressful environments to work in, Naudé and Rothmann (2003) further state that emergency workers do not only experience stress in the workplace, but at home and in their family lives as well. In addition to the trauma and stress experienced at work, paramedics also exhibit stress-related behaviour and cognition upon returning home, which negatively affects family-life (Naudé & Rothmann, 2003). Emergency workers such as paramedics, experience higher levels of psychological stress, which are greater to any population of the same type of field (Naudé & Rothmann, 2003). Additionally, one can reason that when taking all types of doctors, nurses and emergency personnel into consideration, the stress levels of paramedics are still the highest (LeBlanc *et al*., 2011).

The trauma that paramedics experience leads to a wide range of social, physical and psychological reactions which may have an influence on their well-being, according to Naudé and Rothmann (2003). This explains that the job demands regarding the paramedic occupation is extensively high and as soon as well-being is influenced, this study gets more important. Naudé and Rothmann (2003) also states that paramedics experience extreme levels of traumatic stress when confronted with child abuse, mass casualties, disasters, infant deaths and high rise fires. This could explain different dimensions regarding trauma and relations to traumatic experiences.

Trauma management can be viewed as a support based system to assist employees who have been exposed to trauma to recover (Mitchell & Everly, 1996). In various emergency services and other work environments, Trauma Risk management (TRiM) is used in order to provide an organisation with an "in-house" tool to handle trauma (Greenberg *et al*., 2011). Various organisations already have some system addressing traumatic experiences structured within the organisation (Williams, 2013). One such an organisation, the South African Police Service (SAPS), subjects all police officials to trauma management support, which already commences prior to exposure to the traumatic incident (Watson, Jorgensen, Meiring & Hill, 2012).

Little or no research could be found indicating typical trauma management programmes for paramedics in South Africa. Research suggests that the paramedic environment should be studied more in depth in order to develop programmes aimed to assist paramedics, managing trauma and to decrease stress levels (Porter & Johnson, 2008). Porter and Johnson (2008, p.2)

states that “hence the identification of effective interventions and strategies to increase resiliency are needed to proactively support health and safety of paramedics in their work environment”.

It seems that addressing trauma in the South African emergency medical services is currently a burning issue. A paramedic’s work environment is filled with incidents of trauma, stress, coping thereof and living with the consequences. Trauma forms part of every paramedic in their daily lives. The pre-hospital environment is the stage where the paramedic functions most and is exposed to these phenomena’s (Naudé & Rothmann, 2003). Colbeck (2009) describes the paramedic procedure as follows: firstly there is a call of a traumatic situation. These situations are usually accidents or life threatening events with regard to other people. Secondly, there is the driving to the situation, having no idea what to expect and how fast to react. Thirdly, there is the stabilising of the patients in the worst scenarios and lastly, getting the patient to the nearest institution and later dealing with the full experience. Thus, it could be seen that paramedics are exposed to all kinds of traumatic situations and if the proper intervention strategies are not in place, paramedics may suffer a negative well-being. Since the aim of industrial psychology is to enhance well-being in the workplace, the contribution of this study in terms of industrial psychology lies in assisting employees to obtain the support they need in terms of seeking help for trauma related symptoms in order to manage the trauma better. The aim of this study is to explore whether trauma management programmes exist for paramedics and how these programmes are experienced.

Following the above mentioned problem statement, this study attempts to answer the following questions:

1. How is psychological trauma and psychological trauma management programmes (TMP) conceptualised?
2. How is psychological trauma managed among paramedics in the emergency services?
3. What are the experiences of psychological trauma management among paramedics in the emergency services?
4. What are the effects of trauma management programmes in the emergency service?
5. What recommendations can be made for a TMP for paramedics within the emergency service?

1.2 Expected contribution of the study

This study contributes to the existing literature regarding trauma management among paramedics. The study has an individual as well as an employee base focussed contribution that is aimed at a South African perspective. New contributions entail concepts, themes and possible solutions within the paramedic environment.

Furthermore the expected value and contribution of this study is for the paramedic field to obtain a greater knowledge and conceptualisation regarding trauma management. The limitations regarding the South African perspective enhances the approach of each organisation in the paramedic field. Furthermore organisations are more equipped with regards to a better understanding of trauma management and have the tools to manage trauma effectively. In addition, the individual has a better knowledge and approach system available regarding trauma management. As it is one of the main aims of an industrial psychologist to enhance wellbeing within the workplace, it makes this study important because of the role industrial psychology plays in this specific field. The individual is also exposed to effective trauma counselling that may result in an optimal functioning working environment.

In order to answer the research questions, the following research objectives have been set.

1.3 Research objectives

The research objectives are divided into two sections, namely general objective and specific objectives.

1.3.1 General objective

The general objective of this research is to explore psychological trauma, and the experience of a trauma management programme among paramedics.

1.3.2 Specific objectives

The specific objectives of this research are:

- To determine how psychological trauma and psychological trauma management programmes are conceptualised.
- To determine how psychological trauma is managed among paramedics in the emergency services.
- To explore what the experiences of psychological trauma management among paramedics in the emergency services are.
- To determine the effects of trauma management programmes in the emergency service.
- To make recommendations for TMPs for paramedics within the emergency service.

1.4 Research design

This research design consists of two sections, namely the research approach and the research method.

1.4.1 Research approach

The research is qualitative in nature using an exploratory and descriptive approach. Qualitative research entails the understanding of aspects regarding social life, and is the method to compile certain words, and not numbers, that relate to the desired knowledge (Brikci, 2007). In other words qualitative research can be seen as the gathering of experiences and attitudes among a certain population. Furthermore, a qualitative research method is seen as methods including interviews, observations, focus groups and content analysis (Struwig & Stead, 2001). The most important aspect of qualitative research is the participant itself (Struwig & Stead, 2001). The researcher involves the participant in order to explore, examine and describe feelings, thoughts and behaviour related factors in the participant's environment (Orb, Eisenhauer & Wynaden, 2000). In addition, this approach is beneficial regarding viewing the world and circumstances out of the paramedic's eyes.

Furthermore, this study focuses on a qualitative method with a phenomenology approach. According to Lester (1999) a phenomenological approach enables a researcher to see a viewpoint from the participant as they experience it in certain situations. The phenomenology approach focuses on an in-depth perception along with feelings, thoughts and behaviours (Lester, 1999). The aim of this method is to describe, rather than explain what the feelings,

thoughts and behaviours of the population entail. This method is the most applicable to this study because of the in-depth participant's interaction and their viewpoints. This phenomenology method is applied using interviews with multiple participants who are engaged in the paramedic environment.

This study specifically relies on the social constructivism paradigm to explore the phenomenon of psychological trauma among paramedics. Social constructivism can be viewed as understanding the context regarding specific events, and formulating knowledge to this context based on this understanding (Keaton & Bodie, 2011). Relating to the current study, this ensures that the paramedic environment and the paramedic's perspectives are understood, and knowledge can be formulated to understand these experiences. Cresswell (2009) also mentions that utilising this paradigm will enable the researcher to grasp the more complex underlying information, rather than seeing a few self-explanatory categories and themes.

1.4.2 Research strategy

This study uses a case study strategy to explore the experiences of the paramedics. Case study research entails the investigation of events, in a structural way in order to grasp the specific phenomenon, in this case trauma management (Brikci, 2007). The case study is instrumental by nature in order to examine the specific themes, discover certain issues and to refine the construct. The researcher thus makes use of participants from a specific environment (in this case, the paramedic occupation) and the participant's' different perspectives in order to formulate a general understanding of their experiences (Niewenhuis, 2010). Multiple organisations and paramedics are targeted for data collection and therefore formulating the general understanding. Therefore in this study 20 participants have been interviewed to obtain an understanding of their perspectives, in order to explore what psychological trauma management entails, among paramedics in Gauteng.

1.4.3 Research method

Next the research method is discussed.

1.4.4 Literature review

A complete literature review regarding psychological trauma and trauma management among paramedics is conducted. All relevant articles and textbooks between 2000 and 2015 are gathered among certain databases. Key words utilised during the literature research entails: Trauma, trauma management, paramedics, emergency services, emotional responses and CISD.

Sources utilised within the research includes:
The American Psychological Association, South African Journal for Industrial Psychology, EbscoHost, SAePublications, The Workplace Trauma Centre and Google Scholar. Furthermore will the Journal of Traumatic Stress, the Occupational medicine journal, Journal of International Emergency Nursing and various other journals utilised to investigate the current phenomenon.

1.4.5 Research setting

The setting of the current research study is among paramedics in the Gauteng province who have been employed more than two months. The paramedics are from different organisations and various branches based in Gauteng, in order to experience a diverse range of data. The paramedics in the line of duty, who are available at interview times, are interviewed. The setting for the data collation takes place at the offices of the paramedics in order to make the study as comfortable as possible for the participants. A private office is required where the interviews can take place without any interruptions.

1.4.6 Entrée and establishing researcher roles

Access to the desired population of paramedics is gained through personal contacts, presentations and frequent meetings regarding the unit of paramedics. Voluntary participants are contacted to arrange interview times before or after they report for duty. A brief discussion of the study is given to each participant interviewed. The interviews are scheduled through the paramedic's supervisors and interview times are given to the researcher.

The researcher assumes various roles during the research period. According to De Vos, Strydom, Fouché, Poggenpoel, and Schurink (2005) different roles apply at different stages of the study and these roles are negotiated during the course of the study. Firstly, the researcher assumes the role of the researcher, planning the execution of the research by identifying the research population and selecting a suitable sample. As researcher building a relationship with the participants is important (within boundaries). For this study, the researcher escorted some of the participants on their daily tasks in order to build relationship and get a feel of the incidents the paramedic are exposed to. This assist the participants to easily speak to the researcher and become at ease.

Next, the role of facilitator is assumed during the data collection phase in order to allow the participants to talk about experiences, views, feelings and thoughts. According to Berge (1995), a facilitator must lead the participants to a specific finding or conclusion, feeling or theme, and not influence the substance of the discussion subjectively. The aim of the interview is to stay on topic, not drifting away and accurately extracting the related themes.

As researcher, one aims to be as objective as possible at all times to ensure correct interpretations and observations. It is important for the researcher to understand his/her own feelings, thoughts and viewpoints regarding the questions and the topic. Trauma research can be psychological exhausting and therefore the researcher is prepared and well trained in order to stay objective and act natural in all circumstances.

After gathering the data, the researcher assumes the role of analyser (of the data). The data are qualitatively analysed in order to draw meaningful conclusions. Thirdly, the researcher adopts the role co-coder of the data. This step also entails assuming the role of a consultant in order to consult co-coders (for this study two registered Industrial Psychologists are utilised) to assist with the analysis of the data. Lastly, the researcher assumes the role of an ethical researcher in order to ensure that the study adhere to ethical requirements.

1.4.7 Sampling

In this study stratified purposeful sampling is used. Brikci (2007) states that stratified purposeful sampling is the sampling of a population in order to compare and illustrate characteristics among the specific population. The paramedics' supervisors are contacted for

the scheduled interviews and gathers information regarding the working hours of the participants. The population size is approximately N=30, or until data is saturated. In addition paramedics are interviewed individually to extract certain themes related to trauma and research stops when the same themes keep repeating (data saturation). Interviews contribute to the study because it reveals personal experiences out of the paramedic's viewpoint.

1.4.8 Research procedure

After approval for the study is obtained, the research companies are contacted and appointments made with the relevant contact person to discuss the research at hand. Approval is granted and all participants invited to an information session in which the research aim as well as procedure are explained to them. The participants' consent is obtained after the schedule for interviews was drawn up. Consent ensures the (anonymous) results of the study to the participants as well as stakeholders in order for them to plan/re-design a trauma management programme within the organisation. Thereafter interviews are done in order to ask the participants all the prepared interview questions. This also provides time to gather all biographical information required. All interviews are recorded as part of the transcribing process. After all the interviews are conducted, transcription of the interviews begins. The transcribed interviews are transferred into tables associated with specific themes extracted. These results are analysed and discussed during the findings and discussion section in chapter 2.

1.4.9 Data collection methods

In order to collect the most effective data, semi-structured interviews are utilised. According to De Vos *et al.* (2005), semi-structured interviews allow participants to describe their experiences and the meaning of events taking place in their lives. Semi-structured interviews can also be flexible, diverse and adaptive (Jackson & Verberg, 1995). Ivey (1988) suggest that the use of open-ended questions must be implemented to gather a wide range of themes and to let the participant elaborate instead of restricting them to yes and no answers. In addition, in order to ensure consistency an interview guide is developed and utilised. Information referred to in the interview guide relates to thanking the participant for his/her willingness to partake in the study, the time duration of the interview, confidentiality, the voluntary nature of the study, and the use of a voice recorder. Preparation beforehand is very important aspect and therefore

one must ensure reliability regarding the interview process (Struwig & Stead, 2001). Before the interviews, a pilot study is conducted. This enables the participants to understand the questions and reason for the study. Furthermore, the pilot study reveals the behaviour and attitude towards the study regarding the participants. In addition, the questions may be adapted and changed to ensure the best understanding of the topic. In order to perfect interviews, the researcher embarked on a few training courses. This helped to identify key concepts provided by the participant. According to McNamara (2009) the following should be kept in mind during interviewing:

1. Make sure the voice recorder is recording;
2. Ask one question at a time;
3. Stay neutral and objective;
4. Don't distract participant when taking notes; and
5. Stay in control of the interview.

The research questions are set and ensured to be unbiased in order to take cultural understandings and language gaps into consideration. The following 6 interview questions formed part of the interview guide and are posed to each participant:

1. What do you regard as psychological trauma?
2. What type of traumatic incidents are you faced with in your workplace?
3. Does a trauma management programme exist in your workplace?
4. What are your experiences of the psychological trauma management programme?
5. Do you regard the programme as effective?
6. What recommendations can you make concerning psychological trauma management in your workplace?
7. Is there any other thing you would like to add regarding trauma, trauma management or trauma management programmes among paramedics?

1.4.10 Data recording

Within the informed consent document, permission is obtained beforehand in order to make use of a voice recorder regarding each participant's interview. The researcher is the only person with access to the recordings at all times. The recordings are transcribed into a Microsoft Excel

sheet to organise the answers and themes extracted from the interview. Furthermore, the voice recordings and data are captured on a disk and safely stored in a safe with necessary backups.

1.4.11 Strategies employed to ensure data quality and integrity

Literature indicates that conformability, credibility, dependability, and transferability are criteria that ensure the trustworthiness of the findings of a study. Conformability can be seen as the researcher being objective, by means of not making his personal perspective, opinion or beliefs part of process (Shenton, 2004). The researcher therefore has to remain objective throughout this study in order for the paramedics to express their feelings, and raise their opinions. For example, although the researcher escorts the paramedics on their daily tasks for one day, this is mainly as an observer and the researcher is mindful to remain subjective during the study.

Credibility on the other hand is whether the true meaning of the research is captured and presented as exactly found within the interviews, findings or results (Shenton, 2004). The researcher is therefore responsible for the internal validity regarding the findings, by providing accurate and true responses as provided by participants. This is ensured by requesting co-coders to reflect on the responses and translation process of the responses to English.

Dependability is whether the researcher follows a truthful and logical structure regarding the outcome of the study in order to ensure reliability (Shenton, 2004). Future researchers should be able to be convinced that the study indeed took place in accordance with all the standards set for such a project (Shenton, 2004). By describing the research procedure thoroughly the research process is clear, in order to ensure that repetition of the study is possible.

Lastly, transferability is conceptualised by Shenton (2004) as whether the study's results could be transferred or utilised in another environment and population group. Obviously transferability of this study to a different environment would be problematic as indicated by De Vos *et al*. (2005). However, the researcher ensures that the research study is conducted within the set parameters in order to assist future researchers with a possible way of generalising the findings to another environment by using similar research strategies (De Vos, 2005).

1.4.12 Ethical Considerations

In order to ensure that the research project adheres to ethical principles, approval from the NWU Ethics Committee was obtained before commencing with the project. The project falls within a current NWU research project for which NWU ethical clearance was obtained (NWU-00084-10-S4). Ethical considerations is a serious regard to this study. Orb, Eisenhauer and Wynaden (2000) argued that when research makes use of people, the ethical considerations must be made clear to all participants. Informed consent is a very important ethical consideration because of all the information each individual may expose. The aim with the consent is to explain the purpose of the study. It furthermore tells the participant who is part of the study, all the reasons behind it and what will be achieved after the study has been done and analysed. In addition it is also to remind the participant that their participation is voluntary, meaning they can withdraw at any time or moment. The consent shows the participant who is in charge of the project and why it will benefit them to take part.

Confidentiality is also an issue to address. The participants is aware that all their information, answers, data and actions are kept confidential and only to be used for the study. The participants is assured of this aspect by explaining the terms conflict of interest. This tells the participants who is responsible for what and if there are any sponsors. Furthermore recognition is given to all sponsors and the participants are not kept in the dark. The participants are also aware of all the risks. They are told that this study won't be of any risk to them. The study won't deceive them, causes hurt or expose them to lose their jobs, but rather encourage them. In a case where the interview may lead to a counselling session because of a traumatic response by the participant, the researcher is equipped with the necessary tools in order to manage the situation effectively.

1.4.13 Data Analysis

According to Struwig and Stead (2001) data analysis is the organising and making sense of data captured over time. After the data is captured it is organised into themes and concepts and content analysis is used to analyse the data. The steps of content analysis that is followed in this research as suggested by Cresswell (2009) are as follows:

1. Data is organised and prepared for analysing. The recordings of the participant's interviews and all other data are cleaned after the transcription is complete;
2. A thorough read through is done to grasp a proper understanding and to possibly identify themes. Only the themes and primary data related to the study are used and therefor enhance confidentially;
3. Themes are identified, and data are being analysed by means of coding. The transcribed data as mentioned are organised into categorised statements and themes. Two co-coders are used to review the themes.
4. After coding and analyses of data by means of themes and categorisation, data are furthermore categorised in specific clusters; and
5. Data can now be written down accordingly.

1.4.13 Reporting style

In this study, a qualitative reporting style is utilised when reporting the research findings. The themes and interpretations from each interview are captured to confirm results. The qualitative reporting style enhances adequate reporting.

1.5 Overview of chapters

Chapter 2 entails a thorough, literature review and discussion regarding the findings represented, in the form of a research article. However, chapter 3 consists of the conclusions, limitations and recommendations of this mini-dissertation.

1.6 Chapter summary

Within chapter 1, the problem statement and research objectives are discussed, following an explanation regarding the research method. This chapter also includes a brief overview regarding all the chapters within this research study.

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CHAPTER 2
RESEARCH ARTICLE

Exploring psychological trauma management among paramedics in Gauteng

Abstract

Orientation: Paramedics are daily confronted with life threatening traumatic incidents, and exposure to these incidents may lead to the experience of psychological trauma within the emergency service environment. It therefore seems important that each organisation that employs paramedics should have a trauma management programme (TMP) for paramedics to utilise.

Research purpose: The general aim of this study was to explore psychological trauma, and trauma management programmes as experienced among paramedics.

Motivation for the study: This study was motivated due to the fact that paramedics form a vital part in the pre-hospital environment, and that employers need to take the necessary care of their employees to address psychological trauma caused by the nature of their work.

Research design, approach and method: This study utilised a qualitative approach, by making use of a case study. A total of 30 participants were utilised for the sample, from which all were qualified paramedics from different organisations in the Gauteng province. Semi-structured interviews were conducted with each of the participants, which were then transcribed accordingly. Thereafter the transcriptions were analysed regarding the responses, by making use of content analysis.

Main Findings: From the results it was evident that most of the participants experienced trauma as an event that negatively affected their lives, both at work and at home. The participants indicated that the exposure to abnormal scenes added to their traumatic experience such as witnessing premature death, deceased people, suicides, deaths and injuries from motor vehicle- and general accidents. In some cases TMPs were available to the participants, mostly in the form of counselling, however, most of the participants did not make use of TMPs. In addition participants mentioned that there was a lack of TMPs in the emergency services they worked in. Paramedics mostly preferred to utilise their own coping mechanisms, interestingly enough the main recommendations for TMPs in the workplace were the implementation of group debriefings and (face to face) counselling services.

Practical implications: Each organisation should implement a well-aimed, and well-developed TMP, specifically designed for paramedics in the South African context. These

programmes must include counselling sessions, group debriefing, multiple stressor programmes, as well as awareness programmes.

Contribution/value add: On an individual and organisational level, the paramedic field now has a greater knowledge and conceptualisation available regarding trauma management. The organisations could be more equipped in order to develop the necessary tools to manage trauma effectively. The individuals were also more aware regarding the implications and advantages of possible treatment within their organisations. Enhancement of well-being in the environment could take place, which ensures for an optimal functioning working environment. In addition, this study contributed to the little existing literature regarding paramedics, trauma and trauma management within South Africa.

Key words: Psychological trauma, trauma management, trauma incidents, paramedics.

Introduction

Historically, paramedic services could only be seen as a transport, pre-hospital function, responding to emergency situations, according to Kim, Nichol, Maynard, Hallstrom and Kudenchuk (2014). Today the duties and responsibilities of paramedics are far greater than most people believe (Mahony, 2012). There is a reason why healthcare services, such as paramedics, regularly make use of a snake draped around a cross as their logo. The reason being that this symbol symbolises pain, sickness, injury and healing, all the components featuring in real life situations, which paramedics are daily faced with (NAEMT, 2010).

Already in 1966, the leading cause of death in a person's first half of life span was due to accident related injuries (Post, 2002). In 1965 alone, motor related accidents were a greater cause of death than the Korean War in the same era (Post, 2002). Motor related injuries are just one of the most common events paramedics need to attend to and therefor clarify the importance of this occupation (Jonsson, Segesten & Mattsson, 2003). In addition to these injuries, paramedics are also often exposed to cardiac arrest and cardiovascular emergency situations (Lateef, 2005).

More recently Lateef (2005) describes that over the past years, the roles and responsibilities of paramedics have drastically evolved by means of more stress and more responsibilities. On international level it is clear that paramedics are a community necessity, taking into

consideration that in Sweden alone, there are 800,000 cases per year where paramedics are required (Aasa, 2005). More than 15% of the time, these cases could be seen as critical and life threatening situations, according to Aasa (2005). The list continues when moving to the UK, where the average call rate per paramedic department, stands on 7.87 million calls per year (NHS Information Centre, 2010). According to Seedat, Van Niekerk, Jewkes, Suffla and Ratele (2009), since April 2007 to March 2008, motor vehicle accidents caused the death of 2,746 people on Gauteng roads.

Yoo, Cho and Cha (2013) describe that people are afraid of death, because it is impossible for any human to control. Lateef (2005) confirms that each paramedic who participates in a study will indicate exposure to trauma of some kind. In order to study the experience of trauma amongst paramedics, the following research aims were set.

Research purpose and objectives

The main objective of this research was to explore psychological trauma, and the experience of a trauma management programme among paramedics.

Specific objectives:
The specific objectives of this research were:

- To determine how psychological trauma, and psychological trauma management programmes (TMP) are conceptualised.
- To determine how psychological trauma is managed among paramedics in the emergency services.
- To explore what the experiences of psychological trauma management among paramedics in the emergency services are
- To determine the effects of trauma management programmes in the emergency service.
- To make recommendations for TMPs for paramedics within the emergency service.

A literature review follows where previous studies relating to the paramedics are reviewed. The psychological trauma among paramedics and the experience of trauma management programmes proposed by the literature are presented. Thereafter the methodology that was followed in the study is provided.

Literature review

Psychological trauma

To understand how literature conceptualises psychological trauma, the concepts are investigated as individual terms. The American Psychiatric Association (APA) (2013) defines psychology as a study of the mind and behaviour. Psychology furthermore entails all aspects of human's experiences, functions of the brain and actions related to these experiences (APA, 2013). When taking psychological into consideration, the APA (2013) outlines three possible definitions namely:

1. Experiences affecting and involving the mind specifically;
2. Experiences by utilising thoughts and repetitive feelings; and
3. A study involving the mind and how the mind works.

In this study, taking psychological into consideration, the focus will mainly be on definition one and two as stated above.

Trauma, on the other hand, according to Shapiro (2012), is directly linked to disruption and distress within an individual, with possible disorder development as hazard. Shapiro (2012) furthermore clarifies that trauma must be seen as an emotional reaction to certain situations such as accidents, rape, natural disasters or any other life threatening event. The APA (2013) agrees that after such an event, typical symptoms arising within an individual are those of shock, denial, irregular emotions, flashbacks, tense relationships and over the long term, physical symptoms that promote ill health. Aasa (2005) states that ill health of a working individual occurs the most when psychological demands are high and decision autonomy is low. This was also confirmed in a study to test satisfaction of basic psychological needs by González, Swanson, Lynch and Williams (2014).

Furthermore Lateef (2005) lists seven physical reactions to trauma including: sleeping disorders, agitated feelings, alarmed by any loud noise and looking out for danger, breaking out in sweat frequently, experience difficulty when breathing, various pain especially in the chest and headaches. In a case where people are exposed to trauma, and find it difficult to move on, they must be referred to a professional, such as a psychologist (APA, 2013). Psychologists

implement constructive models and paradigms in order to help these individuals to deal with their emotions (Shapiro, 2012). From a South African perspective, Hardcastle and Brysiewicz (2013) argue that trauma is often associated with the pre-hospital care system, in other words, the ambulance service.

Following the defined concepts, it is important to clarify how the definition of psychological trauma is conceptualised. Alexander and Klein (2001) define a psychological traumatic incident as an event that sufficiently overpower, or threaten to overpower a person's method of coping. According to McCann and Pearlman (1990), psychological trauma can be defined according to the following three experiences:

1. The event is sudden, unexpected, or non-normative;
2. It exceeds the individuals perceived ability to meet its demands; and
3. It disrupts the individual's frame of reference and other central psychological needs and related schemas.

Goodman, Saxe and Harvey (1991) define psychological trauma as extraordinary reactions involving emotional overwhelming following uncontrollable life events. These events often lead to symptoms which entail the breach of interpersonal trust and a loss of sense of personal control. Other symptoms may involve substance abuse, lack of intimacy, helplessness and isolation, especially from the community (Goodman, Saxe & Harvey 1991). Seng, D'Andrea and Ford (2014) stated that numerous studies have confirmed that people exposed to psychological trauma are at risk for disorders such as depression, anxiety disorders and PTSD. According to Seng, D'Andrea and Ford (2014) more symptoms related to frequent and repeated exposure to trauma include social separation, somatization and emotions that are poorly modulated.

More recent sources, such as the DSM - V (2013), define psychological trauma as an injury to the brain and mind. This injury to the brain entails traumatic events such as accidents, natural disasters or any traumatic experience specifically to the human mind (DSM - V, 2013). When a person experiences a brain injury, from a psychological trauma context, various disorders may be developed as outcome, including post-traumatic stress disorder (PTSD).

When taking psychological trauma into consideration, Seng, D'Andrea and Ford (2014) state that psychological disturbance after traumatic events is not a new phenomenon and has been motivated in various historical literatures. Furthermore Jonsson, Segesten and Mattsson (2003) argue that frequent exposure to high levels of incident related stress has shown to be a critical factor in the formation of post-traumatic stress symptoms. PTSD is more likely to occur when a person is not socially supported, unmarried, or abusing drugs (Jonsson, Segesten & Mattsson, 2003). Seng, D'Andrea and Ford (2014) also confirmed this occurrence in their study of complex mental health of psychological trauma.

Yoo, Cho and Cha (2013) motivate that most people who witness traumatic incidents such as suicides, accidents, natural disasters and homicides, experience helplessness and pain after the events, even if they haven't been directly exposed to the situations. Yoo, Cho and Cha (2013) further clarifies that occupations frequently exposed to traumatic and terrible scenes, can be extremely vulnerable to PTSD.

The American Psychiatric Association (2013) state in the DSM-V that at least one of the five intrusive symptoms must be present to diagnose a person with PTSD. These symptoms are:

1. Distressing memories;
2. Distressing dreams of the event;
3. Acting or feeling as if the traumatic event were recurring;
4. Intense psychological distress; and
5. Physiological reactivity (i.e. sweating and racing heart).

Taking all the information stated above into consideration, The American Psychiatric Association (2013) motivates that these symptoms must be present for more than 30 days, before that the diagnoses of acute stress can be indicated.

According to the American Psychological Association (2011), emotional responses are normal for people that have experienced traumatic situations and when the concept is understood, thoughts, feelings and behaviours can be dealt with effectively. The APA (2011) also argues that shock and denial are normally the main responses each individual presents after traumatic situations, and describes the following as the impact of trauma on an individual:

1. Feelings are intense and unpredictable: The person is more irritated with mood changes often and may be anxious, nervous and depressed in situations.
2. Thoughts and behaviour are affected: The traumatic event experienced may roll through the persons mind in a form of a flashback and disruptions in sleeping and eating habits occur with physical consequences such as sweating and heavy heartbeats.
3. Frequent emotional behaviours: The person may feel the same emotion after a certain period of time, from when the event occurred. This can also be seen as triggers and can directly be linked to anxiety.
4. Social activities decrease: People tend to isolate themselves and ignore possible social situations, which can result in conflict and the loss of relationships.
5. Physical symptoms are experienced: The person gets familiar with headaches, various pains and nausea.

Emergency Medical Personnel

Emergency Medical Personnel, also known as paramedics, as an occupation, were defined for the first time in 1970 with a recognised curriculum entitled Emergency Medical Technician - Paramedic (EMT-P) (Post, 2002). However, society and progressions made in the medical practise created demands in the paramedic field, and therefore transformed the occupation to an advanced form of emergency medical care (Aasa, 2005). Lateef (2005) states that paramedics experience high levels of occupational stress within their workplace, because of exposure to tragedy and trauma involving humans, as well as difficult working hours.

Paramedics are likely to become stress casualties because of the frequent exposure to traumatic incidents experienced daily (Lateef, 2005). In addition to high levels of stress related to traumatic incidents, a paramedic's life and job may be at risk (Lateef, 2005). Lateef (2005) furthermore motivates that the traumatic situations paramedics experience may lead to guilt, depression, compromised decision making and mainly job dissatisfaction. When taking job related stressors into consideration, one could directly link satisfaction, burnout, turnover and psychological disturbances to a person's occupation (Lateef, 2005). These stressors could be due to hours of work and exposure to incidents where human suffering is involved (Lateef, 2005).

In most cases, private companies employ paramedics, but short on their tails, paramedics are also employed by government and municipalities, as stated by Aasa (2005). As mentioned before, responsibilities have increased among paramedics, for example during the 20th century paramedics have been more authorised in terms of prescribing limited drugs without medical reference, and diagnosing patients in emergency circumstances without the patients' medical history or any specialist input (Mahony, 2012). In addition Mahony (2012) explains that paramedics do more to save a person's life, than any other health worker in the medical field.

Mahony (2012) motivates that paramedics created their own niche and can be seen as experts on "resuscitation and emergency obstetrics". Paramedics can be defined as respondents to an emergency related treatment in the pre-hospital environment in order to heal, stabilise and provide therapy (Lowenstein, Bleck & Macdonald, 1999). Paramedics' experiences make them far greater to those that are general medical practitioners, because of the fact that the pre-hospital situation entails working in any environment and at any time of the day (Mahony, 2012). Furthermore Mahony (2005) identifies the paramedic environment as the most stressful occupation in the medical field. This could be due to the worker autonomy, long and draining working hours, work intensity and various stressors created by the environmental circumstances (Mahony, 2005).

Typical stressors paramedics are exposed to in their workplace include coping with death, grief and other events that the normal human does not necessarily experience, and these situations can be very risky (Jonsson, Segesten & Mattsson, 2003). Jonsson, Segesten and Mattsson (2003) motivate that paramedics often experience high daily stress and are constantly exposed to human suffering and death within various hazardous environments.

Alexander and Klein (2001) argue that the correlation between work demands and health has not been investigated thoroughly among paramedics in the past years. Jonsson, Segesten and Mattsson (2003) argue that stress is the most important factor when taking into consideration sickness and PTSD among paramedics. Jonsson, Segesten and Mattsson (2003) formulate that paramedics are constantly exposed to traumatic stress when helping others in emergency circumstances. When taking the medical field occupation into consideration, one could clearly note that paramedics have shown to be the most vulnerable to developing symptoms of PTSD (Jonsson, Segesten & Mattsson, 2003). This is due to the fact that paramedics experience

repeated high stress levels that they need to cope with and this indicates that paramedics are easy targets related to PTSD (Jonsson, Segesten & Mattsson, 2003).

Alexander and Klein (2001) argue that mental health and emotional well-being of paramedics are indeed compromised by accident and emergency related work. When taking health care personnel into consideration, paramedics display higher rates of early retirement due to mental and physical ill health than any other health care worker, as stated by Alexander and Klein (2001). Alexander and Klein (2001) also elaborate that paramedics are usually seen as people with a "hard" personality, "dealing" with emotions effectively, but they can be just as fragile, relating to severe and chronic post-traumatic incidents such as most people.

Alexander and Klein (2001) evaluated that 82% of paramedics experience disturbing incidents in less than six months. Alexander and Klein (2001) believe that self-harm and suicide are the most common incidents paramedics are exposed to, but road traffic accidents and medical emergencies can be seen as the most disturbing ones. Other incidents also featuring are violent incidents, sport injuries, industrial accidents and fires (Alexander & Klein, 2001). Out of these incidents paramedics define the worse cases to attend to are those of children, family or friends, or if there are feelings of helplessness on the scene, lack of back-up from colleagues and false information provided (Alexander & Klein, 2001).

Alexander and Klein (2001) further reported that the more experienced and older a paramedic tends to be, the greater are the chances of reporting emotional problems. Jonsson, Segesten and Mattsson (2003) state that paramedics need to cope with various duties related to stress factors, including traumatic incident exposure. Jonsson, Segesten and Mattsson (2003) motivate that traumatic stress is greater among paramedics when job experience, age, physical and psychological workload increase.

Alexander and Klein (2001) motivate that during their studies among paramedics, the most participants reported that there were no recovery time whatsoever between various incidents. Alexander and Klein (2001) reported in a study that 73% of paramedics saw their organisation as "never concerned" about staff welfare especially after critical incidents. Lateef (2005) ads that trauma management programmes must aim to support paramedics with symptoms such as headaches, sleep disorders, feelings of irritation, lack in concentration and coping mechanisms to prevent negative flashbacks.

Goodman, Saxe and Harvey (1991) state that research has motivated that psychological responses to a trauma incident can be prevented or lessened by supportive systems and well prepared post-trauma environments.

Trauma management programmes

Lateef (2005) reports that most paramedic trauma management programmes (TMP) have a western personnel and culture based methodology, and it is therefore difficult to implement in countries such as South Africa. Furthermore Lateef (2005) elaborates that a thorough structured trauma management plan should be implemented directly after exposure to trauma incidents to increase the effectiveness thereof.

Greenberg, Langston, Iversen and Wessely (2011) state that Trauma Risk Management (TRiM) is used in the UK Armed Forces for the treatment of people exposed to trauma. Moreover, TRiM can be seen as a post-traumatic colleague support system to help employees function optimally after traumatic experiences in the workplace. In addition TRiM can be used to provide knowledge regarding certain skills to understand, as well as implement psychological risk assessment (Greenberg *et al*., 2011).

Mitchell and Everly (1996) state that in order to provide a supportive environment for people experiencing trauma, Critical Incident Stress Debriefing (CISD), which falls under the Critical Incident Stress Management (CISM) program, can be used. CISD can be seen as a seven phase, intimate group supportive program that focuses on a crises intervention (Mitchell & Everly, 1996). Mitchell and Everly (1996, p. 1) argue that the CISD should never be seen or used as psychotherapy, instead it must be seen and used as a "supportive, crisis-focussed discussion of a traumatic event". The main aim of CISD is focused groups, for individuals who experienced heavy traumatic situations, in order to reduce stress and create group collusion and individual performance (Mitchell & Everly, 1996). In addition Jones, Roberts and Greenberg (2003) state that, in order to prevent psychological illness within an emergency service, CISD does not seem to be effective in single sessions, but continuous sessions indicate valid results. Campfield and Hills (2001) claim that effectiveness for CISD was found in the literature regarding robbery victims, disaster experiences and emergency workers after traumatic experiences.

Various South African organisations already have some system addressing traumatic experiences structured within the organisation (Williams, 2013). One such an organisation, the South African Correctional Services, make use of the Correctional officer stress inventory among employees bound to the service (Botha & Pienaar, 2006). In the same article, Botha and Pienaar (2006) explain that the stress inventory is specifically aimed at reducing stress by treating traumatic experiences that officers experience. Another organisation that has a trauma support programme is the South African Police Service (SAPS). Police members are subjected to trauma management support which already commences prior to exposure to the traumatic incident (Watson, Jorgensen, Meiring & Hill, 2012).

Research done on the emergency medical field, have proven that participants who experience trauma, find it helpful to ventilate, defuse and debrief after occurring incidents (Lateef, 2005). This will also contribute to the means in which paramedics cope and handle emotions (Lateef, 2005). Interventions as such should be seen as crucial and are necessary in every emergency medical occupation environment (Lateef, 2005). In Lateef's (2005) study the most found coping mechanisms that paramedics utilise include talking to colleagues and family members, participating in physical activities such as sporting events and turning to religion. Furthermore Alexander and Klein (2001) motivate that paramedics implement their own methods of coping such as utilising black humour, looking forward to be off-duty and keeping thoughts and feelings to themselves. In addition Lateef (2005) states that no paramedic chooses to approach a counsellor, even if there is one within their working environment. Even though no paramedic admits that seeking help is necessary, all participants in studies admitted that an automatic debriefing programme would be advantageous after any emergency incident (Lateef, 2005).

After exposure to a traumatic incident, 74% of paramedics reported negative influences on their work performance (Lateef, 2005). Yoo, Cho and Cha (2013) motivate that occupations repeatedly exposed to traumatic incidents, experience feelings of grief, rage, depression, unhappiness, pain and extreme emotional distress. Porter and Johnson (2008) explain that a gap exists in the literature regarding the research of psychological distress and burnout among paramedics. Researchers such as Porter and Johnson (2008) prove that there are only three factors displayed within the paramedic environment to counter trauma related illness namely support, attitude towards emotional expression and coping strategies. Trauma management is thus a reality and global issue according to the literature. In addition to the global issue, the South African context is also in great need regarding trauma management in the workplace. In

the literature there are very little research regarding trauma management among paramedics in South Africa and, which makes this a burning issue within the workplace of paramedics.

Therefore trauma management among paramedics is a burning issue, because trauma experienced by paramedics does affect their work related performance and because there is very little research in literature, as well as trauma management programmes available for paramedics (Lateef, 2005). In addition, organisations must rather encourage paramedics to attend sessions instead of avoiding them, because the majority of paramedics believe that if they attend sessions such as counselling, they will be discriminated against, penalised and be seen as weak in their working environment (Lateef, 2005). The American Psychiatric Association (2013) describes that in order for an individual to recover from psychological trauma experienced, the best intervention is to consult a psychiatrist, psychologist, counsellor, nurse, or other mental health professional, such as an industrial psychologist.

Research design

This research design includes three sections, namely the research approach and research method utilised during this study.

Research approach

In this study, a qualitative research design was utilised with an exploratory descriptive approach for the study of psychological trauma amongst paramedics. During this study it was important to gather the viewpoints from the paramedic's perspective, and to capture their in-depth point of view. In order to comprehend this outcome, the most suitable approach was to follow the qualitative route. Orb, Eisenhauer and Wynaden (2000) state that research aiming to explore, examine, or investigate in order to describe an environment from a person's perspective, should follow a qualitative approach. Struwig and Stead (2001) mentions that in order to understand a participant's point of view, an unstructured and less theoretical approach should be implemented. Therefore this study focused on the participant's point of view, through an unstructured qualitative approach, in order to grasp their perspective on the specific outcomes.

In addition, this study's focus followed a phenomenology approach. Phenomenology brings together individual perceptions and finds the true meaning and essence of what the participants share. The written report following the results provides a statement of the phenomenon's essential structure (Wright, 2014). For this study, the phenomenology was applied using interviews with multiple participants who were engaged in the paramedic environment in order to obtain the true meaning they shared regarding the phenomenon explored in this study.

This study further relies on the social constructivism paradigm to explore the reality as a result of the constructed process (De Vos, *et al.*, 2014). According to the constructivism paradigm reality can only be reported as experienced by the participants (ontology) 'on how social phenomenon can be known to them (epistemology)' (De Vos, et al., 2014, p310). Social constructivism as ontological and epistemological perspective guided the researcher in generating and explaining the components of the research

Research strategy

In order to address the objective of this study, a case study strategy was followed. In this study the case, namely the paramedics, were actively employed in the emergency services form the centre stage. De Vos *et al*. (2014) mention that the aim of this technique is to investigate, understand and interpret a participant's perspective on the current subject. The data obtained from these results were transcribed in order to formulate a general understanding, taking into consideration the participants point of view, as suggested by De Vos *et al*. (2014). The case study strategy was preferred in order to seek answers to the how and why questions, and because the topic is a contemporary phenomenon in a real-life context (Schwandt, 2007).

Research method

Next, the research method is presented.

Research setting

The research setting for this study consisted of paramedics who were employed in the medical emergency occupation for more than two months, based in the Gauteng province. For this

study, it was important to gather a holistic and external viewpoint, and therefore two medical emergency organisations were utilised. These two organisations were both large companies, and part of their different franchises, specifying in the paramedic environment. The organisations have various branches across Gauteng, which were selected and approached for approval to partake in the study. In addition permission was retrieved from their Operational Managers at each base, and paramedics who were not called out or actively treating patients (on duty), were invited to interviews.

A private office within each base was organised, in order to provide each individual a secure, private and confidential environment. This ensured that there were no interruptions during interview sessions. Afterwards, paramedics were thanked for their participation, and the data were safely stored in a secure environment.

Entrée and establishing researcher roles

During the course of this study, the researcher was assigned with different roles. One of these roles included the role of a professional planner. Planning regarding administration, questioning and how to approach participants was conducted prior to commencement of the study. Inclusive of the planning step, was to ensure that participation was received by participants, in order to fulfil the sample size need. Creswell (2009) explains that during research there are various roles to be taken into consideration from a researcher and participant perspective. These roles include a facilitator, interviewer, transcribers, data analyst, interviewee and stakeholders such as management, as were also assumed during this study (Creswell, 2009).

The researcher conducted all the interviews himself, and can therefore be viewed as fieldworker, facilitator and interviewer. As interviewer, the researcher started off with a short briefing session with paramedics to explain the outcomes of the interviews, after which the interviews commenced. For the interviews, the researcher assumed the role of listener, facilitator and transcriber. After the interviews, the researcher assumed the role of analyser, by both the researcher and co-coder. All the results and themes extracted from the transcribed data, were reported and explained within the findings, thereby also assuming the role of reporter. As researcher it is important to be mindful of the various roles one has to take on during this study, in co-operation with stakeholders, participants and co-coders.

Sampling

Stratified purposeful sampling was utilised in this study. De Vos *et al*. (2014) explain that if a researcher aims to compare and illustrate characteristics among a specific target population, one could utilise stratified purposeful sampling. Therefore communication with each Operational Manager within each paramedic branch was vital, in order to identify possible participants, and also to co-ordinate interview times without disrupting the working environment of the employees. Participants (*N*=30) were furthermore interviewed individually, to ensure accurate, confidential and honest responses as guided by Creswell (2009).

In addition there was a certain criteria utilised in order to gather accurate data and retrieve information. Firstly, all paramedics had to be registered, qualified paramedics and employed permanently for more than two months. Therefore all paramedic assistants and observers within each branch were eliminated. The sample size was then determined according to the amount of paramedics available on-site and on duty. An overview regarding the participants and their characteristics can be seen in Table 1.

Table 1

Characteristics of the participants (n=30)

Item	Category	Frequency	Percentage
Gender	Female	8	27%
	Male	22	73%
Age	23-28 years	13	43%
	29-34 years	8	27%
	35-40 years	8	27%
	41-46 years	1	3%
Ethnicity	White	18	60%
	African	12	40%
Province	Gauteng	30	100%
Language	Afrikaans	14	47%
	English	7	23%
	Sepedi	2	7%
	Sesotho	1	3%

	Setswana	4	13%
	isiZulu	2	7%
Highest qualification	Technicon diploma	2	7%
	Technical College diploma	4	13%
	University degree	4	13%
	Post-graduate degree	1	3%
	Other (BAA Certificate)	19	63%
English proficiency	Good	18	60%
	Excellent	12	40%
Job Description	BLS	12	40%
	ILS	11	37%
	ALS	7	23%
Years' experience (Working as a paramedic)	1 – 5 Years	15	50%
	6 – 10 Years	12	40%
	11 – 15 Years	1	3%
	16 – 20 Years	2	7%
Household situation	Married/living with a partner, without children	5	17%
	Married/living with partner, with children	10	33%
	Single or divorced, without children	7	23%
	Single or divorced, with children	1	3%
	Living with parents, without children	6	20%
	Living with parents, with children	1	3%

According to Table 1, the sample consisted of 30 paramedics of whom most were male (73%). The majority (43%) of the participants were in the age category of 23 - 28 years, while only one participant (3%) fell in the age category, 41 - 46 years. From the participants, the majority (60%) were white, while 40% were African. The majority participants were Afrikaans (47%) speaking, while the others were English (23%) or Setswana (13%). All the participants resided in Gauteng province. Taking into consideration the highest qualification, the majority (63%)

had a BAA certificate, while others had a Technical College diploma (13%) or a University degree (13%). Only one participant had a Post-graduate degree. When participants were asked to rate their English proficiency, 60% answered Good, and 40% answered Excellent. Taking job description among the participants into consideration, 40% were Basic Life Support (BLS), 37% Intermediate Life Support (ILS) and 23% Advanced Life Support (ALS). With regards to years' experience within the paramedic environment, 50% stated that they had between 1 – 5 years' experience and 40% stated that they had between 6 – 10 years' experience, while three (10%) participants had more than 11 years' experience. From the table above it seems clear that the majority of participants were either Married/living with partner (with children) (30%), single or divorced (without children) (23%) or living with parents (without children) (20%).

Research procedure

The research procedure commenced by retrieving approval from the various organisations and personnel utilised for this study. The companies were contacted in order to establish appropriate times for briefing and to arrange interview schedules. The current research and goals were discussed with the relevant stakeholders and various operational managers from the different organisations, and branches. Thereafter paramedics on duty were invited for an information session in order to explain the bigger picture regarding the outcomes for this specific research phenomenon. Participants were also provided with the opportunity to ask questions and to provide input regarding the various expectations from all parties. An interview schedule was drawn up to accommodate the availability of participants whom agreed to take part in this study. All paramedics filled in the consent information, along with the biographical information required by the researcher. The informed consent assisted the researcher to gain more participation from the paramedics due to the anonymous factor. The schedule established was followed and participants were interviewed individually, following the prepared interview guide and questions. Interviews were also recorded for transcription purposes as discussed and explained to each participant. After all interviews were conducted, transcription of the data related to each interview on an Excel spreadsheet followed. This spreadsheet consisted of specific categories, themes and sub-themes in order to analyse the information received. All the results gathered from the interviews and transcribed onto the spreadsheet, were analysed and reported within the results section, chapter 2.

Data collection methods

This study made use of semi-structured interviews, in order to achieve all the specific outcomes related to this research. According to De Vos *et al.* (2014) semi-structured interviews are useful when a researcher is aiming to retrieve specific meaning from an individual's perspective that relates to a specific topic, such as psychological trauma management in this case. Semi-structured interviews enable the participant to elaborate on each question addressed, instead of providing yes and no answers, therefor the participant can respond openly (Wright, 2014). Thus during the semi-structured interview guide, open ended questions were asked to participants to understand their point of view as in-depth as possible. Open-ended questions enable a participant to provide the researcher with more and accurate information to report on, and avoid short and vague answers (Wright, 2014).

The approach followed was interviewing each participant on a one-on-one basis. These interviews were conducted at their environment (branches), to make it as comfortable for each participant. As mentioned before, the researcher followed an interview guide, designed beforehand (Annexure A), in order to guide and facilitate the interview process. Before the questions were asked to participants, a brief overview was provided, which included the purpose and value contribution of the study, while confidentiality was explained to each participant. They also had the opportunity to ask questions and clarify uncertainties beforehand. Thereafter the recording device was switched on, and the interview followed. Initially a pilot study was done with three participants. According to De Vos *et al.* (2014) it is advisable that the researcher test the interview schedule to enable the researcher to do a practice run ad to act on the implications, before commencing with the actual interviews. This enabled the researcher to ensure that the questions were understood and well-formulated. The following questions were asked to each participant during the research:

1. What do you regard as psychological trauma?
2. What type of traumatic incidents are you faced with in your workplace?
3. Does a trauma management programme exist in your workplace?
4. What are your experiences of the psychological trauma management programme?
5. Do you regard the programme as effective?
6. What recommendations can you make concerning psychological trauma management in your workplace?

7. Is there any other thing you would like to add regarding trauma, trauma management or trauma management programmes among paramedics?

Every response from each individual was recorded, as well as noted in the interview guide, to enable the researcher to provide in-depth and accurate findings.

Data recording

The interviews were recorded with a high quality, charged and tested recording device to record each participant's response. Before the interview commenced and the recording device was switched on, each participant was taken through the ethical consideration, informed consent and permission was granted to make use of the recording device. During the interview, the researcher regularly made sure that the device was still recording, and that it was in a perfect working condition, aimed at the participant to avoid any disturbances.

After all the participants were interviewed, and recordings captured, data were transferred from the device onto a password protected computer, and erased from the device. Thereafter the recordings were transcribed onto an Excel spreadsheet, grouping the responses next to each participant and question asked during the interview. All this information and data were stored safely, with backup copies and limited access, to ensure confidentiality. The data gathered from the biographical sections during each interview, were also captured onto a document, and sorted accordingly to process the characteristics of the participants.

Strategies employed to ensure data quality and integrity

In order to ensure data quality and integrity, various strategies were taken into consideration during this study. These strategies included conformability, credibility, dependability and transferability. These strategies could be explained as follows:

Conformability: De Vos *et al*. (2014) explain that conformability in easy terms should be seen as researcher objectivity. The researcher must at all times stay as objective as possible, by not leading, forcing or pushing a participant in a certain direction, in order to receive a certain result (De Vos *et al*., 2014). During this research the researcher remained objective by allowing the participant to elaborate, and only facilitated when necessary. This occurrence assisted the

researcher by not letting his own perspective, point of view or ideas influence the results obtained. During the research, it was required from the researcher to give better explanations regarding the questions to some participants, in order for them to provide a thorough answer. Conformability in this instance was enhanced, because the researcher stood on topic and only facilitated the process. Therefore this study could be seen as an objective reflection consisting of only the participant's viewpoints, without any interference from the researcher's perspective. Shenton (2004) agrees that researchers should only be seen as facilitators during this type of study, in order to enhance objectivity.

Credibility: During research, it is important for a researcher to capture a true reflection of the specific phenomenon investigated (Tracy, 2010). Tracy (2010) elaborates by mentioning that credibility should also be seen as researcher validity, and that it is each researcher's responsibility to give accurate information. During this study, the researcher implemented industrial psychology good practice as established by the Health Professions Council of South Africa, by only providing exact reflections of the information obtained. A co-coder was utilised during the data analyses in order to ensure the same meaning was formulated from the responses received. Furthermore the researcher made use of terminology, and key words as provided by the participants. This enhanced the fact that this study actually measured what it was supposed to measure as mentioned by Shenton (2004). Being unbiased during interviews, data analyses and reporting on findings also enhanced the credibility of this study. Shenton (2004) also mentions that each participant should attend voluntarily to promote credibility, in which this study followed this procedure.

Dependability: Shenton (2004) states that each research study should be reliable, and reliability could be seen as dependability. According to Wright (2014) research is reliable, when the same sample, setting and questions, lead to the same responses. This will also then result in data being accurate. During this study, dependability was enhanced by proofreading, repeating data analyses and also the groupings of category findings. According to Wright (2014) dependability is enhanced when raw evidence and coding models are made available. The researcher ensured that the material was easily at hand should future researchers require the material. Another factor influencing dependability is implementing a proper research design (Shenton, 2004). During this study, the research design was thoroughly reported in order to ensure that the study can be repeated.

Transferability: Wright (2014) motivates that transferability should be seen as external validity, and in what manner data will correlate to a similar situation or approach. De Vos *et al*. (2014) ad that research and its approach, should be of such a manner that it could be utilised (transferred) to a similar setting and sample. This study focused on transferability by implementing six steps as mentioned by Shenton (2004):

1. The research organisations were explained: two organisations took part during this research based in the same province;
2. Limitations, and restrictions regarding participants and data gathering were mentioned in Chapter 3;
3. The sample and participants were explained: the sample were N=30 as mentioned from the start of the research;
4. The most appropriate data collection method was utilised and the details of the process were explained and recorded;
5. The amount of interviews and data collection methods were indicated and reported; and
6. A timeframe with necessary schedules was provided.

Therefore it is clear that this study focused on the above mentioned factors, in order to implement strategies ensuring quality and integrity of data.

Data analysis

Data analysis can be viewed as the process of arranging, ordering and structuring the data out of the mass of collected material (De Vos, *et al*., 2014). De Vos *et al*. (2014) report on the spiral image of data analysis where the researcher moves in analytical circles rather than using a fixed linear process. This spiral image applied to this study involved the following (De Vos *et al.*, 2014):

Prepare and organise the data: During this step all interviews recorded were transcribed exactly as the participants answered the questions by a professional transcriber. A quality check followed where the researcher randomly selected interviews and listened to the audio recordings, and seeing whether they correlate with transcriptions. Thereafter, all the responses were transferred onto an Excel sheet, consisting of columns including participant, question,

answer, and category, summary of content, theme and subthemes. Therefore all the participant's raw data and responses were transferred onto one sheet, in order to formulate a better perspective regarding all the data. A thorough read-through followed ensuring the researcher understood how the bigger picture looked, before starting to analyse the data at hand. This enabled the researcher to complete the rest of the step with more ease.

Creating preliminary concepts: During this stage it was the responsibility of the researcher as well as the co-coder to identify the most important categories, themes and subthemes. In order for the researcher to achieve this objective, each participant's answers were approached one by one. A few preliminary concepts were created at first, in order for the researcher to gain a better perspective and understanding regarding the data. What helped during this stage was to summarise the context. This contributed in a manner assisting the researcher to summarise each response, to make data analysis more effective. After a few concepts were formulated and created regarding the types of answers and data, the researcher moved to the next step.

Identifying themes: During this step it was important to categorise each response, and place the category in each theme, along with the applicable subthemes. All the data received from participants were clustered and sorted, categorised where applicable with the relevant themes. During this stage it was important for the researcher to give the same amount of attention to each response, or raw data in order to extract valid information. All responses were thus categorised and thereafter the themes as well as the subthemes were identified. Regular checks were implemented in order to ensure that data are correctly analysed and categorised. The researcher thus became familiar with the data, and could see how many categories arose from the questions, including how many themes and subthemes emerged per category. Then the material was sent to the co-coders in order to substantiate the categories, themes and sub-themes.

Revising of themes and subthemes: In order to promote and enhance accuracy in the analysis process, the themes and subthemes were regularly revised and merged where applicable. Each category was limited with the amount of themes, and focus were only provided to responses that were mostly mentioned. Therefor by regularly revising and reconstructing the themes identified, it ensured that the researcher and co-coder stayed on track during the analysis of data.

Theme conceptualisation: After themes were identified, revised and formulated, conceptualisation regarding the themes took place. This was done to correlate between the category, theme and specific subtheme. This was again a double checking mechanism implemented to ensure quality and accuracy during the data analysis. Each category were thus now established, along with the specific themes, subthemes, and most suitable responses, to be included within the findings. Data was now ready for step 6.

Creating the report: During this step, data were extracted from the Excel sheet, and presented within the findings section. Each category was discussed along with the themes, subthemes and amount of responses per subtheme. This indicated which responses were most frequent during the interviews, and also the crucial parts to focus on during reporting and discussion of the results.

Ethical considerations

This project falls within a current NWU research project for which NWU ethical clearance was obtained (NWU-00084-10-S4). This ensured that the project adheres to the ethical principles as established by the NWU Ethics Committee. During this study, ethical considerations were regarded as serious and the necessary precaution measures were implemented. When people are utilised for research purposes, all ethical considerations should be made clear to participants involved (Orb, Eisenhauer and Wynaden, 2000). Therefore all participants were briefed thoroughly beforehand, and any questions or concerns were raised. Inform consent were also provided by participants explaining the purpose of the study, objectives to reach and that participation in voluntary. Participants could thus withdraw at any time or moment. Furthermore confidentiality were also a major focus, since participants might have felt their occupation are in danger. Therefore a confidentiality agreement between each individual and the researcher commenced, stating that only the data provided will be utilised, without any personal information.

In addition participants were also made aware regarding the possible risks. Interviews may have led to counselling sessions, and the researcher were fully equipped transforming an interview into a counselling session, and the interview stopped. Participants were also made aware that this research would not contribute to any performance management of negative aspect regarding their work.

Reporting style

During this study, a qualitative reporting style was used in order to report on the results obtained. To ensure accuracy, the exact response from each participant during the interview were captured and reported on during the findings section below.
Next, the findings of this study will follow.

Results

The data obtained from the interviews were analysed and arranged into categories, themes, and subthemes. Next, the findings will be reported substantiated by quotations from the participants. The frequency of responses per subtheme is indicated in brackets after each subtheme, (i.e. 5 will be equal to five responses) and the participant responsible for the quotation is indicated after each quotation (i.e. P1, is equal to participant one's response). In addition, each table consist of the most descriptive responses participants provided and will serve as substantiating quotations/evidence. In order to accommodate all language groups and achieve a central point of communication quotations provided in Afrikaans were translated into English.

The findings are provided in the order according to which the questions were posed to participants during the interviews, and resulted in the following categories:

Table 2: Category 1: Defining Psychological Trauma
Table 3: Category 2: Traumatic Incidents
Table 4: Category 3: Availability of TMP
Table 5: Category 4: Experience of TMP
Table 6: Category 5: Effect of TMP
Table 7: Category 6: Recommendations

Category 1: Defining Psychological Trauma

The results obtained during the interviews were analysed, thereby obtaining the findings of Category 1. Participants were asked what they regard as psychological trauma. The findings showed one theme for this category namely, *An Event That Negatively Affects Work and Life*.

Figure 1 shows a summary of the subthemes and frequencies which resulted from this theme:

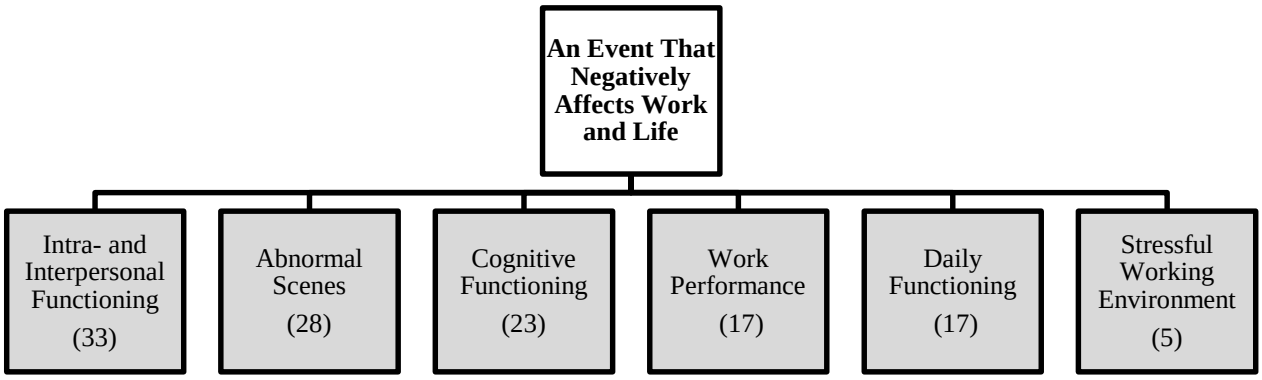

Figure 1: An illustration of the theme and subthemes for category 1

From the findings it was clear that the majority of participants defined psychological trauma as an event that negatively affected their work and life. Even though only one theme clearly emerged from this category, numerous subthemes were outlined including Intra- and Interpersonal Functioning, Abnormal Scenes, Cognitive Functioning, Work Performance, Daily Functioning and Stressful Working Environment.

Next, Table 2 gives an account of the findings which emerged for the first category:

Table 2

Defining Psychological Trauma

	Sub-theme	**Response**
An Event That Negatively Affects Work and Life	Intra- and Interpersonal Functioning (33)	"It affects your emotions, it affects your ability to interact with other people, it affects your home life, and it affects your work life. In fact it affects your entire life to your moods emotions". (P28)
		"…something that also affects your daily life style when you fail to stay yourself or to relate to other people as you used to before the event…" (P3)

	Abnormal Scenes (28)	"Like a scene where you find people for example... who's been amputated, it is not a normal thing to see". (P4)
		"…it is your first time to see something terrible on a scene…" (P17)
	Cognitive Functioning (23)	"…your first time to see something terrible on a scene then you keep on thinking about that…" (P17)
		"Like you get flashbacks, sometimes when you're home, you watch TV and you see something similar or get just near something similar then you start having those flashbacks". (P11)
	Work Performance (17)	"…that affects your work functions, in a negative manner where you can't perform…" (P3)
		"You can't do your day to day tasks as normal as usual anymore because of trauma". (P13)
	Daily Functioning (17)	"…then I became different, I was busy going off the road, I drank more, I did more stuff what I weren't supposed to be doing…" (P14)
		"…something that influences your normal daily functioning in a negative manner, after you were in the specific situation…" (P21)
	Stressful Working Environment (5)	"…usually something that happened at work here because we do work in a very stressful environment so to say…" (P3)
		"…for example some people can handle stress better than others…" (P26)

From Table 2 it is clear that the majority of participants stated that they would define psychological trauma as their functioning being influenced by their emotions and experiences. This functioning (mentioned 33 times) mainly refers to their intra- and interpersonal

functioning where their ability to maintain the self and/or interact with other people, including their daily lifestyle was affected. Participants also mentioned that there were more ructions and arguments with peers, family and friends, which they felt was due to the trauma experiences. Furthermore participants felt self-blame when encountering patients dying on scenes. However they also felt that they had developed apathy in order to accept it, and therefore became "tough". In addition participants mentioned that there was an emotional build-up because no release took place, such as the ability to talk or ventilate about the traumatic experience. This caused depression, crying, emotional breakdowns and developing aggressive behaviour. Interestingly enough, some participants mentioned that they developed a sense of proudness during their career progress, and therefore chose not to release this emotional build-up with some method of treatment.

Participants also reported abnormal and horrific scenes they were exposed to during working hours, which could be seen as traumatic, especially when they encountered these scenes for the first time. The characteristics of these scenes included scenes where bodies had amputations and decapitations, where humans were dying or died by means of drowning, burnings, accidents, incidents where especially children were injured or killed as well as suicides. These specific scenes participants were exposed to, were highlighted as events that affected their work and life negatively. The number of responses indicated that participants were exposed to a large number of abnormal and horrific scenes on a daily basis, and could be seen as a crucial subtheme.

In addition to the specific scenes, participants included cognitive processes such as intrusive recurring memories and pondering about events in the definition of psychological trauma. Participants mentioned that they kept on thinking about scenes they were exposed to, meditating on these thoughts, which resulted in their lifestyle being affected negatively. Participants furthermore explained that they often had flashbacks, and no closure regarding traumatic events experienced. These flashbacks resulted in cognitive processes being affected, in a permanent and constant state.

Furthermore participants felt that psychological trauma influenced their work performance negatively. The participants stated that they were underperforming, and were not able to work as they used to in their specific environment, due to exposure to traumatic events. Participants mentioned that they tended to suffer from burnout and left the specific profession early to find

another occupation. There were participants elaborating on resignation situations, taking into consideration themselves as well as peers. Clearly it could be noted that work performance was influenced negatively by the trauma experiences participants were exposed to.

Apart from their work performance being negatively influenced, the participants specifically made mention of their general daily functioning (both at work and home) being negatively influenced. They felt they could not do their daily tasks as they used to. The results show that some participants experienced alcohol problems, mood swings and feelings of irritation, sleeplessness, nightmares and helplessness when performing daily tasks.

The results further show that psychological trauma also related to the working environment which the participants experienced as stressful by means of exposure and time bound activities they did on a daily basis. This stressful working environment resulted in developing a need for some kind of support system i.e. counselling. Participants mentioned that this need might reduce the stress experienced within their working environment.

Next, the findings from the second interview question are reported.

Category 2: Traumatic Incidents

Table 3 represent the findings of Category 2. This category emerged from asking participants what traumatic incidents they were faced with in their daily working environment. The findings show mainly three themes for this category. These themes include *Death Incidents*, *Serious Incidents* and *Straining Experiences* and are provided in the following figure as an overview of how the subthemes emerged:

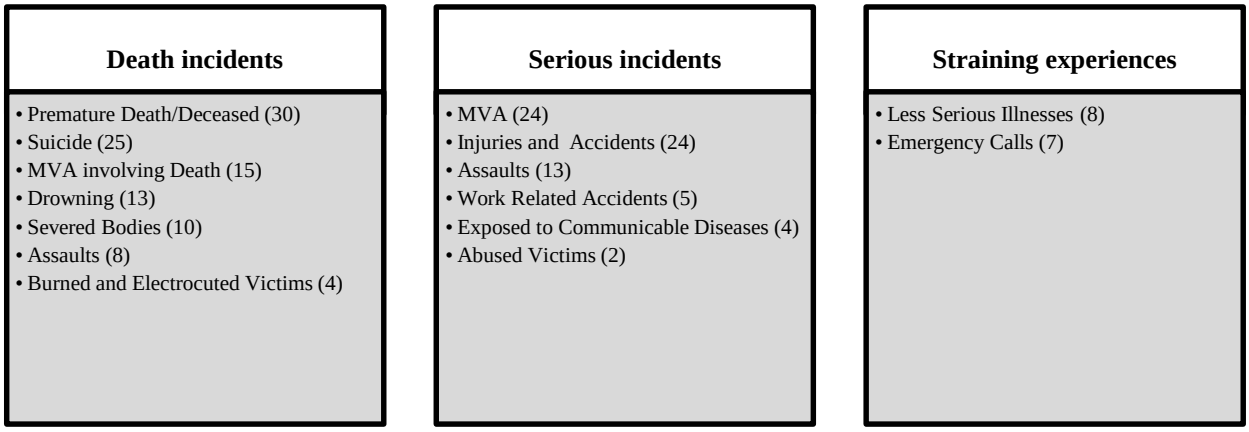

Figure 2: An illustration of the themes and subthemes for category 2

From the findings it is clear that the participants were exposed to different types of events which influenced them in a traumatic manner. These included incidents involving death and incidents that did not necessarily involve death, although could be seen as serious. Some participants made mention of day to day experiences that did not necessarily lead to trauma, however the fact that these issues (termed "straining experiences") were mentioned here in answer to the interview question is significant. Table 3 gives an account of the findings for category 2.

Table 3

Traumatic Incidents

Theme	Sub-theme	Response
Death Incidents	Premature Death/Deceased (30)	"Sometimes a lot of us get affected by the children, obviously the death of a child". (P26)
		"…suicide numerous times, especially mostly with girls, teenage girls…" (P8)
	Suicide (25)	"…and stuff like suicides, drowning's, overdose, hanging". (P4)
		"…you can't explain to someone how you saw somebody blowing their own brains out…" (P13)

	Motor Vehicle Accidents (MVA) involving Death (15)	"…let's say you go to a MVA, then you'll see maybe especially children being injured or sometimes they died..." (P27)
		"...a motor vehicle accident, people that is killed when hit by a vehicle on the highway and lying in pieces, children is usually the most traumatic events". (P29)
	Drowning (13)	"…drowning's, babies that drown, children who drown because there were no supervision". (P15)
		"... drowning I've been to a few drownings…" (P8)
	Severed Bodies (10)	"People that is being ripped to shreds by animals…" (P20)
		"You see everything, you see head decapitations everything to amputations, and you see a lot of people, dead people…" (P3)
	Assaults (8)	"Every time you see an incident, from people being killed, elderly people being killed. You have to treat the patient that killed or assaulted them". (P20)
		"…shooting murders, assaults, yes we see something of everything…" (P22)
	Burned and Electrocuted Victims (4)	"…or a time whereby somebody was burned, electrocuted, shocked..." (P6)
		"…very serious motor vehicle accidents, people that burn to death in their vehicles…" (P29)
Serious Incidents	MVA (24)	"We get called out for an accident, vehicle to vehicle accident; some are vehicle to pedestrian accidents". (P11)
		"Like the things that you see like maybe head-on collisions, motor vehicle accidents..." (P11)

	Injuries and Accidents (24)	"…femur fracture, fracture and severe head injuries". (P18)
		"I'm not talking about something simple like a broken bone, I'm talking about a critically injured or critical ill child". (P28)
	Assaults (13)	"I've seen gunshots, injuries, assaults, stabbings, and assaults with rapes…" (P16)
		"…trauma calls, gun shots, stab wounds, even medical calls as well…" (P1)
	Work Related Accidents (5)	"…industrial calls, where someone fell of off high heights, into pieces, amputated". (P2)
		"…an accident is an accident, whether it is on a building site or vehicle accidents…" (P9)
	Exposure to Communicable Diseases (4)	"…the patient had a communicable disease, we were not using masks, well obviously we were using gloves and those things but you know if you see somebody that has TB and you know the symptoms, it could be that everyone will suffer so we have to be informed". (P6)
		"Some of the illnesses, I mean you get traumatised to see what they do to a human beings. I experienced a patient with severe diarrhoea yesterday. I was shocked to find that, I almost resigned to what I saw yesterday". (P7)
	Abused Victims (2)	"… old people that have been neglected…" (P28)
		"Old people, abuse, children abuse..." (P1)
Straining Experiences	Less Serious Illnesses (8)	"…house calls, anything from drownings, suicide, ingrown toenail…" (P9)

		"Anything from heart attacks… asthma, people bumping their heads, nose bleeds, people with headaches, tummy aches, back pains…" (P30)
	Emergency Calls (7)	"…any calls to go out to trauma accidents, calls where you actually have to go deal with patients, families where you have to go and treat patients." (P1)
		"If you require an ambulance, then you call for an ambulance. It can be anything from medical assistance, to accidents, people dying…" (P10)

From Table 3 it is evident that the majority of the participants mentioned that the most difficult incidents included dealing with scenes involving death (in general): *death incidents.* The majority of participants indicated that dealing and seeing the deceased as well as witnessing people in the process of dying affected them the most. More specifically the death of children, infants and teenage girls were mentioned as the most traumatising scenes for the participants. Since this subtheme emerged from 30 responses, one can clearly see that these incidents were the most traumatising events participants were exposed to. Another event that was mentioned often (25 times) as traumatising to the participants were suicide scenes, involving different methods for committing suicide. These included hangings, drug overdose, jumping from high heights, shootings and gassings. Furthermore participants also mentioned that MVAs involving death were traumatising for them, especially head-on collisions, pedestrians hit by vehicles, trucks colliding into other vehicles and pile-ups.

Participants furthermore stated that cases resulting from drownings were traumatising to experience, especially (again) when it involved babies/infants or children. Participants also mentioned that scenes from natural disasters, such as flooding where drownings occurred, were difficult to deal with. Apart from scenes involving death, participants also made mention of the way in which the bodies were severed during the incidents. These included various types of amputations, humans shattered into pieces and ripped to shreds, decapitations and various other violent deaths.

Other subthemes which emerged were assaults, including gunshots, shootings, stabbings, murders, poisoning and people taking justice into their own hands (especially in rural areas). It

seems that the participants were also exposed to scenes where assault took place and where the victim died, however the perpetrator had to be treated for their wounds. Some participants mentioned burned and electrocuted victims, including electricity shocks from electrical appliances, lightning strikes and people burnt to death in fires and vehicles.

Two responses focused on disturbing scenes, such as witnessing abortions and breech deliveries. The subthemes identified and discussed above, all included incidents where a human had died, and the participant was exposed to the deceased and the aftermath of these situations. In addition to incidents involving death, participants mentioned serious events that they dealt with, which are discussed next.

Serious Incidents: When taking serious incidents into consideration, the majority of participants mentioned that MVAs were traumatic scenes they were exposed to on a daily basis. Although this subtheme also emerged in the previous theme, it is important to mention that the participants indicated that MVAs, where people were injured, were traumatising as well. Different road accidents included general MVAs, accidents involving motorbikes, pile-ups, pedestrians involved in accidents as well as people trapped in vehicles screaming for someone to save their lives.

Multiple injuries were also mentioned by participants that included amputations, deformity, and people's bodies severed in various pieces, as well as broken limbs (these injuries not necessarily leading to death). In addition to these incidents, participants stated that they were exposed to general accidents such as people that fell from heights, children injured or fell sick and various burn wounds. Again, participants stated that especially when the elderly, children and women in need requested help, were they negatively affected.

Furthermore participants also mentioned assaults as a traumatising event to be exposed to, specifically assaults which included stab wounds, gunshots, shootings, and domestic violence such as women and child abuse. Although these events were traumatising on their own, the intensity of the trauma increased when elderly persons were exposed to such violence. Incidents that also featured during the interviews included work related accidents, such as industrial accidents, machine accidents where humans were cut, or hurt themselves.

Participants furthermore mentioned that they were often exposed to communicable diseases including diarrhoea, TB, HIV/AIDS, and other various illnesses that put severe strain on their working abilities. Specifically in cases where participants were not informed that the victims had these diseases and unbeknown to them, they were exposed to the illnesses mentioned above.

Some participants mentioned assaults in the form of abuse or fights as traumatising to them. The serious incidents discussed in this section of the findings, were excluding incidents involving death, although it could be seen as serious incidents that traumatised individuals in this specific environment.

Straining Experiences: Apart from the two themes discussed above, some participants also mentioned experiences, although not traumatic in nature, which they dealt with on a daily basis. Since these responses were provided in answer to the interview question relating to this category, the responses are discussed here. Common incidents participants often faced included inter-hospital transfers and sick patients (ranging from strokes, heart attacks, allergies, body pain and even ingrown toenails).

More incidents included different types of calls such as crises calls (when a group of paramedics needs to attend urgently, usually mass casualties), people calling for emergency help (individuals that did not know who else to call), house calls (typical headaches, tummy aches or breathing difficulty) and less urgent medical calls (majority sporting injuries). Participants furthermore mentioned that they regularly needed to counsel patients and family members on the scene, and they felt that they were not equipped to do so. In addition participants mentioned that they, on occasion, had to deal with fire arms at specific scenes, such as securing scenes of accidents and suicides. The participants indicated that they felt this was above their authority. Participants were also confronted with the lack of punctuality regarding peers and other emergency services on scenes.

Next, the findings regarding category 3 are discussed.

Category 3: Availability of TMP

The findings of Category 3 reflect the participants' responses to the question whether a trauma management programme (TMP) existed within their workplace. The findings show three major themes for this category, namely *TMP Exists*, *TMP Does Not Exist* and *Do Not Make Use of TMP*.

Figure 3 shows the subthemes and frequencies that were found in each theme:

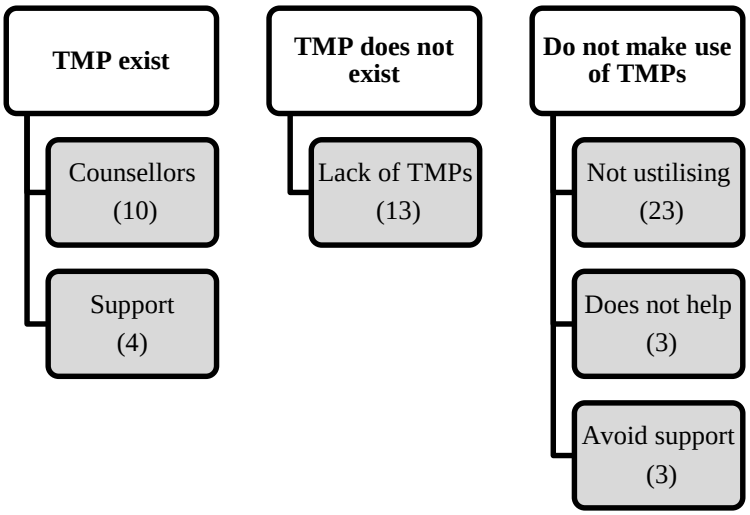

Figure 3: An illustration of the themes and subthemes for category 3

From the findings it is clear that the majority of participants did not make use of any trauma management programmes (23 responses), even if trauma programmes were available to them.

Table 4 shows the findings for category 3.

Table 4

Availability of TMP

Theme	Sub-theme	Response
TMP Exists	Counsellors (10)	"…Yes, we do have a counsellor if maybe you went to the scene and then you're not feeling ok then yes they offer counselling". (P23)

		"Yes we've got trauma management … I've made use of it once last year, the beginning of last year". (P16)
	Support (4)	"So I phoned them...the lady I spoke to, she was very professional, she knew what I was talking about and she somehow managed to calm me down and told me what to expect...these things happen and I must talk to somebody about it and they will take care of it if it actually happens". (P6)
		"…I can only do managerial assistance, but sometimes you feel that the employee requires it, and he will tell me please arrange a session for him…" (P13)
TMP Does Not Exist	Lack of TMPs (13)	"There is no such thing as a counsellor, a type of programme or emergency line, nothing…" (P9)
		"No, nothing, nothing at all… there is no support available, no trauma programme…" (P12)
Do Not Make Use of TMP	Not Utilising (23)	"There are people that made used previously of the service, but I personally never made use of it..." (P29)
		"No personally I haven't used the counsellor before." (P8)
	Does Not Help (3)	"…Do not do the talking thing, he must work through stuff by himself…" (P2)
		"…it won't help you process". (P1)
	Avoid Support (3)	"…it's not for me, it is not a hundred percent guarantee that I will get somebody to talk to…" (P6)
		"… I have never really made use of it, cowboys don't cry, if you can't stand the heat in the kitchen, get out of the kitchen…" (P9)

From Table 4, the main themes, the participants indicated the following:

TMP Exists: Participants mentioned that there were trauma management programmes available within the specific working environment. Some participants referred to counsellors who were

available if required and some stated that they had made use of the counsellors. The participants mentioned that when they felt uncomfortable after a scene, they could request specific sessions with counsellors. Although participants mentioned formal help being available, from the responses it seems that very few made use of help that was available. Some participants mentioned a specific workplace counselling service contracted by their workplace that was available in order to assist them with telephonic counselling services when there was a need.

Participants mentioned that support was available, however each individual should report it to management in order for their manager to arrange the required treatment for them. Some participants indicated they were aware that there was support for personal issues such as financial advice, family crises assistance as well as stress management. Participants mostly indicated that the support provided was professional, and that it could be recommended to other personnel in the working environment.

TMP Does Not Exist: From the findings some participants clearly stated that to their knowledge there was no programme available whatsoever. The findings also show that participants indicated that no one from their workplace had ever contacted them to provide support for trauma management (i.e. no awareness). The subtheme indicated the lack of TMP's, inclusive of, no awareness, or no contact information provided by their working environment. Some of the participants mentioned that there was no support available to them, or no awareness or contact detail was known to them for when they might require assistance.

Participants also mentioned that there was no counsellor, psychologist, or any other form of treatment available to them, and that this was a concerning issue among employees. Some participants stated that they believed it should exist due to law requirements, but they were unsure about specific programmes in place in order to assist them. Participants stated that if there were trauma programmes available, they were not aware of them and no help was ever offered to them in the past.

Do Not Make Use of TMP: From the responses it was clear that the majority of participants stated that they were not utilising the TMPs. Some participants indicated that they did not have any need for such services or they avoided TMPs. Participants believed that programmes that were available were self-referred, however they believed there was never any need to make use of such a programme. Most of the participants who did not make use of the TMP mentioned

that they avoided the programme because it might label them as soft, helpless and incompetent employees. Participants also mentioned that depending on their race or religion, they avoided requesting assistance, because they could be seen as weak. A large number of participants also admitted to being hard headed, that they did not have the time or patience in order to contact someone when they felt unwell regarding trauma experienced. Participants further mentioned that they preferred to leave work at work, and did not drag their daily trauma experiences to their homes, and therefore tried to switch off, and processed negative thoughts and behaviour by themselves. Participants claimed that they got used to their work, and therefore did not feel the need to deal with experiences. A few participants felt that a trauma management programme would not help them, in their opinion it wouldn't enable them to process the trauma. Others stated that they preferred to avoid the available types of trauma management programmes, the reason being that there was no guarantee that it would be successful. Another reason stated was that the trauma was part of their working environment. Some participants indicated that they had family or friends in the "industry", in specialised occupations such as qualified counsellors, and that they would rather make use of them, avoiding the company approach.

Therefor it seems clear that some participants knew that a TMP existed within their workplace. In addition to the participants who knew there was a programme and those not aware of such a programme, the majority of the participants indicated that they preferred not to make use of a programme available in their working environment. These participants preferred to believe that these programmes did not assist, there was no need, simply did not utilise it, or even tried to avoid possible support.

Next, the findings from category 4 are shown.

Category 4: Experience of TMP

The following table's results contain the findings of Category 4. The question that was asked was related to how the participant's experience the TMP. The findings presented three themes for this category, first for those participants who did indeed utilise the TMP, two themes showed, *Negative Experiences* and, *Positive Experiences*. And the last theme again referred to participants who indicated that they *Cope Without TMP*. First, figure 4 gives an overview of the main themes and subthemes, followed by the discussion of the findings:

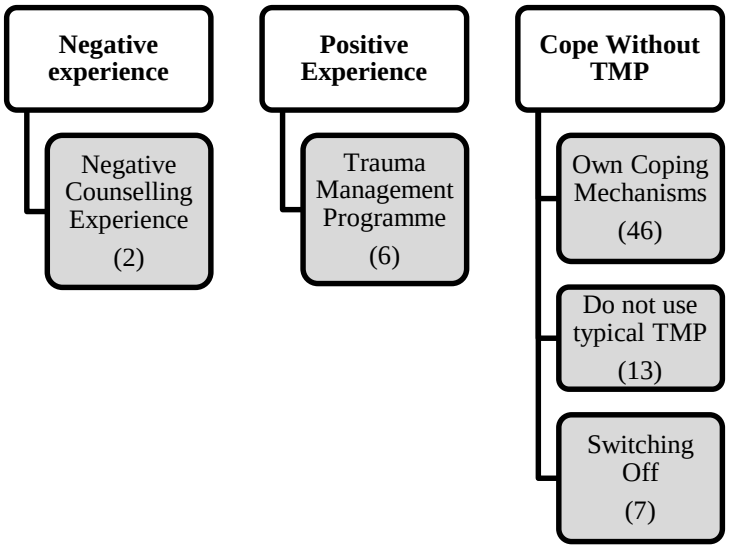

Figure 4: An illustration of the themes and subthemes for category 4

From figure 4 it seems clear that the majority of participants believed they coped without making use of the TMP at all. Next, the findings are discussed.

Table 5

Experience of TMP

Theme	Sub-theme	Response
Negative Experience	Negative Counselling Experience (2)	"…there has been one guy that I know that used it after quite a, traumatic call and you know that wasn't like the greatest feedback". (P24)
		"I don't think the guys from the counselling company understand what we are doing, they sit behind a desk…" (P20)
Positive Experience	Trauma Management Programme (6)	"The company providing counselling has helped me to talk about the incident. They sent me a couple of times; we don't pay for it, they, the company pays for the trauma management programme. I feel that it is a wonderful programme and I don't have any complaints." (P16)

		"In my initial contact with them, I went to five sessions with a clinical psychologist and we talked about the incident and she taught me coping mechanisms, and those coping mechanisms I still remember and I still use them". (P28)
Cope Without TMP	Own Coping Mechanisms (46)	"And sometimes I talk with friends and family, listen here today I saw one two three, one two three, then it becomes less of a bad thing because I have already spoken about it. You are talking to friends and family they will say wow your job is so, so, very important. But then again you get to a point where you, that reaction from them that you get a shocked reaction but it turns out to you at least you are doing something good. Or you become more of a hero". (P8)
		"Fortunately for me my wife did counselling and stuff like that you know. Most of the time I will go home and say I had this patient it was so and so she and listens to me and she will just calm me down fortunately". (P6)
	Do not use typical TMP (13)	"To tell the truth I never went to any help because it is not my personality…" (P23)
		"...we're used to working without them I suppose. It is too much of an effort, you work from seven to seven and then to deal with them in the meantime, there is just no time". (P1)
	Switching Off (7)	"My work stays at work, and my home stays at home. Therefore when I clock off at work, I put the keys down and then I am finished". (P9)
		"Like I said for myself I am used to it I don't think about it anymore now. When I'm done with the scene, I'm done here". (P4)

From Table 5 it is evident that the participants would prefer to talk to their family, friends and colleagues about their experiences, seeking an informal external support system. However, there were some participants that experienced the programme as a positive experience. Two responses also indicated that there were negative experiences regarding the TMP.

Negative Experiences: Participants mentioned negative experiences with the counselling methods provided to them. One such experience related to the counselling provided telephonically, which the participant felt was ineffective, impersonal and that he would never make use of this again. Furthermore participants believed that the counsellors available to them, did not understand what they went thorough or what they dealt with on a daily basis and that added to the negative experience of the services. Some participants mentioned that their experience during trauma management confronted them with negative issues in life and work again. These negative issues consisted of giving up hope, feeling the daily pressure, not wanting to work anymore and negatively influencing family life (Therefore they experienced the TMP as negative). One participant mentioned that receiving help or treatment due to trauma experiences, felt like having a chronic disease and they did not want to be labelled as such.

Positive Experiences: Six responses related to positive experiences regarding the TMP. Participants mentioned that they utilised it in the past, however it was only effective in the short term, and not in the long term. Other participants mentioned that it helped them to "shift themselves out of a bad space", also assisting in releasing family conflict strains. Some participants mentioned that the companies responsible for counselling helped them to talk, open up and develop coping mechanisms that they still use today. Participants furthermore mentioned that positive experiences included that it was at the company's cost, the help was professional, and that the process was not rushed.

Cope Without TMP: The majority of the participants (46 responses) indicated that they preferred their own coping mechanisms and thus could not comment on how they experienced the TMP per se. Their own coping mechanisms included talking to friends, family and peers, taking time off from work or spending time alone, preferring not to open up or talk about experiences and utilising humour. In addition to talking to friends, family and peers, participants didn't want to talk to the TMP related people. Most participants indicated that they managed to create their own TMP over the years and according to experiences obtained. Own coping mechanisms furthermore included informal debriefing sessions, with family, friends

and peers. It appears as though participants tended to talk to each other, to family and friends regarding the experiences of events. Participants also mentioned that acknowledgement from family, friends and peers, could be seen as coping mechanisms that they preferred to utilise. Various participants mentioned that they received counselling from friends and family, who were registered counsellors and had an understanding, taking into consideration the EMS background. Participants furthermore indicated that they preferred informal support which mainly consisted of trust among peers and friends, and sympathising from family members.

In response to how the participant's experienced the TMP (should they make use thereof) participants stated that they preferred not to make use of a typical TMP. Participants mentioned that even after being diagnosed with disorders such as PTSD and burnout, they still did not want to make time for such a programme, because of too much effort, no guarantee of its success and time constrains. A lot of participants mentioned that it differed from person to person, and each person could decide on their own what method would be effective when dealing with trauma related issues. Participants mentioned they felt that talking to someone did not help, and that these people they talked to did not understand where they came from or what they did, nor experienced. Therefore they stated that they'd rather keep issues to themselves, instead of participating in any form of counselling or treatment. A large number of participants stated that they got used to dealing with traumatic situations, and therefore did not need any help, because they moved on and learned to accept that they had to work without any care. Participants also mentioned that receiving treatment, lead to incident recollection, which they would rather avoid. Some participants mentioned that they managed their trauma experience by "switching off" after work. They managed to forget about their work experiences and left these at work before going home.

Next, the findings regarding category 5 are displayed and discussed.

Category 5: Effect of TMP

The following table represents the findings of Category 5. Apart from asking the participants how they experienced the TMP as discussed in category 4, the participants were asked to indicate whether they regard the TMP offered in their workplace as effective. The findings were thus classified in two themes for this category, *TMP is Not Effective* and *TMP is Effective* as shown in figure 4.

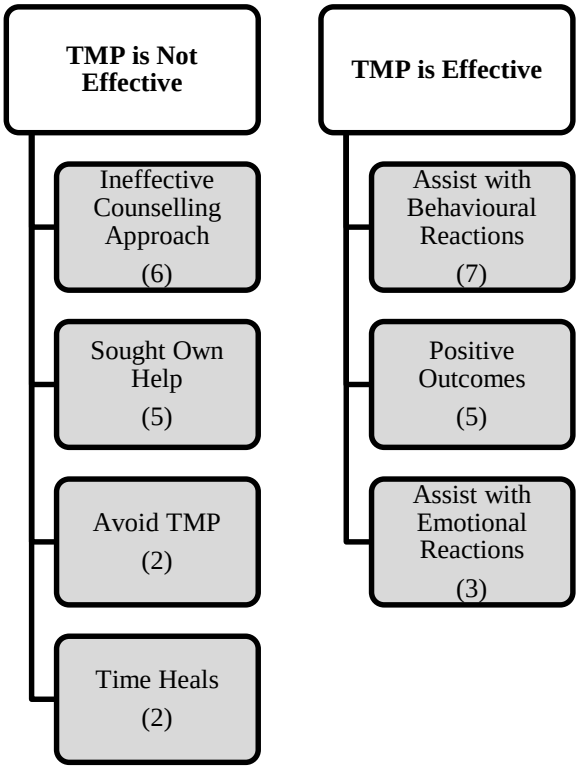

Figure 5: An illustration of the themes and subthemes for category 5

An overview of the findings shown in figure 5 indicates that the participants were equally divided in their experience of whether the TMP was effective or not. The findings show the following:

Table 6

Effect of TMP

Theme	Sub-theme	Response
TMP is Not Effective	Ineffective Counselling Approach (6)	"Well it will be better if we all have a professional as such…" (P1)
		"Like the people that one talks to are not really trained to give you a better perspective". (P11)
	Sought Own Help (5)	"But when you talk to some of the colleagues they know… they can relate a bit better than the friends and the family members". (P11)

		"It's not effective at all because the burnout rate for advanced life for paramedics is five years and you must get some sort of help, because you will be burned out from doing this for a year". (P12)
	Avoid TMP (2)	"If you don't make use of it then it is your own fault". (P26)
		"Not that it bothers me quite that much, the thoughts just pop up more regularly…" (P21)
	Time Heals (2)	"…I think only time made it better". (P1)
		"Well I wouldn't say it is effective because of, I guess time will tell". (P8)
TMP is Effective	Assist with Behavioural Reactions (7)	"For starters I don't have any sleepless nights…" (P3)
		"You know discipline, it gives you a lot of discipline…" (P2)
	Positive Outcomes (5)	"Yes, that programme was effective at the time I used it". (P28)
		"Dealing with the company providing counselling, I referred a situation previously, and it was very effective, I got positive feedback, I can see the change after they been to counselling…" (P13)
	Assist with Emotional Reactions (3)	You know my temper, I don't lose it that quickly anymore… it gives you control, because an angry mind is a narrow mind…" (P2)
		"...after talking to counsellor... she said, it's nothing you could do, it is just one of those things that's happens, it is not our fault. It (the counselling) was effective…" (P16)

From Table 6 it is clear, that in instances where trauma management was provided, the participants indicated:

TMP is Not Effective: The majority of participants mentioned that the TMP was not effective due to several reasons. The reason most often mentioned referred to the counsellors not being effective. Participants made comments such as counsellors needed to be trained in order to understand their field of work, as well as be professional and actually help the employees. It seems that the participants preferred to seek their own help rather than to make use of an ineffective TMP. Participants who sought own help included consulting external psychiatrists, psychologists, counsellors, medical doctors and other medical help available. Another reason mentioned by the participants as to why the TMP was regarded as ineffective related to the fact that each individual should look after himself, and to make sure negative thoughts were processed. They therefor rather avoided support or treatment from their employer. The findings further showed that the participants felt that time healed and that they required time in order to process, and to recuperate, also to test whether programmes that they attended were indeed effective. One participant mentioned that medication was also ineffective, because it did not address the problem, and even after prescribed by a psychiatrist, the participant stopped taking the medication, because there were no improvement after a couple of days.

TMP is Effective: The majority of participants who mentioned that TMP was effective at the time, stated that it assisted them with improvements in their behaviour, including sleeping patterns, discipline, active lifestyle and healthy eating habits. Participants furthermore mentioned that effective TMPs tended to have positive outcomes, which included experiences of quality of life, and positive thoughts. Participants mentioned that they could immediately see the change and difference after undergoing treatment. Some participants stated that the TMP changed their lives completely in a positive manner, while others mentioned that they experienced working more productively. In addition, participants also stated that effective TMPs assisted with managing emotions better. Participants believed that these programmes calmed them down, lowered their aggression and temper outbursts, as well as helped them dealing with self-blame. Other participants mentioned that the TMP also assisted with family issues in terms of conflict management and issues with spouses which could be resolved.

Next, recommendations are be shown and discussed as mentioned by participants in category 6.

Category 6: Recommendations

Next, the findings from the interviews relating to what recommendations the participants had concerning trauma management programmes are shown. Four themes emerged for category 6, *Leave Management*, *Personal Initiative*, *Support* and *Training*, summarised in figure 6:

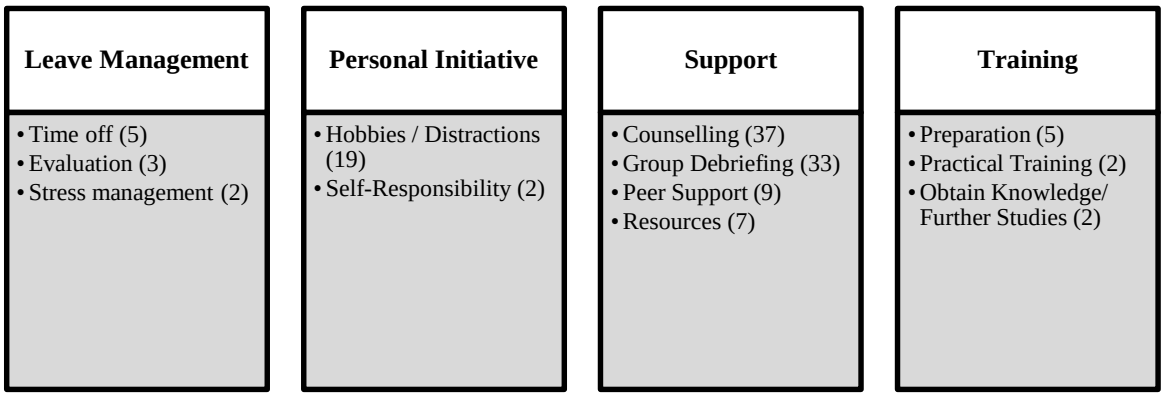

Figure 6: An illustration of the themes and subthemes for category 6

Figure 6 clearly shows that the majority of the participants recommended Support as an important element of TMPs. Next, the findings are reported.

Table 7

Recommendations

Theme	Sub-theme	Response
Leave Management	Time off (5)	"…like in England.... You do a traumatic call and you have seven days off of work". (P24)
		"…or even if they go on one call and that one call had a big incident or a big case those members can walk in and they get a couple of days off or so". (P16)
	Evaluation (3)	"…while you are on leave, you see a psychologist and those types of things, and before you return to work the psychologist must declare you fit". (P10)

		"They must definitely be evaluated more often". (P10)
	Stress management (2)	"If you had a bad trauma, or an ugly call, or whatever, the work must physically book you off, in the sense of stress leave, if I can say it like that, just for that psychological reason..." (P10)
		"The company must always see, is there not something they can do more, just to let the guys relax a little more…" (P9)
Personal Initiative	Hobbies / Distractions (19)	"…I always say you need to have a hobby. I have parrots that keep me busy and I also build up motorbikes at home and those types of things". (P9)
		"If I had a bad day at work, I get my load off, by doing MMA, Mixed Martial Arts…" (P2)
	Self-Responsibility (2)	"...they actually need to come out on their own". (P1)
		"People don't reach out, we don't reach out at all". (P1)
Support	Counselling (37)	"I think it needs to be put in place. It is not normal what we see, so I think they need to get a trauma counsellor". (P4)
		"Actually I think you should have forced counselling at least once a month or at least a session with one of the counsellors at least once a month and if we maybe had a big incident... they need to actually come out and speak to the people in general". (P1)
	Group Debriefing (33)	"...we used to have that thing called debriefing after everything that happened we sit at the table and then we will discuss whatever happened so that was therapeutic for everyone there it is accessible at any time". (P3)

		"…they should enforce chatting to the people and debriefing". (P20)
	Peer Support (9)	"I can add like if you are the crews, if we see someone is not coping, we can talk...discuss things and give her or him some advice how to deal with it". (P17)
		"…we get support from each other, even if it is to be hard to some people, and to other people you need to be soft…" (P2)
	Resources (7)	"If we have what is necessary, everything that is necessary... resources, equipment and manpower". (P6)
		"…just like the counselling thing, this is massive company and sometimes I think they do not get to all employees... So I will suggest they get someone or something extra for someone like the counsellors in order to do personal visits". (P14)
Training	Preparation (5)	"I got a chance of being in the field before I even enrolled so that prepared my mind on what to expect". (P8)
		"Initiate them into the programme... this is what you're going to deal with. I don't know if there is such a programme but when I started, there wasn't, or I wasn't aware of it". (P26)
	Practical Training (2)	"...training people in trauma support towards the trauma EMS or to watch the EMS basically emergency setting in all departments". (P16)
		"Training is important I would say, the more you train, the better you will cope with day to day stuff… training must be implemented…" (P2)
	Obtain Knowledge/Further Studies	"...they must take me to ILS school as well, I'll be very happy...I've been applying forever nothing

(2)	has been approved... I just want to study further". (P3)
	"...it is very important for one to just become knowledgeable and then make a thorough research to know what this is really". (P8)

From the findings it is clear that the majority of recommendations were related to group debriefing, counselling and distractions.

Leave Management: Participants mentioned that taking leave would be beneficial to employees after being exposed to traumatic incidents. Participants referred to specifically the UK, USA and Australian based programmes where an employee was allowed to take a couple of days off after an incident. Participants mentioned that this would help them process specific thoughts and experiences by being away from work and the work environment. Participants further suggested being evaluated while on leave, in order to be cleared as (psychologically) fit before returning to work. Evaluation methods suggested by participants included psychologists who performed psychological fitness assessments. In addition participants mentioned that after traumatic incidents, they should be booked off by a physician, for stress leave, so that they could relax and recuperate in own time (if they felt they were not able to cope). It was clear from the findings that the participants did not have enough time to relax and recuperate, therefore leave after traumatic incidents, would be ideal.

Personal Initiative: Participants mentioned that employees should find something that could occupy them outside of the working environment, such as specific hobbies, activities or distractions that could help them taking their mind of off work. Participants specified actions such as working on motorbikes, breading with parrots, participating in sport, or participate in social events. Participants furthermore mentioned that it was each individual's responsibility to reach out to other peers, as well as seek help when required. Participants stated that employees had to keep their eyes open, report strange behaviour to management, and show sympathy towards team members. One participant also mentioned that developing personal qualities could help a person, such as having compassion, patience and sympathy.

Support: The majority of participants recommended counselling that should be implemented by the various EMS companies (37 responses). Participants mentioned that there should be counselling or counsellors available on site, or relatively close by in order to counsel employees after traumatic incidents. These professionals ha to be more readily available at all times, and all shifts, to ensure there was a professional person available when an employee experienced a traumatic event. Because paramedics work in shifts, and often return to a specific base after being called out, there must be help available on site to assist if required. Participants furthermore stated that counselling should be enforced and implemented in such a way, that employees could not avoid counselling sessions. Enforced counselling included employees reporting to a counsellor after each call, and taking time to recuperate psychologically after each incident. Other enforced counselling can include a session on a weekly/monthly basis, where a counsellor visits a specific base, and counsels the majority of personnel on duty. This will force employees to attend formal sessions with counsellors on site during working hours.

Participants also suggested that there should be counsellors that can report to specific scenes, providing counselling to family, friends or bystanders at traumatic incidents. Since the participants felt that they were not equipped to counsel relatives on scenes of traumatic nature, and made it difficult for them to comfort bystanders, thus having a counsellor available, would take the heavy burden from them in this regard. Participants felt that the counsellor, psychologist or psychiatrist should conduct themselves in a fitting professional manner, while paramedic background would contribute greatly. In addition, participants appealed for debriefing after each scene (33 responses). Participants stated that debriefing in the form of talking to peers, family and friends could be seen as beneficial. It was clear from the findings that participants felt this was one of the most important coping mechanisms, by talking and venting incidents experienced, to close relatives. Participants believed that by talking, people ventilate and tend to process negative thoughts, behavioural and emotional reactions. A few participants mentioned that written debriefing could also be a beneficial approach, where employees physically write down experiences upon returning from a scene. These written debriefings can be analysed by a professional, and necessary treatment could be arranged for crises cases, as mentioned by participants. In addition to counselling and debriefing, participants recommended that peers and management should be more aware, and observe personnel with possible trauma experiences. Participants mentioned that employees, who experienced trauma incidents, should be identified, and referred to management in order to

receive possible treatment of some kind. Management and peers should be aware at all times, and identify these employees in order to assist as soon as possible, as mentioned by participants.

Furthermore, participants mentioned that they required more resources, specifically more personnel and equipment. Participants stated that it was stressful to know there was no updated medicine, equipment or relevant tools to perform certain tasks at specific scenes. Participants mentioned that the lack of personnel resulted in arriving late on scenes, which was a matter of life and death. Therefore if there could be more employees on duty and more vehicles available to respond to crises calls, more patients can be saved, according to participants. One participant also mentioned that a lack of counselling personnel should be attended to. One participant also mentioned that there was little or no recognition, and that employers could do more in order to provide them with more recognition, because of the motivating outcome recognition has on people.

Training: Participants recommended that training in specific methods would be beneficial to employees. Participants stated that preparation is a key element and employees should be prepared for what is happening in the working environment. Participants mentioned that being in the field beforehand, such as during an initiation course, can prepare them of what to expect and will enable them to better adapt. In addition participants mentioned that graduates should not directly qualify, but firstly be initiated into a specific environment that will help preparing them for the reality. Furthermore participants suggested that newcomers must be taken through a process of practical training. New employees must be taken through a step by step practical training programme to ensure that they are more equipped and competent, when dealing with traumatic situations. The findings indicate two responses referring to development by means of furthering their studies. Participants also recommended that research is important to do before venturing into a paramedic profession, even before studying, in order to grasp what trauma paramedic's experience. Participants stated that the employers must do more to develop their employees, by providing opportunities in order to become more qualified by means of level movements (promotions).

Discussion

The overall objective in this research was to explore psychological trauma among paramedics, and to explore how these paramedics experienced a trauma management programme (TMP). From the results it is clear that psychological trauma does indeed occur among paramedics, and that there were different approaches and opinions with regards to how the participants managed psychological trauma in the emergency services setting. It was clear that most of the participants experienced trauma as an event that negatively affected their lives in terms of their intra-and interpersonal functioning, cognitive functioning, work performance and daily functioning. The participants indicated that the exposure to abnormal scenes added to their traumatic experience. Witnessing premature death or deceased persons, suicide, deaths and injuries from motor vehicle accidents (MVAs) and general accidents were listed as the most traumatic incidents the participants were exposed to. Even though TMPs were available to the participants, mostly in the form of counselling, most of the participants did not make use of TMPs. An equal amount of responses were received in terms of the positive or negative experience of the TMP, where indeed the programmes were available. Most of the participants indicated that they preferred to utilise their own coping mechanisms, yet interestingly enough, the main recommendations for TMPs in the workplace were the implementation of group debriefings and (face to face) counselling services.

In order to address the results related to the specific objectives, specific interview questions were asked to the participants. The findings from the interviews are presented by referring to the initial objectives of the study:

The *first objective* of this study was to determine how psychological trauma, and psychological trauma management programmes are conceptualised. Within the literature, Alexander and Klein (2001) defined psychological trauma as an experienced incident which overpowers a person's normal method of coping. To determine what the paramedics regard as psychological trauma, a general interview question was initially posed to each applicant, requesting them to define psychological trauma in their own words. The results showed one theme namely an event that negatively affects work and life. This theme consisted of the subthemes including intra- and interpersonal functioning, abnormal scenes, cognitive functioning, work performance, daily functioning and stressful working environment.

The negative influences on their intra- and interpersonal functioning included their ability to interact with other people, emotional intelligence, and their daily lifestyle. A result of above mentioned was more frequent arguments with family, friends and peers. Focussing on the intrapersonal perspective, paramedics mentioned that they felt self-blame throughout their career, resultantly they tended to develop apathy, also a sense of proudness, and therefore avoid actually dealing with the negative experiences. Goodman, Saxe and Harvey (1991) agree that psychological trauma may lead to extraordinary reactions, including feeling emotionally overwhelmed, lack of interpersonal trust, loss of sense of personal control, substance abuse, lack of intimacy, helplessness and isolation form others. It therefor seems that the results of this study are in line with literature concerning negative intra- and interpersonal functioning after traumatic experiences.

Paramedics also defined psychological trauma as experiences related to difficult scenes, mentioned as horrific and abnormal scenes. Paramedics stated that scenes such as humans dying by means of drowning, burning, accidents and suicides, influenced them and affected their work and life negatively. These scenes were worsened when children, the elderly or teenage females were involved. Similarly, in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-V) (2013) psychological trauma is defined as an injury to the brain and mind, consisting of negative events experienced, involving irregular scenes influencing the psychological perspective.

Jonsson, Segesten and Mattsson (2003) motivate that symptoms involving stress are greater among paramedics when psychological workload increases. Likewise, the participants indicated that their work performance was affected negatively when they experienced psychological trauma. Furthermore Jonsson, Segesten and Mattsson (2003) elaborate that the lack of TMPs in the workplace negatively influence work performance. Employees may experience symptoms such as headaches, sleep disorders, feelings of irritation, lack in concentration and flashbacks, which may prevent them to perform according to an organisation’s standards. During the interviews it was noted that participants admitted to underperforming, resigning, and actively seeking other opportunities while employed as a paramedic. Other paramedics mentioned that they were not able to do their daily work on a standard like they used to.

Concerning their cognitive functioning, the paramedics made it clear that cognitive processes related to intrusive recurring memories and pondering about events. This finding is similar to the American Psychological Association (2011) stating that thoughts are affected by psychological trauma, by means of a traumatic event experienced, and the persons could experience flashbacks. Participants mentioned that their work and life were negatively influenced when they kept on thinking, and mediating on scenes experienced. The findings show that often a thought regarding a horrific scene occurred and the participants tended to think, dream and have flashbacks regarding the specific event. These events were also reimagined when they experienced similar events, also impacting on their senses (smell, sight and hearing in particular).

The findings further show that the paramedics' daily functioning were also influenced negatively by traumatic experiences. These included approaching daily tasks differently, alcohol problems became evident, mood swings and feelings of irritation arise, also sleeplessness, nightmares and helplessness when performing daily tasks. These findings are found in the American Psychological Association's writings (2011), where trauma related incidents lead to disruptions in sleeping and eating habits, and may occur with physical consequences such as sweating and heavy heartbeats, affecting ones daily lifestyle.

Therefore, as seen above (Alexander & Klein, 2001; Goodman, Saxe & Harvey, 1991; Jonsson, *et al.*, 2003; American Psychological Association, 2011; DSM – V, 2013) psychological trauma can be defined as a typical event, situation or experience that influences a person's mind negatively by overpowering their way of coping. From the findings in this study it was evident that participants defined psychological trauma as an event, incident or situation that affected their lives negatively in some manner. Furthermore the paramedic's definition consisted of negatively influenced inter- and intrapersonal functioning, daily and cognitive functioning, as well as work performance, after experiencing specific events. These events were worsened because of the experience related to each event, and also the lack of TMPs within the specific environments.

In summary, considering the definition of psychological trauma as conceptualised by literature and the findings from this study, a working definition for paramedics for this study could be seen as: an event that negatively affected their work and life, by means of inter- and

intrapersonal functioning, daily functioning and cognitive functioning including their work performance, due to their stressful working environment and exposure to abnormal scenes.

The *second objective* of the study related to how psychological trauma was managed among paramedics in the emergency service. In the findings it was clear that the paramedics who made use of TMP (where it was available) utilised counselling sessions. However, the findings mostly showed that TMPs did not exist, or in the cases where it did exist, the participants preferred not to make use of the service. According to Greenberg *et al*., (2011) organisations make use of TMPs in order to provide employees with the psychological assistance if needed, especially after exposure to trauma incidents. Trauma management can be seen as the practical guidelines, structural assessments and beneficial colleague support which can be associated with good psychological health (Greenberg et al., 2010). However, for the current study this was not always the case since only a few paramedics mentioned that counsellors were available in order to assist them. Some of these participants mentioned that they had made use of the TMP, especially after feeling uncomfortable after attending specific scenes. Although some participants mentioned professional counselling being available, still very few paramedics utilised this approach in managing their trauma. Taking the participants who utilised the TMP into consideration, the majority said that the counselling was professional, however one participant said that the technique (telephonic counselling) utilised by some of the companies, was not effective, and that face-to-face counselling would be preferred.

The findings further show that TMPs did not exist in some of the organisations that formed part of this study. Also, the results indicated that no or little awareness regarding any TMP existed in the various organisations utilised for the study. This finding was already established by Lateef in 2005, that in South Africa, very little research has been done in order to provide paramedics with a specific TMP, and that in most of the organisations a TMP is non-existing, or the awareness thereof, in contrast with the requirements in this stressful environment. The findings show that the paramedic organisations did not provide them with contact information, or arrange with counselling companies to make contact with the paramedics. There was thus a lack of awareness and action taken by organisations regarding possible TMPs, in the cases where TMPs did indeed exist.

Porter and Johnson (2008) also confirm that the paramedic environment all over the world is lacking a well-aimed and developed TMP, and is very seldom available to working staff. One

more concerning issue noted within the current study, was that paramedics mentioned that there was no counsellor, psychologist, or any other form of treatment permanently available. From the findings it thus became evident that TMPs were not as readily available as would be expected in the paramedic environment. The Workplace Trauma Centre (2011) ads that if there is no TMP within a high pace, stressful working environment, such as the EMS, decreased productivity, high levels of health claims, low morale and employee turnover will follow. This could be linked to the paramedics mentioning their work performance being influenced negatively, by means of underperforming, resignations and seeking for other jobs (refer to the *first objective).*

Apart from TMPs not being available to the participants, the findings show that paramedics also preferred not to make use of TMPs where it was indeed available to them. The participants indicated they avoided using the TMPs and others did not have any knowledge regarding such programmes. One way of looking at this finding is by referring to Regehr (2005) who reports that employees often avoid treatment of trauma, because of their disbelief and lack of trust in a TMP and preference to cope on their own. Within the results it was clear that participants do not want to use TMPs because they might be seen as soft or incompetent, from other people's perspective. This could directly be linked to Lateef (2005) and Sloman (2001) referring to specific occupations that encourage employees to not show or display any emotions. This could also explain why some participants made comments such as "cowboys don't cry", and "if you can't stand the heat in the kitchen, get out of the kitchen". The majority of the participants felt that if they attended sessions such as counselling, they would be discriminated against, penalised and be seen as weak in their working environment. Although it is clear from the findings that the participants did experience psychological trauma, it became clear that paramedics had a need for therapy in one or another way, and therefore they sought help elsewhere. The participants indicated that they were also not patient enough with medicine as a form of treatment, and that they did not provide themselves with enough time in order to recuperate.

From literature alternative ways of assisting traumatised employees can be found in Greenberg *et al.* (2010, p. 431) who state that 'trauma management must not be seen as treatment, it must merely form supporting units within the workforce, and if need be, employees should be directed towards professional help'. In a high trauma risk organisation such as the South African Police Services, the TMP available includes a Multiple Stressor programme presented

to employees (Watson, personal communication, June 13, 2014). These programmes provide a proactive approach to trauma management and equip employees with trauma management strategies in a non-threatening way. Trauma debriefing are also provided (an initial session is encouraged), to employees after trauma experiences (Watson, Jorgensen, Meiring & Hill, 2012). Within the paramedic environment, this was not the case, as there is no obligation towards personnel to attend sessions, and in most cases, there was no existence of sessions.

In summary, it became evident that the availability of a well-established TMP in the paramedic environment that formed part of this study seemed to be limited or non-existent. Additionally paramedics were also not always aware of TMPs available to them and it was clear that the majority of paramedics preferred not to make use of any TMP.

The *third objective* was aimed at exploring how the paramedics experienced the TMPs. To obtain a starting point during the interview the paramedics were firstly asked what type of incidents they were exposed to, in order to substantiate the traumatic nature of the incidents and required use of TMPs. The findings showed that the paramedics' day to day experience they indicated as the worst type of incidents, included being exposed to death, and the deceased. Especially premature deaths, suicides, deaths from MVAs, drownings, severed bodies, various assaults, burned and electrocuted victims. This finding is in accordance with Jonsson *et al.* (2003) indicating that paramedics have to cope with death, grief, hazardous environments and other events the normal person does not regularly experience. Alexander and Klein (2001) also state that traumatic events paramedics deal with include disturbing incidents such as suicides, road traffic incidents, medical emergencies, violent incidents, sport injuries, industrial accidents and fires.

From the results it is noted that the participants also mentioned serious incidents they were exposed to, not necessarily involving death, which they found to be traumatising. These incidents were injuries resulting from MVA's, and other accidents, assaults, work related accidents, exposure to communicable diseases and abused victims. The participants indicated that they experienced traumatic reactions when they were exposed to communicable diseases (such as diarrhoea, TB, HIV/AIDS) and only realised after they treated the patient. Lateef (2005) indicate that paramedics are constantly exposed to tragedy and human suffering, within a high stress level environment, along with long working hours. The participants in this study found the effect of scenes which involved the elderly, teenage females, and, once again children

especially traumatising. In a study by Alexander and Klein (2001), a similar finding was found indicating that circumstances are worsened when involving children, family and friends, especially when there is helplessness feelings involved.

Another theme which emerged from the findings was straining experiences. These experiences were seen as less serious than incidents involving death, and other serious incidents, but included incidents such as, strokes, heart attacks, asthma attacks and broken bones. This finding is supported by Colbeck (2009), who indicates that paramedics deals with all types of incidences, from massive collusions and mass casualty cases, to the less serious chest pains or broken bones. In summary, one could agree that the paramedic's daily working environment entails dealing with and exposure to various degrees of traumatic incidents, including death, other serious incidents, as well as less serious incidents.

Goodman, Saxe and Harvey (1991) mentions within the literature, that exposure to trauma leads to consequences, and that these consequences can be prevented by supportive systems such as a TMP. Thus, after the initial question, the following interview question to the participants related to how they experience TMPs.

The results indicated that a majority of participants preferred to cope without TMPs, and rather rely on their own support which included rather talking to friends, family and peers, instead of seeking professional help or treatment. Similarly, Lateef (2005) established that paramedics utilise their own coping mechanisms, including talking to peers, family and friends, or participate in physical or sporting activities. The findings further showed that paramedics also preferred to take time off from work, spending time alone or utilise dark humour to cope on a daily basis. Trinkoff, Johantgen, Storr, Gurses, Liang and Han (2011) indicate that due to emergency personnel's long working hours, pressurised working environments and dealing with difficult situations, time away from work will enable an employee to relax and to recover from their daily experienced stress.

The results further revealed that some paramedics created their own types of TMPs over time, such as a long term hobby, for instance rebuilding motorcycles The findings indicated that even in the instance where paramedics were diagnosed with Burnout or PTSD, they still preferred to cope with trauma utilising their own methods, such as hobbies, distractions, talking to friends, family and mostly peers. The participants furthermore indicated that they felt treatment

(TMPs) does not help them, and that there was no guarantee of success, also that the TMPs were time constraining. The participants mentioned that treatment lead to incident recollection, and they preferred to rather just accept it and move on. This finding is strongly related to symptoms of PTSD as indicated in the DSM - V (2013), that experiencing trauma leads to a person acting or feeling as if the traumatic event was recurring.

In summary, it could thus be established that the majority of the participant's strongly preferred to avoid TMPs by utilising their own coping methods, in order to deal with the daily exposure to traumatic situations, which is in correspondence to findings from literature (Lateef, 2005; Trinkoff, *et al*., 2011).

The *fourth objective* was to determine the effects of TMPs in the emergency services. During the interviews with paramedics, they were asked to indicate whether they regard the TMP offered in their workplace as effective, in order to establish the outcomes of the fourth objective. In the results, it became evident that and equal amount of participants experienced TMPs as effective, and ineffective. However, one must note that in most cases, there was no TMP available, and in some cases there was indeed a TMP provided by the organisations. The participants who experienced the TMPs as ineffective mostly referred to ineffective counselling techniques, and that they preferred to seek their own help outside of the organisation. One possible reason could be that the counselling techniques currently available to paramedics are mostly provided telephonically. The paramedics felt that the counsellors seemed impersonal and that they were not aware of the true effect of the trauma on them. Hébert, Caughy and Shuval (2012) confirmed this occurrence, since in their study they found that there were often too many communication barriers and therefore defeated the facilitation process required for most critical individual counselling sessions. In addition paramedics mentioned that they arranged their own consultations with psychiatrists, psychologists, counsellors and medical doctors. This finding is supported by Yoo, Cho and Cha (2013) stating that if organisations do not effectively look after their employees, they will be seeking help outside of the working environment. This has financial implications since the employees have to pay for their own support. However, since the trauma was obtained in the workplace in the first place, the employee could also possibly experience lack of commitment from the employer since the majority of stress to the individual was caused in the workplace.

In addition paramedics also mentioned that TMPs were experienced as effective. One must bear in mind that this segment could be divided into two sections namely: firstly in some cases there was a TMP provided by the company, and some employees agreed that these TMPs were effective. Secondly, some paramedics said that they developed their own TMP, by means of coping mechanisms such as hobbies and so forth and that they experienced these coping mechanisms as effective (refer to the *third objective)*. The paramedics who mentioned that the organisation's TMPs were effective, mainly referred to two aspects; the TMP assisted with coping with behavioural reactions (such as sleeping patterns, discipline, having an active lifestyle and eating habits). Furthermore, the participants experienced positive outcomes, such as quality of life, positive thoughts and working more productively. Some paramedics mentioned specifically that they felt better, saw the change, and recommend treatment for other peers. This finding is in accordance with a suggestion from Ortlepp and Friedman (2002) that TMPs within organisations should aim to increase emotional, behavioural and psychological well-being, due to the importance of these factors in a person's working performance. Campfield and Hills (2001) also state that TMPs can enhance a person's quality of life, by reducing unnecessary negative thoughts and to function more optimal, especially in the working environment. (It should however be noted that only a few paramedics utilised the TMPs available to them, of which approximately 50% of these individuals experienced the TMP to be effective. In addition, most of the participants preferred not to elaborate on this theme, because they had no exposure or experience regarding any form of TMPs, and therefore responses were limited.) Organisations must aim to increase effectivity within the implementation of a well-developed and well-aimed, trauma management programme, as also mentioned by Lateef (2005).

The last and *fifth objective* related to recommendations made by the paramedics within the emergency services. The paramedics mainly recommended that there should be a better implementation of leave management, personal initiative, support or training, in order to assist them with daily exposure to trauma incidents. From the findings it was clear that the majority of the paramedics recommended that counselling, group debriefing and peer support was the most crucial missing aspect within their environment. Counselling entailed professional help, counsellors on site, and awareness programmes regarding the various organisations providing counselling treatment. This is in accordance with a finding from LeBlanc *et al.* (2011) by motivating that a counsellor in the working environment should be seen as a necessity rather

than a luxury, because an on-site counsellor can prevent possible consequences related to employee trauma experiences.

Paramedics furthermore elaborated that group debriefings could be seen as beneficial after specific incidents. This could be utilised in order to flag the severity of events, by observing and noting discussions during debriefing sessions. Group debriefing usually include sessions with team members, management, counsellors or professional facilitators in order to debrief the specific event attended (Mitchell & Everly, 1996). Mitchell and Everly (1996) furthermore elaborates that immediate counselling and group debriefing is very important, especially after exposure to trauma experiences. This is in-line with the paramedic's responses, saying that there is a need for an immediate, on-site counsellor, or some kind of debriefing session. Lateef (2005) also states that in order to make a TMP effective, there should be some kind of debriefing treatment programme available for paramedics.

Other paramedics made it clear that each individual must have some distraction or hobby, and that it is one's own responsibility to ensure you stay psychologically fit and healthy. Hobbies and distractions include anything that takes your mind off of work, for example sport activities, collections, repairing motorcycles, or any other event that one might find attractive, as mentioned by paramedics. Williams (2013) agrees that distractions and hobbies can clear one's thoughts in order to function more optimal in the working environment.

In summary, the main recommendations made by paramedics included immediate on-site counsellors and group debriefings after the exposure to traumatic experiences. Furthermore paramedics recommended that peers should find their own distractions and hobbies, to keep them busy afterhours, outside of the working environment. Paramedics also mentioned taking leave, more resources and better preparation and training could help them to function more optimal, however these responses were limited.

Limitations and recommendations

During the course of this study, a few limitations and recommendations were noted; one limitation of this study was that the population group was limited to two paramedic organisations within one of the possible nine provinces. A recommendation for this would be

to include various other EMS companies, not only from one province, in order to gather more diverse data across South Africa. Another limitation noted was that paramedics mentioned within their responses typical behavioural and emotional reactions, resulting from trauma experiences. Because the focus on this study did not specifically include behavioural and emotional reactions due to trauma, future researchers may want to involve this aspect in studies, since it was noted that they do exist. One major limitation noted was that literature regarding previous research among paramedics, was very scarce, especially in South Africa. Previous research mostly focused on Fire Fighters, Nurses, Doctors and the Police In addition, one more limitation may have risen during the interviews conducted with the paramedics, involving possible language and communication barriers. Participants were only able to answer questions addressed in English or Afrikaans therefore, during future studies, researchers must try to utilise translators, in order to gather more accurate information. A final recommendation is that paramedic organisations should include a TMP that focusses specifically on the paramedic environment.

Practical implications

This study aimed to contribute to the trauma management and TMP programmes among paramedics within the South African context. By being part of this study, the participants where made aware of the possible occurrence of psychological trauma in their lives. They were also made aware of TMPs and the organisations responsibility to provide effective management strategies in the workplace. This may insure that organisations within the paramedic environment will be better equipped and prepared with a TMP available for their employees. This may include possible positive changes in the industry, as well as better the physical and psychological well-being of paramedics in South Africa.

Conclusion

Seng, D'Andrea and Ford (2014) state that psychological disturbance after traumatic events, and the lack of TMPs within organisations, are not a new phenomenon. Similarly, as in this studies' findings, it is clear that paramedics are indeed exposed to traumatic events which negatively affect their lives. Although TMPs were implemented in some of the companies who partook in this study, the majority of paramedics did not utilise these programmes. The majority

of paramedics still preferred to utilise their own coping mechanisms, although most of the paramedics mentioned that treatment was required in a form of either counselling or debriefing sessions within each organisation. As seen in the literature, the duties and responsibilities of paramedics these days are far greater than most people believe (Mahony, 2012). Taking into consideration, it is important to implement effective TMPs in the paramedic workplace to assist these valuable employees whose job contribution could mean the difference between life and death for members of the public involved in traumatic incidents.

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CHAPTER 3

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

Chapter 3 shows the conclusions, limitations and recommendations of the study.

3.1 Conclusion

The general objective of this study was to explore psychological trauma among paramedics, and to explore how the paramedics experience a trauma management programme (TMP). The following figure provides a summary of the different categories and themes related to each category of the findings of this study:

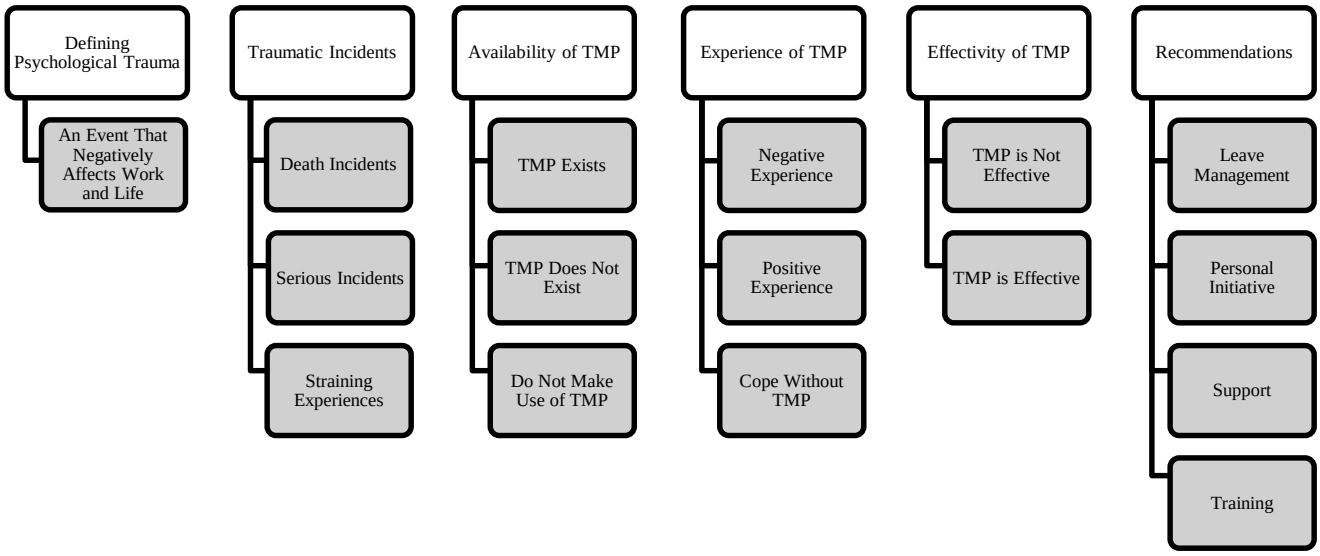

Figure 7: An illustration of the categories and themes regarding the findings

Next, the findings are shortly discussed, based on each specific objective of the study.

Specific objective 1: To determine how psychological trauma, and psychological trauma management programmes (TMPs) are conceptualised.

The aim of this objective was to establish a literature perspective, as well as the paramedic's perspective regarding a working definition for psychological trauma, and psychological trauma management programmes. Therefore it was required to do a proper literature review, to understand how literature conceptualised trauma and management thereof in the past few years. The most prominent and accurate definition in terms of literature, is that of the Diagnostic and Statistical Manual of Mental Disorders - Fifth Edition (DSM-V, 2013), stating that

psychological trauma could be seen as a negative psychological influenced injury to the brain and mind of an individual. Taking trauma management programmes into consideration, the most appropriate definition is presented by Greenberg *et al*. (2010), arguing that trauma management programmes are the practical guidelines, structural assessments and beneficial peer support, in order to promote good psychological well-being.

During interviews with paramedics on these two subjects, a working definition for paramedics was established, taking into consideration their environment, and the participants' perspective of their job content. Paramedics defined psychological trauma as an event that negatively affected their work and life, by means of inter- and intrapersonal functioning, daily functioning and cognitive functioning including their work performance, due to their stressful working environment and exposure to abnormal scenes. Van der Kolk's (2003) work on psychological trauma similarly agrees by mentioning constant exposure to trauma may lead to a person's whole life being negatively influenced. This includes their work performance, thoughts, daily lifestyle, and relationships with others (Van der Kolk, 2003).

Moving from psychological trauma to trauma management programmes, another working definition was established by paramedics. This definition entailed that trauma management programmes were seen as a structural programme, assisting individuals who experienced trauma situations in a psychological manner. This was similarly to the work of Mock, Lormand, Goosen, Joshipura and Peden (2004), who established that trauma management programmes is formal employee assistance programmes implemented permanently within an organisation, in order to assist employees that have been exposed to traumatic events.

Specific objective 2: To determine how psychological trauma is managed among paramedics in the emergency services.

The aim of this objective was to determine how paramedics currently manage psychological trauma within their diverse working environments. From the results it became evident that not all the organisations who partook in this study had a TMP in place in order to assist their paramedics. Furthermore it was also established that in cases where there was a TMP available (in the form of a professional counsellor mostly), paramedics were very seldom aware of these programmes. Moreover, the number of responses received regarding paramedics who utilised this programmes, were very limited. Therefore it was clearly established that paramedics were not using TMPs, even in cases where they were available, or not available. TMPs were thus

identified as lacking within the various organisations. Paramedics instead mentioned that they preferred to deal and cope with their trauma by utilising their own methods, even in some cases where TMPs were available. This seems in accordance with Hardcastle *et al.* (2011) who mentions that proper TMPs, or even the awareness thereof will always be scarce and are seen as less important within organisations. However, even organisations with well-established TMPs and employee assistant programmes, employees hardly utilise these programmes, because they prefer not to involve their personal issues with their work (Hardcastle *et al.*, 2011). This could be seen as a burning issue, since in the paramedic environment, it does seem that personal issues could be related to work experiences.

Specific objective 3: To explore what the experiences of psychological trauma management among paramedics in the emergency services are.

The aim of this objective was to establish how paramedics experienced psychological trauma management within their working environment. Responses regarding this objective were very limited, since paramedics mostly preferred to utilise their own coping mechanisms. Therefor only a few experiences regarding TMPs could be recorded. Paramedics rather preferred to deal with daily trauma exposure in and with their own time and methods, and chose to avoid TMPs, when they were indeed available. This finding is not strange though, since Briere and Scott (2014) mentioned that employees in the emergency service environment often avoided treatment after exposure to difficult events, because they would always believe that they could "cure" themselves and cope on their own. Paramedics furthermore mentioned that they had positive experiences regarding the organisation provided TMP, but they also mentioned that they had negative experiences. However, these responses were incomparable to the responses received for coping without TMPs. Therefore, in most cases paramedics preferred to deal and cope with trauma on their own, however interestingly, the majority recommended professional treatment and help were indeed required. Briere and Scott (2014) also mention that employees do not want to be forced to attend treatment/programmes, however significant results show that in some environments, such as the emergency setting, it might be necessary.

Specific objective 4: To determine the effects of trauma management programmes in the emergency service.

The aim of this objective was to investigate the effects regarding TMPs on paramedics, within the emergency working environment. The results showed a 50/50 response received for both effective and ineffective TMPs. The responses to this objective, were however significantly

lower than responses for other themes in other objectives, because of the lack of TMPs or awareness thereof in the organisations. Paramedics who utilised TMPs mentioned that current programmes consisted of ineffective counselling approaches, which could be directly linked to Lateef's (2005) study, elaborating on the western approach mostly implemented by TMPs. On the other hand paramedics that experienced TMPs as effective, motivated that it assisted them with negative behavioural reactions, exactly what the DSM-V (2013) states a TMP should do. As mentioned before, most participants could not elaborate on this objective, since there was limited or no exposure to TMPs within their working environments. One could thus conclude that organisations should enhance awareness, or actually implement a TMP available for paramedics within their working environment.

Specific objective 5: To make recommendations for TMPs for paramedics within the emergency service.

The aim of this objective was to make recommendations regarding TMPs as provided by paramedics, which were noted during the interviews with the specific participants. From the results it was clear that paramedics recommended on-site counselling, as well as group debriefing sessions. These sessions, as mentioned by paramedics, should follow immediately after exposure and dealings with traumatising incidents. This recommendation was found to be interesting, since the majority of paramedics preferred not to utilise TMPs, but rather cope utilising their own methods (referring to *objective two* and *three*). One could conclude that the TMPs available to the participants at the time were not found to be effective and thus avoided. Also, the participants could feel they themselves did not need counselling and coped well on their own (contrary to the findings in objective 1 and 2). This is however similar to McLeod (2013) stating that employees will often recommend counselling and treatment to other colleagues, however, you will rarely see them utilising it themselves. This could thus mean that exposure to well-developed, and well-aimed TMPs among paramedics, can be seen as limited.

In addition, paramedics also recommended peers to find suitable hobbies and distractions, outside of the working environment. These hobbies and distractions included anything from sporting activities, parrot collection, motorcycle restoration or socialising. Paramedics mentioned that by making use of distractions and hobbies, one tended to forget about the stress, pressure and daily trauma exposure within the working environment. In a very interesting study done by Feller (2011), it was also established in research that collections, distractions and hobbies were all good processors regarding trauma for exposed victims. The more a person

implemented a likening (such as a hobby) after working hours, the quicker they processed traumatic experiences. This could thus be seen as a vital and accurate recommendation from the participants, since previous research also confirmed this outcome. Other recommendations also mentioned by paramedics included taking leave from work, more resources and better preparation and training, however these responses were limited.

3.2 Limitations

During the course of this study, a few limitations were noted. Firstly this study focused on the population group in two paramedic organisations within one of the possible nine provinces. According to Patton (2005), it is of extreme importance to include the most applicable participants within a sample and make sure only these participants are interviewed, in order to obtain a representative sample. An accurate and unbiased representative sample can be obtained utilising non-probability sampling, by investigating the characteristics regarding ones target population, for example implementing an omnibus survey beforehand (Patton, 2005). During the course of this research, a more balanced and representative sample could thus have been presented, by following a similar approach as recommended by Patton (2005). For example, a lager variety of ALS (Advanced Life Support), ILS (Intermediate Life Support) and BLS (Basic Life Support) clusters could have been identified, and interviews could have led to more in-depth results.

Another limitation may have risen during the interviews conducted with the paramedics, involving possible language and communication barriers. Participants answered questions addressed in English or Afrikaans (which were translated during transcription). Wodak and Meyer (2009) specifically state that results will only be influenced in this regard, if participants can't read or write in the specific language, otherwise results have shown to be accurate, even when translators are involved. In this study, all participants were able to read and write in English, since they all had at least a BAA Certificate, and completed Grade 12. Participants furthermore rated their English proficiency as good (60%) and excellent (40%). A recommendation would however be to include all languages in future studies by involving interviewers from the specific language group.

In conclusion, future researchers must take these limitations mentioned into consideration, in order to present a representative sample, and exclude possible language barriers.

3.3 Recommendations

3.3.1 Recommendations for the organisation

From a recommendation perspective, the paramedic organisation should indeed invest in a well-aimed and developed TMP that focusses specifically on the paramedic environment. From the findings and literature it is clear that the paramedic environment requests a unique TMP to address the high trauma related reactions from employees. It is recommended that a TMP (based on the findings from this study) should focus on more counselling related interventions, including group debriefing sessions. Interestingly enough, this was also recommended by the participants themselves, even though those who had these services available preferred not to make use of them. It was clear however, that the counselling service available to some of the paramedics at the time was telephonic assistance, which the participants indicated as not being effective. An effective TMP for the paramedic environment would therefore include the following aspects:

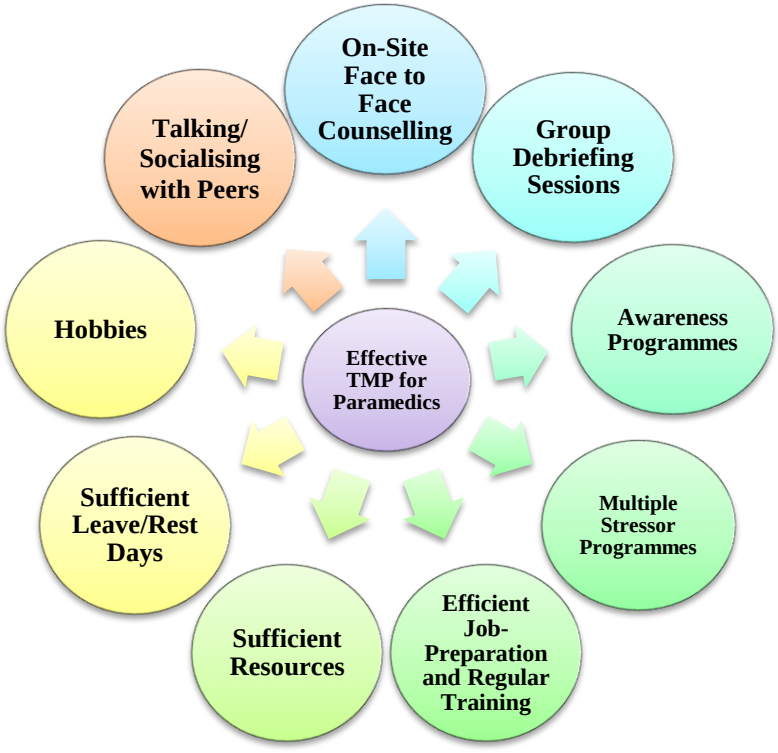

Figure 8: An illustration of a recommended TMP

As established in this study, an effective TMP may include on-site face to face counsellors, group debriefing sessions, or any other related treatment, available in a confidential manner, to all employees. Organisations could also implement treatment such as a multiple stressor programme within their TMP, as being utilised by other organisations in South Africa. The most important recommendation, as added by participants, is for organisations to employ a well-trained, equipped and experienced, professional trauma counsellor to assist paramedics at each base. This counsellor should be able to implement all factors as seen in Figure 2. After the implementation of these counsellors, constant awareness programmes should follow, such as typical trauma incidents or typical behavioural reactions due to trauma, in order to promote these services available for the employees. The TMP should be able to assist employees with trauma exposure, and a crucial aspect will be to follow-up appointments available and implemented by these professionals. Moreover, these programmes could include talking/socialising with peers, hobbies, sufficient leave/rest days, sufficient resources, efficient job-preparation and regular training. Lateef (2005) agrees that paramedics will cope more effectively when a TMP is introduced directly after trauma incident exposure, and this will enhance workplace performance. Naudé and Rothmann (2003) agree by confirming a TMP within an organisation is vital, especially taking into consideration the emergency services setting.

3.3.2 Recommendations for future research

Specific recommendations for future research would be to include various other EMS companies, not only from one province, in order to gather more diverse data across South Africa. Wright (2014) agrees by mentioning researchers should not limit themselves in terms of a population group, but they must rather explore different sectors within a target population, in order to establish an unbiased representative sample. This will enhance the results by means of accuracy within any research study (Wright, 2014). Because the focus on this study did not specifically include behavioural and emotional reactions due to trauma, future researchers may want to involve this aspect in their studies, since it was noted in the findings. A possible cause for these reactions within the paramedic environment may include employee disengagement, low morale, high turnover rate, low performance and decreased productivity (The Workplace Trauma Centre, 2011).

It is further recommended that future researchers should focus on the EMS environment, specifically paramedics, within the South African context, including developing and evaluating TMPs for the EMS setting. Longitudinal studies in this regard will be highly beneficial since to provide a clear guideline consisting the TMP and the effects thereof over a period of time (Snijders, 2011). Lastly it is recommended that future studies utilise translators from different language groups during interviews in order to include a diverse range of ethnic groups in the research, if however participants are not able to read and write in the language utilised conducting the interviews as supported by Wodak and Meyer (2009).

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APPENDIX A

Below is a visual representation regarding the booklet utilised during interviews with the participants. The booklet consisted of:

1. Front Page with a space for Name, Surname and Company;
2. Index;
3. Introduction;
4. Principals for Participation and Inform Consent;
5. Biographical Information; and
6. Interview Questions.

Exploring psychological trauma management among paramedics in Gauteng

Interview Booklet

Name & Surname:
Company:

WorkWell
Research Unit for People, Policy & Performance

NORTH-WEST UNIVERSITY
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
POTCHEFSTROOM CAMPUS

Index:

INTRODUCTION

The expected value and contribution of this study is so that the paramedic field may obtain a greater knowledge and conceptualisation regarding trauma management. The limitations regarding the South African perspective will enhance the approach of each organisation in the paramedic field. Furthermore organisations will be more equipped with regards to a better understanding of trauma management and will have the tools to manage trauma effectively. In addition, the individual will have a better knowledge and approach system available regarding trauma management. As it is one of the main aims of an industrial psychologist to enhance wellbeing within the workplace, it makes this study important because of the role industrial psychology will play in this specific field. The individual will be exposed to effective trauma counselling that may result in an optimal functioning working environment.

The general objective of this research is to explore psychological trauma among paramedics and the experience of a trauma management programme. In addition this study aims to determine how psychological trauma is managed, programmes established and effects regarding such programmes, among paramedics in the emergency service.

The results of the interviews are strictly confidential and will only be utilized for the research project.

The project adheres to all ethical prerequisites to perform research at NWU. The registered ethics project nr is NWU-00084-10-S4.

Thank you for your participation!

Sincerely,
Bernard Maritz
Prof. Lené Jorgensen

PRINCIPLES FOR PARTICIPATION

You are invited to participate in the above-mentioned research project based on the following principles:

1. Participation is voluntary and no pressure may be placed on you to participate in this project.
2. You may not be bribed to participate in the project. It may be that you yourself may not derive any benefit from the project, but that the knowledge that will be acquired through the project will be to the benefit of others.
3. You are free to withdraw from the project at any time without disclosing any reason. You may also request that your data is not used further in the project. You are kindly requested to not withdraw from the project without proper consideration of the project.
4. By agreeing to participate in the project, you also grant permission that the data that is generated by the project can be used as seen fit.
5. You are encouraged to put any questions that you might have pertaining to the project to the project head/leader at any time.

CONSENT

I, _____ (Full names and surname), the undersigned, have studied the preceding information pertaining to the project. I was offered the opportunity to ask any questions or to discuss relevant aspects with the project head. I hereby declare that I am participating voluntarily in the project.

_____
SIGNATURE

BIOGRAPHICAL

INFORMATION

These questions below concern your biographical background information. Please answer all your questions. Write your answers in the appropriate space or mark your answer with an "**X**" (where applicable):

Today's date: _____ (year / month / day)

1 Gender: Male [1] Female [2]

2 Year of birth: [ ]

3 Ethnicity:

[1] White	[2] African	[3] Coloured	[4] Indian
[5] Other, please specify:			

4. Language:

[1] Afrikaans	[2] English	[3] Sepedi
[4] Sesotho	[5] Setswana	[6] siSwati
[7] Tshivenda	[8] isiNdebele	[9] isiXhosa
[10] isiZulu	[11] Xitsonga	[12] Other
[12] Other, please specify:		

5. Highest qualification obtained:

1 Lower than grade 10 (Std 8)		6 Technical College diploma	
2 Grade 10 (Std 8)		7 University degree	
3 Grade 11 (Std 9)		8 Post-graduate degree	
4 Grade 12 (Std 10)		9 Other, please specify:	
5 Technicon diploma			

6. Please rate your English ability:

1 Poor	
2 Moderate	
3 Good	
4 Excellent	

7. For employed Paramedics only:

7.1 Please provide your job description in which you are currently working?
(e.g. ALS, ILS, BLS, Other, etc.)

7.2 How many years have you been working as a Paramedic?

7.3. What is your household situation?

	[1] Married/living with a partner, without children	
	[2] Married/living with partner, with children	
	[3] Single or divorced, without children	
	[4] Single or divorced, with children	
	[5] Living with parents, without children	
	[6] Living with parents, with children	
	[7] Other, please specify:	

INTERVIEW

QUESTIONS

These questions will be asked to you during the interview. Please answer the facilitator as thoroughly as possible. Please note that all interviews will be recorded for data capturing purposes.

QUESTION 1

- What do you regard as psychological trauma?

_____

_____

_____

_____

_____

QUESTION 2

- What type of traumatic incidents are you faced with in your workplace?

_____

_____

_____

_____

_____

QUESTION 3

- Does a trauma management programme exist in your workplace?

_____

_____

_____

_____

_____

QUESTION 4

- What are your experiences of the psychological trauma management programme?

_____

_____

_____

_____

_____

QUESTION 5

- Do you regard the programme as effective?

_____

_____

_____

_____

_____

QUESTION 6

- What recommendations can you make concerning psychological trauma management in your workplace?

_____

_____

_____

_____

_____

QUESTION 7

- Is there any other thing you would like to add regarding trauma, trauma management or trauma management programmes among paramedics?

_____

_____

_____

_____

_____

Thank you very much for completing this booklet, it is highly appreciated.

END OF INTERVIEW BOOKLET