LIVED EXPERIENCES AND COPING MECHANISMS OF FEMALE PARAMEDICS IN A HIGH STRESS, TRAUMA BURDENED ENVIRONMENT

by

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SUMMARY

LIVED EXPERIENCES AND COPING MECHANISMS OF FEMALE PARAMEDICS IN A HIGH STRESS, TRAUMA BURDENED ENVIRONMENT

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Degree: Master of Commerce (Industrial and Organisational Psychology)
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This study explored the lived experiences and coping mechanisms of female paramedics in a high stress, trauma burdened environment. A qualitative exploratory study reviewed the literature on stress, trauma and coping. Multiple definitions, factors and symptoms of stress and trauma that affect the female paramedic were consulted. Coping and coping mechanisms were also explored. Nonprobability and purposive sampling was used to draw a sample of six female paramedics. Microsoft Teams was used to gather data through semi-structured interviews. Content analysis was used to generate themes and subthemes, from which the study findings were derived. Conclusions were reached and recommendations made. The study revealed that female paramedics' work environment had a significant impact on their experience of stress and trauma, as well as on their coping and well-being. Recommendations were made for HR practitioners, career counsellors, industrial and organisational psychologists, line managers and female paramedics to promote a better understanding of the impact of stress and trauma, and to improve the well-being of female paramedics.

KEYWORDS

Female; paramedic; stress; trauma; coping; coping mechanism; post-traumatic stress disorder, employee wellness, career counselling

OPSOMMING

GELEEFDE ERVARINGS EN HANTERINGSMEGANISMES VAN VROULIKE PARAMEDICI IN ’N HOËSTRES-, TRAUMABELAAIDE-OMGEWING

Hierdie studie het die geleefde ervaring en hanteringsmeganismes van vroulike paramedici in ’n hoë-stres-, traumabelaaide omgewing ondersoek. ’n Kwantitatiewe ondersoekende studie is gedoen na die literatuur oor stres, trauma en hantering. Dit het veelvuldige definisies, faktore en simptome van stres en trauma ondersoek wat ’n uitwerking op die vroulike paramedikus het. Hantering en hanteringsmeganismes is ook ondersoek. Nie-waarskynlikheid- en doelgerigte-steekproefneming is gebruik om ’n steekproef van ses vroulike paramedici te neem. *Microsoft Teams* is gebruik om data deur semi-gestruktureerde onderhoude in te samel. Inhoudanalises is gebuik om temas en subtemas te genereer waaruit die studie se bevindings afgelei is. Gevolgtrekkings is gemaak en aanbevelings gedoen. Die studie het onthul dat vroulike paramedici se werksomgewing ’n betekenisvolle uitwerking op hul ervaring van stres en trauma het, asook op hul hantering en welsyn. Aanbevelings is gedoen aan menslike hulpbronpraktisyns, loopbaanadviseurs, bedryf- en organisatoriese sielkundiges, lynbestuurders en vroulike paramedici om ’n beter begrip te skep van die uitwerking van stres en trauma, en om die welsyn van vroulike paramedici te verbeter.

SLEUTELTERME

Vroulik, paramedikus, stres, trauma, hanteringsmeganismes, posttraumatiese stresversteuring, welsyn, kwalitatiewe navorsing, nie-waarskynlikheid-steekproefneming, doelgerigte-steekproefneming, inhoudanalises, interpretivisme

OKUCASHUNIWE

IZIMPILO EZIPHILWA KANYE NEZINDLELA ZOKUMELANA NEZIMO KWABESIFAZANE BEZIMO EZIPHUTHUMAYO ENDAWENI ENOKUKHANDLEKA KWENGQONDO OKUPHEZULU, EGCWELE UKUHLUKUMEZEKA

Lolu cwaningo luhlole izimpilo eziphilwa kanye nezindlela zokumelana nezimo kwabesifazane bezimo eziphuthumayo endaweni enokukhandleka kwengqondo okuphezulu, egcwele ukuhlukumezeka. Ucwaningo lokuqonda inkinga yezenhlalo noma yabantu lubuyekeze imibhalo yezincwadi eziphathelene nokukhandleka kwengqondo, ukuhlukumezeka kanye nokumelana nesimo. Ihlole izincazelo eziningi, izici nezimpawu zokukhandleka kwengqondo nokuhlukumezeka okuthinta abezimo eziphuthumayo besifazane. Kuphinde kwacutshungulwa izindlela zokumelana nesimo. Kusetshenziswe isampula ekhethwe ngokusekelwe emibandeleni engahleliwe kanye nesekelwe ezicini zenani labantu kanye nenjongo yocwaningo ukwenza isahlulelo sesampula yabezimo eziphuthumayo besifazane abayisithupha. I-*Microsoft Teams* isetshenziswe ukuqoqa imininingwane ngokusebenzisa izingxoxo ezihlelwe kancane.

Ukuhlaziywa kokuqukethwe kusetshenziswe ukukhiqiza izingqikithi nezindikimba zesibili endikimbeni enkulu, lapho kutholwe khona okutholwe ocwaningweni. Kufinyelelwe esiphethweni futhi kwenziwa iziphakamiso. Ucwaningo luveze ukuthi indawo yokusebenza yabezimo eziphuthumayo besifazane ibe nomthelela omkhulu kulokhu abahlangene nakho ekukhandlekeni kwengqondo nasekuhlukumezekeni kwabo, kanye nasekumelaneni kwabo nezimo nokuphila kahle. Iziphakamiso zenziwa kubasebenzi bakwa-HR, abeluleki bezemisebenzi, ochwepheshe bezengqondo bemboni nenhlangano, abaphathi ababambe iqhaza ekuqhubeni imisebenzi yebhizinisi eyinhloko yenkampani. kanye nabezimo eziphuthumayo besifazane ukuze kuqondwe kangcono umthelela wokukhandleka kwengqondo nokuhlukumezeka, kanye nokwenza ngcono ukuphila kahle kwabezimo eziphuthumayo besifazane.

AMAGAMA ASEMQOKA

Abesifazane, isimo esiphuthumayo, ukukhandleka kwengqondo, ukuhlukumezeka, isimo sokumelana, Isimo sempilo yengqondo esiqalwa isehlakalo esesabekayo - esikwehlele noma osibonile, ukuphila kahle, ucwaningo lokuqonda inkinga yezenhlalo noma yabantu, isampula ekhethwe ngokusekelwe emibandeleni engahleliwe, isampula esekelwe ezicini zenani labantu kanye nenjongo yocwaningo, Ukuhlaziywa kokuqukethwe, okubandakanya abacwaningi ukuze bahumushe izingxenye zocwaningo

DECLARATION

I, **Yvette Pauley**, student number **60056215**, for the degree, Master of Commerce declare that

“Lived experiences and coping mechanisms of female paramedics in a high stress, trauma burdened environment”

is my own work, and that all the sources that I have used or have quoted from have been indicated and acknowledged by means of a complete reference list.

I declare that ethical clearance has been obtained from the College of Economic and Management Sciences Ethics Research Committee at the University of South Africa (Annexure A) and that informed consent (Annexure B) was given by all participants to conduct the research.

14/04/2022

Yvette Pauley **Date**

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LIST OF ABBREVIATIONS

ALS	Advanced life support
GAS	Selye's General Adaption Syndrome
HPCSA	Health Professions Council of South Africa
HR	Human resources
PTSD	Post-traumatic stress disorder
UNISA	University of South Africa

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CHAPTER 1: SCIENTIFIC ORIENTATION TO THE RESEARCH

1.1 INTRODUCTION

When one encounters paramedics who they are on duty, one is invariably reassured by their cool, calm and professional demeanour. Paramedics are healthcare professionals and first responders to emergencies. South African paramedics are some of the best in the world owing to their top-quality training and high levels of exposure to traumatic and dangerous circumstances (Minnie, Goodman and Wallis. 2015). One can assume that a high physically and emotionally demanding job such as that of a paramedic can cause disruption in their professional and personal lives. Coping mechanisms can be helpful, but not all coping mechanisms are functional and may even be harmful (Minnie et al., 2015). There are many changes and challenges that influence the well-being, ability to cope and performance of female paramedics.

The diversity of the high stress, trauma burdened environment challenges female paramedics in their goal to remain consistent without compromising their patients' health and best interests. The aim of this study was to explore the lived experiences, and coping mechanisms applied, of female paramedics in a high stress, trauma burdened environment. Chapter 1 focuses on the background on and motivation for the study, the problem statement and research questions. The research objectives are discussed, and the paradigm perspective adopted is outlined. The chapter concludes with the envisaged contributions of the study and an outline of the chapters to follow.

1.2 BACKGROUND AND MOTIVATION

Paramedics are healthcare professionals and first responders to emergencies, which include intentional and unintentional injuries such as homicides, suicides and road traffic incidents, to name a few (Thind et al., 2015). Their job specifications include, but are not limited to, responding to emergency and nonemergency situations calmly, efficiently and promptly. This includes, inter alia, extracting victims from accidents, treating patients at the accident scene and maintaining order at the scene.

In South Africa, crime is a threat to the safety of paramedics (Monama, 2019). Recent South African Police Service crime statistics (SAPS, 2019) reported that the number of contact crimes such as murder, rape, sexual offences, assault with the intent to inflict grievous bodily harm, common assault, common robbery and robbery with aggravating circumstances, totalled 621 282 for the 2019/2020 period. In addition to the stress and trauma experienced, paramedics are increasingly being targeted by criminals. In rural areas on abandoned and isolated roads, paramedics are easy targets, thus putting their own lives at risk when entering a dangerous area. One can assume that a high physically and emotionally demanding job such as that of a paramedic, can lead to problems in their professional and personal lives. Hence traumatic experiences lived by paramedics can be disturbing and overwhelming, and threaten their overall well-being. Trauma may cause negative feelings such as detachment, disinterest, emotional unavailability, concentration problems, avoidance of situations and the startle response (Fried et al., 2018; Regehr, 2005, p. 99).

In addition to the stress and trauma associated with their work, paramedics work long hours, and are therefore often fatigued. It can be exhausting and draining to any individual trying to thrive. Paramedics can become easily overworked. Aslaner et al. (2018) observed that people with a history of trauma were diagnosed with lifetime post-traumatic stress disorder (PTSD), which includes depersonalization which is a detachment of oneself, and derealisation where one can experience unreality and distortion (APA, 2017). PTSD among paramedics is extremely common (Fjeldheim et al., 2014, p. 2). Shakespeare-Finch, Rees, and Armstrong (2015) found that receiving support was helpful to well-being and post-traumatic growth. They also found that shift work, which is part of a paramedic's life, can influence PTSD negatively, and concluded that being self-efficient and receiving social support may ease post-trauma responses (Shakespeare-Finch et al., 2015).

Spouses of paramedics observed specific symptoms as a result of the high stress, trauma burdened environment they work in. This includes amongst others disinterest in activities with family and friends, emotional arousal, feelings of detachment, depression, feelings of hopelessness, irritability, suicidal ideation, and reactions

related to temperament and personality changes (Fried et al., 2018; Regehr, 2005). A concern for shift work is that it is does not enable a person to equally contribute to family time and responsibilities, and it can cause burnout and affect sleep quality (Giorgi et al., 2018; Regehr, 2005). Females continuously try to balance the idea of engaging in multiple roles at the same time, but often causes stress (Sumra & Schillaci, 2015). Furthermore, females may suffer from higher incidences of sleep problems and chronic fatigue because of irregular working hours, high stress and trauma burdened work environments, and additional domestic and family obligations (Costa, 2015; Courtney et al., 2012). This can have severe consequences for both workers and patients (Richter et al., 2016).

In a high stress and trauma burdened environment, individuals often employ coping mechanisms to try to survive. Positive coping mechanisms may increase wellness (Delany et al., 2015), whereas negative coping mechanisms could only be a short-term solution (Heffer & Willoughby, 2017). A negative coping mechanism such as emotional numbing and denial, are some of the strategies paramedics use to cope with stressful events (Larson, 2021; Regerh, 2005). Negative coping mechanisms may also include, but are not limited to substance abuse, denial and aggression (Larson, 2021). Positive coping mechanisms may include social support, faith, counselling, music, meditation and exercise. Female paramedics often also use coping mechanisms such as planning, competing activities, social support to vent emotions, religion and disengagement to thrive within high stress and trauma burdened environments (Jurišová, 2016; Kalliath & Kalliath, 2014). The general aim of this research was to explore the lived experiences and coping mechanisms of female paramedics in high stress and trauma burdened environments. Existing research was found on paramedics, but not specifically focusing on the lived experiences of female paramedics and the coping mechanisms they employ to thrive (Alexander & Klein, 2001; Lawn et al., 2020; Shakespeare-Finch et al., 2015; Sterud et al., 2006).

The focus of the research was to address the gap in knowledge and consider female paramedics' lived experiences and coping mechanisms in high stress and trauma burdened environments. The research further aimed to add value to the field of

industrial and organisational psychology, specifically employee well-being and adjustment.

1.3 PROBLEM STATEMENT

According to Hegg-Deloye et al., (2014), stress is predominant among paramedics, while coping mechanisms can help manage paramedics to better cope with stress and trauma burdened situations. Paramedics are expected to be competent and professional, and must respond calmly and professionally to any situation they face, in order to be able to save lives. If experiences of stress and trauma are not dealt with, this could lead to and cause physical and emotional fear, resentment, anxiety and guilt. The researcher could not find sufficient research exploring the lived experiences and coping mechanisms of female paramedics in high stress and trauma burdened environments. Existing research found that, in general, females may report higher levels of stress, tension and depression (Javed & Yaqoob, 2011). Females tend to become depressed when experiencing stress (Kelly et al., 2008a), and may be inclined to suffer from sleep problems and chronic fatigue owing to shift work, high stress and trauma (Courtney et al., 2012). The research focused on female paramedics' experience within a high stress and trauma burdened environment and the coping mechanisms they use to thrive. Therefore, this study aimed to explore the question of how do female paramedics experience the high stress and trauma burdened environment and how do they apply their coping mechanisms in such an environment?

1.3.1 Research questions pertaining to the literature review

The aim of the study was to answer the following literature review questions.

Literature question 1: How are stress and its related constructs conceptualised?
Literature question 2: How are trauma and its related constructs conceptualised?
Literature question 3: How are coping and its related constructs conceptualised?

Literature question 4: What is the theoretical link between female paramedics within a high stress, trauma burdened environment, and the coping mechanisms they use to thrive?

1.3.2 Research questions pertaining to the empirical study

The aim of the study was to answer the following empirical questions to address the problem stated earlier.

Empirical question 1: How do female paramedics experience stress and trauma in their work environment?

Empirical question 2: What are the coping mechanisms female paramedics use to thrive in a high stress and trauma burdened work environment?

Empirical questions 3: What insights can be developed to help foster a better understanding of the coping mechanisms female paramedics use to thrive within a high stress and trauma burdened environment?

Empirical questions 4: What recommendations can be made to the paramedic industry on how female paramedics can be enabled to thrive with the high stress and trauma burdened environment?

1.4 AIMS

The research aims include a general aim and several specific aims. The aims were derived from the research questions.

1.4.1 General aim

The general aim of this research was to explore the lived experiences and coping mechanisms of female paramedics in high stress and trauma burdened environments.

1.4.2 Specific aims

The specific literature aims of the research were to

- conceptualise stress and its related constructs;
- conceptualise trauma and its related constructs;
- conceptualise coping and its related constructs; and
- explore the theoretical link between stress, trauma and coping in the workplace.

The specific empirical aims of the research were to

- gain a deeper understanding of female paramedics' experience within a high stress and trauma burdened environment;
- gain a deeper understanding of the coping mechanisms female paramedics' use to thrive in a high stress and trauma burdened environment;
- develop insights towards fostering a better understanding of the coping mechanisms female paramedics use to thrive within a high stress and trauma burdened environment; and
- make recommendations to the paramedic industry on how female paramedics can be enabled to thrive within a high stress and trauma burdened environment.

1.5 THE PARADIGM PERSPECTIVE

The empirical paradigm, theoretical paradigm, psychological perspective and meta-theoretical concepts are further described and explained in this section. Paradigms are central to the research design and the manner in which a study is conducted (Durrheim, 2006). A paradigm provides a basis for the research and guides the researcher to adopt a specific research design (Durrheim, 2006, p. 40). Terre Blanche and Durrheim (2006) defined paradigms as methods of opinions and views that can define the nature of a question through ontological, epistemological and methodological assumptions. Ontology is the nature of the reality, epistemology is the kind of affiliation between the researcher and the knowledge of the topic and methodology is the method applied that can guide the researcher to what he or she believes to be known (Terre Blanche & Durrheim, 2006, p. 6).

1.5.1 Empirical paradigm perspective

A paradigm is a worldview or belief system that guides research and define the nature of inquiry (Creswell, 2013; Durrheim, 2006). Ontologically, in this study the researcher explored the personal reality of the subjective experiences of the female paramedics (Ponterotto, 2005, p. 131; Terre Blanche & Durrheim, 2006, p. 7). By contrast, the epistemological assumptions speak to the nature of the relationship between the researcher and the participants, while adopting an empathetic and subjective approach that gained new knowledge from the female participants' experiences. Table 1.1 depicts the dimensions of the interpretivist paradigm.

Table 1.1

Interpretivist Paradigm (adapted from Terre Blanche & Durrheim, 2006, p. 6)

Ontology	**Epistemology**	**Methodology**
• Internal reality of subjective experience	• Empathetic • Observer intersubjectivity	• Interactional • Interpretive • Qualitative

People behave in certain ways because of their environment, and they are influenced by their subjective perceptions (Willis, 2007). The lived experiences and coping mechanisms of female paramedics were presented by following an inductive approach, starting with vague speculations about a research question (Terre Blanche & Durrheim, 2006, p. 7). This was followed by making sense of it through observing, contrasting, comparing and classifying the instances or constructs (Creswell, 2009).

Through reflection on the ontological, epistemological and methodological assumptions, the interpretive research method was applied because it was congruent with the assumptions of the study (Terre Blanche & Durrheim, 2006). The purpose of the interpretive analysis was to interpret real-life events to gain a better perspective of

the lived experiences of female paramedics (Terre Blanche et al., 2006, Thanh & Thanh, 2015).

Thanh and Thanh (2015) also stated that qualitative methods are supported by interpretivists, because this paradigm depicts a reality that is constantly changing, complex and socially constructed. The interpretive research paradigm aims to be subjective and flexible, and to approach the experiences through the participants' views in order to collect "in-depth" information on their lived experiences (Thanh & Thanh, 2015). The ontological assumption of the empirical paradigm was to explore the nature of the reality, that is the internal and subjective experiences of female paramedics within a high stress and trauma burdened environment, to further explore what can be known and better and understood about it (Cohen & Crabtree, 2008; Terre Blanche & Durrheim, 2006). The epistemological stance was to establish a relationship between the researcher and the participants that enabled healthy engagement to gain the participants trust and to make them feel comfortable to share their lived experiences freely as the nature of the relationship enabled engagement, whilst sharing and listening with empathy.

The researcher used the participants' experiences to construct, interpret and analyse the coping methods they use to thrive (Thanh & Thanh, 2015). According to Thanh and Thanh (2015), interpretivism is inclusive and accepts several viewpoints from different individuals. This guided the researcher in collecting, analysing and interpreting the data. Data was collected through semi-structured interviews and analysed in accordance with the content analysis methodology. Themes derived after the interviews once the researcher had started analysing the data, had some bearing on the research question (Terre Blanche et al., 2006).

The interpretive paradigm therefore enabled the researcher to gain an in-depth and better understanding of the female paramedics' meanings of stress, trauma and coping in their work environments.

1.5.2 Theoretical paradigm perspective

The theoretical paradigm denotes the perspective used by the researcher to construct a scientific investigation of the literature (Collins & Stockton, 2018). This study adopted the interpretive paradigm to conceptualise the relevant variables and their related constructs. In accordance with the interpretive paradigm, the aim of the research was to connect the data collected in the empirical part of this study to with the theory, by adopting an inductive thinking approach to construct conceptualisations (Terre Blanche & Durrheim, 2006; Thanh & Thanh, 2015). The constructs were stress, trauma and coping. This provided a theoretical foundation towards answering the research question formulated for the study, namely *How do female paramedics experience a high stress, trauma burdened environment, and what coping mechanisms do they use to thrive*?

The interpretive theoretical paradigm was deemed appropriate to address the literature aims in terms of understanding stress, trauma and coping, and the exploration of the female paramedics' unique perceptions thereof. Interpretivists do not only describe objects, people or events, but they also have a deeply understanding of them in a social context. Hence there are multiple realities because of individuals' different perceptions. Interpretivism argues that truth and knowledge are subjective, and that there is a difference between the natural and social world that form our perceptions of reality and truth (Ryan, 2018).

The theoretical ontological assumption adopted in this study was the reality of stress and trauma experienced by females in high stress and trauma burdened work environments. Epistemologically, the researcher engaged with scientific research published as scholarly literature. Through the review of the literature, stress, trauma and coping were conceptualised, and a theoretical link made between these constructs in the workplace and the findings of this study.

1.5.3 Psychological perspective

The research for this study was in the field of industrial and organisational psychology. Industrial and organisational psychology is the science of behaviour in the workplace, which can assist employees and teams to improve wellness in the workplace and provide career counselling for employees (APA, 2013a). As stated earlier, the aim of this research was to explore lived experiences and coping mechanisms of female paramedics in high stress and trauma burdened environments. This research was more specifically situated in the subfields of employee wellness and career counselling.

1.5.3.1 Employee wellness

Employee wellness is the quality of work life and well-being involving work-life balance (Coetzee et al., 2016), which entails emotional, psychological and social well-being. Emotional well-being refers to the feeling of positive affect and satisfaction within their life (Coetzee et al., 2016). Psychological well-being refers to how well individuals see themselves thriving in their lives, whereas social well-being relates to how individuals thrive in their social lives (Coetzee et al., 2016). These can lead to prosperous or declining mental health and can indicate that the individual is thriving or positively coping with the challenges of his or her life-work career (Coetzee et al., 2016). The effects of a high stress and trauma burdened environment on female paramedics can have a major impact on employee well-being (Lawn et al., 2020). It is therefore necessary to pay attention to the work conditions of female paramedics, as these may affect their well-being and ability to cope with inherent job demands.

1.5.3.2 Career counselling

Career counselling refers to examination of individuals' career development, employment, the worker role and how that role interacts with their other life roles (Coetzee et al., 2016). It can help individuals to understand and deal with circumstances, themselves and relationships with others. It promotes employee

development and advances organisational capability (Coetzee et al., 2016). An individual's work can be regarded as an important facet of creating a more satisfying life – hence career counselling also includes life counselling (Coetzee et al., 2016). Accordingly, the purpose of this study was to add value to career counselling practices in its exploration of career-related concerns within the paramedic environment, including the personal factors in paramedics' lives, which may affect how they cope with the factors affecting their profession.

1.5.4 Meta-theoretical concepts

1.5.4.1 Stress

Stress is a common phenomenon and is a feeling of mental pressure and tension (Shahsavarani et al., 2015). Low levels of stress may be useful, and even healthy. Stress-triggering factors, such as sudden tragedies, or observing specific forms of incidents may be interpreted as stresses (Shahsavarani et al., 2015). Any effect of change in an environment that results in disruption of homeostasis (internal balance) is referred to as stress (Chovatiya & Medzhitov, 2014).

Lazarus (1993) argued that four concepts should be considered when describing the stress process. Firstly, it is necessary to identify an external or internal agent, known as a stressor. In this regard, Lazarus (1993) accentuates the person-environment relationship (p. 123). Secondly, an evaluation is needed to differentiate what is threatening or harmful from what is nonthreatening. Thirdly, a coping process should be used by the mind or body to deal with stressful demands. Fourthly, there is a complex pattern of effects on mind and body, referred to as the stress reaction.

According to Butto (2019) and Fink (2017), Selye was the first to formulate the first and most generic definition of stress by stating that it is a broad response of the body to a circumstance or requirement. However, in the behavioural sciences, stress is regarded as the view or opinion of a threat that results in anxiety, discomfort, emotional tension and difficulty in adjustment (Fink, 2017, p. 4).

The above-mentioned definitions of stress address the main elements that can be associated with a high stress and trauma burdened environment, as identified in the literature, such as a dangerous working environment in which people fear for their lives because of stressful situations that may result in anxiety and emotional tension.

1.5.4.2 Trauma

According to Nijenhuis and Van der Hart (2011), trauma means a wound or injury and is therefore deemed a psychological injury developed as psychological, biological, social and other environmental factors. Trauma can be triggered by stress and a stressful event (Baqutayan, 2015). It is an emotional response to an event like an accident. After the event, shock and denial are typical responses (APA, 2013b).

Traumatic events involve the occurrence of violence, disasters, loss, illness and other overwhelming and disturbing events (Kleber, 2019). Phenomenologically, such an event can be regarded as a sense of powerlessness as well as a disruption of expectation, where the individual may lose control of the situation (Kleber, 2019, p. 451). Long-term responses include unpredictable emotions, flashbacks, strained relationships and physical symptoms (APA, 2013b).

Trauma can be caused by events that cause lasting reactions. The literature therefore supports the high stress and trauma burdened environment of female paramedics. The study adopted the definition of trauma that involves the occurrence of violence, disasters, accidents, illnesses and any disturbing events that paramedics may experience.

1.5.4.3 Coping

Snyder and Dinoff (1999, p. 5) argued that the term “coping” refers to a response aimed at diminishing the physical, emotional, and psychological burden that is linked to stressful life events and daily hassles”. In general, coping refers to the mental or

behavioural efforts that people expend to deal with potentially difficult and stressful situations (Schreuder & Coetzee, 2011, p. 383).

Coping represents the efforts to manage or tolerate demanding situations, and the function thereof is to change or solve the situation for the better (Ben-Zur, 2019). Coping can be effective when presented with a stressful situation (Baqutayan, 2015). Coping with stress can be a process or strategy that can be used when in a stressful situation (Kucmin et al., 2018). It is a necessary outcome of a stressful and traumatising situation.

For the purpose of this study, the researcher viewed coping as the efforts expended by individuals to help female paramedics in high stress and trauma burdened environment. The above view on coping informed the specific aim pertaining to the literature review, namely to conceptualise coping in order to enhance one's understanding of this construct.

1.5.4.4 Thriving

Thriving entails the ability to adapt to stress and trauma, and is associated with feelings of purpose, optimism, awareness, endurance, compassion and support (Hamby et al., 2018)**.** Thriving is a positive psychological state distinguished jointly by learning and strength (Paterson et al., 2014). Thriving, according to Compton (2005, p. 117) means a "better quality of life", which can be achieved by using coping mechanisms.

It has been established that the work of female paramedics can be extremely stressful and traumatic, thus requiring coping and the ability to thrive in their workplace and personal lives. Thriving and coping relate to the female paramedic environment. Little to no research has been conducted to explore the lived experiences and coping mechanisms of female paramedics in high stress and trauma burdened environment (Alexander & Klein, 2001; Lawn et al. 2020; Shakespeare-Finch et al., 2015; Sterud et al., 2006). Hence the purpose of explaining the above meta-theoretical concepts in

this chapter was to highlight the relationship and examine the theoretical link between stress, trauma and coping.

1.6 RESEARCH DESIGN

The research design adopted in the study is discussed in detail in chapter 3. The research approach, strategy and method are also outlined. The discussion of the research method includes details of the research setting, entrée and establishing the research role, sampling, data collection methods and recording of data. It also provides the analytical process followed in the study, reporting the findings and strategies to ensure quality data, and the ethical considerations.

1.7 CONTRIBUTION OF THE STUDY

This research will hopefully contribute new knowledge to the field of industrial and organisational psychology, and more specifically employee well-being and career counselling. The findings should provide a better understanding of the lived experiences of female paramedics working in a high stress, trauma burdened environment and the coping mechanisms they employ to cope.

The findings of this study should assist HR practitioners, career counsellors, industrial and organisational psychologist, line managers and female paramedics to gain a better understanding of the impact of such a high stress and trauma burdened environment on female paramedics. This knowledge should specifically help HR practitioners, career counsellors, industrial and organisational psychologists and line managers to understand how they can better support female paramedics and create an environment at work and put support structures in place that will promote well-being, thus enabling female paramedics to thrive. This includes recommendations for well-being and support programmes that will improve the well-being of female paramedics. The study should also give female paramedics insight into the mechanisms that are effective in helping them cope in their working environment.

1.8 CHAPTER LAYOUT

This dissertation consists of five chapters.

Chapter 1: Scientific orientation to the research

Chapter 1 provides the background to the research and motivation for the study, the problem statement, the aims of the study, paradigm perspective and the envisaged contributions of the study.

Chapter 2: Literature review

This chapter conceptualises stress, trauma, coping and thriving. It presents a review of literature on how stress, trauma and coping can affect well-being and the ability to thrive in a high stress and trauma burdened environments, such as that of female paramedics.

Chapter 3: Research design and methodology

This chapter focuses on the research design and methodology adopted in this research. This includes the research approach, the strategy and method. The research method describes the research setting, entrée and establishing the researcher's role, sampling, data collection methods, recording of data, data analysis, reporting and strategies to ensure quality data. Ethical considerations employed in this study are also discussed.

Chapter 4: Findings

The findings of the study outlining the lived experiences and coping mechanisms applied by female paramedics in a high stress, trauma burdened environment are presented in this chapter. The findings are discussed in terms of themes and subthemes as they emerged from the data analysis in line with the research question.

Chapter 5: Discussion

Chapter 5 provides a scientific overview of the lived experiences and coping mechanisms of female paramedics in a high stress, trauma burdened environment. It contains discussions on the summary and conclusions drawn from the literature review. It also focuses on the integration of the findings of this study with the literature. The conclusions, limitations and the recommendations of the study are outlined. Recommendations are made for HR practitioners, career counsellors, industrial and organisational psychologists and managers towards better understanding the work environment of female paramedics and what support programmes they can implement to enhance the well-being of these individuals. Furthermore, recommendations are made to female paramedics on which coping mechanisms they can adopt to enhance their well-being. In conclusion, recommendations are formulated for possible future research that could further assist in closing the gap in knowledge on the topic of this study.

1.9 CHAPTER SUMMARY

In this chapter, the general and specific aims of the research were discussed in line with the literature review and empirical study. The paradigm perspective was outlined in accordance with the empirical paradigm perspective and theoretical paradigm perspective adopted. The chapter concluded with an outline of the envisaged contributions of the study and the layout of the chapters to follow.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

Chapter 2 presents the review of literature on stress, trauma, coping and their related constructs. A further specific aim of this study was to explore the theoretical link between stress, trauma and coping. The existing literature, models and applicable approaches pertaining to these constructs are discussed in this chapter by presenting the differentiating factors and shared views. The chapter concludes with a discussion of the theoretical link between stress, trauma and coping in the world of paramedics.

2.2 PARAMEDICS

Paramedics are healthcare professionals with numerous roles and tasks. They are first responders to emergencies. This includes airway management, midwifery, resuscitation, intravenous drug therapy and aviation medicine (Arrive Alive, n.d.a). Paramedics can administer a wide variety of medications to stabilise patients and manage their symptoms until they arrive at the hospital. Paramedics are required to make crucial decisions under significant pressure by treating patients and keeping them stable until they can transport the patients to either a private or state hospital (Mulder, 2013). These decisions are in line with the best interests of the patient.

It is therefore imperative for paramedics to be competent enough to make quick decisions on how best to assist patients, as well as keep a record of patient care and other written reports (Zana, 2019). According to the Health Professions Council of South Africa (HPCSA), there were only 1 521 registered paramedics in South Africa in October 2018 (HPCSA, 2018). South African advanced life support (ALS) paramedics are in high demand worldwide owing to the nature of their training and skills (Arrive Alive, n.d.b).

There are a number of qualifications for paramedics, namely short courses or the full four-year, level NQF8, BTech degree offered at universities and accredited by the

HPCSA (Arrive Alive, n.d.b.; ER24, n.d.). This programme qualifies them as emergency care practitioners and can provide the highest level of prehospital emergency care available (ER24, n.d.). A two-year Diploma in Emergency Medical Care is also available, where graduates register with the HPCSA as paramedic (ER24, n.d.). Paramedics also need a professional driving permit in goods and passengers, because the standard emergency care services system in South Africa deploys the ALS paramedic in a sedan vehicle (HPCSA, 2018).

Paramedics must be physically able and capable of firmly lifting and placing patients on stretchers, loading stretchers into ambulances or helicopters and transporting patients to hospital (Coffey MacPhee et al., 2016; Sheridan, 2019). Their services are provided by both private and state operated service providers (Mulder, 2013), and their shifts can run from eight to 48 hours, with a couple of days off after a shift ends. However, their shifts are seldom the same. They have to deal with intentional injuries such as homicides and suicides, as well as unintentional injuries that include transport and pedestrian accidents, road traffic incidents, burns, drownings, falls and substance abuse incidents (Coffey et al., 2016; Thind et al., 2015). Medical emergency instances also involve incidences like heart attacks, severe allergic reactions, labour and delivery of babies and numerous other complications associated with traumatic incidences resulting in shock.

In 2018, a South African survey revealed that it only had 1 971 state-run ambulances on the road, which falls short of the 5 700 recommended by the Health Department (Msomi, 2018). This meant that there were only enough ambulances to cover a third of the population. Other services include being on standby at public gatherings such as large sporting events, should accidents or other health emergencies happen. In addition to interacting with the public, they need to do daily vehicle and equipment safety checks, ensuring that their medical supplies are accounted for and that the equipment and vehicles they use function properly (Zana, 2019, p.4). Due to a lack of resources, the low number of ambulances available, and the high demand for services of paramedics, the higher their stresses are. This could burden and challenge their sense of ability and methods of coping.

2.3 STRESS

Stress has different meanings for different people in various circumstances. It is deemed a somewhat vague concept (Shahsavarani et al., 2015). According to Carver and Connor-Smith (2010), stress occurs when an experience is challenging for an individual. It is a process that is dependent on the relationship between the stress stimulus, the response and the reaction (Schuster et al., 2003). Schuster et al. (2003) further stated that the stress process can be ever-changing because it depends on the individual's response to the stressor and the use of internal factors such as coping. Gumani (2012, p. 29) postulated that stress is a reaction when a change occurs in an individual's life or environment, and results in a negative outcome. Furthermore, stress can occur as a result of a disturbance in the balance between the cognitive and emotional functioning in individuals' lives and professions when their environment is changed (Gumani, 2012, p.29; Schneiderman et al., 2005).

Stress can be divided into positive and negative aspects namely distress and eustress. Furthermore, stress can have the potential to enhance performance and resilience (Aschbacher et al., 2013, Szabo et al., 2017). Distress can cause one to feel overwhelmed, anxious, and also to experience physical and psychological symptoms like tension, headaches and insomnia (Branson et al., 2019a). Whereas eustress can be described as positive, motivating, and helpful (Branson et al., 2019; O'Sullivan, 2011). Eustress plays an important part on how people cope, what coping mechanisms and factors they can use to help them within their stressful environments. Eustress can be used as a coping mechanism due to that it provides productive energy, increases motivation, and is associated with confidence (Branson et al., 2109).

Sisley et al., (2010) specified that workplace stress is experienced when undue pressure is applied as a result of circumstances or situations in the environment. Stress may be external from environmental sources or can be caused by internal perceptions (Shahsavarani et al., 2015). Stress is often neglected in one's day-to-day life, but could play a detrimental role in one's mental health (Khan & Khan, 2017, p.2). It should be curbed in the early stages to prevent serious consequences, where factors

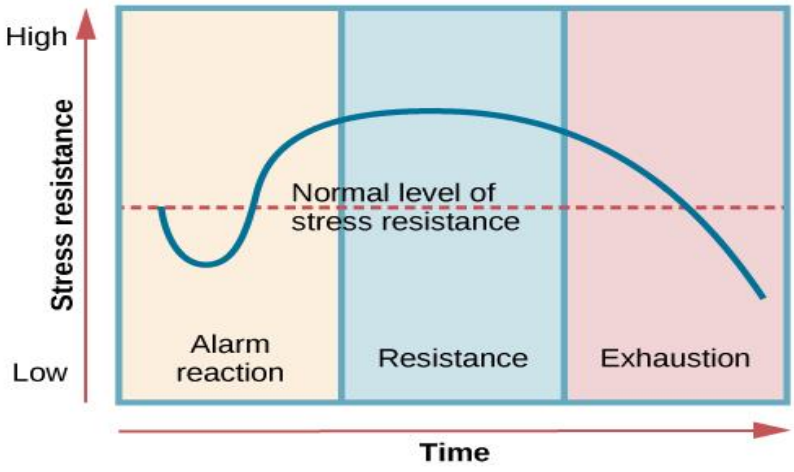
such as social support, locus of control, personality types and different coping mechanisms can make a significant difference when effectively dealing with stress (Khan & Khan, 2017, p.2).

Based on the theory developed by Selye (1950, p. 4667), Butto (2019) clarifies how Selye's General Adaption Syndrome (GAS) model (see Figure 2.1) outlines the following three main concepts relating to stress:

(1) Stress is a defensive mechanism.
(2) If stress is persistent or severe, it can cause disease or death.
(3) Life is a three-stage adaptation that steadily renews the following external stressors:
    (a) initial alarm/reaction to the stressor;
    (b) resistance/adaptation to coping; and
    (c) eventual exhaustion.

Figure 2.1

General Adaptation Syndrome (GAS) Model (Selye, 1950, p. 4667)



During the alarm/reaction phase, when encountering a stressor, the rate of bodily functions of the nervous system increases and causes a "fight-or-flight" response

(Selye, 1950, 4667). Hormones are released into the bloodstream and the body's resources mobilise. In normal circumstances, the alarm reaction phase does not last that long. Through the resistance/adaptation phase, after the initial shock, the body returns to repairing itself (Cunanan et al., 2018). If the resistance/adaptation phase continues for an extended period of time without periods of relaxation, the body becomes prone to fatigue, poor concentration, irritability and frustration, which can lead to the exhaustion stage (Vasenina et al., 2020).

Finally, during the exhaustion phase, if the stressor environment is chronic, struggling with stress for long periods can drain an individual's physical, emotional and mental resources (Vasenina et al., 2020). The person can become more susceptible to a range of diseases. Signs may include fatigue, burnout, depression and anxiety.

Anger and fear may also be symptoms of stress, but stress can be a multidimensional construct that causes feelings of mental and physical tension, which affect performance (Shahsavarani et al., 2015). Paramedics' stress levels are one of the highest compared to most careers, and more specifically compared to other emergency response professionals (Gayton & Lovell, 2012). Stress-related behaviour includes feelings of grief, anger, guilt, resentment and hopelessness (Naudé & Rothmann, 2006). Paramedics may be at risk of higher levels of stress, fatigue, tension and depression, especially female paramedics (Courtney et al., 2012; Javed & Yaqoob, 2011; Kelly et al., 2008b; Sofianopoulos et al., 2011). A possible reason for this is females being prone to report stressors more than males, and it could also be because female fulfil more cultural, social and domestic roles (APA, 2012; Wiegner et al., 2015).

Work stress can commonly cause burnout, depression and anxiety (Koutsimani et al., 2019). Employees who have been diagnosed with a depressive or anxiety disorder might also suffer from burnout (Eurofound, 2018, p.17; Koutsimani et al., 2019, p.284). Maske et al., (2016) found that 59% of individuals who had been diagnosed with burnout were also diagnosed with an anxiety disorder, 58% with a depressive disorder,

and 27% with a somatoform disorder, which can cause physical symptoms of pain and nausea.

Burnout is a state of exhaustion that results from prolonged periods or instances of stress (Shahsavarani et al., 2015). When burnout occurs, individuals can become disengaged from their work, which results in them not meeting their performance standards (Shahsavarani et al., 2015). According to LeBlanc et al. (2012), stress leads to a variety of emotional states, the most common being anxiety.

Prolonged stress can cause depression (Khan & Khan, 2017). According to the National Institute of Mental Health (2021a), depression has two common forms, namely major depression, which includes symptoms of depression most of the time for at least two weeks that typically interfere with an individual's ability to work, sleep, study and eat. It can also result in persistent depressive disorder, which includes less severe symptoms of depression, but which lasts much longer, typically for at least two years. People with "depression often use ineffective and avoidance strategies to cope with stress" (Orzechowska et al., 2013, p. 1053-1054). People who are depressed focus on emotions and the need to relieve them repeatedly (Orzechowska et al., 2013).

Stress can also cause physical health challenges for an individual such as headaches, forgetfulness, muscular tightness or tension, heart palpitations, elevated blood pressure, gastrointestinal symptoms, sweating and dry mouth (Khan & Khan, 2017). Shahsavarani et al. (2015) concurred with the above, adding how stress leading to anxiety can also have a severely negative impact on an individual's physical health. Job stress, long shifts, heavy workload, unhealthy diets and lack of exercise can cause stress and may also reduce the quality of personal relations (Leow et al., 2018; Naudé & Rothmann, 2006; Regehr, 2005; Stults-Kolehmainen & Sinha, 2014; Timmons et al., 2017). Little to no research has been conducted to explore the lived experiences and coping mechanisms of female paramedics in high stress and trauma burdened environment (Alexander & Klein, 2001; Lawn et al. 2020; Shakespeare-Finch et al., 2015; Sterud et al., 2006).

2.4 TRAUMA

Trauma can arise when seeing or being part of a certain event, where the response can be overwhelming feelings of panic, powerlessness or fear (Covington, 2008). According to Baqutayan (2015), trauma can refer to a situation that suggests negative thoughts and feelings in a person. According to Nijenhuis and Van der Hart (2011), the word “trauma” is regarded and meant as a psychological wound. Most people tend to experience a range of symptoms after traumatic experiences.

Employees who are affected by traumatic stress can be at a higher risk of making poor professional judgements (Zana, 2019, p.2). Traumatic and high-stress experiences could certainly impact an individual’s emotional, social, mental, and physical well-being, which in turn, may lead to job dissatisfaction, poor work performance and personal turmoil (Kheswa, 2019).

PTSD is a disorder often diagnosed by individuals who have suffered a traumatic incident (Covington, 2008) and may cause low levels of well-being (Berle et al., 2018). PTSD can lead to decreased levels of physical, psychological, social and behavioural well-being (Berle et al., 2018; Charuvastra & Cloitre, 2008). Thus, criteria required for the diagnosis of PTSD include being exposed to death, threatened death, actual or threatened serious injury, or actual or threatened sexual violence. Symptoms after traumatic experiences are grouped into four types, namely intrusive memories, avoidance, cognition and mood changes, and arousal and reacting changes (see Table 2.1).

Table 2.1

Symptoms of Post-traumatic Stress Disorder (adapted from Mayo Clinic, 2018)

Intrusive memories	**Avoidance**	**Cognition and mood changes**	**Arousal and reacting changes**
Nightmares and flashbacks	Trying to avoid thinking or talking about the traumatic event, places, activities and people	Negative thoughts, hopelessness, loss of memory of the event and detachment	Frightened, alcohol abuse, reckless driving, lack of sleep, lack of concentration and angry outbursts

Regehr (2005) also stated that PTSD is associated with negative feelings such as apathy, impartiality and emotional unavailability or numbing. It can disrupt an individual's job performance, relationships, health and enjoyment of everyday activities. It includes factors like anxiety, denial, frustration, depression, sleep disturbances, substance abuse and suicide (Berle et al., 2018), and may affect performance by showing a sense of insensitivity or a negative attitude. In the world of paramedics, it can often lead to absenteeism and high employee turnover, which in turn, results in increased workload, poor response to patients and especially their emotional needs, and may cause other organisational problems such as conflict (Iwu, 2013). Mackinnon et al., (2020) made a powerful argument in their conclusion that paramedics seeking mental health support can mean the difference between life and death.

Wild et al. (2016, p.2575) investigated health outcomes for newly recruited paramedics, and found that out of 386 participants, 8.3% experienced a PTSD episode. Women are twice as likely to develop PTSD after experiencing a traumatic incident (Birkeland et al., 2017; Christiansen & Elklit 2008; Christiansen & Hansen, 2015; Kilpatrick et al., 2013; Pineles et al., 2017). The diverse dynamic between how

men and women deal with PTSD seems to be a topic that still needs to be further researched.

Long-term exposure to trauma increases the risk of psychological and physiological effects that can cause mental health conditions (Fullerton et al., 2004). Measuring trauma can be difficult because of various types of trauma, and it is therefore difficult to measure the impact of trauma (Whiting et al., 2019). According to LeBlanc et al. (2011), such events may lead to individuals feeling emotionally distant and disengaged from their families and contribute to feelings of anger and fear. Gayton and Lovell (2012) suggested that traumatic events can become easier and better tolerated with experience when practising emotional distance and resilience. However, Dopelt et al., (2019) found that a number of paramedics had left their profession because of shift work, the reason being that it created work-family conflicts and frustration, and they felt emotionally drained and worn out owing to stressful work demands.

2.5 COPING

Pearlin and Schooler (1978) indicated that coping refers to the actions individuals take to avoid harm. Coping is multifaceted and aimed at minimising the effects of stress or trauma. Coping is a key concept in adjustment and well-being (Lazarus, 1993; Marroquín et al., 2017). Mark and Smith (2008) suggested that despite the widespread use of the term ‘coping’, there are difficulties surrounding its definition because it can be seen as a process, a behaviour, a trait or a specific situation.

As indicated in Table 2.2, there are different definitions of the concept of coping.

Table 2.2

Definitions of Coping

Author	Definition
Folkman et al., (1987, p. 172)	"The thoughts and acts people use to manage the demands of stressful transactions".
Pienaar & Rothmann (2003, p. 81)	"The efficacy with which individuals deal with their emotional responses to stressors and act to resolve".
Delahaij et al., (2006, p. 17A-1)	"The capability to stay cool and not letting emotional and physiological reactions interfere with cognitive processing".
Balcar et al., (2011, p. 27)	"Coping actions involve cognitive, emotional, behavioural and physiological processes that are selectively applied in various combinations to alleviate a person's acute or chronic overload with demands that he or she is unable to master at the time." "This is done by making use of habitual skills."
Villada et al., (2016, p. 91)	"The way we face a threat or a challenge in an attempt to prevent or reduce associated distress."

The main theme in the definition of coping is the efforts individuals make to manage the demand or challenge facing them. Although coping can be conceptualised in numerous ways, high stress, trauma burdened environments can present new,

unprecedented stressors. The way female paramedics cope in such environments has an impact on various aspects, including their mental health (Picken et al., 2019). Various coping mechanisms can be used to deal with the experiences in a high stress, trauma burdened environment (Baqutayan, 2015).

Healthy coping mechanisms include social support, which provides a sense of health, stability and self-worth (Baqutayan, 2015). Adaptive coping strategies such as talking with friends and family, exercising, faith and prayer, and actively addressing the causes of stress and trauma have been identified as measures that help to improve overall well-being (Gellar et al., 2007). Negative coping mechanisms such as abuse of alcohol, drug and nicotine, self-harm and withdrawing from others can increase anxiety. These behaviours may help females to cope over the short term, but they become less effective over time. Personality traits also influence stress triggers (Jennings, 2008). A case in point would be a paramedic with a Type A personality, typically characterised as being competitive, ambitious and resilient (Alexander & Klein, 2001; Gayton & Lovell, 2012; Mirhaghi et al., 2016).

Research has indicated that females require coping mechanisms such as emotion-focused and comforting social support to decrease stress and PTSD (Olff, 2017). Almutairi and El Mahalli (2020) conducted a study on coping methods among emergency medical services professionals in Riyadh, Saudi Arabia, and found that the most frequently used coping mechanisms were talking with colleagues, looking forward to being off duty and thinking about the positive benefits of their work. Healthy long- or short-term coping mechanisms, according to the APA (2019b), include prioritising self-care, being patient with oneself, facing one's feelings and social support.

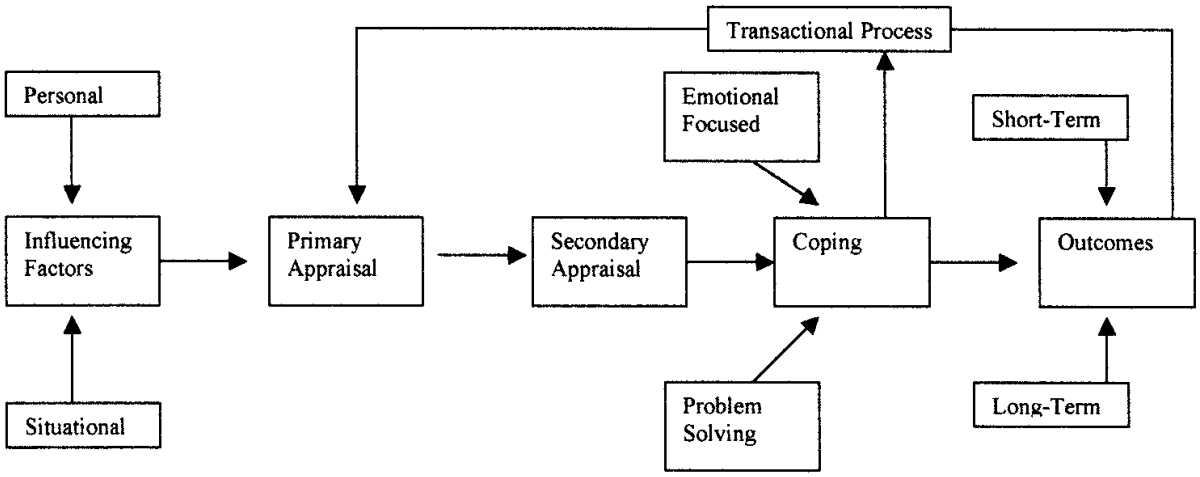
A study conducted by Bilsker et al. (2019) acknowledged five resilient coping mechanisms, namely balance, self-acceptance, trusted social support, meaningful work and physical self-care. Resilience aids subjective well-being (Navarro Moya et al., 2017) and resilience training enhances the capacity to cope more effectively with stress (Bilsker et al., 2019; Wild et al., 2016). The APA (2019b) recommends

evidence-based coping tools to help with stress such as social support, good nutrition, relaxing of muscles, meditation, sleep, physical exercise, exposing oneself to nature for relaxation, pleasurable hobbies, reframing one's thoughts and seeking help.

Lazarus and Folkman (1984, as cited in Schuster et al., 2003) developed and provided a stress/coping model comprising influencing factors, appraisals, coping and outcomes (see Figure 2.2). Personal factors can influence how an individual experience a "person-environment" relationship, where situational influencing factors consist of innovation, probability, convenience and the duration of a stressful situation (Schuster et al., 2003). The primary appraisal establishes whether the situation is considered stressful, while the secondary appraisal can clarify if the circumstance is indeed deemed stressful (Schuster et al., 2003). The appraisal process considers which coping mechanisms are available, what coping mechanism the individual will be able to use or find helpful. Emotion-focused coping takes place when there has been an appraisal or evaluation determining that nothing can be done to change damaging, threatening or challenging "person-environment experiences", and problem-focused coping can be used when the situation is evaluated as changeable (Schuster et al., 2003). Such coping mechanisms can be directed to evaluate and define the situation or experience, producing solutions, weighing the alternatives and choosing a suitable mechanism (Schuster et al., 2003). The stress process is dependent on the relationship between the stressful situation or experience, the response and the reaction (Schuster et al., 2003). The transactional stress/coping model is depicted in Figure 2.2.

Figure 2.2

The Transactional Stress/Coping Model (Lazarus & Folkman, 1984, as cited in Schuster et al., 2003, p. 279).



Use of the transactional stress/coping model helps one examine what factors influence stress and how to determine which coping mechanisms can be identified and used for a healthy and successful outcome when working in a high stress and trauma burdened environment.

2.6 THE THEORETICAL LINK

Individuals may respond differently when faced with a stressful situation or trauma, and the literature reflects that coping strategies are indeed helpful during such times. This is also true of the lives of paramedics in whose careers a correlation exists between stress, trauma and coping. Paramedics, and the nature of the hardships they have to endure while executing their jobs, are discussed below.

2.6.1 Dangers of being a paramedic

South Africa has a high murder, accident and general crime rate, and one of the consequences is that the country needs an efficient emergency response system.

Hence a paramedic's job can be physically dangerous and emotionally daunting. In order to reach patients as quickly as possible, paramedics often travel at high speeds, which can cause accidents, and they have to use alternative and isolated routes. Furthermore, owing to South Africa's notorious reputation for being a high crime country with a diverse patient population, evidence suggests that paramedics in South Africa are exposed to a much higher degree of traumatic incidents in comparison with other countries (Minnie et al., 2015, p.13).

Paramedics assisting victims of violence can experience direct violence themselves. Their tasks can have an emotional, psychological and physical on them (Zana, 2019). The nature of the paramedic's work is not only stressful, but also dangerous (Zana, 2019). Stressful and traumatic events may disrupt their emotions and sense of self. Female paramedics experience a higher rate of exhaustion, partly because of on-the-job violence like verbal, physical and sexual abuse, intimidation and assault (Wongtongkam, 2017). Moreover, they may also exhibit the above-mentioned symptoms upon returning home, and may negatively affect family and personal life that enables disengagement, distancing or withdrawal from others (Anderson, 2019).

Working in a high stress and trauma burdened environment can lead to decreased productivity, low morale and high employee turnover (Jennings, 2008; Rajgopal, 2010). Paramedics retire earlier in comparison with other professionals because of mental and physical exhaustion and increased occurrence of PTSD and anxiety (Alexander & Klein, 2001; Dopelt et al., 2019; Sterud et al., 2006). Other than witnessing traumatising events, paramedics may fear for their lives daily. Working in rural areas is part of their normal daily task, which can be an extremely dangerous and isolated environment, generating fear and stress.

2.6.2 The link between stress, trauma and coping in the paramedic's workplace

The way in which paramedics deal with such high stress and trauma burdened situations can determine whether they overcome or endure a variety of consequences (Baqutayan, 2015). South African paramedics are some of the best first responders

compared to those in other countries (Arrive Alive, n.d.a; Minnie et al., 2015) because of the excellent standard of training and high exposure to traumatic, high stress and dangerous circumstances. Being a paramedic is a calling and requires them to be caring and confident.

Trauma burdened situations result in unhealthy reactions that affect individuals' quality of life and well-being, especially those of paramedics (Leserman et al., 2005; Stults-Kolehmainen & Sinha, 2014). The emotional and mental state of paramedics may lead to behavioural changes, and for them to be effective they need to be mentally, physically and emotionally stable (Zana, 2019, p.13). Nevertheless, when one encounters paramedics while on shift, one is likely to have been reassured by their calm and professional demeanour. According to Petrie et al. (2018), management's level of commitment and operational definition regarding policies, procedures and practices implemented correctly can benefit employees' psychological health, other than personal social support. Little to no research has been conducted to explore the lived experiences and coping mechanisms of female paramedics in high stress and trauma burdened environment (Alexander & Klein, 2001; Lawn et al. 2020; Shakespeare-Finch et al., 2015; Sterud et al., 2006).

Trauma increases the severity of stress in paramedics. If factors that contribute to stress in paramedics are not dealt with, professionally, they will find detrimental ways to keep themselves functional, and may be self-destructive (Lawn et al., 2020). This behaviour will decrease their resilience in maintaining their well-being. For paramedics, it would be more beneficial to avoid the suppression of their emotional responses and they need to pay attention to their emotions and learn to listen to them (Zana, 2019). Paramedics experience and witness stressful and traumatic situations while on the job. With their working conditions, time pressure, lack of control over the physically threatening environments, the number of tasks per service and intense pressure can predict emotional exhaustion and can have a negative impact on their health (Navarro Moya et al., 2017).

Le Blanc et al. (2012) conducted their study by creating a simulation of realistic clinical scenarios, capable of generating different levels of stress in 22 paramedics. When they were confronted with clinically relevant stressors, the paramedics demonstrated significant increases in anxiety and physiological measures of stress (Le Blanc et al., 2012). The stress responses led to impairments in performance and the ability to accurately recall information on the situation (Le Blanc et al., 2012). Their findings indicated that clinical performance and documentation were vulnerable to stress (Le Blanc et al., 2012). Navarro Moya et al. (2017) summarised their findings that subjective well-being has been linked to fatigue because of shift work.

In a study of 221 paramedics in the Netherlands, Van der Ploeg and Kleber (2003) determined that paramedics' exposure to trauma led to lowered psychological and physical well-being and affected their social and family life. Although this line of work can be rewarding, and personally gratifying, traumatic experiences can have a lasting effect and result in damaged psychological functioning (Gayton & Lovell, 2012; Halpern et al., 2014; Varker et al., 2017). According to Whiting et al., (2019), trauma can have a devastating psychological impact on paramedics. Furthermore, paramedics are more likely to experience feelings of being responsible for the lives of others, witnessing tragic and gruesome images, observing the suffering and/or death of people, working beyond physical exhaustion and the pressure of working against time, which puts them at risk of developing PTSD (Halpern et al., 2014).

Paramedicine can be physically, emotionally and mentally demanding and draining (Lawn et al., 2020). Tracy and Scott (2006) concluded that females are less likely to take risks because their families are their top priority. They sacrifice their time and devote their lives to their profession. They suffer loss because of stress and trauma. Yet stress can be an important factor for motivation, adaptation and reactions, but still result in PTSD (Shahsavarani et al., 2015). The literature supports the contention that coping helps with stress and trauma (Courtney et al., 2012; Fullerton et al., 2004; Kucmin et al., 2018; Lazarus, 1993). Furthermore, eustress should be considered in a high stress environment such as that of a paramedic, and how it can be utilised as a coping mechanism (Branson et al., 2019)

2.7 CHAPTER SUMMARY

The aim of this chapter was to conceptualise stress, trauma and coping by presenting a review of the literature on these constructs and their related aspects. It explored how stress, trauma and coping can affect a paramedic in a high stress and trauma burdened environment. The literature that was reviewed included studies and media reports from around the world to gain a better understanding of these constructs and their interrelatedness. Chapter 3 discusses the research design and methodology adopted for this research.

CHAPTER 3: RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

In this chapter, the research design, approach, strategy and methodology that informed this study are outlined. In the research method section, the research setting, entrée and establishing the researcher's role, sampling, data collection, recording of data, data analysis and method of reporting are discussed. Finally, the strategies employed to ensure quality data, and the ethical considerations are also explained.

3.2 RESEARCH DESIGN

Research design can be seen as the glue that holds all the components of the researcher together, with the aim of addressing the research questions (Odoh & Chinedum, 2014). Hence the research design represents the structure and planning of an approach to a research problem (Odoh & Chinedum, 2014). A qualitative exploratory research design was chosen to explore the lived experiences and coping mechanisms of female paramedics in high stress and trauma burdened environments (Creswell, 2009). The type of research was exploratory and inductive (Durrheim, 2006), which describes the initial investigation of paramedics in a high stress, trauma burdened environment. The research started with an exploration of the lived experiences and coping mechanisms, which further revealed important themes and subthemes (Durrheim, 2006).

3.3 RESEARCH APPROACH

The qualitative research approach enables the researcher to conduct an in-depth study. The aims of this study were to conceptualise stress and its related constructs, trauma and its related constructs, coping and its related constructs, and lastly, to explore the theoretical link between stress, trauma and coping in the workplace. The qualitative approach was used to focus on understanding the lived experiences and coping mechanisms of female paramedics in a high stress, trauma burdened

environment. The approach was chosen in order to understand individuals and gain knowledge through interviews in an effort to explain what they had experienced.

A qualitative approach was deemed suitable because the researcher believes that lived experiences or realities consist of individuals' subjective experiences An interpretive approach was also used to inform the data collection, analysis and interpretation of this study (Ponterotto, 2005). By using the interpretive approach, methodologies such as interviews with participants were used to gain in-depth and subjective drivers which would inform the social action of the coping mechanisms of paramedics in a high stress, trauma burdened environment (Terre Blanche & Durrheim, 2006).

Rich data was collected using semi-structured interviews exploring in detail the experiences of the participants. The interviews helped explore experiences and feelings to gain knowledge on the topic. This ensured an in-depth understanding of the paramedic environment and the perspectives of female paramedics on their experiences and the coping mechanisms they use in a high stress, trauma burdened environment.

The overall purpose of the research was both exploratory and descriptive (Creswell, 2009). Descriptive research describes the characteristics of the occurrences and experiences (Salkind, 2018). In this instance, the study was descriptive to gain an in-depth understanding of the lived experiences and the coping mechanisms female paramedics use in high stress and trauma burdened environments. The interpretive approach contributed to the data collection, analysis and the interpretation thereof (Ponterotto, 2005). It explored new insights and questions (Durrheim, 2006).

A further aim was to develop insights to foster a better understanding of the lived experiences and coping mechanisms female paramedics used in high stress and trauma burdened environments, and to be able to make recommendations to the paramedical industry of how female paramedics can be enabled to thrive in a high stress and trauma burdened environment.

3.4 RESEARCH STRATEGY

This research strategy was inductive in nature. The strategy consisted of gleaning the participants' subjective experiences of their reality (Terre Blanche & Durrheim, 2006) by exploring and discovering themes through open questions (Durrheim, 2006), with no preconceived notions of female paramedics and the coping mechanisms they use to thrive. These strategies thus made sense of the unique experiences of the participants through semi-structured interviews. The purpose was to explore the research question and female paramedics' lived experiences and coping mechanisms within a high stress, trauma burdened environment. The researcher was responsible for the internal validity regarding an accurate representation of the participants' responses.

3.5 RESEARCH METHOD

A qualitative research method was used to gather data pertaining to information from the lived experiences and coping mechanisms of female paramedics in high stress and trauma burdened work environments. The interpretive research method presented their subjective experiences (Terre Blanche & Durrheim, 2006). The research process involved determining the research question, the initial literature review, qualitative research methods, methods of data collection, methods of data analysis and drawing conclusions from the data. Information relating to these methods, such as the research setting, entrée and establishing the researcher's roles, sampling, data collection methods, recording of data, data analysis, strategies employed to ensure quality data, and reporting of the findings, is discussed.

3.5.1 Research setting

The research setting and focus of the research was situated in the world of paramedics. More specifically, the lived experiences and coping mechanisms paramedics apply in this high stress, trauma burdened environment. Owing to the demanding nature of paramedics' job, which includes travelling to emergency scenes, the interviews were conducted through Zoom, in accordance with Unisa's policy on COVID-19.

During the interviews, the researcher made the participants feel comfortable and safe. It was deemed necessary to allow the participants to feel that they could trust the researcher in describing accurately how they experienced the high stress, the trauma burdened environment and the coping mechanisms they used to thrive. The researcher was empathetic and created a relationship of trust with the participants, and in doing so could learn about their honest and in-depth experiences (Kelly, 2006a; Terre Blanche & Durrheim, 2006).

The Unisa IOP Research Ethics Review Committee (see Annexure A) granted ethical clearance for conducting the research. Given the high stress and trauma burdened context in which paramedics function, and to mitigate the risk of trauma, stress or discomfort experienced by participants and the sharing their lived experiences, the researcher endeavoured to create a calm environment during the interviews and applied the following measures to ensure no harm to the participants.

- The researcher had a counsellor (her supervisor) on standby in case any of the participants needed a support service. Dr van Niekerk is a registered industrial and organisational psychologist with the HPCSA (PS 0118966), and was available to offer counselling services if and when the need arose. In addition, participants were provided with the contact details of the Cipla SADAG Mental Health Line (0800 4567 789 or WhatsApp 076 88 22 775) if they required counselling after the interviews.

- The researcher attempted to be sensitive to the needs and experiences of the participants and thus ensured that the video function of the Zoom interview was active so that the researcher could observe and detect any possible signs of discomfort or distress on the part of participants. The researcher made it clear to the participants that they did not need to answer any questions they were not comfortable with.
- The researcher decided to have her supervisor on standby as an additional source to refer to to ascertain the best course of action to protect the participant and the researcher, and to ensure data was collected ethically. The researcher made it clear that the participants could take a break when needed.
- The researcher developed a positive rapport with the participants throughout the interview.

3.5.2 Entrée and establishing the researcher's role

The researcher was acquainted with female paramedics who had indicated their interest in the topic and expressed their willingness to participate in the study. The researcher prepared the participant information sheet and requested that the female paramedics share information on the study with other potential participants, which was in line with the sampling inclusion criteria. The participant information sheet (see Annexure B) assisted with the process of inviting participants after the researcher had contacted them to ask if they were interested in participating in the study. The female paramedics who met the inclusion criteria and who were willing to participate, after background information on the study had been shared with them, received an informed consent form (see Annexure B) outlining that their participation was voluntary, that no payment or reward would be offered, and that confidentiality and anonymity would be ensured. Appointments for the interviews were scheduled with the participants. The researcher obtained permission from the participants to record the interviews. The researcher made backups of the recordings and stored them securely (Archibald et al., 2019; Henry & Fetters, 2012).

3.5.3 Sampling

Sampling is the process of selecting instances or items to be observed (Durrheim & Painter, 2006). The sample is then accumulated and represents a group, namely the so-called “population” of the study. Gray (2004) stated that the entirety of people, organisations, objects or occurrences from which a sample is drawn is a population. According to Creswell (2014), research populations are all the individuals whom the researcher intends to study. The study population for this research comprised female paramedics who work in a high stress and trauma burdened working environments. According to the HPCSA (2018), all emergency medical care roles, which include paramedics, assistants and students, totalled 67 800 individuals. According to Statistics South Africa (2017), in 2007, 44 for every 100 employed individuals were women. It is therefore difficult to accurately stipulate how many paramedics there are in South Africa, more specifically female paramedics.

In accordance with the interpretive qualitative research approach adopted in this study, the participants were purposefully selected (Creswell, 2009), and this was consistent with a nonprobability and purposive sampling method (Durrheim & Painter, 2006). It helped the researcher to identify female paramedics who had lived experiences in high stress, trauma burdened environment and could therefore share how they experienced such an environment and what coping mechanisms they applied to thrive.

According to Creswell (2014), sample sizes in qualitative research should not be too small to make data saturation difficult; nor should they be too large to make the analysis difficult. Based on the literature on qualitative research design, the approximation of 10 females was deemed appropriate (Dworkin, 2012). The predominant notion for the sample size in qualitative research is referred to as saturation (Malterud et al., 2015). The sample consisted of 10 female paramedics who were interviewed, after which the researcher interviewed more participants until data saturation was reached, and further interviews did not lead to new themes emerging (Kelly, 2006b).

Specific inclusion and exclusion criteria were applied to select the participants. The inclusion criteria of the sample included any female paramedic who had worked for at least two years after receiving training, which can take at least one year with six months or 1 000 hours of practical experience before registration with the Health Professions Council of South Africa is permitted (Arrive Alive, n.d.b), and who was between the ages of 20 and 50 years. The participants were at different levels in managerial positions and age groups. Two years of experience for paramedics was enough for the inclusion criteria as a result of their training with senior paramedics, and they had therefore gained experience in a high stress and trauma burdened environment, and had furthermore developed coping mechanisms on how to thrive in high stress and trauma burdened environments (Henderson, 2012; Simpson et al., 2016). Participants were excluded from this study if they were male, if the female paramedic had less than two years of working experience, if she was younger than 20 or older than 50 and if she was unwilling to participate in the study. Since paramedics tend to retire early, few of them practise after the age of 50 (Alexander & Klein, 2001; Dopelt et al., 2019; Sterud et al., 2006).

3.5.4 Data collection methods

The interpretive paradigm encourages the sharing of in-depth information during data collection. This study thus adopted semi-structured interviews as its data collection method, situating the data collection method well within the interpretive paradigm (Durrheim, 2006, p. 40). Furthermore, semi-structured interviews enabled the researcher to ask questions and probe further where necessary, which enabled the participants to respond in detail, thus receiving multiple responses and rich data (Struwig & Stead, 2001). It drew detailed related information from the participants to understand the topic in context (McMillan & Schumacher, 2010; Van de Vyver, 2010).

An interview schedule was used (see Annexure C) to guide the semi-structured interviews. This interview schedule helped the researcher prepare for the interview, prepare the participants and obtain consent to record the interview (Kelly, 2006a). It enabled the researcher to gain rich data relating to their lived experiences as female

paramedics. The questions were constructed in alignment with the research objectives and allowed for in-depth exploration of the lived experiences of the participants. The following open-ended questions were posed:

- *Can you describe what your day-to-day job as a paramedic entails?*
- *Can you explain in what way you see this job affecting you?*
- *How are you coping?*
    - *Do you use any specific coping mechanisms?*
    - *Do you feel you need coping mechanisms to thrive?*
- *When do you feel you thrive? How do you experience your ups?*
- *How has the exposure to high stress and trauma burdened scenes affected your daily living or way of thriving?*

Owing to the existing COVID-19 pandemic, and in line with the Unisa Ethics Guidelines pertaining to conducting research during the pandemic, interviews were conducted via Zoom, in accordance with the Unisa policy. The participants were at home during the semi-structured interview so that they could privately and comfortably share their experiences, as well as being off duty to avoid possible interruptions from work (Kelly, 2006a). Each interview was approximately 45 minutes long.

3.5.5 Recording of data

Permission was requested from participants to record the interview conducted online via Microsoft Teams, from which transcriptions were made (Terre Blanche et al., 2006). As stated, the researcher was the primary instrument for collecting and transcribing the data. Quality data was obtained by fulfilling an objective role and making participants feel comfortable sharing their in-depth experiences, by listening attentively and interacting with them empathically (Terre Blanche et al., 2006).

3.5.6 Data analysis

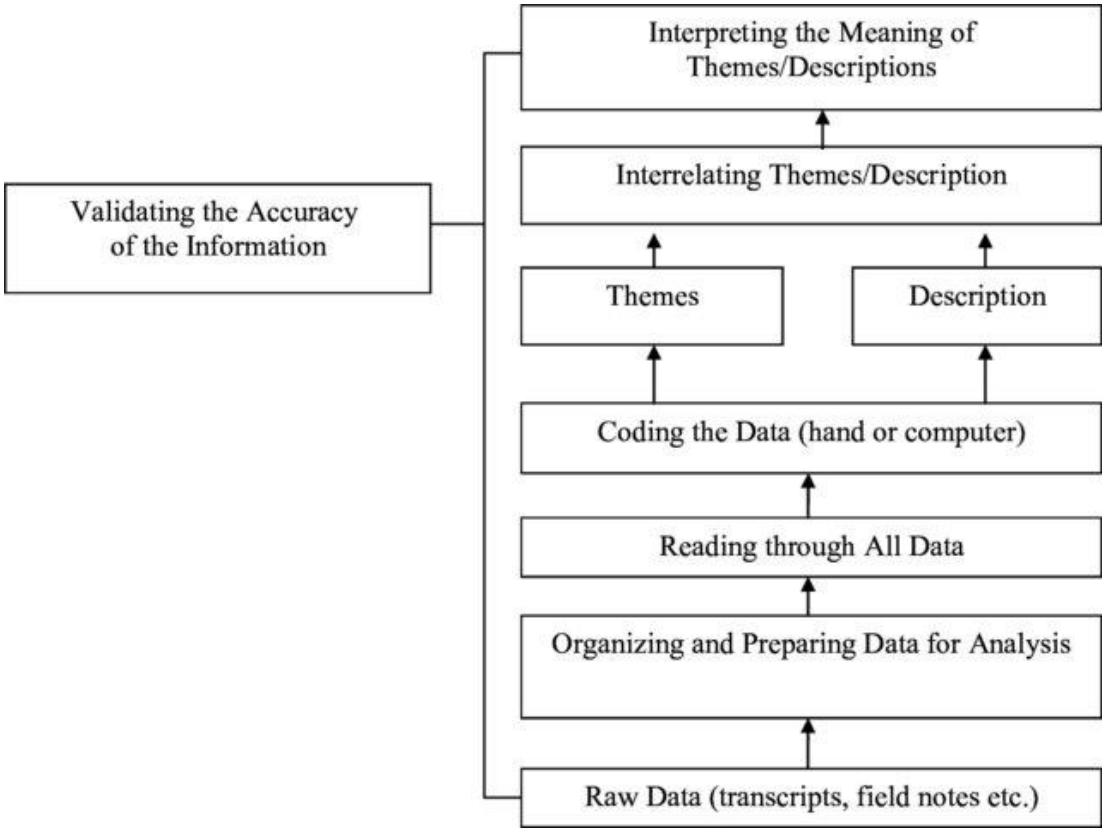
In interpretive analysis, it is essential for the researcher to interpret the data from a point of empathetic understanding (Terre Blanche et al., 2006). It guides the researcher to place lived events in some kind of perspective (Terre Blanche et al., 2006). According to Wong (2008), analysing qualitative data entails making sense of large amounts of transcripts, looking for similarities or differences and reducing the data to draw meaningful interpretations from it. Data analysis entails processing and arranging transcripts and notes from the interviews to enhance one's understanding of the research topic (Wong, 2008).

Inductive reasoning was used because analysis in the interpretive paradigm assumes that the reality being explored is that of people's subjective experiences (McMillan & Schumacher, 2010). According to Terre Blanche et al. (2006), the researcher is part of the research process because of his or her subjective interactions with the respondents, while also being the primary person responsible for the data analysis. Content analysis was used to analyse and interpret the data to construct meaning as it represents a systematic and objective means of describing the experiences (Elo et al., 2014). It is a process of classifying data into themes, subthemes and their related properties (Struwig & Stead, 2001).

Hence, in this study, the data collected from the semi-structured interviews was analysed using content analysis. Data was processed through immersion of text, expansion and interpretation (Terre Blanche et al., 2006). The researcher's intent was to understand and familiarise herself with the data by going through the analysis process thoroughly. The process of content analysis as prescribed by Creswell (2014) was applied in this research. Creswell's illustration of data analysis (Figure 3.1) suggests a hierarchical approach working from the bottom to the top (Creswell, 2014).

Figure 3.1

Data Analysis in Qualitative Research (Creswell, 2014, p. 197)



3.5.6.1 Raw data

Step 1 entailed the researcher's engagement with the raw data by listening carefully and repeatedly to the recorded interviews (Creswell, 2007). The researcher also made notes during the interviews and transcribed the interviews herself. The transcribed and recorded interviews were stored electronically on the researcher's laptop. The aim was to gather the data before working with or coding it (Creswell, 2007).

3.5.6.2 Organising and preparing for data analysis

Step 2 involved organising and preparing the data. The researcher read through all the transcribed data to make sense of the content. This afforded her the opportunity to start compiling ideas and gain a sense of the overall depth of the data (Creswell, 2007).

3.5.6.3 Reading through all data

During step 3, when ideas and insights came to mind while reading through the transcribed data, the researcher made comments (Kuckartz, 2014). The researcher went through the transcribed texts several times making comments in the margins that reflected the experiences of the participants (Creswell, 2007). Reading through the transcribed data assisted the researcher to form tentative categories and ideas on how to work with the data moving forward (Creswell, 2014).

3.5.6.4 Coding the data

Step 4 relates to coding during which the researcher identifies sections of meaning in the data and assigns a code to them (Linneberg & Korsgaard, 2019). During this process, the researcher analysed the transcriptions and notes, and labelled segments of the data that had similar meanings or conclusions. Some of the codes for the data analysis were presumed because of the literature reviewed and the interview guide, while other codes emerged from the empirical study (Creswell, 2007). Since some of the topics and phrases were repeated by the participants, there were key codes that were initially grouped together. The researcher then compared the categories and grouped them together into more meaningful categories on an MS Excel spreadsheet. The coding process allowed for a story to be formed as told by the participants. The coded categories where then further categorised into subthemes and themes. The process of coding enables the breaking down of data, analysing it and creating subthemes and themes (Terre Blanche et al., 2006).

3.5.6.5 Generating a description of the themes

In step 5, a description of the themes generated from the categories was formed. Five main themes and their related subthemes were generated from the categories. The researcher also found some random codes that did not seem to be significant or belong within one of the subthemes. The themes and subthemes described the participants' lived experiences as contextualised within this. The researcher studied the themes thoroughly and carefully to ensure they were described in detail.

3.5.6.6 Interrelating the themes

The themes, subthemes and categories were then presented in tabular form (see table 4.1) in step 6. The table was designed and presented to provide a clear view and short description of the themes, subthemes and categories drawn from the analysis process. Thereafter, the themes with their subthemes and categories were interpreted, analysed and explained.

3.5.6.7 Interpreting the meaning of the themes

Finally, in step 7, the interpretation, description and analysis of the themes culminated in a detailed description of the main findings. In this study, the researcher provided an explanation and understanding of the lived experiences of and coping mechanisms female paramedics apply in a high stress, trauma burdened environment. Interpreting the findings meant making sense of them by analysing and interpreting the data to enable the researcher to draw conclusions as they emerged from the findings (Creswell, 2014). The researcher repeatedly read through the themes and subthemes to ensure that no data was left unaccounted for. The researcher then drew conclusions by integrating the findings of the literature review with the findings of the empirical data.

Through the research design and the use of content analysis to analyse the collected data, the researcher was able to achieve the purpose of this study by answering the

main research question, which was formulated as follows (Yin, 2011): *How do female paramedics experience a high stress, trauma burdened environment and what coping mechanisms do they use to thrive*?

3.5.7 Reporting

The main empirical aim of the research was to gain a deeper understanding of female paramedics' lived experiences and the coping mechanisms they use in a high stress and trauma burdened environment. A further aim was to develop insights that could help to foster a better understanding of the coping mechanisms they use to thrive within such environments. The final aim was to make recommendations on well-being and support programmes that would improve the well-being of the female paramedics. It was anticipated that the study would also give female paramedics insight into mechanisms that are effective in helping them cope with the environment they work in. The empirical aims entailed the formulation of recommendations for possible future research.

Since the research findings were qualitative, an inductive approach was used to process the raw data gathered from the interviews, and to align this with the research question and paradigms (Durrheim, 2006). Verbatim quotations were used to capture the essence of true feelings of the female paramedics' lived experiences and coping mechanisms in a high stress, trauma burdened environment. The participants' names were not recorded anywhere, and they were given pseudonym. For example, Participant 1 for Participant one and Participant 2 for Participant two. The interviewer reported the data by means of conceptualising themes and subthemes where she would first analyse the verbatim text of the interviews and then present an interpretation thereof. The findings are discussed in terms of the problem statement and the literature reviewed.

3.5.8 Strategies employed to ensure quality data

It is necessary for any researcher to ensure that sound evaluative standards are used

in a study. Because qualitative research focuses on value-laden information, the emphasis is on the trustworthiness and credibility of the research rather than the validity and reliability of the study (Morrow, 2005).

The researcher must determine and demonstrate that the research results are valid (Lub, 2015). Kelly (2006a) posited that reliability is useful in qualitative research, as it translates into the question: *"Have I reliably given voice to your experience?"* The reliability of the literature was presented by accessing existing literature sources, theories and models. Reliability was ensured by considering a wide range of accessible literature sources (Yin, 2011). A practical difficulty with reliability is that human behaviour changes constantly. The use of one coping strategy may be sufficient to reduce stress. The goal in this study was to provide a fair and honest account of the lived experiences and coping mechanisms of female paramedics in a high stress, trauma burdened environment.

According to Zohrabi (2013, p.258), validity is based on the trustworthiness, value and dependability in this study. The validity of the literature review was ensured by using literature that was relevant and up to date in terms of the research topic. The most recent academically and scientifically sound sources were accessed. A variety of sources were consulted including books, journal articles, news reports, and unpublished theses and dissertations. The validity factors of transferability, credibility, dependability, confirmability and reflexivity were addressed in this research (Lincoln & Guba, 1985; Morrow, 2005; Van der Riet & Durrheim, 2006)

3.5.8.1 Transferability

Transferability refers to the extent to which one set of findings can be applied to another context, particularly the reader's context (Elo et el., 2014; Kelly, 2006c). Obtaining thick descriptions in a study is integral to transferability (Elo et el., 2014; Kelly, 2006c). It represents the degree to which the research findings that can provide answers in different circumstances (Kelly, 2006a). Rich and thick explanations of research cases should be provided to enhance transferability (Lincoln & Guba, 1985).

Although the purpose of qualitative research is not to generalise, it is possible to replicate a qualitative study in a different setting. It is therefore imperative to provide a detailed account of the research design and methodology adopted in the study. The experiences of the female paramedics were thus described in detail to allow for transferability to similar contexts.

3.5.8.2 Credibility

Credibility refers to whether the qualitative research findings are deemed credible, trustworthy and believable (Creswell, 2013). According to Miles and Huberman (1994), to produce convincing findings, context-rich and meaningful descriptions should be provided. Credibility also refers to the accuracy of data in reflecting the observed social phenomena (Lincoln & Guba, 1985; Loh, 2013).

Triangulation also helps to ensure correct representation of the participants' views and reactions when subjectivity, openness, sensitivity and empathy are shown towards the participant. In other words, credibility is concerned with ensuring that the findings are truthful in relation to the lived experiences of the participants. In this study, measures were taken to ensure that the data collection was unbiased, ethical and credible (Coetzee et al., 2016). Verbatim quotations were used to capture the essence of the participants' true feelings. The researcher engaged with her supervisor to ensure that the data analysis process was followed correctly, and consistently, and that it was a true representation of the participants' meanings of their lived experiences. The recordings of the interviews as well as the verbatim quotations were used to enhance the credibility of the study because they supported the themes and subthemes generated from the data.

3.5.8.3 Dependability

Dependability is concerned with the stability of data over time and in different settings (Elo et al., 2014). It refers to the degree to which others believe that the findings are a true reflection of the data collected in the study (Van der Riet & Durrheim, 2006) – in

other words, that the research results would be reproducible under similar conditions. Lincoln and Guba (1985) suggested the use of the researcher's position and audit trail to ensure the dependability of the study. Researchers are required to provide a description of the various processes used during the data collection, data analysis and interpretation phases. An audit trail requires full details on how data is collected, how it is analysed, how the themes emerged and how to arrive at the given results. Dependability in a qualitative setting means that the study can be replicated through a detailed account of the research design and methodology applied. The researcher ensured dependability by making sure she accurately documented a detailed audit trail of the entire research design and methodology followed (Kelly, 2006a; Yin, 2011).

The research proposal of this study was subjected to a peer review process which ensured dependability as it served as an external check to ensure that the researcher had applied a proper research design and methodology. Dependability was achieved by presenting a detailed audit trail of the research design and methodology (Shenton, 2004). Furthermore, the reporting of the study was presented as a detailed account of the participants' lived experiences supported with verbatim quotations.

3.5.8.4 Confirmability

Confirmability is the extent to which the findings of this study can be confirmed or verified by another researcher. Confirmability ensures that the research findings are bias-free, which means that the researcher is aware of or accounts for individual subjectivity. According to Creswell (2013), an audit of the research process augments dependability and confirmability. An audit trail or triangulation can be implemented to minimise biasness by preparing a comprehensive description of the data collected and explaining the analysis methods applied in a study.

Confirmability relates to objectivity in the research and ensures that the research findings have been based on the experiences of the participants and not influenced by the researcher's traits and perspectives (Shenton, 2004). In this study, data was documented, and a journal was used to keep track of the progress of the research

process by means of memos and summaries (Anney, 2014). Furthermore, the interview schedule and interview recordings and transcriptions were stored to allow for an audit in order to ensure that researcher bias had not influenced the data analysis and interpretation.

3.5.8.5 Reflexivity

Palaganas et al., (2017) postulated that reflexivity is a journey of learning, and helps researchers understand new origins. Reflexivity involves ways of questioning attitudes, thoughts and reactions in order to understand roles in relation to others (Palaganas et al., 2017, p.427). The researcher plays a critical role in qualitative research. Through reflexivity, the researcher can reflect on the self and the impact of the self on the research. The purpose of reflexivity is to improve the reliability and validity of the study.

The researcher was the primary instrument for collecting and analysing the data. She therefore took steps to ensure objectivity and adopted an empathetic approach with the participants to make them feel comfortable and for them to trust and share their lived experiences openly and honestly with her (Terre Blanche et al., 2006).

Steps were taken to ensure that the researcher was not biased, even though she had social relationships with the female paramedics. The researcher also controlled and limited her own bias by preparing for the interviews by reminding herself and the participants of the exploratory nature of their lived experiences for the study. Furthermore, the researcher remained conscious of their experiences and endeavoured to be present in the moment for the participant's personal experiences and feelings when delving into possible traumatic situations. The researcher managed the researcher-participant relationship by means of the pre-established interview questions, and at times asked participants, where necessary, to explain if she knew nothing about the jargon used in the field (Sandy & Dumay, 2011, p.243). The researcher worked with her own feelings and beliefs when engaged with the participants and the data to ensure that she could step back and remain objective and

reflect their voices and not her own. This helped her to enter each interview with no preconceived notions.

3.5.9 Ethical considerations

This research adhered to the necessary ethical measures which required serious consideration. These are now discussed.

The researcher obtained ethical clearance from the University of South Africa's (Unisa's) Department of Industrial and Organisational Psychology's Research Ethics Review Committee to conduct the research (see Annexure A). The participants were informed of their right to withdraw from the study at any time. Informed consent was obtained (see Annexure B) from the female paramedics. Participation was voluntary throughout the study and the participants were under no obligation to consent to participation. There was no penalty or loss of benefit for nonparticipation. The participants were free to withdraw from the study at any time without explaining to the researcher their reason for doing so.

Since this study involved human participants, Unisa's policy on the involvement of human participants was used as a guide. The policy is aimed at protecting the participants by using acceptable ethical standards in research. No risk was foreseen associated with the research procedures that were applied to the participants, their communities or any other third parties who might have been involved. The researcher, with the guidance of her supervisor, ensured that the participants were protected from harm, and they were free to tell the researcher if they felt uncomfortable when answering questions.

The researcher undertook to keep any information provided by the participants confidential. The participants' names were not recorded anywhere. They were given a pseudonym (Participant 1 for participant one, etc). Hard copies of the interview were stored by the researcher and will be kept for a period of five years in a locked cupboard at the researcher's home, and electronic information will be securely stored on a

password-protected computer. Hard copies will be shredded, and electronic copies will be permanently deleted from the hard drive of the computer after five years. Since plagiarism is an ethical issue, all sources that were used were acknowledged, and the Turn-it-in software program was used to confirm an originality index for the dissertation.

3.6 CHAPTER SUMMARY

This chapter provided a detailed discussion of the research design and methodology that informed this study. It clarified how the research outcomes were achieved to answer the research questions. The research design included the research approach, strategy and method. The research method explained the research setting, entrée and establishing the researcher's role, sampling, data collection methods, the recording of data, the data analysis method, reporting and the strategies employed to ensure quality data. In conclusion, all ethical considerations adhered to during the study were highlighted. Chapter 4 provides a discussion of the research findings.

CHAPTER 4: RESEARCH FINDINGS

4.1 INTRODUCTION

The objective of this chapter is to discuss the results of the study in order to enhance the understanding of the lived experiences and coping mechanisms of female paramedics in a high stress, trauma burdened environment. The results of the data analysis are discussed, and the themes, subthemes and categories described.

4.2 THEMES AND SUBTHEMES

Table 4.1 outlines the five main themes, and their related subthemes and categories, which emerged from the data. The main themes are work environment, triggers, work exertion impacts mental health, coping mechanisms and occupational performance. In the subsections below the themes are analysed in detail and supported with verbatim quotations.

Table 4.1

Themes and Subthemes

THEME	SUBTHEME	CATEGORY
WORK ENVIRONMENT	Nature of work setting	• Occupational atmosphere and demands • Peer support • Sustainability
PSYCHOLOGICAL TRIGGERS	Professional	• Children • Dealing with death • COVID-19
	Personal	• Family members

WORK EXERTION	Mental health	• Stress • Anxiety • Burnout
	Trauma	• Neglect of self and others • PTSD • Compassion fatigue
COPING MECHANISMS	Learned coping skills	• Uniform gives them confidence • Being dispatched to a scene • At the scene
	Self-care and coping mechanisms	• Counselling • Social and family support • Religion • Exercise • Escapism
OCCUPATIONAL PERFORMANCE	Compatibility with occupation	• Personality type • Job satisfaction • Adjustment
	Well-being	• Thriving

4.2.1 Theme 1: Work environment

The work environment emerged as a prominent theme. The data analysis yielded one subtheme, that is, the nature of paramedics' work setting. This subtheme generated three categories. The first category was the occupational atmosphere and demands, where participants described the atmosphere at work and what is required of them to complete their daily duties. The second category described how participants prefer working with their colleagues, and not alone, but in a team where they could use peer

support to, say, support or debrief them. Lastly, sustainability outlined the experiences of the participants and whether or not they believed being a paramedic over a long period of time is sustainable.

4.2.1.1 Subtheme: Nature of the work setting

The participants indicated that it was challenging to describe their work environment and setting precisely, as it is influenced by many differentiating factors, situations and events, depending on the location they are dispatched to. The participants therefore emphasised how paramedics can never know what to expect when starting their shift. This theme yielded three categories that are described in more detail below, namely occupational atmosphere and demands; peer support; and sustainability.

a. Occupational atmosphere and demands

During the interviews, most participants spoke to and described the occupational atmosphere and demands of their work environment. These included noting how they experienced it as abnormal, unstructured and chaotic. They also explained that it is difficult environment that often stretches them and takes them out of their comfort zones. Finally, Participant 5 stated how it involves a lot of waiting, expecting the worse.

> *… such an abnormal working environment … we don't have an office, you have a car … There is no set structure. No two days are the same … No two calls are ever the same. You don't know what lies ahead of you, it can be anything … Amazing, organised chaos.* (Participant 1)

> *… it's a difficult environment to be in.* (Participant 3)

> *… get pushed out of my comfort-zone every single day.* (Participant 4)

> *… it involves a lot of waiting … You never know what's gonna happen … You wait for bad things to happen.* (Participant 5)

The interviewer asked Participant 5 why she had become a paramedic. She mentioned that she liked the job because of the flexibility of going to new places and not staying in one location.

> *… because I've never wanted to work, can I say, work in one place. I like the flexibility of going to new places, always being on your toes, I really enjoy the disaster management side of it, and I mean the rescue was like a perk.* (Participant 5)

However, Participant 1 stated that one can feel uncomfortable when being in strangers' houses every day.

> *… as uncomfortable as it is to walk in a stranger's house on a daily basis.* (Participant 1)

Participants 3 and 5 mentioned that their work involves continuous high levels of adrenaline.

> *… what we do is we pick up the pieces and take it to hospital. So it – it's the adrenaline rush.* (Participant 3)

> *… always being on your toes… You have this constant adrenaline rushing through you.* (Participant 5)

Some participants further explained how demanding their work environment could be, as they often found that they were working with inaccurate information when dispatched, and they subsequently needed to be agile and prepared for anything.

> *Working for Joburg the information you receive is often very different to what you get to. So, you'll get told it's a gunshot "abdo", and you'll get there and it's*

a gunshot … So, I found that I was always being prepared for one thing and then encountering something else. (Participant 2)

… sometimes the message you get and the dispatch is not actually what's going on … I don't like to place too much importance on that message. I mean, there's times where it says you know a child is choking and there you get there and there's just no such thing happening. (Participant 5)

Participants 4 and 6 spoke about how they experienced their work environment as extremely dangerous at times and they are often faced with life-threatening situations. This is further complicated by the fact that when they arrive at the scene their focus is on the patient and not necessarily on their surroundings and looking out for their own safety.

… there was one night that I was actively threatened by a group of – well a gang of men that were saying to me "Keep this patient alive, otherwise we will hurt you". So, I have had active threats on my life. And then other times where you just feel unsafe, even if you aren't being actively threatened" (Participant 6)

… if you go to a shooting in some township you just think to yourself "this is ridiculous. How can a person safely do this alone" … But how are you supposed to treat a patient and look out for your safety? You can't constantly be looking over your shoulder "okay is the scene safe, is there anyone around?" while also treating a P1 – that's just impossible … I've been on scene where they, all of a sudden, actively shooting and you just kind of have to like … lay low, or get - or try to get out of there. (Participant 4)

The interviewer asked the participant what a P1 is, she replied that it was when the patient is critically ill or a high priority case.

> *"Oh, like a high priority like a very, uhm, a very serious critically ill.* (Participant 1)

Participant 6 further explained that given the time of one's shift, one might be faced with different degrees of seriousness in terms of the cases one has to work with, for example stabbings, shootings, murders and assaults. Participant 6 shared the negative impact this has on one's psyche.

> *… when you work night shifts in that area, uhm, it's a lot of trauma, uh, a lot of violent crime related cases. So, you'll do stuff like stabbings, shootings, murders, assault, and I was finding that was having a very bad effect on my psyche.* (Participant 6)

The participants also shared how their work requires them to also support patients and family emotionally.

> *… the job is providing emotional support to patients and to their family members. (Participant 4)*

> *… there's a lot of empathy and compassion involved.* (Participant 5)

In addition to the work requiring of them to support patients and family emotionally, some of the participants also explained how their work was physically demanding in the sense they have to make a lot of sacrifices. Participants stated that in addition to their work being extremely tiring, it takes its toll on them physically even more because it prevents them from taking care of themselves, such as resting, exercising and eating. This, in turn, makes them more vulnerable and they seem to struggle dealing with the emotional demands they are faced with, increasing their levels of stress and their bodies taking longer to recover between shifts.

> *… I think physically it's taking its toll, because were all pulling so many hours … you kind of get a mixture, sort of a, fatigue … you're tired, you gotta work,*

you do the best, and then emotionally it hurts you even more because you are fatigued, and you are more susceptive and then sensitive to all these issues … And on the long hours you don't eat properly, so, its – it's hard … suddenly I realised I was unfit and I was physically hurting at the end of calls. (Participant 2)

There're people who need help, it's your job, you need to go, if you like it or not. If you ate [or] not, if you pee'd or not someone's life depends on it. (Participant 1)

Because we have a physical[ly] taxing job as well, so often you don't get [a] chance to eat and what not, so then you're stressing on that as well, then your body takes a while to uhm, recover from each shift. (Participant 5)

b. Peer support

Not all paramedics work alone. Working alone or in a team can have both positive and negative elements. Being a paramedic requires emotional exertion and it is thus necessary to provide support not only to the patients and family members, but also to one's colleagues. The participants stated that having an extra hand to help get everything done when on and off scene, and having a colleague with them, enables them to ensure if what they think should be done is indeed the correct thing to do. Furthermore, their colleagues become their team and they build a bond with each other. Participants 1, 4 and 5 mentioned instances in which they were alone on the scene, and that some situations would have been a lot easier if they had had colleagues with them, because some duties are more difficult when they work alone. Both Participants 1 and 4 stated that it is also not safe working alone.

I feel to work alone – ja, it's not safe, and, ja, you don't have the hand that you need if your alone on a scene and that type of stuff … I began doing CPR, but I was alone there, there isn't an ambulance there to help me … I feel to work

alone … the times between calls are the times that you…do the best debriefings with yourself … I like working alone. (Participant 1)

I started doing, like, CPR but it was quite hectic for me 'cause I was on scene long, like, alone, for long before the ambulance even arrived … I had to do everything myself and it was a bit of a, like a, how can I say, like a "skarrel" to get everything. (Participant 5)

I do personally would say the hardest part is being alone … Because I've worked on an ambulance before, and the stress levels are so much less when you have someone else with you … It's just you and you don't have a partner to run things past, you don't have anyone. (Participant 4)

Participant 2 stated that she loved the people around her and the team she was working with.

I love the team I work with. I love the people around me. (Participant 2)

Participants 4 and 6 agreed that the support of their peers is crucial. Interestingly, they suggested that when they are in a more authoritative position, this impacts their ability to be supported emotionally as it changes the dynamics of working as part of a team. The more senior paramedic may feel that she might come across as weak or not sufficiently knowledgeable if she wishes to debrief with more junior colleagues.

… as an ALS I think that even extends to your crew members because you are your ship's leader, so I think you need to extend the emotional support to your colleagues as well. (Participant 4)

I think if we had partners, uhm, on the vehicles I think it would be easier to manage some of the stuff, because you would naturally debrief the case with people that were on the scene with you. And often what I find is there's a power distance between the ALS that is working on their own and the ambulance crew

that were on scene. And so I felt in my experience that I didn't always feel comfortable debriefing the case with the crew that was with me because I was meant to be their senior and therefore in my mind I needed to be their rock, you know, I couldn't be the one wavering. (Participant 6).

c. *Sustainability*

Some of the participants alluded to be a paramedic not being a sustainable career for a female. Participants 3 and 4 stated that it becomes challenging if one wishes to become or is a mother, whereas Participant 5 noted how she experienced the physicality of the job as strenuous and perhaps not sustainable for a female. Lastly, Participant 6 stated that owing to the dangers a female paramedic is exposed to in the South African context, and the result of trauma, sustaining such a career for a long period becomes questionable.

… because I now I have a baby I probably won't always be able to do this. (Participant 3)

I don't think that shift work is sustainable forever, I really don't … I do love my job, but I'll also want to be a mom one day and its, it's just it's not really sustainable forever. (Participant 4)

Uhm, I think the sustainability has a lifetime because it's still a very physical job … There are people that are in their 40s doing it, but I can't see myself at that age still doing this. (Participant 5)

Not in South Africa ... Because of the levels of burnout and the trauma that we experience as paramedics in South Africa. (Participant 6)

Most participants stated that they would rather pursue another career, such as becoming a training officer or have already become involved in training paramedic students.

I would end up doing is teaching other paramedics … maybe becoming a lecturer. (Participant 3)

I would also ultimately like to go into education. (Participant 4)

My full-time employment is a Training Officer … I teach paramedics. (Participant 2)

… I lecture to paramedic students. (Participant 6)

4.2.2 Theme 2: Psychological triggers

Psychological triggers emerged strongly as a theme during the data analysis. Two subthemes emerged, namely professional and personal triggers. During the interviews, participants shared how on a professional level, arriving at a scene or certain events, more than others, such as death, cases involving children and even COVID-19, seemed to trigger them psychologically, resulting in the activation of professional triggers. They also explained how certain scenes or events, again, result in them experiencing triggers on a more personal level. This included events that reminded them of an experience with a loved one perhaps or a personal acquaintance. These two subthemes, together with their categories, are discussed below.

4.2.2.1 Subtheme: Professional

Professional triggers yielded three predominant subthemes, namely children, dealing with death and COVID-19. The participants shared how on a professional level they seemed to be triggered psychologically more by certain scenes or patients than others. Such triggers seemed to result in feelings of anger, anxiety, pain, tension and sadness, to name a few (Cuncic, 2020). Participants mentioned how having to face and deal with tragic scenes involving children, death and COVID-19 would affect them

profoundly and often result in the participants struggling to process and cope with these events – hence the emergence of the three categories cited below.

a. *Children*

Most participants shared how they were psychologically triggered and struggle with scenes involving children. This was influenced by the fact that it is generally difficult to effectively communicate with a child when needed, but participants also shared how seeing children hurt would affect them greatly on an emotional level, either because it forces them to be more hopeful or if the participant herself is a mother, the experience seems to become more personal.

> *I struggle a lot with children. Kids as patients are very difficult. They can't really tell you what's wrong or how sore something is or what had happened, makes it a bit extra difficult … Also, maybe because there are emotions involved. You feel sorry for them.* (Participant 1)

> *I battle with paediatrics, I hate seeing children hurt. So emotionally for me that's always a "biggy".* (Participant 2)

> *… where kids are involved … Especially when it comes to kids…my biggest fear now after having a baby is treating a baby.* (Participant 3)

> *… children generally are a trigger for everyone … But because it's a child you, know you, you always keep your hopes up.* (Participant 5)

This trigger affected Participant 3 so much that she initially did not want children of her own.

> *I went through a stage where I didn't want kids because of, because of those incidences … one of the reasons I went to counselling because of the fact that*

I didn't want kids because of the amount of sick babies I saw, this amount of sick … or, injured babies … I just didn't want to go through it. (Participant 3)

Participant 2 stated that she recognised the fact that she had become overprotective of her son because the fear of loss seemed to have become overbearing.

… he says to me "mum I'm going to go play with my friend" and I actually have to force myself to let him go. The fear of losing someone is how easy it is. (Participant 2)

b. Dealing with death

Another immense psychological trigger on a professional level that emerged from the data is how participants shared how they deal with death. Participants suggested that having to deal with death, and specifically the large incidences of it in the life of a paramedic, is abnormal and affects them greatly. They also mentioned how trying their best to save a life and then still having to see someone die, would leave them feeling hopeless and horrified.

… we see a lot of the dead … I don't think you process something like that a 100%, it becomes part of your journey. (Participant 1)

I don't think it's in any, if I can say, in anyone's nature to see death and trauma and all of that on such a daily basis. (Participant 5)

Because all I see is people dying around me and no matter what I do, they just die, uhm, and that's unfortunately the nature of the beast. I think physically it's taking its toll … I think, lately, we've just seen so many COVID deaths that it-it hurts … don't think it's COVID per se, I think it's just this particular patient. (Participant 2)

… seeing someone die knowing that you've done everything, and it didn't work … the cases where people got into an accident, or people are murdered … those calls that you know this person shouldn't have died. (Participant 3)

… sometimes there's just really nothing we can do. But it's a helpless, horrible feeling to be honest. (Participant 4)

Participant 6 in particular explained how suicide cases seemed to trigger her even more.

I've always battled with suicide cases, uhm, particularly hanging cases. I don't know why-why hangings hit me so hard, uhm, but just generally suicide cases are tough … the number one thing that stands out for me is suicides. (Participant 6)

When the researcher asked participants whether they sometimes follow up on patients after treating them, Participants 1 and 2 stated that they used to, but no longer did so because if they find out the patient had eventually died, psychologically it would affect them too profoundly.

I don't like following up, because you don't always get good news … now and again I'll follow up, (sigh) if you're really hopeful. (Participant 1)

I used to cry when they died. (Participant 2)

c. *COVID-19*

Owing to the huge impact COVID-19 seemed to have had on the experience of the participants, it emerged as a strong category. The participants thus shared how their daily schedules and duties had been impacted by COVID-19.

Participant 1 explained how their work and shifts had been affected by the different levels of lockdown. Participant 1 shared how during lockdown level 5 they hardly received any emergency calls, while as lockdown levels decreased people were perceived to be too afraid to go to hospital and as a result paramedics were relied on to treat patients at their homes.

> *Level 5 lockdown was like a ghost town. Nobody wanted to go the hospital … We did about nothing. And then, since they lifted the last level, it's just chaos, front to back … accidents, medical incidents, sick people, COVID-19 cases … it's terribly busy … Definitely saw a change in the general population's behaviour … We get a lot of people who call us just for us to come and check on them just to see if they need to go to the hospital or not.* (Participant 1)

Participants 2 and 4 stated how COVID-19 had resulted in psychological triggers professionally as it had taken a huge toll on them both emotionally and physically. Participant 2 had experienced the COVID-19 deaths she had to witness as hurtful.

> *I think, lately, we've just seen so many COVID deaths that it-it hurts.* (Participant 2)

While Participant 4 expressed how she had experienced heightened levels of stress and physical exhaustion, because of COVID-19, they were so busy and could hardly ever finish their 12-hour shifts in time. She stated that they had to rush all the time and that they were running out of human resources.

> *But there's just no time, there's not enough resources. So, it's, ugh, it's just unbearably stressful to me to be honest ... I hardly get home on time these days because there's just, ja, there's no ways you gonna be able to. And I can tell you for the last month there's not probably been a single day that I've been able to clock off at that time, because you always running later.* (Participant 4)

She went on to say that she felt pressed for time because of their busy schedules and also had to worry about keeping herself safe.

> *So we just get dispatched to a call while we still on our call, we told you rush, rush, rush, but you still have to think about contaminating and keeping yourself safe.* (Participant 4)

4.2.2.2 Subtheme: Personal

Psychological triggers on a personal level also emerged as a strong subtheme and included personal acquaintances as a category. The interviews with the participants revealed that their personal triggers were mainly personal influences, for example, when a patient reminds them of a family member or when a family member becomes ill – hence the emergence of personal acquaintances as a category.

a. *Personal acquaintances*

Participants shared how dealing with personal acquaintances' trauma or death, or when faced with patients in similar contexts, triggered them psychologically and resulted in them being traumatised.

Participant 1 stated that her own family's or friends' suffering on, or even death had a traumatically triggered her.

> *But suffering gets us, like my grandma now, she is suffering, and that gets you … I feel that way about a lot of patients, but it's definitely worse because it's my grandma … I have had high school friends, their friends, friends of my own and family members who I have declared dead.* (Participant 1)

Participants 2, 3 and 5 explained how they were triggered when a patient reminded them of personal acquaintances, such as family members. For example, Participant 5

mentioned how young males who are the same age as her brother would psychologically trigger her in that she felt it was getting too “close to home”.

> *I find it very difficult whenever I had to work with … young males that got into uhm like accidents … if they were semi in the same age group as my brother. Because that I felt was like more close to home … because of that emotional effects it makes you more protective of the people that you do love – that you do know.* (Participant 5)

Participants 2 and 3 specifically stated that a child-patient was a trigger for them because they have children of their own and can therefore relate as parents. This results in them being confronted with their own fear of possibly losing their own child.

> *I have a have a baby now, uhm you can relate to those parents.* (Participant 3)

> *… well I have in my child, and he says to me “mum I’m going to go play with my friend” and I actually have to force myself to let him go. The fear of losing someone is how easy it is.* (Participant 2)

4.2.3 Theme 3: Work exertion

Work exertion and its impact on mental health emerged as a strong theme in this study. In this theme, two sub-themes emerged, namely mental health and trauma. Mental health was described and categorised in accordance with the factors of stress, anxiety and burnout. Trauma, however, was described and categorised by considering the neglect of self, others and interests, PTSD and compassion fatigue.

4.2.3.1 Subtheme: Mental health

The status of a person’s mental health, and so too that of a paramedic, is typically influenced by factors such as stress, anxiety and burnout (Lawn et al., 2020), and also constituted the categories within the subtheme, mental health. The data indicated how

participants experienced these factors as being present in their work context as female paramedics, and how they had an impact on their mental health. Paramedics have a higher risk of being exposed to factors such as high levels of stress, anxiety and burnout because of the nature of their work context by experiencing and witnessing trauma – hence the emergence of the three categories stress, anxiety and burnout.

a. Stress

The environment of a paramedic can cause a lot of stress on account of its highly hazardous and unpredictable nature. According to Gumani (2012), stress can occur because of a disturbance, such as a change in an environment, and it causes a cognitive and emotional imbalance both in paramedics' personal and professional lives. Stress emerged as a category, because their stressors and response to the stress would play a fundamental role in their daily behaviours. Most participants confirmed that they did feel stressed in their jobs. They suggested that they carried a lot of responsibility when dealing with and treating patients. Scenes can be stressful, and work can feel imbalanced, especially with safety and health issues relating to COVID-19.

Participant 5 noted how she felt stressed before starting a shift or being called to a scene, while Participant 2 indicated her job overall as a great cause of stress.

> *… maybe half of the times I go out I still feel stressed … At the end of the day I'm the person carrying the responsibility for all the patients that I see.* (Participant 5)

> *… that's the place where the stresses are … where the imbalance is happening.* (Participant 2)

Participant 3 mentioned that even though she might experience a situation as stressful, she would attempt to stay and look calm.

… because I almost I feel like even though I feel the stress on the inside … externally showing that I'm calm. (Participant 3)

Participant 4 explained the unbeatability of the continuous presence of being busy and feeling stressed. It simply varied from day to day, but the feeling of carrying the weight of the world on your shoulders would always be present. She was extremely stressed largely because of the pandemic, but she was still struggling to cope.

… to be honest, work is unbearably busy and stressful … I feel stressed every day. To variable degrees, I mean it's not like I'm a nervous wreck every day, but I certainly feel stressed every day that I'm at work … it is extremely stressful … You do feel like the whole weight of the world is on your shoulders … with the stress of the pandemic … I'm possibly just surviving at this point. (Participant 4)

b. Anxiety

Hjeltnes et al., (2015) described anxiety as feelings of nervousness, restless, being tense or afraid of doing something. Numerous participants, such as Participants 1 and 4, shared how they would continuously feel anxious and, in some instances, severely anxious.

… you get anxious … even in daily living, I'm hyper aware. It's as if you are waiting the whole time for something to happen, waiting for my phone to ring and somebody to say they need some help or – you always kind of operationally ready. You know what to do if something goes wrong now … your body comes into this mode of "something needs to happen and nothing's happening" because you're in your personal capacity, so in that sense I can say that it affected me a lot. (Participant 1)

I actually suffer from quite bad anxiety. (Participant 4)

Participant 6 admitted that her anxiety had been so bad that she would feel anxious going to work every day.

> *I felt anxious about going to every shift. Uhm, I felt very, very anxious about going to shifts.* (Participant 6)

Participant 2 explained that her anxiety would build up and it would feel like a mountain of challenges, and it would become physically difficult for her to take a moment to calm herself or process her anxiety.

> *But you don't realise you gotten yourself into that mode and just, everything becomes a mountain in that moment. I find it's physically difficult to stop and take a moment for myself. It's a challenge.* (Participant 2)

Participant 6 explained clearly that she believed that she was more paranoid than the average person as a result of what she had been exposed to as a female paramedic and that this would result in excessively high levels of anxiety.

> *I'm very, very paranoid about safety. Uhm, and I know that I'm a more paranoid than most South Africans because … I almost take things out of context, you know, I sort of say "Oh we can't do this or we can't do that because I'm very nervous to do this" … but if you consider that I was being exposed to two murder patients a week … my idea of how frequently people are murdered in Johannesburg is probably a bit [skewed]. So, I feel a lot more scared in my day-to-day life … I'm probably more anxious than most people ... I developed anxiety and that anxiety became really bad.* (Participant 6)

Furthermore, Participant 6 explained that her anxiety had led to her being diagnosed with depression. Her anxiety, untreated, culminated in depression, which had impacted her overall personal life, to the point that she had contemplated taking her own life.

I developed anxiety and that anxiety became really bad, and then led to developing depression. And of course, that impacted your personal life a lot … I was suicidal because I was so depressed. (Participant 6)

c. Burnout

According to Maslach's conceptualisation, burnout is a psychological syndrome described as emotional exhaustion and gives a sense of reduced accomplishment in one's day-to-day work (Dall'Ora et al., 2020; Maslach et al., 1997; Patel et al., 2018). This can lead to detachment, among other things. Furthermore, detachment and reduced personal accomplishment imply negative self-appraisal, feelings of incompetence, and inefficiency in one's daily work (Patel et al., 2018, p.5). Burnout gives one a sense of failure, self-doubt, feeling helpless, feelings of being alone or being unable to cope (West et al., 2018).

Participants 2 and 4 showed signs of burnout with the symptom of self-doubt, because they shared that they had felt self-doubt and even self-blame when losing a patient, or merely having been present at a highly traumatic scene. These symptoms of burnout most definitely affected their mental health.

Uhm, and to this day, even though I've done the debriefing, I've gone through everything, I still question, you know, did I kill this guy, it's a horrible feeling ... It bothers me, and I don't know why … I've gone through that call so many times in my head and I've looked at it what happened if I didn't do this or didn't do … I just feel terrible. Horrible … I just feel like I've took away his life. (Participant 2)

I wasn't sure what to do … that was really to be honest really traumatic because I felt like it was my fault … it's a helpless, horrible feeling. (Participant 4)

Participant 5 admitted how being burnt out affected her both physically and mentally.

> *I walk like a sloth, get into the car, think about my life, drive … I wanna go home to sleep and do something nice … If you have your off days and you're feeling so exhausted, and you don't actually know what to do with yourself.* (Participant 5)

Participant 6 also described her moment of realisation, after someone pointed it out to her, that she had burnout. It seemed to have completely caught her off guard, and she had not even realised it, until someone had actually pointed it out to her.

> *I took part in a psychology student's research a few years ago … and at that point he actually said to me … "you got a problem, you need to see someone". And at that point I realised that I had burnout and PTSD … and burnout caught me off guard because I didn't realise I was becoming burned out.* (Participant 6)

4.2.3.2 Subtheme: Trauma

The participants were continuously exposed to traumatic incidents beause of the nature of their work. Subsequently, all the participants seemed to have been exposed to and experienced trauma themselves as a result of their work. This seemed to result in them neglecting themselves, others and their normal interests, as well as being diagnosed or showing signs of PTSD, and lastly, suffering from compassion fatigue. These three components therefore emerged from the data as the three categories in the subtheme of trauma.

a. *Neglect of self and others*

The participants shared how, because of the nature of their work, neglect would creep in – that is, neglect of the self and others.

As Participants 1 and 2 noted, they often ended up neglecting themselves because they were so busy looking after others. Also, there was not necessarily someone to look after them, when they themselves were unable to.

> *… we kind of forget to look after ourselves. I think it's because of how we work … because, at work you look after other people.* (Participant 1)

> *So, I think, it's kind of just a habit that we develop that… you don't look after yourself, and nobody else's does either.* (Participant 2)

Interestingly, Participant 5 also explained how she would neglect her own health because she simply did not have the energy to exercise.

> *I can exercise on any off day, do I do that? No, because, I mean, after a weekend of nights, as much as I know that it's going to help a lot, the last thing I feel like doing is running. I just wanna lie in bed all day. So, the opportunity certainly exists but [whether] I have enough energy to do it that [is] another story.* (Participant 5)

This neglect also seemed to be far reaching, as Participants 4 and 5 explained how they were more likely to also neglect the people and relationships around them, because when they were at home, they just wanted to be on their own.

> *I often neglect the people around me … I neglect my own relationships … I make less spending time on things that I actually enjoy.* (Participant 5)

> *… to be honest on my off days I just want to sleep and chill at home. So, I'm not really being super sociable.* (Participant 4)

b. PTSD

PTSD was a category that emerged from discussions with the participants, which is not uncommon when working in a high stress and trauma burdened environment. According to the National Institute of Mental Health (2019b), symptoms of PTSD include re-experiencing the event through dreams and frightening thoughts, intrusive thoughts, avoidance of places or thoughts, arousal such as angry outbursts and mood symptoms. Most participants indicated that they had experienced PTSD symptoms or had been formally diagnosed with it.

Participant 1 explained how she believed she showed symptoms of PTSD because she had experiences where, when she was off duty, she would hear the same ringtone of her work phone that played when she was on duty, and this would generate feelings of anxiousness.

> *Uhm, our dispatch tone on our phone, the work phone, is Timo ODV's Dancing Again, and when I'm in my personal capacity, for example, I walk into a shop and it begins playing on the radio, you get totally, you get anxious, and you don't know what to do with yourself and, it's probably a form of PTSD.* (Participant 1)

Participant 4 also noted how she started observing symptoms of PTSD after working at horrific scenes, resulting in her having nightmares, left feeling helpless and simply horrified.

> *There's some scenes where I've had uhm, I don't wanna say PTSD, but yes, but PTSD symptoms afterwards, you know. So, stressful dreams or getting very emotional if I get a similar scene … But it's a helpless, horrible feeling to be honest and uhm, after that particular call I had several dreams where uh … a patient would die in front of me.* (Participant 4)

As noted earlier, Participant 6 described how she was not aware that her mental health was suffering. It was only when a psychology student pointed it out to her that she started becoming aware that she might actually be suffering from PTSD.

> *… it still happened to me and I think that's why PTSD caught me off guard … I didn't realise how bad my PTSD was until it was bad… psychology student … said to me I'm showing signs of PTSD and it was part of the – you know, part of the "care" – support they provided to research participants was to say, you know "'you got a problem. You need to see someone". And at that point I realised that I had burnout and PTSD.* (Participant 6)

c. Compassion fatigue

Another sign of trauma is employees experiencing compassion fatigue. This could happen when exposure to patients experiencing trauma can negatively impact their mental and physical health (Cocker & Joss, 2016). Compassion fatigue is experienced when the paramedic seems to lose the ability to feel empathy when working with patients (Cocker & Joss, 2016). Participants 2, 3 and 4 explained how they had suffered from compassion fatigue by becoming hard, emotionally detached and blunt.

> *I think became a bit of a harder person, uhm, less emotional you get used to the trauma and you almost become … detached.* (Participant 3)

> *… you blunt yourself to many things.* (Participant 2)

> *I've seen that a lot where you've done it for so long that you start to become hardened to your patients and their experiences.* (Participant 4)

Participant 6 admitted that sometimes she struggled to remain compassionate towards her patients, especially if their injuries were the result of their own bad choices and becoming involved in the wrong activities.

> *… stuff like the-the assault cases in Hillbrow, you just lose interest in being compassionate because you feel like they do it to themselves. Uhm, you know, a victim of gang related violence, you know, "you are also a criminal, now you are being stabbed by another criminal, should I be compassion towards you?" And I know I'm supposed to, but it becomes quite hard to remain compassionate.* (Participant 6)

Alarmingly, Participant 5 went further by stating that one's lack of empathy is not only confined to one's patients, but it also spills over into one's personal life, leaving one with a feeling of having no compassion left for people both in one's professional and personal life.

> *So, I guess to an extend its like you sometimes use up all your empathy for people while you're on shift that when you're off of shift you don't have any left for the people around you … and I just I didn't feel anything for anyone. I was just like, you know, "I'm done".* (Participant 5)

4.2.4 Theme 4: Coping mechanisms

All the participants coped in different ways. Factors contributing to positive coping mechanisms included, self-acceptance, trusted social support, meaningful work and physical self-care (Bilsker et al., 2019, p.5), physical exercise, pleasurable hobbies and seeking help (APA, 2019b). Under the theme of coping, two subthemes emerged. The first was learned coping skills with the following categories: The uniform gives them confidence, explaining how their uniform gives them confidence to perform when on shift; mechanisms and methods they use before being dispatched; and lastly, the coping mechanisms and methods they utilise when on the scene. The second subtheme was self-care and coping mechanisms, with counselling, social and family support, and religion, exercise and escapism, as its categories, and what coping mechanisms the participants would use to help them process event stressors and events that affected them through their job.

4.2.4.1 Subtheme: Learned coping skills

The participants had been equipped during their training with certain learned coping skills they could employ as mechanisms to deal with everyday stressors and traumas. Within the subtheme of learned coping skills, three categories emerged, namely the uniform gives them confidence, being dispatched to a scene and at the scene. These learned coping skills helped them process their high stress and trauma burdened experiences.

a. *Uniform gives them confidence*

Participants mentioned how their level of confidence seemed to increase when they donned their uniforms, making it easier for them to do their job. Participants 1, 4 and 3 appeared to see the uniform as a "superhero cloak" or a mask that would increase their levels of confidence and courage, equipping them with the mental capability they needed to help others.

> *… if you put on your uniform, you kind of get a confidence that you don't have in your personal capacity. It's literally like a superhero outfit that you put on. It gives you confidence and self-confidence, and courage to do things that you didn't think you could do.* (Participant 1)

> *I think when I put on my uniform all of a sudden … I almost feel like it gives the confidence where I know I'm capable of doing what needs to be done. I feel like … it feels like I come to a point when I put on my uniform I'm almost like "alright, I actually need to put your personal anxieties or fears, all that shit aside because now it's you and you only". That is going to help that-that patient so I think, ja, there's almost like a change in mentality when I'm in that uniform.* (Participant 4)

> *… you put on that mask of "I am now strong" kind of thing … I would say there I something that makes me feel "okay now I have to be strong", "I know I have to not think about myself but everyone else" etc.* (Participant 3)

Participant 6 agreed, but added how the uniform would give her a sense of standing in the community.

> *… it gives you a confidence that you don't have in your day to day life … And also because the community sees you as something, they see you as something to look up to and there like "oh, she knows what she's doing" or whatever, and therefore you hold yourself as if you know what you're doing. And of course, you don't want to look like you don't have your emotions together if you're supposedly this person that has their shit together.* (Participant 6)

In contrast to the above participants, and perhaps as a defence mechanism to help her cope with what lay ahead, Participant 2 shared how putting on the uniform made her a hard person, a sentiment that her family endorsed.

> *I find that, and my family says to me that whenever I put my uniform on I become quite a hard person.* (Participant 2)

b. Being dispatched to a scene

Throughout the interviews, all the participants consistently shared how they would prepare themselves before going to a scene by mentally or emotionally "switching off" and engaging in a process of working through what would be expected of them on arriving at the scene. When called to a scene, they would prepare themselves by "blocking out" the previous call or anything else that might distract them so that they could focus their attention 100% and be in the moment.

> *It's totally a switch that you put off and you go. You switch off and you give your full 100% focus on the new patient, otherwise you're going to make mistakes.*

Otherwise, it is going to affect you and the patient will get worse treatment then what they deserve. (Participant 1)

… you just switch off and block it out and you move on. (Participant 2)

… you get to a point where you actually just shut out, shut the previous scene out of your mind and go to the next one, because the next person need[s] you. (Participant 3)

… so we are always prepared on a physical, in a physical way. You almost only rely on motor skill, so you don't have to remember anything, you don't have to think about anything … clinically you do just do what you have to do. (Participant 3)

… you just get into that mindset where you like "oraait, it's someone else now that needs your help" and you kind of put the-the crappy call on the backburner and you can come back to it later when you're done, you know. (Participant 4)

… you just do it because you have no choice. You book available again because it's – you know, you done with the case, you finished now. Uhm, and then you move on to the next case and you kind of just have to carry on because, you carry on … I have had shifts where you go to one tough case and then it's followed on by another tough case immediately afterwards, and that feels like it breaks you, and that is really, really hard to deal with. (Participant 6)

Furthermore, Participants 1, 3, 4 and 5 explained how they had to prepare themselves mentally for what they would need to do when arriving on a scene, conducting role play in their minds and running through the "do's and don'ts".

… prepare yourself mentally like "I'm going to a motor accident, that's what I'm going to handle, that's what I'm going to leave, that's what I'm going to look out for when I get there". (Participant 1)

… on the way there, I would think about what the possible outcomes can be, uhm, how would the patient present and if the patient presents in a certain way what I should do and what I shouldn't do, so I almost run through clinical, uhm, aspects going to a call. (Participant 3)

… "okay these are the possible interventions I might need to perform". And I kind of run through them in my head – or these are the things that I must remember because their important and I – I just remind myself of them. And there's actually even times where I tough "ah you know – I might need to perform x, y and z and I-I'm not comfortable". Or with that because maybe I've never done it before, maybe I haven't done it in a while. Sometimes I'll actually call a colleague, or even my manager and say "listen, just run it by me again uhm you know procedure X if I do this this and this, does that sound reasonable or I might be giving this drug is this dose and this indication and you know this, does that sound right?" And that's kind of how I prepare for the call. (Participant 4)

Uhm, a lot of … beforehand you need to prepare, double check everything, because you never know what's gonna happen. (Participant 5)

c. *At the scene*

When the participants are required to be on scene, they are trained to only focus on the patient and treating him or her to the best of their abilities. The participants shared how they believed they were well trained, had the muscle memory to rely on and were used to performing to a certain standard to save a patient's life, as if it comes naturally.

I think you kind of build muscle memory, and-or, in a high stress situation. It's kind of as if it's subconscious actions. You know what you need to do and your body does it, and afterword your just like "Woaw, what just happened" … he just looked at me and said "how did you do everything so quickly". I said to him "I don't know". (Participant 1)

… it has to do a mental shift … I don't think, I just go, whatever's there -I'll do… your trained for that … I can be on a scene with a patient and things just go wrong non-stop on that scenario and I can cope with it, it's not a problem … I just do what I need to do. You're trained for that … they teach you more, harder, faster. When you can't give any more, you can, when you can't go harder you can, when you can't go faster you can. So they teach you to push your limits, push yourself beyond. (Participant 2)

... you do just do what you have to do. (Participant 3)

Some participants explained how they would make use of calming as a mechanism to enable them to remain level-headed when they were on scene. They also seemed to remind themselves that they could only do what they could to help the patient, thus remaining realistic.

I often just tell myself "just calm down, everything is going to okay" … to try and stay calm because I know if I stay calm everyone around me will be calm. (Participant 3)

Uhm but I suppose when I am in a situation where I feel extremely stressed or helpless I think my biggest coping mechanism is that I'm always, I'm constantly reminding myself "you can only do what you can do, there are just certain thing that are beyond our control" and I think that what I keep reminding of myself – do the thing you know how to do well and you know you can't always say that the outcome is up to you because it's not, I think that's the only thing that I really continuously do. (Participant 4)

Uhm, I do find like on a scene when it's very hectic and I feel like "Yoh I don't necessarily know what to do". I found it quite easy to actually, like, ha, delegate in-in that sense of like, I know what certain people can do so I can let them do that while I try to figure out my own thoughts. Uhm, so I think in that sense I've figured out how to mask my insecurities quite well. (Participant 5)

4.2.4.2 Subtheme: Self-care and coping mechanisms

Self-care of the female participants and the coping mechanisms they use to cope and process the traumas they experience were a prominent subtheme under the theme of coping. Based on the participants' narrative, the following five categories emerged under this subtheme: counselling; social and family support; religion; exercise; and escapism, which would help them to take care of themselves and cope better with their circumstances as female paramedics. These coping mechanisms agree what the participants would use (mostly in their personal time) to help cope with stressors and process experiences that manifest from their type of job.

a. *Counselling*

All of the participants talked about how important it is to talk to someone who understands their experiences, and thus their emotions. These participants would seek counselling by either talking to a counsellor, psychologist or co-worker.

Participant 1 did see a psychologist regularly as it would help her to normalise her circumstances. However, she also stated that it was important for her to talk to her colleagues, as well as the people closest to her about the traumas and stressors experienced at work.

I think it's important for paramedics, and medics to see a psychologist … Talking is a very big part of it. If I had a very difficult call, or you had a scene where you were overwhelmed with emotions or ended badly … I like to talk

about it until it doesn't bother me anymore. Keep telling everyone about the call until I processed it myself, internally … As if you normalise the event when you talk about it. (Participant 1)

Participant 6 explained that it is crucial to be able to talk about an event, even if it is not with a psychologist.

… want to say to people "just talk, talk, talk even if it isn't with a psychologist, you need to debrief somewhere along the line, because otherwise the stuff catches up with you". (Participant 6)

Participant 3 had previously seen a counsellor, but mainly talked to her colleagues and friends to help process events. She specified that she started seeing a counsellor because of seeing extremely sick babies or babies who had passed away, and it made her feel that she did not want to have any children.

I did see a trauma counsellor … One of the reasons I went to counselling because of the fact that I didn't want kids because of the amount of sick babies I saw, this amount of sick or injured babies. I just didn't want to go through it. So uhm, that really affected me and I was scared, so I had to deal with my fears and that's where the counselling happened and helped. (Participant 3)

Participant 3 added that she would talk to her husband to debrief, because she knew he would understand when she was describing how she felt about a patient or her experience of a scene because he is also a paramedic.

… my husband is also a paramedic. We almost have a debriefing together. The thing is to talk about how you feel. Uhm, rather than to keep it inside. So we talk about the case or the call we've been to and what happened. I feel like that is important. (Participant 3)

Participant 4 mentioned a close friend and colleague, with whom she also debriefs, because she feels that this friend understands her situation and feelings.

> *Whereas speaking to a friend who does exactly that every day she knows exactly what I feel, like I can be honest and say, you know "this was just horrible". And that - it's to be honest my coping mechanism is speaking it through with someone who knows what I'm talking about … So the minute I'm done with a call that I feel has been, you know, really bad because we on the same shift, I immediately pick up the phone I say "listen, I've had a bad call, I need to speak about it". (Participant 4)*

Participant 2 explained that after an extremely traumatic incident, the employer organised counsellors for them, but that despite the counselling, she still felt unable to process it because of the nature of the incident.

> *… work set up a very good debriefing, I've had counselling, both my partner and I had counselling … But it, uh, for me, it's I, I don't think I ever will. Don't think I'll ever process it.* (Participant 2)

Participants 4 and 5 described how they had seen counsellors or psychologists before, but if the counsellor or psychologist did not have insight into and an understanding of the real context in which paramedics function, it would not benefit them at all.

> *I've actually been to a, a psychologist once and I didn't enjoy it … I found that that is difficult for me because they don't – they aren't in the EMS so as much as they can try and maybe provide us with general coping mechanisms, I don't feel like they understand, fully.* (Participant 4)

> *… it's much easier for me to like chat to my family than it is to chat to like a counsellor or like a psychologist or something like that, because I don't have to explain anything … they already know that jargon, they have an idea of what my scope is, so it makes it actually very comfortable then.* (Participant 5)

Participant 6 agreed with Participants 4 and 5, but indicated how she had found a psychologist who, according to her, actually had insight into the context of a paramedic and that her experience had been that the psychologist had in fact been able to assist her.

> *… and even some psychologists are quite bad in that regard, where they'll listen but they don't really have any insight … It's a common trend, and that's why I'm so lucky to find the psychologist that I did in 2018 because he-he did have insight and he is very good. And he's worked with other paramedics before … You need very specialised psychologists who are excellent at what they do, who makes the patient, us paramedics feel like we gaining value out of the debriefing otherwise you are just farting against thunder.* (Participant 6)

Participant 6 went on to explain how her psychologist had helped to correctly diagnose and treat her when she had been depressed and seriously needed help.

> *… psychologist, uhm, and he diagnosed me with clinical depression … I was suicidal because I was so depressed and how this pulled be back from the edge.* (Participant 6)

b. Social and family support

All participants stated that social and family support is necessary for them to cope because of their high stress and trauma burdened environment.

> *… you need a good support system at home … they need to understand what you're going through in your daily workday.* (Participant 1)

> *I'm very grateful I have an awesome support structure around me which really helps, and every now and again my mom has to say to me "enough, go get some sleep".* (Participant 2)

I sometimes just go for coffee with one of my best friends. (Participant 3)

I actually have had quite nice support from them … I'll speak, my mom obviously also understands so usually either my parents or my friend or even both, but I usually feel like that helps because they could talk some sense into you and say "ok think logically about this, was there anything more you could have done?" "No there wasn't" and you know they kind of bring logic to a very emotional situation. (Participant 4)

I am very blessed with the uhm, the family situation I have at home. (Participant 5)

Thankfully my husband is a saint and he's incredibly patient. He's very, very good to me. (Participant 6)

c. *Religion*

Participants 1, 3 and 5 relied on their religion to help with their coping and they used it as a coping mechanism. Participant 1 felt as if Jesus was working through her to help patients during traumatic events and that she could see the Lord's hand in the situation.

… but I know it's not me, I know its Jesus who works through me, because sometimes the situations that some patients get through – there was a bigger hand involved … And now – just look at the Lord's hands in this situation. (Participant 1)

Participants 3 and 5 shared how they relied on prayer, bible study and seeing a Christian counsellor to help them cope.

… a Christian trauma counsellor … talking to her, getting coping mechanisms … praying. (Participant 3)

I have Bible study and lot, I go to church a lot … all related to praying and bible study … I have gone to a church counsellor once, uhm, because I didn't see a different option as I was still on shift and that was like just across the road and I've never tried it before, but that also helped. (Participant 5)

d. Exercise

Most of the participants stated that they used exercise as a coping mechanism because it seemed to improve their mental health. They shared how exercising improved their energy levels and sleeping, and uplifted them emotionally and mentally.

I exercise a lot … that really helps me … The more I exercise the more energy I actually have. The better I sleep at night, uhm, the less irritable I am with my son, so, exercise for me I actually have to sometimes say to myself "You got to do it" just give yourself that pep talk and go do it, because at the end of the day I'm a better person for it. (Participant 2)

I feel like that is one of my coping mechanisms to exercise … just to get the endorphins flowing again. (Participant 3)

… exercise in the form of just getting rid of that energy … if I go for a really long run, I come back feeling a lot more in control, a lot more positive … it really just gets rid of that helpless energy. (Participant 4)

I can exercise on any off day. (Participant 5)

So I've always exercised quite a lot as well help. Uhm, I find if I run it kind of helps to just let go of stuff a bit. (Participant 6)

e. Escapism

Escapism emerged as a category predominantly because of Participant 6's voice. She explained that even though she was not a big drinker, smoker or drug user, she would sometimes use these substances as a form of escape.

> *… if it's been a really, really hectic scene, I'm not a smoker, but if there is a smoker around I'll have a cigarette, because the nicotine does help a little bit … times when you just have a big night, you know, and you go out and you have a lot of fun and you drink, and ja, that sort of thing … sometimes I'll take recreational drugs just for an escapism. Because I think that for me is also quite helpful. Having the odd, very rare - I don't do that often, once every three months or so.* (Participant 6)

4.2.5 Theme 5: Occupational performance

The theme of occupational performance emerged as participants shared their experiences about being able to adjust to the paramedic environment. The data analysis yielded two subthemes, namely compatibility with their occupation and well-being. The subtheme of compatibility with their occupation generated three categories. The first category was how their personality type fits in with their occupation, and the participants went on to reveal their personality type. The second category described their job satisfaction. The third category was adjustment, which explained whether the participants felt that they had adjusted to their work environment.

4.2.5.1 Subtheme: Compatibility with occupation

In the subtheme of compatibility with occupation, three categories emerged, namely personality type, job satisfaction and adjustment. These categories focused on how the participants' personality types, job satisfaction and adjustment in their work environment related to their compatibility with the occupation of a female paramedic.

a. Personality type

According to Koutsimani et al., (2019), personality characteristics can influence the manner in which employees react to stressful working environments differently. McLeod (2017) suggested that the Type A personality has a strong sense of competitiveness, and these individuals generally experience a higher stress level, hate failure and may find it difficult to stop working, whereas the Type B personality may be characterised as relaxed, patient and easy-going individuals who work steadily and enjoy their achievements (McLeod, 2017).

Participants 1 and 3 stated that they always wanted to help people, and this was also one of the reasons they had become paramedics.

> *I'm a people person.* (Participant 1)

> *I'm always wanting to help – always want to help people.* (Participant 3)

Moreover, Participants 2 and 5 explained that is takes a special type of person and personality type to be able to do this job. They mentioned characteristics like dedication, an outgoing personality, being able to work under pressure, having a controlling mindset and being a "go-getter".

> *… it takes a special person to do it, someone who has got dedication, and definitely someone more outgoing and, able to work under pressure in special life situations.* (Participant 2)

> ***…** have a very controlling mindset, you have a certain way you want things done … Go getter attitude.* (Participant 5)

Participants were asked if they thought a paramedic should have a certain personality type to do their job and what type of personality they thought they had. Most of them

replied that they believed they had, and that female paramedics should have a Type A personality.

> *A type.* (Participant 1)

> ***…*** *type A personality … we know what we want.* (Participant 3)

> *Ja, Ja, Ja … personality A.* (Participant 5)

> *… a lot of A-type personalities.* (Participant 6)

In contrast, Participant 4 believed that personality type is not really important, but that it is more a case of paramedics being like-minded.

> *I think we are pretty like-minded, but, as far as personality types – I actually don't feel like I have a similar personality type to let's say … like the colleagues that I work with.* (Participant 4)

Participant 2 indicated that female paramedics have different characteristics in comparison with male paramedics, but in working together they complement each other because gaps are filled. Participant 6 agreed with Participant 2 and stated that there is a softness and emotional side to female paramedics that helps when treating patients.

> *How we can be women in predominantly a men's world, and I work predominantly with men and they always say to me "women shouldn't be in this industry" and I always say to them that a woman is there to do everything that a man can't and that's not meant in anyway nasty. Men are strong, they are bulky, they can do all of those physical thing – the women come in and they see a situation logically, they see situations emotionally, and they fill all those gaps. The women is there to do what a man can't. So, we should work together to complement each other.* (Participant 2)

I think a lot of them do have a softness about their nature where they are able to empathise with patients. Uhm and that tends to make for a good female paramedic. (Participant 6)

b. Job satisfaction

Job satisfaction emerged as an important category within the subtheme of compatibility with occupation. Experiencing a high sense of job satisfaction seemed to impact positively on the performance of the participants. The participants felt an overwhelming sense of passion and reward when talking about their job and patients, which was not surprising because of their explanation that they had chosen this field because it was a passion or calling.

I'll never get the fulfilment with another job than with what I'm doing here ... I love my job. (Participant 1)

I have to say to you I love my job, I absolutely love it … Soul satisfying … I go out there, I work hard, and then when I walk away I know that I have given my best. (Participant 2)

I believe that this is my calling and it's my passion so helping uhm, others in difficult settings going out to the scene is what makes the difference … there's a lot of aspects of this job that I love and that's why I chose it. (Participant 3)

… my job is passion driven and … at times difficult, and other times uhm, rewarding … It's sound so cliché but genuinely, being able to help people. Because that for me … I've always felt like that is my purpose in life … that for me is what gives my life meaning – that I feel like I've made a difference to other people. (Participant 4)

I'm extremely, extremely passionate about being a paramedic. (Participant 6)

c. Adjustment

Adjusting to the unique context within which a female paramedic has to function emerged as an important category in this study. Some participants shared that they had adjusted to their work environment, except for participant 6, who weighed in and stated that she thought it is extremely difficult to balance adjustment and well-being being a female paramedic.

> *I think it's-I think it's very, very difficult to balance your adjustment and well-being in this career. Not only as a woman. I think that there is a lot of expectation to maintain a tough façade … and hold your own stuff together, uhm, because you are there for the other people.* (Participant 6)

Participants 1, 3 and 4 explained how over time they had been able to adjust and cope with the context of a paramedic and all its demands.

> *I would say that I adjusted quite well. Uhm, I don't get anxiety if I have to go to high acuity calls and that type of things.* (Participant 1)

> *Uhm I've adjusted well because emotionally I've grown. Uhm mentally I've grown and, spiritually I've grown so I have even though it's a difficult environment to be in. Uhm, I am able to cope better, and I definitely adjusted to the environment.* (Participant 3)

> *I feel like I'm fairly well adjusted now, I don't have any dreams, I don't, when I get into a situation like that I'm not panicked, I'm just additionally cautious, if that makes sense.* (Participant 4)

4.2.5.2 Subtheme: Well-being

Well-being is the wellness state of work and life balance (Coetzee et al., 2016). A paramedic's health and well-being is fundamental to a successful emergency service

and the highest level of clinical and patient care (Meadley et al., 2020). Well-being emerged as the second subtheme under occupational performance with thriving as a category, which explains how the participants thrive at work, if they are satisfied with their job and their physical well-being.

a. Thriving

Thriving is of vital importance because vitality helps to improve performance and well-being (Jonge & Peeters, 2019). Spreitzer et al. (2012) posited that thriving at work adds to the employee's enhancement of task performance, job satisfaction and physical well-being.

The researcher asked participants to explain what thriving means to them. They expressed that they would experience feelings of thriving when they were mentally, physically, psychologically and socially well, when they could see their friends and family, when they eat and sleep well and when they did not have erratic stresses. Furthermore, they thrived when they felt happier and more successful, not stressed, and when they feel healthy and joyful.

> *I think, for me to thrive would be healthy, when you are mentally, physically, psychologically, and socially well. You know, thrive for would be the ability to see my friends, and my family and have a good relationship with them, uhm, to see my mom a lot, uhm, which will be eating well, sleeping well and generally a day to day without having these erratic stresses.* (Participant 2)

> *thriving to me means taking whatever situation you are in and completely making the best of it coming out of the other side … happier and more successful.* (Participant 4)

> *you're not just "okay, you're doing really well". You're not just coping, you are able to succeed in everything you do … you aren't stressed, you sleep well at night … eat well … healthy and you don't have that extra stress, that even if*

you miss a few meals or it's – you're fine to actually recuperate … to still feel joy and enjoy with you are doing. Where if you dread going to work every day then you are definitely not thriving. (Participant 5)

The interviewer then asked the participants whether they felt that they were thriving. Participants 1 and 3 felt that they had adjusted to their working environment, while Participant 1 insightfully stated that she thrived in the midst of chaos.

I thrive under chaos. (Participant 1)

Because of my coping mechanisms uhm, I think I am at a stage where I can handle what I experience … I definitely adjusted to the environment. (Participant 3)

Participant 5, however, felt that she was not there yet, but with the help of her coping mechanisms she was heading towards a state of thriving.

I actually still smile and I come home from a shift … I must say I think at this point I'm still maybe at the, if I can say, adaption stage, but heading toward thriving and not going backwards. If that makes sense. (Participant 5)

Participants 2 and 4, however, felt they were not thriving, with the latter 4 feeling that she was in fact merely surviving.

… truthfully the answer would be no. (Participant 2)

… at the moment probably, not. I think that I'm not thriving anymore. I'm possibly just surviving at this point. (Participant 4)

In addition, Participants 1, 2 and 4 shared their insight that in order for one to thrive, one needs to be able to learn from one's mistakes, accept feedback and use it to continue growing.

But you accept negative feedback, as a learning opportunity. Unfortunately, in this industry, you will never know everything – there will always be room for growth, as long as you accept it, I think, you're on the right track. (Participant 1)

… when I go to patients who have gastric bleeds I'm so-so uhm, careful should I say that even when they're stable I say "no no no lets-let's move, let's go right now" because I've seen you know how quickly it could go. (Participant 4)

… we make mistakes with patients, it's okay, but can we grow from it? (Participant 2)

4.3 CHAPTER SUMMARY

This chapter presented the findings of the empirical study of the lived experiences and coping mechanisms of female paramedics in a high stress, trauma burdened environment. Five main themes with their subthemes and related categories were described and supported with verbatim quotations. The main themes were work environment, psychological triggers, work exertion, coping and occupational performance. The next chapter contains a discussion of the findings.

CHAPTER 5: DISCUSSION

5.1 INTRODUCTION

This chapter provides a cohesive discussion of the conclusions drawn, followed by a discussion of the limitations of the current study. Moreover, it provides evidence that the aims of this study were achieved. The chapter also integrates the empirical findings with the literature review. In conclusion, the limitations of the study are highlighted, and recommendations formulated.

5.2 CONCLUSIONS DRAWN FROM THE LITERATURE REVIEW

This section focuses on the conclusions drawn from the literature review. As outlined in chapter 1, the literature review aims of the research were to

- conceptualise stress and its related constructs;
- conceptualise trauma and its related constructs;
- conceptualise coping and its related constructs; and
- explore the theoretical link between stress, trauma and coping in the workplace.

5.2.1 Conceptualising stress and its related constructs

Stress was conceptualised in chapter 2, and the following conclusions were drawn.

There are various definitions of stress because it is complex concept and has different meanings for different individuals (Shahsavarani et al., 2015). According to Gumani (2012) and Schuster et al. (2003), it is a response to an uncommon or unexpected environment or situation. Sisley et al. (2010) explained that workplace stress can be associated with high pressure. Based on the theory developed by Selye (1950, p. 4667), Butto (2019) clarified how Selye's General Adaption Syndrome (GAS) model (see Figure 2.1) outlines three main concepts pertaining to stress and the fact that it is a defensive mechanism. If stress is persistent or severe, it can cause disease or death, and lastly, life is a three-stage adaptation that steadily renews external

stressors referred to as the reaction to the stressor, adaptation to coping and eventual exhaustion.

What is stressful for one person may not be for another, and any event can potentially cause stress. Stress may have physical and emotional consequences. According to Koutsimani et al. (2019), work stress can commonly cause burnout, depression and anxiety, while Gayton and Lovell (2012) suggested that paramedics' stress levels are one of the highest compared to other careers in the world. Female paramedics may be at risk of higher levels of stress, fatigue, tension and depression (Courtney et al., 2012; Javed & Yaqoob, 2011; Kelly et al., 2008a; Sofianopoulos et al., 2011). Work stress, long shifts, heavy workload, an unhealthy diet and a lack of exercise may further cause high stress (Leow et al., 2018; Naudé & Rothmann, 2006; Regehr, 2005; Stults-Kolehmainen & Sinha, 2014; Timmons et al., 2017). However, stress management may help by changing the way in which a person views a stressful event, lowering the effects of stress and learning different ways of coping (Felman, 2020).

The literature has indicated that stress can be curbed to prevent serious outcomes. Factors such as social support, locus of control, personality types and different coping mechanisms can make a significant difference when effectively dealing with stress (Khan & Khan, 2017, p.2).

5.2.2 Conceptualising trauma and its related constructs

Trauma can be caused when experiencing a certain event that gives one a sense of overwhelming feelings of panic, powerlessness or fear (Covington, 2008), and is seen and meant as a psychological wound (Nijenhuis & Van der Hart, 2011). Most people experience a range of symptoms after traumatic experiences such as mental health issues (Nijenhuis & Van der Hart, 2011). When paramedics suffer from work-related stress, they may feel abandoned by their colleagues (Lawn et al., 2020). The employees who are affected by such traumatic events can be at a higher risk of making poor professional judgements and develop PTSD (Zana, 2019, p.2). PTSD as a disorder is often diagnosed by paramedics suffering severe and ongoing traumatic

incidents, which may cause decreased levels of physical, psychological, social and behavioural well-being (Berle et al., 2018; Charuvastra & Cloitre, 2008; Covington, 2008). Furthermore, PTSD can impact job satisfaction, work performance and personal turmoil (Kheswa, 2019). Exposure to trauma can cause and is associated with compassion fatigue, which influences paramedics' empathy with their patients. It is not uncommon for paramedics to develop compassion fatigue and have PTSD, and eventually leave their jobs because of the stress and trauma. PTSD is more common among paramedics because of the stressful and distressing nature of their work.

5.2.3 Conceptualising coping and its related constructs

Coping helps to reduce the negative influences of stress and trauma and to improve personal and professional well-being, which may include the use of internal and external individual resources. The general view is that coping benefits employees both in their workplace and their personal life. There are several coping mechanisms that can be used to deal with experiences in a high stress, trauma burdened environment. Healthy coping mechanisms include talking to and receiving support from colleagues, friends and family, exercising, and having faith and praying (Gellar et al., 2007). There are multiple definitions of coping, but in a nutshell, it can be defined as the efforts an individual makes to manage challenges such as stress and trauma.

Personality traits also have an impact on stress responses (Jennings, 2008). For example, a paramedic with a Type A personality tends to be more competitive, ambitious and resilient (Alexander & Klein, 2001; Gayton & Lovell, 2012; Mirhaghi et al., 2016). Furthermore, Bilsker et al. (2019, p.5) categorised five resilient coping mechanisms, namely balance, self-acceptance, trusted social support, meaningful work and physical self-care, which may also help with coping. Lastly, the transactional stress/coping model identifies which factors influence stress and how to determine which coping mechanisms can be identified.

Based on the literature review, the conclusion drawn was that coping and coping mechanisms are beneficial to paramedics in their high stress and trauma burdened environment.

5.2.4 Exploring the theoretical link between stress, trauma and coping in the workplace

Individuals may respond differently to a stressful or traumatic environment, and according to the literature, coping may be helpful in such instances (Baqutayan, 2015). Paramedics face dangerous and gruesome scenes, which may cause stress and trauma (Coffey et al., 2016; Thind et al., 2015). Trauma increases the severity of stress in paramedics. Coping helps to reduce stress and curb PTSD and other mental health factors. Coping mechanisms can be identified and used for a healthy and successful outcome. Individuals may respond differently when faced with a stressful or traumatic situation, and the literature confirms that coping strategies are indeed helpful during such times.

Paramedics' working conditions and time pressures can cause emotional exhaustion and have a negative impact on their health (Navarro Moya et al., 2017). Even though South African paramedics are still regarded as some of the best first responders compared to those in other countries (Arrive Alive, n.d.a; Minnie et al., 2015, p.13), because of the high standard of training and acute exposure to the amount of trauma and stress in dangerous circumstances, if their stress and trauma are not addressed professionally, this could lead to paramedics developing their own ways to keep themselves functional, which may be self-destructive and influence their work performance. Although this line of work can be rewarding and gratifying, traumatic experiences can have a lasting effect and result in damaged psychological well-being (Gayton & Lovell, 2012; Halpern et al., 2014; Varker et al., 2017).

5.3 SUMMARY AND CONCLUSIONS DRAWN FROM THE RESEARCH FINDINGS

This section provides a summary and draws conclusions pertaining to the findings based on the main themes and subthemes. As outlined in chapter 1, the empirical research aims of this study were to:

The specific empirical aims of the research were to:

- gain a deeper understanding of female paramedics' experience within a high stress and trauma burdened environment;
- gain a deeper understanding of the coping mechanisms female paramedics' use to thrive in a high stress and trauma burdened environment;
- develop insights that can assist in creating a better understanding of the coping mechanisms female paramedics' use to thrive within a high stress and trauma burdened environment; and
- make recommendations to the paramedic industry on how female paramedics can be enabled to thrive within a high stress and trauma burdened environment.

5.3.1 Theme 1: Work environment

The data on work environment was generated by the participants' explanations of what their job entails through their lived experiences.

5.3.1.1 Nature of work setting

a. Occupational atmosphere and demands

It was found that occupational atmosphere and demands in the paramedics' work environment cannot be explained precisely, except for the fact that paramedics never know what to expect. The participants stated that their work entailed abnormal, difficult, adrenaline filled and dangerous environments, and that it was an extremely physical job. One participant explained that her job involved a lot of waiting and

expecting the worse. Another participant stated that she liked the flexibility of going to new places, and not staying or working in one place.

Some participants further described how demanding their work environment could be because they would often receive inaccurate information when dispatched, and subsequently needed to stay alert and be prepared for anything. Some participants mentioned how their work environment could be highly dangerous at times and that they were often confronted with life-threatening situations such as stabbings, shootings, murders and assaults. In addition to the work requiring them to support patients and family, they added that their work could be extremely exhausting, and that it would physically take its toll on them and prevent them from taking care of themselves, such as resting, exercising and eating well.

b. Peer support

The participants explained how essential it is for their peers to support them. Having their colleagues with them when on duty felt as if they had a helping hand with patient care, and afterwards they could naturally debrief with their colleague. Additionally, owing to the dangers that come with this job, they tended to feel safer when they had more of their peers with them. Two participants stated that when they were in a more authoritative position, this would impact their ability to be supported emotionally as it would change the dynamics of working as part of a team.

c. Sustainability

Most participants stated that their job was not sustainable in the long term. They would rather pursue another career, such as becoming and training officer, or they had already become involved in training paramedic students. Some participants maintained that their job was not sustainable on account of their being a mother or wanting to become a mother. Another reason was the physicality, stress and trauma, coupled with the dangers prevalent in South Africa. Sustaining such a career for a long period of time was questionable for them.

5.3.2 Theme 2: Psychological triggers

According to Lawn et al. (2010), some persons or situations trigger paramedics. If not treated, these triggers can cause serious damage to their emotional and psychological well-being.

5.3.2.1 Professional

Professional triggers include situations in which the participants experienced major stress or trauma in their work situation.

a. Children

The first trigger cited by the participants was that they struggled when dealing with and treating children. This was influenced by the fact that it is generally difficult to effectively communicate with a child when needed, and how seeing children hurt or injured affects them on an emotional level. This was especially the case for the participants who are mothers, who stated that they felt they could relate to the families of the patient. Hence one participant stated that she was scared to have children of her own, while another was inclined to be overprotective with her child.

b. Dealing with death

Dealing with death became an immense psychological trigger for the participants. They mentioned that because of the amount of death they deal with, it can be extremely difficult to process. A predominant answer among the participants was that it was not necessarily the death that bothered them, but the death of a particular patient that affected them. Participants shared how trying their best to save a life and having to still see someone die, left them feeling hopeless and horrified. One participant explained how suicide was a huge trigger for her. In conclusion, two participants stated that they no longer followed up on patients because if they found out the patient had died, psychologically it affected too profoundly. Owing to the gruesome way in which

patients die, dealing with death on a daily basis is abnormal, and influences the well-being of paramedics.

c. COVID-19

COVID-19 was a predominant topic because of the current pandemic. Participants shared how their daily schedules and duties had changed as a result of COVID-19. They explained that their workload and shifts had changed from level 5, where they hardly received any emergency calls, to the immense pressure and high levels of COVID-19 cases, which resulted in them witnessing huge numbers of deaths and being extremely busy with dispatch calls. Patients were too scared to go to hospital and would rely on calling a paramedic to treat them or send them to a hospital. One participant explained how extremely stressed and physically exhausted she felt. She went on to say that she felt rushed all the time and that they were running out of human resources.

5.3.2.2 Personal

Personal acquaintances' trauma or death triggered the participants psychologically and resulted in them being traumatised.

a. Personal acquaintances

The suffering or death of a family member or friend resulted in a traumatic trigger, as explained by one participant. Three other participants explained how they were triggered when a patient reminded them of personal acquaintances, such as family members. For example, one participant explained how young males that were the same age as her brother would psychologically trigger her in that she felt it was too "close to home". Another trigger was when the paramedic was a mother and had to treat a child, because she felt she could relate to the parents, and was confronted with her own fear of possibly losing her own child.

5.3.3 Theme 3: Work exertion

In this study, work exertion and its impact on mental health emerged as a strong theme. According to Lawn et al. (2010), symptoms of mental health are stress, anxiety and burnout, which was noticeable in most of the participants.

5.3.3.1 Mental health

The findings of the research indicated that the participants experienced high levels of stress, anxiety and burnout owing to the nature of their work.

a. Stress

The participants concurred that they did feel stressed in their jobs on account of its highly dangerous, unpredictable and traumatic nature. Furthermore, they posited they felt they carried a lot of responsibility when dealing with and treating patients. COVID-19 also had an impact on their stress levels because of the health and safety element. One participant explained that she would attempt to stay and look calm, even though the situation was stressful. Another participant explained that she felt stressed every day, but that the level of stress could vary, and that she struggled to cope with all the responsibility.

b. Anxiety

Some of the participants stated that they continuously felt anxious and, in some instances, severely anxious. One participant said that she would experience anxiety going to work every day, while another explained that her anxiety would build up, and that it would become physically difficult for her to process her anxiety. Another participant reported that her anxiety led to her being diagnosed with depression, and she eventually contemplated taking her own life. She further explained that she was still more paranoid than the average person as a result of what she was exposed to as a female paramedic.

c. Burnout

The participants shared symptoms of burnout because of them experiencing self-doubt and self-blame. They spoke about feeling guilty when losing a patient, as if they could have changed the outcome, even though they could not have. They articulated that they would feel exhausted and helpless because of their highly emotional and physically tiring job. One participant explained that burnout can creep up on a person and influence his or her mental health without fully realising it, and that she felt caught off guard when she realised that she was burned out. Another participant described how burnout affected her physically and mentally.

5.3.3.2 Trauma

The participants were continuously exposed to traumatic incidents because of the very nature of their work – hence their exposure to a lot of traumas. The upshot of this was that the participants seemed to neglect themselves, others and their normal interests. Some participants had manifested symptoms of PTSD were diagnosed with PTSD, or had symptoms of compassion fatigue.

a. Neglect of self and others

Owing to the nature of their work, participants explained how neglect of self and others would creep in. They admitted that they tended to neglect themselves because they were always caring for and looking after others. Interestingly, another participant described how she had neglected her own health because she simply did not have the energy to exercise. Another two participants admitted that they were more likely to also neglect the people and relationships around them, because when they were at home, they just want to be alone.

b. PTSD

Some participants showed signs of PTSD. One participant explained that she believed she had a symptom of PTSD when listening to a certain song that used at work, and that she felt as if she needed to perform or prepare herself for disaster. She would feel anxious, even when off duty. Another participant had recurring nightmares about certain scenes, leaving her feeling of helpless and horrified. Other participants showed signs of not being able to switch off from their job, and feeling that they were always aware of their surroundings. Lastly, one participant related that a psychology student had pointed out to her that she showed signs of PTSD, but she still felt that she had been caught off guard when she was diagnosed.

c. Compassion fatigue

The participants explained the symptoms and experience of compassion fatigue. They related how they suffered from compassion fatigue by becoming hard, emotionally detached and blunt. They sometimes struggled to feel empathy with their patients, especially if the patient's injuries or situations were a result of bad choices and their involvement in wrongdoing. Alarmingly, one participant explained that her lack of empathy was not confined only to her patients, but that it had also influenced her personal life, leaving her with a feeling that she had no compassion left for people both in her professional and personal life.

5.3.4 Theme 4: Coping mechanisms

It was found that many of the participants used the same types of coping mechanisms. Factors contributing to coping, and supported by the literature reviewed, were counselling, social and family support, religion, exercise and escapism.

5.3.4.1 Learned coping skills

This category emerged because paramedics learn certain coping skills when they are trained as paramedics or they learn from experience in the field.

a. The uniform gives them confidence

The data indicated that the female paramedics felt more confident when wearing their uniform during a shift. Their paramedic uniform would give them a sense of confidence. In the researcher's opinion, as paramedics the participants felt that the public expected them to perform because of their uniform. This gives the public a sense of security, and the participants felt they needed to show confidence in their actions and were sure of what they were doing. The participants explained that this increased their sense of confidence and courage, like a cloak or mask, making it easier to do their job and help others. One participant explained that her uniform made her a hard person and her family concurred with this.

b. Being dispatched to a scene

When the participants were dispatched to a scene, they would apply certain coping mechanisms to prepare their mindset. The data indicated that they would first mentally prepare themselves by switching off and blocking out all other possible distractions. Some participants stated that they would run through all possible scenarios and procedures needed when arriving at the scene, so that when they arrived, they could focus on treating the patient at hand.

c. At the scene

The data indicated that when arriving on the scene, the participants would focus on the patient as well as the procedure they needed to perform in order to treat the patient. The participants stated that they never allowed distractions to interfere. The participants were trained to focus only on the patient and the problem at hand, as if

this came naturally to them, but they also believed that it was because of how well trained they were. The participants further stated that they relied on muscle memory based on experience, and that they were used to performing according to a certain standard to save a patient's life. Other participants explained that they would use calming as a mechanism, because it enabled them to remain level-headed when on scene. They also seemed to remind themselves that they could only do so much to help the patient, thus remaining realistic.

5.3.4.2 Self-care and coping mechanisms

Self-care as a coping mechanism also emerged from the data. Some paramedics used counselling and debriefing, while others talked to their friends and family for support. Others again relied on their religion, while one participant stated that that she used escapism as a coping mechanism by occasionally drinking alcohol or using recreational drugs.

a. Counselling

Counselling is an important mechanism because it has been found to be crucial for paramedics to talk and share their stressors and fears, especially after they have experienced a highly stressful and traumatic incident. If they do not talk about a significant event, it may suppress their feelings, which may lead to anxiety and burnout. The study found that the participants did make time and the effort to talk to and debrief with colleagues, a close friend, family or partner. Some participants preferred seeing a counsellor or psychologist. However, most of them emphasised that that the counsellor or psychologist should have worked with other paramedics before in order to understand their occupation and what they experienced in doing this kind of work. It was thus essential to see someone who would understand their experiences and therefore their emotions. One participant explained how her psychologist had helped to correctly diagnose and treat her when she had been depressed and in need of serious help.

b. Social and family support

Social and family support also emerged as a significant category as the research found that all participants emphasised that social and family support was necessary for them to cope with their work environments. Most participants mentioned that they felt supported at home with their family.

c. Religion

Religion played a significant role in some participants' lives and in their way of coping. Three participants relied on their religion. One participant felt as if God was helping her when treating patients, while two other participants relied on prayer, bible study and seeing a Christian counsellor to help her cope.

d. Exercise

It emerged in in the literature review and in the data collected that the participants used exercise as a coping mechanism. They stated that they felt as if they could escape from their stressors and their occupation when exercising, as well as keeping the endorphins flowing. They shared how exercise improved their energy levels and sleep, and uplifted them emotionally and mentally.

e. Escapism

Escapism emerged predominantly because of one participant's statement. She explained that even though she was not a hard drinker, smoker or drug user, she would sometimes resort to these substances as a form of escape.

5.3.5 Theme 5: Occupational performance

The participants stated that they believed they had adjusted to the paramedic environment. They described their experiences in being able to adjust to the

paramedic environment in terms of how their personality type helped in with their occupation, they were satisfied with their job and how they had adjusted to their work environment.

5.3.5.1 Compatibility with occupation

a. Personality type

The participants' compatibility with their occupations was proven owing to their Type A personality. The study found that two participants felt that they had always wanted to help others, while another two explained that their personality characteristics helped them perform at their job such as dedication, having an outgoing personality, being able to work under pressure, having a controlling mindset and being a "go-getter". Most participants reported to having a Type A personality. In contrast, one participant believed that personality type was not really important, but that it was more a case of paramedics being like-minded. Another two participants indicated that female paramedics tend to have different characteristics compared with their male counterparts, but in working together they complemented each other as the gaps were filled.

b. Job satisfaction

Participants mentioned that they experienced a high sense of job satisfaction, and that this seemed to have a positive impact on their performance. They experienced a great sense of passion and reward when talking about their job and patients. All of the participants stated that they loved their job, and most reported that it was their passion to be a paramedic.

c. Adjustment

Regarding the unique context in which a female paramedic has to function, some participants stated that they had adjusted to their work environment, except for one

participant, who admitted that she found it extremely difficult to balance adjustment and well-being as a female paramedic. Three participants, however, explained how, with experience, they had been able to adjust and cope with the context of a paramedic and all its demands over time.

5.3.5.2 Well-being

The participants expressed that they had experienced feelings of thriving when they were mentally, physically, psychologically and socially well. Well-being to them meant being able to see their friends and family, eating and sleeping well, and not experiencing erratic stressors. They also explained well-being as feeling happier and more successful (not stressed), healthy and joyful Two other participants admitted that they were not thriving because of the pressure of their occupation, partially because of COVID-19, and one participant sadly reported that it felt as if she was merely surviving.

a. Thriving

Some participants felt that they were thriving. One stated that this was the result of her coping mechanism, while another suggested that she thrived amid chaos. Furthermore, three participants explained that in order for one to thrive, one should be able to learn from one's mistakes, accept feedback and use it to continue growing.

5.4 INTEGRATING THE FINDINGS WITH THE LITERATURE

The findings indicated that female paramedics experience a lot of stress and trauma in their working environment. Furthermore, this influences their mental health and therefore has an effect on their well-being and adjustment (Khan & Khan, 2017). Even though female paramedics do have coping mechanisms that they can use, there are additional sources of coping that might help with their mental and psychological health (Gellar et al., 2007). In conclusion, the participants indicated that they were healthy and happy in their job and personal lives, but additionally, showed signs of stress,

anxiety, burnout, neglect and PTSD, and that they did need more than one coping mechanism to enable theim to process their stressors and trauma (Berle et al., 2018; Courtney et al., 2012; Covington, 2008; Javed & Yaqoob, 2011; Kelly et al., 2008b; Sofianopoulos et al., 2011). Such coping mechanisms include counselling, social and family support, religion, exercise and escapism. These findings concur with those in the literature that describe paramedics' high stress and trauma burdened environment, as well as the coping mechanisms they use to thrive (APA, 2019b).

The findings indicated that the paramedic work environment is abnormal, unstructured and chaotic. In other words, paramedics arrive at scenes where the environment has been disturbed (Gumani, 2012). The fact that their difficult work environment involves long hours where they often have to wait around, sometimes takes them out of their comfort zone and they continuously have high levels of adrenaline (Coffey et al., 2016; Sheridan, 2019; Thind et al., 2015). More often than not, because they receive and work with inaccurate information when dispatched, they need to be on high alert and prepared for anything. Furthermore, the participants felt they needed to support their patients and family emotionally, in spite of working in an intensely physically demanding environment that could hinder them in taking care of themselves, such as resting, exercising and eating well (Zana, 2019).

The findings indicated that there were incidents among all the paramedics that triggered them psychologically. Mostly, it was when they were treating a specific patient and could not completely help or treat them. Some participants found it extremely difficult to treat children and seeing how sick children can become, especially when they die. Other participants who had to deal with many deaths found it extremely triggering, and there were some patients who died that they would always remember and the situation in which they had died, which was profoundly difficult to process completely. Others struggled with the COVID-19 pandemic because they had to cope with so many deaths, in addition to the time pressures and running out of resources to help everyone. Furthermore, paramedics having to help someone in their family or friends could be triggering, whereas for one participant, a young male would remind her of her brother and the situation would feel "close to home". In conclusion,

their working environment would cause triggers for them, and they might find it extremely difficult for them to process a trigger – it would be something that they might always remember and never process entirely (Lawn et al., 2020; Le Blanc et al., 2012; Zana, 2019).

The findings further revealed that work exertion plays a huge role in paramedics' mental health. The participants experienced immense stress, anxiety and burnout, which is not uncommon, as suggested in the literature (Lawn, et al., 2020; Rankin, 2019). According to Gumani (2012), stress can occur when an environment is disturbed or changed, which is exactly what a paramedic's job entails, namely helping and treating patients in disturbed environments. Most participants showed signs and symptoms of the above mental health complications. The study also found that these issues of mental health and trauma affected paramedics' well-being in both their personal and professional capacity. The findings supported the literature on Selye's General Adaption Syndrome (GAS) model (see Figure 2.1), which highlighted the following the three main concepts relating to stress: (1) stress can be seen as a defence mechanism; (2) if stress is persistent or not treated it can lead to disasters or even death; and (3) life is a three-stage adaptation that steadily renews external stressors, that is, reaction to the stressor, adaptation to coping and eventual exhaustion (Butto, 2019). Signs may include fatigue, burnout, depression and anxiety (Koutsimani et al., 2019), which featured prominently in the findings.

Furthermore, work exertion was shown to be influenced by trauma. Trauma can occur when one is part of or witnesses a disturbing event where the response may involve overwhelming feelings of panic, powerlessness or fear (Covington, 2008). PTSD can lead to decreased levels of physical, psychological, social and behavioural well-being (Berle et al., 2018; Charuvastra & Cloitre, 2008).

Traumatic and high-stress experiences could certainly influence an individual's emotional, social, mental and physical well-being, which in turn, could lead to job dissatisfaction, poor work performance and personal turmoil (Kheswa, 2019). Some participants admittedly showed signs of PTSD. It is a disorder often diagnosed by

individuals who have suffered a traumatic incident (Covington, 2008) and may cause low levels of well-being (Berle et al., 2018). PTSD can lead to decreased levels of physical, psychological, social and behavioural well-being (Berle et al., 2018; Charuvastra & Cloitre, 2008). Hence the participants admitted that they neglected themselves and others, which was also reported in the literature (LeBlanc et al., 2011), namely that trauma may result in individuals feeling emotionally distant and disengaged from their families.

According to the literature, coping is a key concept in adjustment and well-being (Lazarus, 1993; Marroquín et al., 2017). Moreover, the findings indicated that coping mechanisms are extremely detrimental to paramedics' health in their working environment. Stress can be ever-changing, but one's response will depend on how one copes (Schuster et al., 2003). The findings showed that learned coping skills are crucial when on the scene and treating patients, like preparing mentally for a scene or focusing on only the patient and procedure required. By contrast, self-care and coping mechanisms help one to process high stress and trauma burdened events. According to Khan and Khan (2017), coping mechanisms can make a significant difference.

The participants reported to mostly having the same types of coping mechanisms such as counselling when talking to a counsellor or phycologist, a friend or family member, but they all agreed that it is important to talk and have that support (Baqutayan, 2015). According to Mackinnon et al. (2020), paramedics seeking mental health support can mean the difference between life and death. Social and family support makes them feel that if they can share their emotions, but also switch off from these people in their lives (Weir, 2012, p.50). Religion and exercise were also mentioned as significant and healthy coping mechanisms that participants would use to process the stress and trauma from their job (Ozcan et al., 2021. In conclusion, one participant admitted that even though she did not frequently use cigarettes, alcohol or drugs, she would sometimes use them as an escape to cope with certain situations or escape from the tough realities of her job. However, these behaviours might help females to cope in the short term, but they become less effective over time.

The findings indicated that female paramedics tend to have the same personality characteristics, they all feel that their job is their passion and calling in life, and this is thus in line with their compatibility with their job. A case in point would be a paramedic with a Type A personality, characterised as being competitive, ambitious and resilient (Alexander & Klein, 2001; Gayton & Lovell, 2012; Mirhaghi et al., 2016). A paramedic's environment can influence his or her quality of life and well-being (Leserman et al., 2005; Stults-Kolehmainen & Sinha, 2014). The participants stated that they loved their job, and even though some of them felt that they were not thriving, most felt they were thriving in their occupation. Although this line of work can be rewarding, and personally gratifying, traumatic experiences can have a lasting effect and result in damaged psychological functioning (Gayton & Lovell, 2012; Halpern et al., 2014; Varker et al., 2017).

5.5 LIMITATIONS OF THE STUDY

The limitations of the literature review and of the empirical study are highlighted below.

5.5.1 Limitations of the literature review

As stated previously, the focus of the study was the lived experiences of female paramedics in a high stress and trauma burdened environment, and the coping mechanisms they use. Although the literature on paramedics in South Africa was available but limited, no literature on female paramedics could be found. If the researcher had been able to source local or international studies, this might have had an effect on the findings by explaining in more detail what female paramedics experience day to day on the job, and the consequences thereof. However, the primary aim of the study was achieved, thus filling to the gap in the literature.

5.5.2 Limitations of the empirical study

The experiences of the managers of these female participants were not included in the study. Although the sample size was an acceptable size, only the experiences of

six female paramedics were heard. However, data saturation was identified in that the themes started to repeat themselves among participants. Interviewee bias could have occurred as a result of the interviewer's perceptions, reluctance to share in-depth information and the time constraints in the interviews. The researcher's lack of experience in conducting semi-structured interviews in the qualitative paradigm could also be deemed a limitation to the study.

Although the researcher went into the data gathering process with presumptions of what the participants' views might be, she set aside her feelings and beliefs and remained neutral during the interviews. However, the researcher's biases might have influenced the interpretations made from the data, as a result of her social relationships with female paramedics, and through these encounters the researcher might have developed empathy with and compassion for them, as well as becoming an advocate or campaigner for them.

5.6 RECOMMENDATIONS

The recommendations formulated include recommendations for possible future research studies and recommendations based on the findings for paramedics, HR practitioners, career counsellors, industrial organisational psychologists and line managers.

5.6.1 Recommendations for possible future research

The researcher recommends that future studies should further investigate the lived experiences of female paramedics in a high stress and trauma burdened environment involving state-owned and private ambulance services in all parts of South Africa, and internationally, because experiences may differ in different provinces and in other foreign countries.

It is recommended that future studies also consider and incorporate the experiences and perspectives of paramedic management in an attempt to engage in constructive

representation of all parties, allowing them to express their experiences and voice regarding their relationship and experiences with other paramedics and patients, and other possible stressors emanating from their managerial position. Such research would provide more understanding of the experiences faced by all female employees in the organisation. The diverse dynamic between how men and women deal with PTSD seems to be a topic that still needs to be further researched. Conducting further research on the dynamics in how female in comparison to male paramedics cope with PTSD within such a high stress and trauma burdened environments need to be further explored or investigated by researchers.

5.6.2 Recommendations for the field of paramedics and all supporting role players

One of the aims of the study was to make recommendations for HR practitioners, career counsellors, industrial and organisational psychologists, line managers and female paramedics to better understand the impact of such a high stress and trauma burdened environment on female paramedics. The working environment of female paramedics can affect their mental health, well-being and adjustment, and thus impact their job performance. This would include recommendations regarding well-being and support programmes to improve the well-being of the female paramedics. Several recommendations were formulated as explained below.

The first recommendation is that organisations should consider employing an HR practitioner who is qualified and responsible for administering and offering support programmes, and ensure that paramedics benefit from such support and debriefing sessions. Secondly, that paramedic organisations should appoint an industrial and organisational psychologist, as well as a professional counsellor, who has experience working with paramedics, and who can offer adjustment and well-being programmes. Such a professional should be tasked with training line managers to be able to recognise any mental and psychological health symptoms as they appear and equip them with the necessary resources to refer such paramedics to suitably qualified professionals or programmes for further assistance. Also, it is necessary to make

female paramedics (and male paramedics for that matter), mindful of the warning signs they should look out for in themselves and in their colleagues and how to act on them in terms of the resources available to them. Managers and paramedics should specifically receive training on how to accurately recognise any symptoms of, inter alia, severe stress, anxiety, burnout, depression and PTSD. These professionals should also be competent in providing advice and making recommendations to female paramedics on healthy coping mechanisms they could employ. Company policies, programmes and interventions, and education need to occur at individual, peer, organisational and government level (Lawn et al., 2020, p.14). This knowledge should help HR practitioners, career counsellors, industrial and organisational psychologists and line managers to understand how they can better support female paramedics and create a better environment at work by putting support structures in place that will promote well-being, which will help female paramedics to thrive. As researcher, I am wondering whether it is harder or easier for women to function in this world of paramedics, or if it is really similar or different as to how women and men experience such an environment and cope with it, and that perhaps further research could be done to provide clarity on this point. These recommendations could benefit paramedics by helping them deal with stress and trauma and the coping mechanisms they can use to thrive.

5.7 CHAPTER SUMMARY

This chapter focused on a discussion of the conclusions drawn from the literature review and the findings based on the data collected. Furthermore, the chapter indicated whether the specific empirical aims of the study were achieved. The findings of the study were integrated with the literature review and discussed. Lastly, the limitations of the study were highlighted, and recommendations formulated for possible future research and for HR practitioners, career counsellors, industrial and organisational psychologists and line managers.

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ANNEXURE A: ETHICAL CLEARANCE CERTIFICATE

UNISA university of south africa

COLLEGE OF ECONOMIC AND MANAGEMENT SCIENCE RESEARCH ETHICS REVIEW COMMITTEE

06 April 2021

NHREC Registration # : (if applicable)
ERC Reference # : 2021_CRERC_005(FA)
Name : Mrs Yvette Pauley
Student No#: 60066215

Dear Mrs Yvette Pauley

Decision: Ethics Approval from 2021 to 2023

Researcher(s): Mrs Yvette Pauley, 60056215@mylife.unisa.ac.za, 0795295994
College of Economic and management Sciences
Department of Industrial and Organisational Psychology
University of South Africa

"Lived experiences and coping mechanisms of female paramedics in a high stress, trauma burdened environment."

Qualification: Masters Degree

Thank you for the application for research ethics clearance by the Unisa College of Economic and management Sciences Research Ethics Review Committee for the above-mentioned research. Ethics approval is granted for 3 years (**06 April 2021 until 05 April 2023**).

*The **low risk application** was **reviewed** by the College of Economic and management Sciences Research Ethics Review Committee on **March 2021** in compliance with the Unisa Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment.*

The proposed research may now commence with the provisions that:

1. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.
2. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study should be communicated in writing to the College of Economic and management Sciences Research Ethics Review Committee.

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3. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.
4. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing, accompanied by a progress report.
5. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003.
6. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data requires additional ethics clearance.
7. No field work activities may continue after the expiry date **(06 March 2023)**. Submission of a completed research ethics progress report will constitute an application for renewal of Ethics Research Committee approval.
8. Permission is to be obtained from the university from which the participants are to be drawn (the Unisa Senate Research, Innovation and Higher Degrees Committee) to ensure that the relevant authorities are aware of the scope of the research, and all conditions and procedures regarding access to staff/students for research purposes that may be required by the institution must be met.
9. If further counselling is required in some cases, the participants will be referred to appropriate support services.

Note:

*The reference number **2021_CRERC_005 (FA)** should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.*

Yours sincerely,

Prof Nisha Sewdass
Chairperson, CRERC
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ANNEXURE B: PARTICIPANT INFORMATION SHEET AND INFORMED CONSENT FORM

Title: Lived experiences and coping mechanisms of female paramedics in a high stress, trauma burdened environment

Dear Prospective Participant

My name is Yvette Pauley and I am conducting research with Dr Annelize van Niekerk, a Senior Lecturer in the Department of Industrial and Organisational Psychology, for a Master of Commerce degree (Industrial and Organisational Psychology) at the University of South Africa. We invite you to participate in a study entitled “Lived experiences and coping mechanisms of female paramedics in a high stress, trauma burdened environment”.

WHAT IS THE PURPOSE OF THE STUDY?

I am conducting this research to gain an in-depth understanding of the lived experiences and coping mechanisms of female paramedics in a high stress, trauma burdened environment.

WHY AM I BEING INVITED TO PARTICIPATE?

The researcher is acquainted with female paramedics who have indicated their interest in the topic and expressed their willingness to participate in this study.

The researcher requests that the female paramedics she already has access to, share this information with other potential participants, in line with the sampling inclusion criteria. The information participant sheet invites prospective participants to contact the researcher should they be interested in participating in this study.

Female paramedics who meet the inclusion criteria and who are willing to participate, after background information on the study has been shared with them, will receive an informed consent form outlining, among other things, that participation is voluntary, and that confidentiality and anonymity will be ensured. The sample will include approximately 10 participants or until data saturation is reached.

WHAT IS THE NATURE OF MY PARTICIPATION IN THIS STUDY?

The study involves *audio taping of semi-structured interviews*. The following questions will be asked:

- Can you describe what your day-to-day job as a paramedic entails?
- Can you explain in what way you see this job affecting you?
- Do you use any specific coping mechanisms?
- Do you feel that you need coping mechanisms to thrive?
- Can you describe what "thriving" means to you?
- How has the exposure to high stress and trauma burdened scenes affected your daily living or way of thriving?

The semi-structured interview will take approximately 60 minutes to complete.

CAN I WITHDRAW FROM THIS STUDY EVEN AFTER HAVING AGREED TO PARTICIPATE?

Participating in this study is voluntary and you are under no obligation to consent to participation. There is no penalty or loss of benefit for nonparticipation. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a written consent form. You are free to withdraw at any time and without giving a reason for doing so.

WHAT ARE THE POTENTIAL BENEFITS OF TAKING PART IN THIS STUDY?

The study is important from an organisational perspective for both the organisation and the paramedics to improve the success of managing how to thrive, the experience of the paramedics within a high stress and trauma burdened environment and enhancing their employee well-being. The study should contribute to the body of knowledge on stress, trauma and coping among paramedics, specifically female paramedics, in South Africa. It can be used by organisations, industrial and organisational psychologists who facilitate improvement in the workplace, how they should manage stress and trauma by using healthy coping mechanisms to minimise employee turnover and maximise employee well-being.

ARE THERE ANY NEGATIVE CONSEQUENCES FOR ME IF I PARTICIPATE IN THE RESEARCH PROJECT?

The reason for this research is to gain an in-depth understanding of the lived experiences and coping mechanisms of female paramedics in a high stress, trauma burdened environment. Given the nature of this research study, it is deemed a medium risk research project as the participants, paramedics, might relive traumatic incidents as they recall past experiences while participating in the interviews, or to a lesser extent, participants might incur minor inconvenience, stress and discomfort. However, the researcher, with the guidance of her supervisor, will at all times act in such a manner that she does not inconvenience the participants unnecessarily and ensure they are protected from harm. No risk is foreseen associated with the research procedures to be applied to participants, communities or any other third parties.

The researcher undertakes to keep any information provided by participants confidential and not to let it out of her possession. The records will be kept for five years for audit purposes, after which they will be permanently destroyed, hard copies will be shredded, and electronic versions will be permanently deleted from the hard drive of her computer.

WILL THE INFORMATION THAT I IMPART TO THE RESEARCHER AND MY IDENTITY BE KEPT CONFIDENTIAL?

Your name will not be recorded anywhere, and no one will be able to connect you to the answers you provide. You will be given a pseudonym and you will be referred to in this way in the data, any publications or other research reporting methods such as conference proceedings. Your anonymous data may be used for other purposes, such as a research report, journal articles and/or conference proceedings.

HOW WILL THE RESEARCHER(S) PROTECT THE SECURITY OF DATA?

Hard copies of your answers will be stored by the researcher for a minimum period of five years in a locked cupboard at her home for future research or academic purposes; and electronic information will be stored on a password protected computer. Future use of the stored data will be subject to further research ethics review and approval if applicable. Hard copies will be shredded, and electronic copies will be permanently deleted from the hard drive of the researcher's computer using a relevant software program.

WILL I RECEIVE PAYMENT OR ANY INCENTIVES FOR PARTICIPATING IN THIS STUDY?

No payment or reward will be offered, financial or otherwise, for participating in this study.

HAS THE STUDY RECEIVED ETHICAL APPROVAL?

This study has received written approval from the Research Ethics Review Committee of the Department of Industrial and Organisational Psychology at Unisa. A copy of the approval letter can be obtained from the researcher if you require one.

HOW WILL I BE INFORMED OF THE FINDINGS/RESULTS OF THE RESEARCH?

If you would like to be informed of the final research findings, please contact Yvette Pauley on 079 529 5994 or yvettejvr92@gmail.com. The findings will be accessible for one year.

Should you require any further information or wish to contact the researcher about any aspect of this study, please contact Yvette Pauley on 079 529 5994 or yvettejvr92@gmail.com

Should you have concerns about the way in which the research has been conducted, you may contact Dr Annelize van Niekerk on 012 429 8231 or vnieka2@unisa.ac.za.

Thank you for taking time to read this information sheet and for participating in this study.

Kind regards

_____

Yvette Pauley

CONSENT TO PARTICIPATE IN THIS STUDY

I, _____, confirm that the person asking my consent to take part in this research has told me about the nature, procedure, potential benefits and anticipated inconvenience of participation.

I have read (or had explained to me) and understood the study as explained in the information sheet.

I have had sufficient opportunity to ask questions and am prepared to participate in the study.

I understand that my participation is voluntary and that I am free to withdraw at any time without penalty (if applicable).

I am aware that the findings of this study will be processed in a research report, journal publications and/or conference proceedings, but that my participation will be kept confidential unless otherwise specified.

I agree to the recording of the semi-structured interview.

I have received a signed copy of the informed consent agreement.

Participant's name and surname…… (please print)

Participant's signature…….. Date……

Researcher's name and surname…… (please print)

Researcher's signature……..Date……

ANNEXURE C: SEMI-STRUCTURED INTERVIEW GUIDE

The semi-structured interview schedule consists of an initial stage in which the participant is prepared for the interview, as well as the interview itself.

1. PREPARING THE INTERVIEWER TO CONDUCT THE INTERVIEWS

- Ensure that there is a counsellor and supervisor on standby should any adverse event occur.
- Be mindful of the typical signs of distress that can inform the presence of stress or discomfort in the participants.

2. INITIAL STAGE OF PREPARING THE PARTICIPANT

In this stage, the female paramedics are prepared for the interview by putting them at ease and informing them of the following:

2.1 Their rights as participants in the research

2.2 The purpose of the interview

2.3 The reason for their selection

2.4 The anticipated duration of the interview

2.5 Their consent being of their own free will

2.6 Should the participant feel uncomfortable at any point in the interview, she should please notify the researcher so that the cause of the discomfort can be addressed.

2.6.1 The researcher will have a counsellor on standby should the participant need support services.

2.6.2 The interview location, if in the interview is in person, will be the choice of the participant.

2.6.3 The researcher will be extremely sensitive and ensure that the participant's video is on while conducting the interviews so that the researcher can observe the participant's behaviour and detect any possible signs of discomfort or distress. The researcher will also frequently check in with the participants to see if they are still fine and ready to continue with the interviews.

2.6.4 The researcher will have her supervisor on standby should any incident occur, for an additional source to refer to, to ascertain the best course of action to protect the participant and the researcher, and to ensure that the data is collected ethically

2.6.5 If the interview is conducted in person, the researcher will always have refreshments (e.g. water) and tissues available.

2.6.6 The researcher will make it clear that the participant may take a break when needed, and if the participant prefers, the interview be divided in shorter sessions.

2.6.7 The researcher will strive to develop a positive regard throughout the interview.

3 INTERVIEW ITSELF

This section contains the open-ended questions the researcher intends asking the female paramedics.

3.1 Can you describe what your day-to-day job as a paramedic entail?

3.2 Can you explain in what way you see this job as affecting you?

3.3 How are you coping?

3.3.1 Do you use any specific coping mechanisms?

3.3.2 Do you feel that you need coping mechanisms to thrive?

3.4 When do you feel you thrive? How do you experience your ups?

3.5 How has the exposure to high stress and trauma burdened scenes affected your daily living or way of thriving?

Frequent pauses will be allowed in interview to ask the participant if she is still fine to continue with the interview.

4 FINAL STAGE

In the final stage, the interview is concluded by asking the participants if they would like to add anything.

The participants will also be asked if they feel they need to speak to a professional counsellor as a result of perhaps reliving certain experiences that might have been discussed during the interviews. Participants will also be reminded of the **Cipla SADAG Mental Health Line** (0800 4567 789 or WhatsApp 076 88 22 775), should they feel they need counselling or further support.