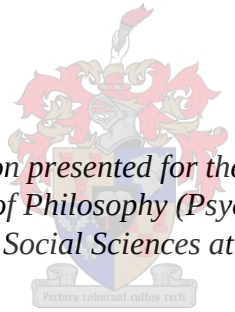
Beyond Vicarious Trauma: Exploring Adversarial Growth in a Sample of South African Paramedics

by
Charlene René Reinecke



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DECLARATION

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Charlene René Reinecke

Date: March 2017

Abstract

This qualitative study firstly explores the strategies that a sample of South African emergency medical care (EMC) practitioners, or paramedics, employ to cope with the vicarious trauma (VT) they are consistently exposed to as a result of their occupation. The paramedics work in both a public (Metro Western Cape EMS) and a private (ER24) EMC service in the Western Cape Province of South Africa. The trauma is exacerbated by the dangerous working conditions of paramedics in the country. The study secondly explores the paramedics' responses to vicarious trauma, which may be termed posttraumatic, or adversarial growth (AG). In this regard the study deliberately applies a positive psychology approach, which facilitates the exploration of vicarious trauma from the perspective of which the results may be termed 'adversarial growth', with specific reference to adaptation and resilience. This signals a departure from the way consequences of traumatic events have typically been studied from a pathogenic perspective, and connects with research that has shown that the experience of trauma may result in growth through adversity that go beyond mere adjustment and coping. Positive effects are often yielded which include revised ideas, beliefs, expectations and assumptions. In-depth interviews were conducted with eighteen participants, and thematic analysis was employed to analyse their narratives. Two distinct analytic categories were identified. Factual interview responses were processed by using descriptive analysis as regards the participants' study and training, support services, and coping mechanisms they utilize. Experiential analysis facilitated the coding of the participants' work experiences, and four main themes were extracted, namely service, realism, changed life perspective, and mortality. The findings confirm the reality of the vicarious trauma paramedics are exposed to due to the nature of their work, as well as its effects which often result in emotional blunting and detachment. The findings further reveal how paramedics manage and cope with increasing primary trauma due to high-risk working conditions, and that the most meaningful coping mechanisms reported

by the participants are talking to colleagues, engaging in post-call evaluations, applying self-debriefing, and personal introspection. The participants' narratives capture their perceptions of growth through adversity. Their descriptions of adversarial growth not only correspond to the definition of the construct in the literature, but contribute towards further developing the definitions in the literature as presented in this study. The study found that the participants' responses to trauma and adversarial growth are dependent on individual differences, that is, their personal characteristics and support resources, and the manner in which they appraise and proactively process the traumatic events they are exposed to. In spite of the participants' critical and high-risk occupation where they experience vicarious and primary trauma in the fulfilment of their duties, there is evidence of the existence of psychosocial resources in this sample of paramedics which support positive functioning. Should the issues in EMC training and support services be addressed as identified in this study, it may contribute to increased positive functioning and warrants further exploration.

Keywords: paramedics, emergency medical care, vicarious trauma, adversarial growth, posttraumatic growth, positive psychology, thematic analysis

Opsomming

Hierdie kwalitatiewe studie ondersoek eerstens die strategieë wat ‘n steekproef Suid Afrikaanse nood mediese sorg (NMS) praktisyns of paramedici, gebruik om die substituerende trauma te hanteer waaraan hul deurlopend blootgestel word as gevolg van hul beroep. Die paramedici is werkagtig in beide die staatsdiens (Metro Wes-Kaap EMS) en ‘n private (ER24) NMS organisasie in die Wes-Kaap Provinsie van Suid Afrika. Die trauma word vererger deur die gevaarlike werksomstandighede van paramedici in die land. Die studie ondersoek tweedens die paramedici se response tot substituerende trauma, wat beskryf kan word as opponerende, of posttraumatiese groei. Die studie pas doelbewus ‘n positiewe sielkunde benadering toe, wat die verkenning van substituerende trauma fasiliteer vanuit ‘n perspektief waarvan die resultate as ‘opponerende groei’ beskryf kan word, met spesifieke verwysing na aanpassing en veerkragtigheid. Dit verteenwoordig ‘n alternatiewe vertrekpunt van die wyse waarop die gevolge van traumatiese gebeure gewoonlik vanuit ‘n patogeniese perspektief bestudeer word, en hou verband met navorsing wat toon dat die ervaring van trauma mag lei tot groei deur swaarkry wat verder gaan as blote aanpassing en die hantering van die trauma. Positiewe effekte word dikwels opgelewer wat hersiene idees, oortuigings, verwagtings en aannames insluit. In-diepte onderhoude is uitgevoer met agtien deelnemers, en tematiese analise is toegepas om hul verhalings te ontleed. Twee duidelik onderskeibare ontledingskategorieë is identifiseer. Feitelike onderhoudsresponse is verwerk deur gebruik van beskrywende ontleding ten opsigte van die deelnemers se studie en opleiding, ondersteuningsdienste, asook die hanteringsmeganismes wat hul toepas. Die kodering van die deelnemers se werkservarings is gefasiliteer deur belewingsontleding, en vier hooftemas is geëkstraheer, naamlik diens, realisme, veranderde lewensperspektief, en sterflikheid. Die bevindings bevestig die werklikheid van die substituerende trauma waaraan paramedici blootgestel word as gevolg van die aard van hul werk sowel as die effekte wat dikwels lei tot emosionele afstomping en

afsydigheid. Die bevindings openbaar voorts hoe paramedici die primêre trauma behartig wat hul toenemend ervaar as gevolg van hoë-risiko werksomstandighede, en dat die mees betekenisvolle hanteringsmeganismes gerapporteer deur deelnemers gesprekke met kollegas, die beoefening van nabetragting, en toepassing van self-ontlonting en persoonlike introspeksie is. Die deelnemers se narratiewe vervat hul persepsies in verband met groei deur swaarkry. Hul beskrywings van opponerende groei stem nie net ooreen met die definisie van die konstruk in literatuur nie, maar dra by tot die verdere ontwikkeling van die definisies in die literatuur wat in hierdie studie aangebied is. Die studie het bevind dat die deelnemers se response tot trauma en opponerende groei afhanklik is van hul individuele verskille, dit wil sê, persoonlike eienskappe en ondersteuningshulpbronne, en die wyse waarop hul die traumatiese gebeure waaraan hul blootgestel word beoordeel en proaktief verwerk. Ten spyte van die deelnemers se kritiese en hoë-risiko beroep waar hul substituerende en primêre trauma ervaar tydens die uitvoer van hul pligte, is daar bewys van psigososiale hulpbronne in hierdie steekproef paramedici wat positiewe funksionering ondersteun. Sou die kwessie in NMS opleiding en ondersteuningsdienste aangespreek word soos geïdentifiseer in hierdie studie, mag dit bydra tot vermeerderde positiewe funksionering en word verdere ondersoek geoorloof.

Sleutelwoorde: paramedici, nood mediese sorg, substituerende trauma, opponerende groei, posttraumatiese groei, positiewe sielkunde, tematiese analise

Table of Contents

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Dedication

To my participants – South African paramedics.

I salute you for your commitment and bravery,

for your tireless perseverance in working under high-risk conditions.

You are owed immense gratitude for the emergency medical services you provide,

and for the lives you save when possible.

If I do not do this job – who will do it?

And if I do not do this job right now – when shall I do it?

But if I carry it out only for my own sake – what am I?

Hillel (110BC – 10AD)

Chapter 1

Introduction

This study explores the psychological dynamics of adversarial growth in the practitioners of a critical occupation – Emergency Medical Care (EMC). Being subjected to stressful and traumatic events does not necessarily result in only negative outcomes. Growth may occur through adversity. As first responders, EMC practitioners, otherwise known as paramedics, are consistently exposed to second-hand or vicarious trauma when assisting their patients.

It should be noted that due to the high-risk conditions they work under, the possibility of experiencing primary trauma is increasingly being added to the vicarious trauma South African paramedics are exposed to in the course of executing their duties. Recent articles in the South African media have reported on paramedics protesting against the dangerous working conditions in certain areas, thus adding a contemporary urgency to the topic under discussion (De Klerk, 2014; Botha, 2016; Etheridge, 2016; Herman, 2016; Pieterse, 2016; Phaliso & Nkalane, 2016).

This investigation into adversarial growth in a sample of South African paramedics will be approached from the overarching ambit of positive psychology, a field in psychology that provides the framework for presenting a contrasting understanding as compared to the hitherto traditional clinical view that trauma inevitably results in stress disorders.

Background of Study and Rationale Myers and Wee (2005) note that since the 1970s the bulk of literature on the topic of trauma and its effects has focussed on the primary victims of disaster. However, in the 1980s and 1990s literature documented the effects of trauma on emergency services, with specific reference to the "psychological effects of trauma exposure on primary victims and among *first responders*" (Myers & Wee, 2005, p. 98).

The English word 'trauma' originates from the Greek word βλάβη (vlavi) which means 'injury'. Authors concur that a traumatic event is typically one in which a person feels helpless and "flooded with intense stimulation that he or she cannot control" (Cerney, in Figley, 1995, p. 131). Paton and Smith (1996) note that compared to data gathered from a general population, professional workers may be exposed to demanding and recurring traumatic stimuli. The emergency medical care industry provides essential services to the community and may thus be described as being a critical profession, not only in terms of the nature of the work, but also as far as the occupational effects it may render on those who work in it. It is made up of job-related realities that can "exert a critical impact on their well-being and performance effectiveness" (in Paton & Violanti, 1996, p. 206).

In the course of their work, paramedics habitually experience probable and repetitive trauma. Any small work error can have calamitous consequences (Wilson & Raphael, 1993). Ursano, McCaughey, and Fullerton (1994) note that paramedics' exposure to traumatic events and the stressful conditions they work under to relieve the suffering of others make them a high risk group and their occupation a critical one. Compared to other occupations, paramedics are distinctive in their recurring exposure to events of trauma (Paton & Violanti, 1996). They are "routinely exposed to special kinds of traumatic events and daily pressures that require a certain adaptively defensive toughness of attitude, temperament, and training" (Miller, 1995, p. 592). While stereotypes exist of rescue workers being capable and invulnerable to the effects of trauma and danger (Alexander & Wells, 1991), it can be noted that in medical emergency work there is no amount of instruction that can "eliminate stress reactions in those who walk(ed) among maimed bodies, disfigured body parts, and the array of human miseries" (Wilson & Raphael, 1993, p. 906).

The patients treated by paramedics may be described as being primary trauma victims. Paramedics, on the basis of their contact with patients, may therefore be described as secondary

victims of trauma. As such they are exposed to a very distinctive occupational context, and differ from primary trauma victims in the following respects: environmental demands; a tendency to identify with their patients (feeling self-blame and failure in the event of unsuccessful operations); the organizational structure that they operate in; the tendency for them to experience multiple traumas; and the expectation to be resilient in the face of trauma (Bryant & Harvey, 2000).

Paramedics may identify and empathize with their patients, thus being exposed to experiencing all their feelings and traumatic responses. This may result in them becoming fellow victims and falling prey to feeling "burdened, resentful, rejecting, and guilty; or frustrated, demoralized, not in control, exhausted, and 'burned out'" (Valent, in Figley, 1995, p. 45).

An outcome of working with victims of traumatic events is vicarious trauma, which can be defined as "falling victim to secondary traumatic stress reactions brought on by helping, or wanting to help, a traumatized person" (Collins & Long, 2003b, p. 417). The stressors paramedics are exposed to could result in psychological, social, and physical responses which may be very traumatic. They have to be skilled at containing their immediate reactions in order to prevent them from "being incapacitated by their reaction while still attempting to save the lives of others" (Wilson & Raphael, 1993, pp. 905, 907). While examples from literature abound, mostly negative, which describe the various cumulative effects on paramedics as an occupational group, it must be noted that there are considerable differences between individuals as far as their appraisal of stressor intensity is concerned. The important role that "individual response specificity" plays needs to be taken into account (Beaton, Murphy, Johnson, Pike, & Cornell, 1998, p. 826). The stresses experienced by paramedics are therefore highly personalized (Regehr, Goldberg, & Hughes, 2002b), and they employ various methods and techniques in order to cope.

McCammon (in Paton & Violanti, 1996) notes a number of factors that have been documented as being important to consider whenever paramedics are studied. These include:

- Individual characteristics: Personality and vulnerability; health and fitness status; attitudes, philosophy, and expectations; previous personal trauma history; life events; and gender and race.
- Job and organizational characteristics: Organizational and supervisory practices; relations with authorities and other relief organizations; preparatory training; number of callouts; and length of service.
- Event characteristics: Intensity of exposure; work conditions; personal losses; role in rescue activity; role conflict; and success in saving victims.
- Mediating factors: Appraisal; cognitive processing; intensity of reactions or level of distress; rescue expectations; anticipated stresses; social supports; and coping strategies.
- Outcomes: Stress symptoms; personal adjustment; work quality; diagnoses; and outcome measures.

However, an aspect that is absent from this list, yet has been documented in literature, is the occurrence of adversarial growth in paramedics. The essence of posttraumatic, or, adversarial growth, can be captured in the fact that "experiencing trauma may have positive effects that transcend simple adjustment and coping" (Taylor, 2012, p. 32). Individuals living through and in adversity may experience growth when they amend their ideas and beliefs. Their expectations and assumptions about the world may well be revised in a positive manner as a result of this adversarial tension (Linley & Joseph, 2006).

The aftereffects of traumatic events have traditionally been researched from a pathogenic perspective. Waysman, Schwarzwald, and Solomon (2001) note that when exposed to traumatic stress, the following risk factors may result: somatic, social, cognitive, emotional

problems (including PTSD, depression, and anxiety); somatic complaints; difficulties in interpersonal relationships; marital and family problems; and impaired work functioning. The authors further suggest that the study of traumatic stress can alternatively be approached using a salutogenic approach which proposes that "rather than focusing exclusively on those who succumb to pathology, there may be much to be learned from those who remain healthy, despite their having been exposed to pathogens" (Waysman et al., 2001, p. 532). More importantly, for the purpose of this study, these authors suggest that we should be open to the prospect that experiencing stressors may have salutary results, which in turn could lead to benefits for the individual. Research that is able to "identify factors that mitigate negative outcomes and also detect positive outcomes and the factors that may promote their occurrence" (Waysman et al., 2001, p. 532) would therefore be important.

While research in the area of trauma has traditionally been approached in a clinical manner through the utilization of an illness ideology, Lopez and Snyder (2009) are of the opinion that a positive approach, specifically the positive psychology movement, offers an opportunity for psychology to reorient and reconstruct itself, which could lead to the reorganization of existing views on psychological health as well as human adaptation and adjustment. This positive framework will allow for an investigation into why paramedics, first-on-the-scene trauma workers assisting those in crisis, may experience vicarious stress-related growth (Aldwin, 2007). Paramedics, as members of the emergency medical care profession, represent a useful and important sample on which to base a quality-of-experience exploration on the subject of growth out of adversity. Linley and Joseph (2004b) note the need for a clearer identification of those variables that may contribute to adversarial growth.

When conducting a survey of available literature, it becomes apparent that paramedics, as the secondary victims of trauma, have not been investigated comprehensively (Clohessy & Ehlers, 1999, p. 252). In South Africa, the reality of a violent society and violent communities

increase the already stressful working conditions of paramedics. A national study conducted by Ward, Lombard, and Gwebushe (2006) revealed a "higher prevalence of exposure than is found in similar studies in the developed world", and report that over 88% of their sample had "experienced a critical incident in the past 2 months alone" (p. 228). Compared to studies regarding exposure to traumatic stressors in the purportedly 'developed' world, investigation into the prevalence of critical incident exposure and mental health problems remain comparatively undocumented in the relatively more violent developing world (Ward et al., 2006).

A dearth of research therefore exists. Firstly, on the effects of traumatic exposure on South African paramedics, particularly due to their challenging and dangerous working conditions, and secondly, on the manifestation of growth following vicarious trauma. Naudé and Rothmann (2006) note the "apparent paucity of research … from a positive work-related well-being perspective" (p. 64). The construct of adversarial growth focuses on how individuals change and demonstrate affirmative growth following vicarious trauma. Due to the nature of the work of paramedics, they constitute a natural research sample to investigate not only the negative, but also the positive effects of their job. This study chooses to explore and focus on the positive effects. Adversarial growth is rooted in resilience, one of the prominent research topics in positive psychology. Bonanno (2008) notes that it is very important to pose the question of how certain people not only adapt but flourish despite incapacitating events.

Resilience may be described as possessing the capacity to positively adjust to threat, hardship, or significantly negative occurrences, or when individuals respond constructively to events that under normal circumstances would result in substantial decreases in well-being. "Resilient people 'bounce back' from difficult situations" (Compton & Hoffman, 2013, p. 190).

This qualitative study therefore aims to carry out an in-depth exploration that may contribute to a better understanding of adversarial growth in the context of emergency medical

care. Moreover, a description of the factors that contribute to adaptation and the demonstration of growth following vicarious trauma will increase insight into whether adversarial growth is developed by the EMC occupation, whether paramedics are resilient by nature, or whether the growth comes about as a result of individual differences.

Research Objectives

The purpose of this study is to explore the different strategies that paramedics employ in order to cope with a consequence of their critical occupation, vicarious trauma, and to explore the possibility of the manifestation of adversarial growth following consistent exposure to vicarious trauma.

The specific objectives of the study are as follows:

1) To describe how paramedics cope with vicarious traumatisation.
2) To explore the relationship between the coping methods paramedics apply and how they make sense of and express their experience of adversarial growth.
3) To describe characteristics of adversarial growth in paramedics.
4) To identify the kinds of factors within paramedics and their work environment that can contribute to and encourage adversarial growth.

Organization of the Study

This dissertation consists of six chapters. Chapter 1 has presented an introductory overview of the study, the background, rationale and purpose of the study, and the research objectives. Chapter 2 describes the theoretical framework of the study, that is, positive psychology: its history; definition; contrast with clinical psychology; and motivation for use as framework in South Africa. Chapter 3 provides a review of literature regarding the central and associated research components of the study: emergency medical care and its practitioners, paramedics; vicarious trauma; and posttraumatic and adversarial growth. Chapter 4 presents the research design; a participant profile; the data collection procedure; a description of the

qualitative research method; ethical clearance compliance; and an overview of the research procedure. Chapter 5 presents the analysis of the participants' transcribed interviews in the form of descriptive and thematic analyses, as well as the presentation of the key and sub themes as identified in the narratives of the sample. Finally, Chapter 6 consists of a discussion of the study's findings, conclusion, research limitations, and recommendations for further research.

Chapter 2

Theoretical Framework

Introduction

As was noted in the previous chapter, the majority of studies on the topic of the consequences of vicarious trauma have been approached from a negative perspective. An alternative perspective that focuses on the positive has been absent for quite some time. The effect of this omission is that research on optimal functioning in people has been neglected in favour of the dominant clinical perspective (Coetzee & Viviers, 2007). This study is therefore contextualized in the paradigm of *positive psychology* due to its overarching affirmative theoretical approach.

Positive psychology is one of the most recent officially acknowledged fields in the discipline of psychology by the American Psychological Association (APA), yet it can be argued that the field's major insights has its roots in ancient history. In the words of Martin E. P. Seligman, the 'founding father' of the field, "positive psychology is not a new idea, and has many distinguished ancestors" (Snyder & Lopez, 2005, p. 7).

The theme of optimal human functioning can first be traced in the works of ancient philosophers like Aristotle and Aquinas, then later, during the founding and development of modern psychology, in the work of figures like James, Jung, Allport, Jahoda, Maslow and Rogers (Linley & Joseph, 2004a). Lopez and Snyder (2009) therefore note that in actuality positive psychology is "thousands of years old, dating back to the thoughts of ancient philosophers and religious leaders who discussed character virtues, happiness, and the good society" (p. 7). According to Fredrickson (2001) the mission of positive psychology is to "understand and foster the factors that allow individuals, communities, and societies to flourish" (Fredrickson, 2001, p. 218), while the core of positive psychology is an "explicit focus on strengths and virtues" (Linley & Joseph, 2004b, p. 717).

In addition to philosophers pondering the optimal functioning of man, numerous behavioural scientists have, during the last century, applied their scholarship and conducted research on topics that explore human strength in the face of adversity. Baumgardner and Crothers (2010) note that the focus of positive psychology on the positive elements of human behaviour represents an amalgamation of certain areas of psychology. Seligman and Csikszentmihalyi (in Linley & Joseph, 2004b) describe the ideology of positive psychology as emphasizing "goals, well-being, satisfaction, happiness, interpersonal skills, perseverance, talent, wisdom, and personal responsibility … understanding what makes life worth living" (p. 330). It recognizes that individuals are each rooted in their unique experiential realities.

According to Yates and Masten (in Linley & Joseph, 2004b), the focus of positive psychology is to move from a "preoccupation with the reparation of defect to the building of defense, from a focus on disease and deficit to the strength and virtue in human development" (p. 526). Positive psychology may also be described as the study of human strength and optimal functioning, an alternative to the study of "the four D's: *D*isease, *D*amage, *D*isorder, and *D*isability" (Schaufeli & Bakker, in Bakker & Leiter, 2010, p. 11).

Positive Psychology Defined

Positive psychology can be defined as the "scientific study of ordinary human strengths and virtues" (Sheldon & King, 2001, p. 216), and it challenges general psychology to explain how most individuals are able to live with dignity and purpose despite numerous problems. The authors suggest that positive psychology endeavours to advocate an optimistic outlook regarding the abilities, purpose, and capacity of humans, as it has become evident that a merely problem-focused or negative approach cannot explain human functioning. This has not been easy, as psychology traditionally has followed "reductionist epistemological traditions, which train one to view positivity with suspicion" (Sheldon & King, 2001, p. 216).

As such positive psychology urges psychologists to regard human potential, motives, and abilities in a more open and appreciative manner.

The following extract from the seminal article published in 2000 by Seligman and Csikszentmihalyi, often described as being the 'co-founders' of positive psychology, provides a full description of the scope of positive psychology:

> The field of positive psychology at the subjective level is about valued subjective experiences: well-being, contentment, and satisfaction (in the past); hope and optimism (for the future); and flow and happiness (in the present). At the individual level, it is about positive individual traits: the capacity for love and vocation, courage, interpersonal skill, aesthetic sensibility, perseverance, forgiveness, originality, future mindedness, spirituality, high talent, and wisdom. At the group level, it is about the civic virtues and the institutions that move individuals toward better citizenship: responsibility, nurturance, altruism, civility, moderation, tolerance, and work ethic. (as cited in McNulty & Fincham, 2012, p. 101)

Gable and Haidt (2005) further describe positive psychology as being the "study of the conditions and processes that contribute to the flourishing or optimal functioning of people, groups, and institutions" (p. 104), its goal being to map those circumstances and processes that lead to an understanding of how people prosper and function at an optimum level. These authors describe the objective and parameters of positive psychology as follows:

> Despite these inequities, positive psychology's aim is not the denial of the distressing, unpleasant, or negative aspects of life, nor is it an effort to see them through rose-coloured glasses. Those who study topics in positive psychology fully acknowledge the existence of human suffering, selfishness, dysfunctional family systems, and ineffective institutions. But the aim of positive psychology is to study the other side of the coin – the ways that people feel joy, show altruism, and create healthy families

> and institutions – thereby addressing the full spectrum of human experience. (Gable & Haidt, 2005, p. 105)

Joseph and Linley (2008, in Quiros, 2010) comment on the parameters of positive psychology and quote description of positive psychology as a dimensional model:

> Normality and abnormality, wellness and illness, and effective and ineffective psychological functioning lie along a continuum of human functioning. They are not separate and distinct entities, but are considered to be extreme variants of normal psychological phenomena. (p. 118)

Positive psychology may therefore provide insight into the different aspects that contribute to health, well-being, functional groups, and thriving institutions, and as such may be seen as a "mosaic of research and theory from many different areas of psychology tied together by their focus on positive aspects of human behaviour" (Baumgardner & Crothers, 2010, p. 4).

It can be said that positive psychology's most significant contribution has been to provide a "common voice and language for researchers and practitioners from all persuasions who share an interest in health as well as in sickness – in fulfillment of potential as well as in the amelioration of pathology" (Linley & Joseph, 2004b, p. 4). These authors further note the distinctive manner in which positive psychology is able to go beyond the existing categories in psychology in addition to the ability it has to offer an incorporative framework across contexts.

It is thus clear that the positive psychology movement is able to contribute significantly to research being done into areas that have not received much attention in the past, namely positive psychological traits and processes.

The History and Founding of Positive Psychology

Although positive psychology has ancient roots, Lopez and Gallagher (2009) note that Abraham Maslow first used the term *positive psychology* in 1954 when he wrote that the "science of psychology has been far more successful on the negative than on the positive side" (in Lopez & Snyder, 2009, p. 3).

However, Diener (2009) points out that, when taking another perspective, positive psychology is only somewhat more than a decade old (in Lopez & Snyder, 2009). During the past twenty years, the study of well-being, "that is, those psychological traits and processes presumed to be positive" (McNulty & Fincham, 2012, p. 101), has gained impetus.

Seligman's presidential address to the American Psychological Association (APA) in 1998 can be seen as the formal founding of the field of positive psychology. At this occasion Seligman reintroduced the term when he pled for a major change in psychology's focus, "from studying and trying to undo the worst in human behavior to studying and promoting the best in human behavior" (Baumgardner & Crothers, 2010, p. 3). It was during this address that Seligman therefore formally established the specialization area of positive psychology within general psychology.

Seligman put forth the argument that, up to that point, the focus of psychology had not been on what is right with people, but on what is wrong (McNulty & Fincham, 2012). This new focus could therefore, by utilizing similar methods and tools, be used to better understand the strengths of people and encourage well-being instead of continuing with only explaining weakness and preventing and treating illness (Lopez & Snyder, 2009). This understanding would be essential in order to help people attain their full potential.

In 1999, Seligman "began meeting with a group of scholars to form the positive psychology network", and brought together "researchers and practitioners who were working on human strengths and positive attributes rather than focusing exclusively on human

problems" (p. 8). According to Compton and Hoffman (2013), "Seligman set out, quite deliberately, to create a new direction and a new orientation for psychology...", and identified its challenge as being to "increase research on psychological well-being and areas of human strength" (p. 1). Seligman is therefore seen as the founder and organizer of this new field in psychology that came into being in a relatively short period of time.

Gable and Haidt (2005) note that in January 2000 a special issue of the *American Psychologist* was dedicated to positive psychology. This has since been confirmed as being a seminal publication in the formal founding of the field. Seligman and Mihalyi Csikszentmihalyi, another prominent researcher and author in the field, edited the issue and argued that psychology was not generating enough "knowledge of what makes life worth living" (Gable & Haidt, 2005, p. 103). The authors draw attention to the fact that it was in the five years after this special issue that the positive psychology movement was truly launched, resulting in a proliferation of research and publications.

The various positive psychology summits, prizes, conferences, associations, and congresses in recent years prove that this field is rapidly expanding and increasingly popular (Compton & Hoffman, 2013). Special editions in peer reviewed journals have become common place, as well as the number of respected academic journals that have been founded, i.e. the *Journal of Positive Psychology*, the *Journal of Happiness Studies*, *Health and Well-being*, and *The International Journal of Well-being*. In addition, various handbooks and textbooks have been published (McNulty & Fincham, 2012).

The field of positive psychology today "is most advanced in the United States and Western Europe" (Compton & Hoffman, 2013, p. 21). However, the popularity of the field, both as an academic module and research focus area, has been burgeoning in other parts of the world and has established its place in general psychology. This is also the case in South Africa. Given the historical reality of South Africa, positive psychology particularly lends itself to a

research focus on a "science of strengths" (Coetzee & Viviers, 2007, p. 487), with the authors further commenting that a limited number of studies have been dedicated to the subjective experiences of individuals, especially in the context of their psychological and emotional well-being.

Positive Psychology Versus Clinical Psychology

Considerable reference has been made thus far to the dominance of the clinical perspective in psychology. Seligman, Parks, and Steen (2004) observe that the more than 60-year old emphasis on "disease and pathology has taken its toll on society and on science (p. 1379). This traditional framework has catered to a belief that individuals are "passive victims of forces beyond their control" (Quiros, 2010, p. 119).

Harvey and Pauwels (2003) emphasize that the "energy and constructive developments that may accrue from human loss and pain" should not be underestimated. Since its founding, positive psychology has received substantial criticism from proponents of clinical psychology. However, it is not the intention of positive psychology to disregard the negative aspects of life, or to "erase or supplant work on pathology, distress, and dysfunction" (Gable & Haidt, 2005, p. 107), but rather to supplement the knowledge base regarding resilience, strength, and growth.

Held (2004) holds the view that a negative side effect of positive psychology is that its message appears to promote 'separatism' thus contributing to the fragmentation that is seen to exist in the discipline of psychology. Moreover, positive psychology has been said to be an 'American psychology' (Rand & Snyder, 2003). Martin Seligman addresses the question of whether positive psychology is 'elitist' in the following candid quote:

> Many of the scientists who work on positive psychology are affluent, White, middle-aged intellectuals … However, this does not mean the substance of the science reflects such a bias. First, in its classification of the strengths and virtues … a major

> inclusion criterion is the ubiquity of the strengths as positively valued across almost all cultures. The success of positive psychology will be dependent on its ability to identify and study strengths and virtues that are valued by persons regardless of their culture, ethnicity, gender, age, and nationality. (Seligman & Pawelski, 2003, p. 162)

Positive psychology provides an alternative perspective to the clinical approach. The following quote summarizes the objectives of positive psychology in this regard:

> Our goal is an integrated, balanced field that integrates research on positive states and traits with research on suffering and pathology. We are committed to a psychology that concerns itself with repairing weakness as well as nurturing strengths, a psychology that concerns itself with remedying deficits as well as promoting excellence, and a psychology that concerns itself with reducing that which diminishes life as well as building that which makes life worth living. (p. 1381)

The *Diagnostic and Statistical Manual of Mental Disorders* (DSM) is a classification of illness that became internationally accepted in the 21st century, yet an equivalent classification of human strengths and positive outcomes did not exist (Snyder & Lopez, 2006). Certain authors writing from within the positive psychology context strongly reject the "categorical approach to psychopathology that is current within clinical psychology and the DSM", proposing that psychopathology, rather than being denoted as a "category that is absolutely present or absent", be presented as a continuum (Linley & Joseph, 2004b, p. 724).

Joseph and Linley (2006) point out that the development of a positive psychology approach to understanding stress and trauma is historically grounded in literature, religion, philosophy and psychology, and that all these fields concur that "there is personal gain to be found in suffering", and that "stressful and traumatic events can provoke positive psychological changes" (p. 123). This stands in contrast to Maddux's (2009) observation that much of

psychology, especially clinical psychology, has been 'steeped' in what he calls an "illness ideology" (in Lopez & Linley, 2009, p. 61).

The ideology of illness has had a great influence on the construction and language of the DSM. The author comments:

> The illness ideology and the DSM were constructed to serve and continue to serve the social, political, and economic goals of those who shared in their construction. They are sustained not only by the individuals and institutions whose goals they serve, but also by an implicit set of logically flawed and empirically unsupported assumptions about how best to understand human behaviour – both the adaptive and the maladaptive. (Maddux, in Lopez & Linley, 2009, p. 68)

It is the opinion of Maddux (2009) that the illness ideology has 'outlived its usefulness', and that the positive psychology movement offers an opportunity for psychology to reorient and reconstruct itself that could lead to a 'restructuring' of "views of psychological health and human adaptation and adjustment" (in Lopez & Linley, 2009, p. 68). Peterson and Seligman (2004) concur when they state that there is nothing equivalent to the DSM or ICD that presents a positive, optimistic or constructive alternative:

> When psychiatrists and psychologists talk about mental health, wellness, or well-being, they mean little more than the absence of disease, distress, and disorder. It is as if falling short of diagnostic criteria should be the goal for which we all should strive… positive psychology see[s] both strength and weakness as authentic and as amenable to scientific understanding. (p. 4)

In order to counter the hitherto negative emphasis on the classification of mental disorders from a purely clinical perspective, Christopher Peterson and Martin Seligman started working on the *Values In Action (VIA) Classification of Strengths*, which can be seen as the "antithesis of the *DSM* [and] holds promise for fostering our understanding of psychological

strengths" (Snyder & Lopez, 2006, p. 59), therefore offering a strength-based approach to diagnosis and treatment. Research has resulted in the classification being comprised of 24 strengths organized under six overarching virtues. The VIA Inventory of Strengths (VIA-IS) was "designed to describe the individual differences of character strengths on continua and not as distinct categories" (Snyder & Lopez, 2006, p. 60). The instrument has consequently been refined a number of times, and has proven reliability and validity.

The founding of positive psychology took place in a time in history when things were going relatively well. Yet, in the almost eighteen years since its founding, those critics that questioned its 'longevity' are obliged to acknowledge that it has not lost its impetus and is now just as relevant (Aspinwall & Staudinger, 2003). In the turmoil of our world as we know it today, where living with trauma has practically become the norm, it is the goal of positive psychology theorists and researchers to offer a constructive perspective, present further evidence of human resilience, and suggest additional coping mechanisms that may help individuals as they endeavour to cope with the distress they are exposed to, whether it be personal, occupational, national or international.

Motivation for the Use of Positive Psychology as Theoretical Framework

It is undoubtedly true that life is made up of both positives and negatives for all people. Concerning the different research focus areas of positive and clinical psychology, it should be recognized that "both aspects of life is vital to a more complete understanding of human experience. However, the existing body of literature hasn't always presented a balanced view" (King, 2003, p. 129).

Peterson and Park (2003) state that "evenhanded positive psychology does not deny disorder and distress or the circumstances that produce them" (p. 144). When contrasting the goals of clinical psychology, the objectives of positive psychology are "description and explanation as opposed to prescription" (Petersen & Park, 2003, p. 145). Lyubomirsky and

Abbe (2003) add that it is the intention of positive psychology to "refocus(ing) research energies to study the positive side of life alongside the negative side of life" (p. 132).

In an article entitled "An overview of research on positive psychology in South Africa", Coetzee and Viviers (2007) note the important pioneering contributions made by Strümpfer, Wissing, and van Eeden. They develop a framework to categorize all related research, starting in 1970 and spanning 36 years. The three main types of research that had been conducted to date included the following:

1) Studies related to protective environmental factors, the field of coping, and enabling resources for individuals, groups, and institutions.
2) Studies focussing on the characteristics of wellness on an individual level, i.e. intra-personal factors (characteristics, states, traits, skills, virtues and strengths).
3) Research done on group and institutional level as well as processes and interventions that facilitate wellness (Coetzee & Viviers, 2007).

The authors suggested that particular attention be paid to the last point and that it should be a future research focus.

When taking into account the limited positive psychology research output in South Africa, it appears that research in the field has made rather slow progress, but is certainly growing. The question could be asked as regards the field's relevance in South Africa and why it should be further developed. The country's socio-political history has to be acknowledged, and the extent it has contributed to the current negative conditions that millions of people still live in. It is my contention that the constructive and affirming research focus of positive psychology outweighs the points of critique that have been levelled at it, as has been discussed earlier in this section. People living or working in a traumatic context, with limited personal or support resources, in general nevertheless try to make the best of their situations, and are remarkably resilient. Positive psychology provides a research framework for this study that

allows for the exploration of how people can thrive even in challenging contexts – how they themselves make sense of their negative situations and have the ability to transform them into positive ones.

In contrast with studies on 'disorder and damage', the positive psychology movement recognized the imbalance of the almost exclusive focus on the negative and set out to promote research in the neglected positive areas. Positive psychology has been summoned to accurately map optimal functioning in humans, and its future task is to "understand the factors that build strengths, outline the role of positive experiences, and delineate the function of positive relationships with others" (Gable & Haidt, 2005, p. 108), thus contributing to an understanding of how different aspects contribute to health, subjective well-being, functional groups, and flourishing organizations.

A dominant theme that has emerged from positive psychology research is that mental health is beyond the absence of mental illness, and further states that people "desire well-being in their own right, and they desire it above and beyond the relief of their suffering" (Seligman, 2008, p. 5). Positive psychology therefore provides a very appropriate and fitting framework for the in-depth study of how mental well-being and growth may develop through adversity.

Joseph and Linley (2006) note that the study of stressful and traumatic events have not typically been considered to be a focussed area of research in positive psychology, and in effect may almost appear to be opposed to the research topics that are usually engaged in, these authors draw attention to the fact that they have recently been developing "a positive psychology approach to understanding stress and trauma" (p. 123). They base the rationale for their work on the fact that throughout history, literature, various religions, and within humanistic and existential philosophy and psychology it has been observed that "there is personal gain to be found in suffering", and that stressful and traumatic events can provoke positive psychological changes" (p. 123).

In the words of Snyder and Lopez (2006), positive psychology "must continue its worldwide approach because the ideas and findings are crucial for all people" (p. 480). Simonton and Baumeister (2005) concur when they suggest that should all in the psychology discipline broaden their perspective and reflect on how the positive aspects of human life may be explored or enhanced, "it ultimately can help improve not only psychological theory but also the quality of life in the modern world" (p. 102).

Positive psychology lends itself to application on many levels. Applied positive psychology can be defined as "the application of positive psychology research to the facilitation of optimal human functioning ... from disorder and distress to health and fulfilment" (Linley, Joseph, Maltby, Harrington, & Wood, in Lopez & Snyder, 2009, p. 35). Linley and Joseph (2004b) point out that "applied positive psychologists ... look to people's strengths, capacities, and resources, the key attributes and assets that have allowed them to survive, and in some cases flourish, despite the obstacles they have faced" (p. 8).

The application of positive psychology to the *world of work* holds much potential and merit. Linley et al. (in Lopez & Linley, 2009) comment that while the application of positive psychology to the world of work is yet relatively new, it is "one which has tremendous potential to effect people's working lives for the better" (p. 40). Applied positive psychologists "look to people's strengths, capacities, and resources, the key attributes and assets that have allowed them to survive, and in some cases flourish, despite the obstacles they have faced" (Linley & Joseph, 2004b, p. 8). Such information may therefore lead to a better understanding of how individuals' careers may be influenced for the better (Lopez & Snyder, 2009). Places of work may be a natural application for positive psychology, in that a right-fit workplace lends itself to 'crafting' the job and even to turning it into a calling (Peterson & Seligman, 2004).

The specific focus of this study is adversarial growth – how individuals change and demonstrate affirmative growth following vicarious trauma, and is applied to a particular

critical occupation, emergency medical care, and its practitioners – paramedics – for whom the experience of vicarious trauma forms part of their daily reality. The main focus of positive psychology is to address the heavy emphasis on pathogenic factors that has been prevalent in psychology for some time, and concentrate instead on establishing an alternate and much needed fortigenic, or wellness perspective (Coetzee & Viviers, 2007).

Positive psychology offers a unique perspective to study the topic at hand that is not possible with other theories, and the opportunity to contribute new knowledge pertaining to the main constructs of this study: vicarious trauma and adversarial growth in the context of the emergency medical care profession. Positive psychology therefore provides an appropriate and fitting theoretical framework for an in-depth study into growth through adversity, and the resilience of paramedics.

Chapter 3

Literature Review

This chapter presents an overview of the literature most pertinent to the three main concentration areas of this study. The *Emergency Medical Care (EMC)* profession, both internationally and in South Africa, will be discussed, focusing on its status as a critical occupation and on the characteristics and challenges of EMC practitioners, paramedics. *Vicarious trauma*, or, the indirect trauma paramedics experience as a consequence of being exposed to the trauma of their patients will be described, as well as its effects on them and the various ways they cope with it. Finally, the concept of *adversarial growth*, or growth through adversity, describes the positive changes that may result after experiencing stressful or traumatic events.

Emergency Medical Care

Emergency Medical Care (EMC), also known as Emergency Medical Services (EMS), refers to the pre-hospital treatment of the critically ill or injured in need of urgent medical attention. Paramedics provide advanced life support procedures to their patients, stabilizing them in the field before transporting them to medical facilities (www.dut.ac.za; www.uj.ac.za). The psychology of work will briefly be focused on before the specifics of EMC as a critical occupation is discussed. Although the present study is not situated within the career psychology field, it is important to bear in mind that the experiences of trauma and growth that will be explored are not just caused by, but are in a sense inherent to the nature of the EMC occupation, and thus to the work lives of EMC practitioners – paramedics. It is therefore appropriate to offer some comments on the psychology of work in order to provide a background to the discussion of EMC as a critical occupation and of those who work in the field. With regard to the latter, the focus will fall on EMC training, with an emphasis on the importance of the

psychological preparedness of newly qualified paramedics, and the support services available to them in the field.

The Psychology of Work. Work has a significant impact on people's lives, as has been established by numerous authors (e.g., Judge & Watanabe, 1993). This impact is not restricted to the material gains and deprivations that may be associated with a particular profession; it also includes the role of work in establishing a person's social status, personal identity, meaning in life and psychological well-being. Choosing a career is a challenging task, and before making the final choice individuals have to take many dimensions into account that encompass their lives. The following factors are particularly pertinent: "aptitudes, interests, resources, limitation, requirements and opportunities" (Antoniou & Cooper, 2005, p. 580). Examining the reasons why people are motivated to work in a particular occupation, even if unrewarding, could contribute to an understanding of the importance an occupation plays in individuals' lives, what makes work meaningful for them, and what leads to positive outcomes in their lives. Work provides an anchor which affords continuity, stability, and structure (Schabracq, in Schabracq, Winnubst, & Cooper, 2003).

Work, and the meaning it holds for an individual, can be described in three ways: merely a job (a means of ensuring a livelihood or salary); a career (the individual's record of success, accomplishments and need for recognition); or a calling (a conviction to do something specific which comes about as a result of combining inner nature and external circumstances) (Baumeister, 1991). Work plays a particularly significant role in the identity of individuals who regard their work as a calling, as it is the engagement with their chosen occupation that brings fulfilment (Roberts & Dutton, 2009). Naudé and Rothmann (2006) define work engagement as being "a positive, fulfilling, work-related state of mind that is characterised by vigour, dedication and absorption" (p. 65), and may be an indicator of how 'well' employees are at work.

Viktor Frankl suggested that people create meaning through their occupation (Coward, 1996). Researchers accept that individuals' life work contribute to them experiencing meaning in life, and that those whose work have a meaningful influence on others will experience it as very gratifying (Antoniou & Cooper, 2005; Wong & Fry, 1998).

Work can therefore become a life-long focus in an individual's search for meaning. Pines (2005) comments that this is the reason why people often enter their occupation "with very high hopes, goals and expectations, idealistic and motivated, and why many relate to their work as a calling" (as cited in Antoniou & Cooper, 2005, p. 579). According to Hagmaier and Abele (2014), a job can be described as being a calling if it includes the following three components:

> … a perfect fit between their skills and interests and the requirements of the job … show value-driven behavior (e.g., altruism and morality) while performing their work and hope to contribute to the good of humanity … and the sense of an affirming transcendent guiding force … some people with a calling also experience a transcendent guiding force (e.g., God or an inner voice), which makes them feel secure about their career path and certain that they are doing the right thing … (p. 2)

Paramedics often view their work as a true vocation. As such it may therefore have a profound impact on how they define themselves and understand life.

Emergency Medical Care: A Critical Occupation. Emergency medical care is approached in this study as a 'critical occupation'. Members of a critical profession play a crucial role in safeguarding the well-being of others. Their work often exposes them to events which may have a critical impact on their own well-being (Paton & Violanti, 1996).

The EMC profession epitomizes the definition of a critical occupation. Generally speaking, individuals working in the caring professions are already at higher risk than most other professions for experiencing work stress (Sabin-Farrell & Turpin, 2003). This also

applies to paramedics and is arguably even more acute in their case. Paramedics are characterized as a high-risk group by the nature and reality of the work they do (Paton & Violanti, 1996).

Figley (1995) describes paramedics as being "front-line first responders" who are almost assured of being exposed to work trauma in every shift (p. 51). Paramedic teams are first responders in the sense that they, "in the early stages of an accident or disaster, are responsible for the protection and preservation of life" (Prati & Pietrantoni, 2010, p. 403). Being exposed to stressors of a traumatic nature is therefore "an integral part of the job" (Ward et al., 2006, p. 226). Van der Ploeg and Kleber (2003) add that paramedics are subjected to "more chronic stressors in their work than workers in other health service settings" (p. 141). Paramedics thus fulfil a vital role in every community, yet may not always realize the "significance of their services, both in a larger (systems) context and for the affected family" (Martinez, Ryan, DeLeon, Routh, & Templar, 1995, p. 541).

Sterud, Hem, Lau, and Ekeberg (2011) describe paramedics as follows:

> Ambulance workers frequently have to take rapid action and provide medical care under life-and-death circumstances in unfamiliar and inconvenient conditions, while being scrutinized by bystanders and relatives. Ambulance personnel must also attend to non-emergency work, such as transporting and providing appropriate care to chronically and terminally ill patients, which imposes different emotional demands and which might be experienced as more emotionally exhausting than more sensational events. (p. 1)

In addition to being in a critical occupation, the traumatic stressors paramedics are exposed to can also be described as 'critical incidents'. These incidents typically involve exposure to death or life threatening injury, and, because of the intense emotional reactions that may be evoked, paramedics' coping mechanisms may be stretched to the limit (Figley, 1995).

Individual Differences. Research has found that there is an interaction between individuals' characteristics and the particular environmental stressors to which they are exposed. Based on this knowledge it is thus possible to determine the amount of strain experienced by an individual, as well as the effects of stress on the individual's behaviour and health (Antoniou & Cooper, 2005).

Individuals differ in the extent to which they respond to and how they deal with stressful situations (Eschleman & Bowling, 2010). According to Park (1998), individual characteristics which impact on how people react to stress, both negatively and positively, include personality, resources, and beliefs: "These characteristics, along with situational factors, may also determine the extent to which people thrive or experience growth through responding to and coping with stressful and traumatic experiences" (p. 268).

According to Aldwin (2007), exposure to trauma is "a function of both individual differences in susceptibility to traumatisation as well as situation characteristics" (p. 216). Individuals differ as far as their appraisal of the intensity of stressors are concerned, and researchers need to take into account the importance of the specifics of individual responses (Beaton et al., 1998). This applies to paramedics as well. Even though there are many descriptions in literature as regards the various, mostly harmful, cumulative effects of stress and trauma on paramedics as an occupational group, it has to be concluded that not all paramedics will develop negative consequences "following exposure to duty related traumatic events, and that it is therefore of interest to investigate the variables mediating individual stress-strain relationships" (Lowery & Stokes, 2005, p. 171).

Members of critical occupations are not homogeneous, and, as noted above, a number of different influences could affect their susceptibility to threats in their environments, including, functional, demographic, status, and geographical factors (Paton & Smith, 1996).

Members' unique personal reactions to these factors will therefore bring about individual differences:

> … differences should not be assumed, a priori, only to relate to differences in susceptibility to negative reactions. They could, by virtue of their potential for influencing the development of special coping and adaptational strategies that affect sensitivity to emotional and psychological demand, drive differences in the incidence of positive resolution. (Paton & Violanti, 1996, p. 24)

In other words, the personally lived reality of paramedics result in them being a heterogeneous group. Research should acknowledge the different effects that traumatic events may have on individuals: "those individual and situation factors which precipitate the negative psychological responses, those factors which predispose the responses, and those which amplify or ameliorate them" (Paton & Smith, in Paton & Violanti, 1996, p. 26).

It is important for this study to note that individuals may react differently to the effects of trauma. Occupational groups may therefore not necessarily exhibit similar post trauma effects. In the words of a paramedic: "the stresses that paramedics feel are very individualized" (Regehr et al., 2002b, p. 510).

Paramedics: Emergency Medical Care Practitioners. Paramedics are the first responders who arrive at accident scenes, and are often confronted with unimaginable scenes of disaster. They have to face the physical injuries, agonies, and emotional reactions of victims, yet act professionally while hiding their own feelings of fear, guilt, sadness and distress. Paramedics "find their victims in their homes, on the street, under wrecked cars, in demolished buildings. The deaths they witness … are typically sudden, messy, noisy, agonized, and undignified" (Miller, 1995, p. 594).

Clohessy and Ehlers (1999) describe paramedics as "skilled individuals who work under conditions of extreme stress, witnessing many distressing scenes, and whose

performance … may literally mean the difference between life and death" (p. 262). A study on paramedics revealed that "100% had been exposed to a critical event in the line of duty; that is, physical risk to themselves, mass casualties, the death of a person in their care, the death of a child, or the death of a colleague" (Regehr, Goldberg, Glancy, & Knott, 2002a, p. 956). As such paramedics not only experience the pain and misfortune of their patients, but their own well-being is often at risk:

> …more than 80% of those in a large urban area had experienced each of the following events: the death of a patient while in their care, the death of a child, events involving multiple casualties, and events involving violence perpetrated by one individual against another … 70% had been assaulted on the job and 56% reported experiencing events on the job that they believed could potentially have resulted in their own death. (Regehr, 2005, p. 97).

A certain profile of EMC practitioners has emerged in literature. Mitchell (1983) developed the concept of the 'Rescue Personality' with specific reference to paramedics, and characterizes those who work in emergency medical care as being "inner-directed, action oriented, obsessed with high standards of performance, traditional, socially conservative, easily bored, and highly dedicated" (Wagner, Martin, & McFee, 2009, p. 5).

The traditional image of first responders is often presented as follows: "[an] extremely stoic façade, an unemotional response, and as a result, a presence that is always relied on by the public to bring order out of chaos and security out of fear" (Carll, 2007, pp. 274, 275). Although the expectation is that paramedics will deal with each crisis in a calm and efficient manner, they are by no means immune to the vicarious trauma they are exposed to. In reality they have to employ all their resources, both physical and psychological, to combat the effects of trauma, and may supress their feelings for the sake of co-workers, family, and friends in order not to show any vulnerability.

The perception exists that paramedics should be resistant to the effects of trauma, and their "professional identities often rely of this self-image of strength and resilience" (Bryant & Harvey, 2000, p. 157). Figley (1995) notes that Beaton and Murphy are credited as designating this phenomenon the 'John Wayne syndrome', one which constitutes the "macho, male cultural characteristic" (p. 75) that many paramedics exhibit.

Various studies have identified a number of characteristics that contribute to an understanding of the hardy nature of paramedics. Pajonk et al. (2011) note that the personality characteristics of paramedics usually exhibit "particularly high levels of tolerance for hazards and frightening stimuli as well as showing a willingness to compete (eg, against time or death)" (pp. 141-142). The authors identify the following characteristics in their study: resilience, stability, readiness to take risks, controlled, altruistic, responsible, and secure. Klee and Renner's (2013) study finds that EMS workers scored high on the trait of conscientiousness, which aligns strongly with the helping and saving aspect of their profession, while Regehr (2005) finds the following characteristics as being definitive of EMC personnel: "taking control, springing into action, remaining detached, making quick and decisive decisions, and questioning everything" (p. 98). In order to cope with the realities described above, paramedics require specific traits and skills. Education and training will only be able to build on and enhance the set of inherent personal characteristics and skills required for the job in order to be adequately equipped for this high-risk profession (Paton & Violanti, 1996). However, no training can completely prepare paramedics for the realities they will encounter throughout their working career. Cognisance should be taken of the fact that personality characteristics typically only explain "a portion of the variance of behaviour" (Pajonk et al., 2011, p. 145) and that additional factors have to be taken into account.

Emergency Medical Care Training. Martinez et al. (1995) provide a succinct yet detailed description of the different aspects the EMS system entails, and describe it as being a carefully orchestrated process to ensure that injured victims have the best chance for recovery and that health care resources are used efficiently. The complex system of care starts with prevention and continues through rehabilitation. It is critical that the process is well coordinated. The system consists of the following components: (a) comprehensive, enabling systems legislation; (b) communication and transportation systems; (c) inclusive, fully integrated trauma systems; (d) human resources and training; (e) quality improvement mechanisms; (f) data collection and research; (g) public education; (h) treatment facilities; and (i) medical direction.

Paramedics represent the "human resources" of the system, and it is imperative that they not only be provided with up to date medical knowledge and skills, but that they are also prepared as thoroughly as possible as far as the psychological and emotional demands are concerned. Preparation to work in the emergency medical service thus requires a comprehensive approach:

> Comprehensive training to work with traumatized populations requires didactic instruction in the myriad forms of traumatic events and potential emotional, behavioural, cognitive, and somatic responses to psychological trauma. It also must include extensive professional skills training and supervised practical experience in working with trauma-exposed groups for the involved service-provider. (Courtois & Gold, 2009, p. 16)

Emergency Medical Care Curricula. The emergency medical care occupation requires that personnel are comprehensively equipped, both academically and practically, for the uncommon high-risk demands of rescue work. It is therefore important that training courses and study programmes provide them with the latest medical knowledge and skills.

When considering emergency medical care curricula, it is evident that similar approaches regarding the structure and content of EMC programmes are followed internationally. The United States of America and the European Union may be taken as examples. The 'EMT-Paramedic National Standard Curriculum' as published by the United States Department of Transportation National Highway Traffic Administration (Stoy, 2009) and the 'European Curriculum for Emergency Medicine' as published by the European Society for Emergency Medicine (Petrino, 2009) show notable similarities in their core curricula content.

The American curriculum framework includes the following main components: didactic instruction, skills laboratory, clinical education, and field internships (Stoy, 2009). The European framework sections are: patient care, medical knowledge and clinical skills; communication, collaboration and interpersonal skills, professionalism and other ethical and legal issues, organisational planning and service management skills, and education and research (Petrino, 2009). The European curriculum document provides a comprehensive list of system-based core knowledge, common presenting symptoms, specific aspects of emergency medicine, and core clinical procedures and skills that need to be included in all EMC programmes. In contrast, the American document does not list specific programme content. The assumption is that programme and module content will be provided by those institutions that offer EMC qualifications.

Eastern Kentucky University's list of course descriptions for their EMC degree can be taken as an example of the typical module components found in such a programme. The modules include: first responder EC, basic health care support, survey of medical terminology, introduction to EMC, assessment of human systems, prehospital advanced life support, prehospital management for obstetrics and gynaecology emergencies, crash victim auto extrication, introduction to pharmacology, electrocardiography, advanced cardiology,

paediatric advanced life support, advanced trauma and medical emergency life support, disaster medical operations, research, and clinical and field experience and internships (emc.eku.edu/course-descriptions).

Verdile, Krohmer, Swor, and Spaite (1996) distinguish between didactic and experiential on-scene elements in the EMS curriculum. According to them the didactic elements include the following: overview of EMS, EMS structure and components, medical direction, communication, patient care (trauma, triage, cardiac arrest, airway management, specific clinical conditions), rural EMS, emergency air EMS, legal aspects, disaster management, and administrative aspects.

McLaughlin, Doezema, and Sklar (2002) offer an alternative approach, and propose that human simulation forms the core of emergency medicine training. They describe it as follows:

> Human simulation refers to a variety of technologies that allow residents to work through realistic patient problems so as to allow them to make mistakes, learn, and be evaluated without exposing a real patient to risk. This curriculum incorporates 15 simulated patient encounters with gradually increasing difficulty, complexity, and realism... The core competencies are incorporated into each case focusing on the areas of patient care, interpersonal skills and communication, professionalism, and practice based learning and improvement. (p. 1310)

Such an approach ensures the immediate integration of theory and practice, and would be invaluable in preparing paramedics for the reality of their on-scene work. It may be the preferred curricular format of the future.

Psychological Preparedness. The question may be asked whether paramedics' training and experience prepare them adequately for the uncharacteristic demands their work will bring (Paton & Violanti, 1996, p. 173). While paramedics may possess the technical skills required to meet the needs presented by patients, their training may not provide them with the psychological and self-maintenance skills required to readily comprehend their disaster experience, or to understand and deal effectively with the aftereffects of that trauma on themselves (Paton & Violanti, 1996, p. 7).

Lowery and Stokes (2005) observe that student paramedics, due to the expectation of having to be emotionally tough, may be very susceptible to low levels of emotional disclosure: "not only are they entering a novel environment in which their experienced role models typically adhere to a toughness ethic but their work performance during this period is assessable" (p. 172). They might feel that in terms of their future career and work relationships they are required to purposefully show that they can handle the job. Due to professional pride they may consequently control any stressful emotional feelings, which is then also externally reinforced.

Individuals working in a helping profession are typically severely emotionally taxed. In taking the stress of the patients they are helping on themselves, they increase their own stress (Cortini, Tanucci, & Morin, 2011). Paramedics are repeatedly exposed to potentially traumatic events, are often confronted with dead or dying people, and may be involved in life threatening situations. In fact, they may endure symptoms very similar to those of their patients (Van der Ploeg & Kleber, 2003).

However, being exposed to recurring trauma will not necessarily have the effect of protecting paramedics from its influence, and in time they may suffer its combined effects (Carll, 2007, p. 279). Paramedics should therefore receive 'educational desensitization' during

their training to help them combat these cumulative effects. This may teach them to reinterpret the grim scenes they are exposed to as mere procedures (Clohessy & Ehlers, 1999).

As far back as the early 1980s the lack of psychological training for rescue workers was already noted:

> Indirect evidence suggests that there is little in the training that is directed toward the socio-emotional problems of working with critical and dying patients: whatever coping strategies that are developed, will evolve out of street experience, and socialization from more experienced crewmates. (McCammon & Allison, in Figley, 1995, p. 116)

Nearly three decades later, an imbalance may still exist in the professional education of emergency medical care practitioners, and their psychological preparedness does not receive sufficient attention even now (Harrison & Westwood, 2009, p. 206). Alexander and Klein (2001) cite studies that have ascertained the value of proper 'psychoprophylactic' training and preparation as regards the emotionally challenging reality of a paramedics' duties on the one hand, but also the need for improved training and briefings before going out in the field. Such training could contribute to the strengthening of self-control and more effective coping strategies being developed. The necessity for interventions before exposure to the trauma is thus evident (Figley, 1995).

It could also be argued that, due to the nature of emergency medical care work, the anticipation of what they have to face may be more stressful to paramedics than the work itself. It should be a function of emergency medical care training to address the differences between expectations and reality. While they should be prepared 'for the worst', they should not be put through unnecessary anxiety (Alexander & Wells, 1991). All paramedics should be educated in the prevention and management of stress in order for them to deal with it in a proactive manner (Sauter & Murphy, 1995; Regehr et al., 2002b).

Moreover, research has shown that the preparation of helpers in what they are going to encounter is also useful for the prevention of health-related symptoms. The training of paramedics should address the "different kinds of stressful aspects of the work and during structured meetings in the work setting it is of importance to pay attention to critical incidents and their aftermath" (Van der Ploeg & Kleber, 2003, p. 146). It is therefore crucial that the psychological preparation of paramedics is attended to during their training.

The ability to manage critical events can certainly be improved by educating and preparing paramedics appropriately. Research has supported the notion that pre-training for trauma events may lead to more positive coping. For example, Ward et al. (2006) note that death notification has been identified as being very stressful, yet "emergency services personnel seldom receive particular training in this area (p. 230). Smith and Walz (1995) likewise draw attention to the importance of training in death education in particular. This is due to the fact that paramedics regularly have to contend with a number of death-related responses per shift, which are of an extremely emotionally laden nature. Training in the skills and strategies needed to effectively deal with death moment experiences, attitudes related to death and dying, and desensitizing techniques is critical, as paramedics are frequently found at "the scene of most out-of-hospital deaths" (Smith & Walz, 1995, p. 265).

Paramedics face numerous psychosocial risks. Paton and Stephens (1996) therefore note the importance of the following aspects being addressed in the training of paramedics: the development of resources that will help them prepare for the job; that they receive sufficient preparation in increasing their ability to adapt to the atypical demands and reactions that the job demands; and, that the recovery of those paramedics experiencing dysfunctional reactions be supported (in Paton & Violanti, 1996). If paramedics receive adequate psychological training they will be more versed in anticipating and recognizing vicarious stress responses in

their day-to-day work. In this manner the detection of potential problems will be able to take place earlier, and appropriate interventions can be applied (Myers & Wee, 2005).

Certain components have been identified that should be integrated into the training curricula for paramedics: information on stress and the management thereof; the physical and psychological impact of trauma; crisis intervention skills; coping with challenging patients; assisting upset and bereaved family members; communication and conflict resolution skills; debriefing processes; and health maintenance strategies (Figley, 1995). This list includes the coping mechanisms that need to form part of emergency medical care training and that are of paramount importance, not only for the professional survival of paramedics, but also to enable them to provide effective care to their patients. Their training should ensure "the development of finely tuned self-care and coping abilities to recognize and ameliorate the stressful impact of responding" (Courtois & Gold, 2009, p. 17), and include modules that present on-the-job self-protection strategies that will allow them to deal effectively with the potential negative effects of their work-related trauma.

Specialized knowledge and training may result in providing paramedics more effective protection against trauma, and have the effect of reducing their levels of compassion fatigue and burnout (Sprang, Clark, & Whitt-Woosley, 2007). By implication these primary prevention efforts included in training curricula may address the ultimate efficacy of paramedics.

Support and Intervention Services. The role that emergency medical care organizations play in supporting their paramedics in the field are of vital importance, as well as the formal intervention structures and support services they offer. It is crucial that first line supervisors remain vigilant in order to "identify early signs of emotional upset and can relieve workers in a particularly stressful assignment" (Clohessy & Ehlers, 1999, p. 120), and require them to go and rest, talk to someone, remove them from the scene, or rotate them to a different

task. It may also be important that paramedics' personal and work stress be systematically assessed as a screening mechanism (Myers & Wee, 2005).

Miller (1995) suggests that in order for intervention services to have the greatest impact it should form part of an integrated organizational programme and enjoy the full commitment and support from the administration and managers. Administrators should ensure that interventions methods are used appropriately and responsibly, and that "paramedics and their colleagues and supervisors can identify potential risk situations and involve formal support systems" (Regehr et al., 2002b, p. 511). The efficacy of intervention methods will be determined by the "timeliness, tone, style, and intent of the intervention, … and share in common the elements of briefness, focus on specific symptomatology or conflict issues, and direct operational efforts to resolve the conflict or to reach a satisfactory conclusion" (Miller, 1995, p. 598).

Alexander and Wells (1991) cite a number of organizational and managerial steps which can be taken to reduce negative experiences, such as "(g)ood team relationships, thorough preparation and high morale, backed up by discreet professional support", further stating that these steps may remedy the "more serious and enduring adverse reactions to potentially traumatic experiences" (p. 554).

It is very important that the supervisors and administrators of EMC organizations similarly receive training in "management, leadership, communication, and conflict resolution skills" (Figley, 1995, p. 119). Having the same knowledge as their paramedics in the field will encourage an interactive leadership style.

Blau (1994) suggests the following individual intervention techniques that may be deemed effective for use with emergency medical care workers: attentive listening, being there with empathy, reassurance, supportive counselling, interpretive counselling, and the use of humour (as cited in Miller, 1995). Successful interventions may impact departmental morale

and job efficacy positively. Ward et al. (2006) recommends the following intervention categories: Pre-exposure (within and between organizational issues, with paramedics given training in how to deal with the family of the injured and how to deliver death notifications); exposure (with contact minimized as far as possible during incidents); and post-exposure (the early identification of those paramedics in trouble (p. 230).

The identification of positive factors in those paramedics who manage to cope with the reality of their traumatic work can be used in developing effective training and support services:

> If the individual, response and organizational factors that underpin positive resolution can be isolated, they can then be incorporated into training and development programs and used to assist recovery. (Paton & Violanti, 1996, p. 222)

Such organizational systems may therefore well decrease the effect of the impact of trauma and encourage recovery.

Emergency Medical Care in South Africa. There is a relative paucity of recent research that provides a comprehensive description of the emergency medical care profession in South Africa. Of particular importance to this study is the reality of the high-risk work environment of South African paramedics. Working with traumatized patients under dangerous conditions results in them experiencing secondary, or vicarious trauma.

Does EMC training in South Africa adequately train local paramedics as far as their theoretical knowledge and practical skills are concerned? Are they sufficiently prepared for the undeniable emotional and psychological realities they will encounter in their high-risk working environment? The following section will provide a summary of the existing routes available to become a qualified paramedic, followed by a chronological overview of the industry.

Qualification and Training Routes. In South Africa the short course route for training paramedics has been prevalent for many years. MacFarlane, van Loggerenberg, and Kloeck (2005) describe the levels of EMS training as registered with the Professional Board for Emergency Care Personnel (a division of the Health Professions Council of South Africa, HPCSA) as it existed in 2005:

1) Basic Ambulance Assistant (BAA)

   The entry level entails at least one month of training in ambulance equipment, CPR, the use of automated external defibrillators, first aid and basic vehicle extrication, packaging techniques and simple trauma management. BAA's may administer very limited drug protocols.

2) Ambulance Emergency Assistant (AEA)

   AEA's qualify after several months of experience on the road, as well as a further three-four-month training programme. In addition to the BAA protocols, they are permitted to do the following: provide nebulisation for asthma, insert intravenous lines using crystalloid fluids, administer intravenous glucose and oral aspirin when appropriate, and use a manual defibrillator for treating lethal rhythms.

3) Critical Care Assistant (CCA)

   After additional road time and a nine- to ten-month full-time training course, the advanced life support practitioner is commonly known as a 'paramedic', and is proficient in extensive emergency medical protocols including paediatric advanced life support (PALS), advanced cardiovascular life support (ACLS), and advanced trauma life support (ATLS). Their scope of practice includes: advanced airway management, interventions such as the use of synchronised cardioversion, and the administration of 27 different medications including

> benzodiazepines, intravenous analgesics and emergency cardiac medications (p. 146).

At present there are approximately 39 institutions across the nine provinces of South Africa that follow the short course training model (www.paramedictrainingspot.com).

The Health Professions Council of South Africa (HPCSA) currently recognizes the following professions that are registered under the auspices of the Professional Board for Emergency Care:

- Basic Ambulance Assistants (BAA);
- Ambulance Emergency Assistants (ANA);
- Operational Emergency Care Orderly (OECO);
- Paramedics;
- Emergency Care Technicians (ECT); and
- Emergency Care Practitioners (ECP) (www.hpcsa.co.za/PBEmergencyCare).

There has recently been a shift in the preferred training mode for EMC practitioners. One of the main differences between the short course and university degree qualification routes is the practical element. The practical component of the current four-year bachelor's degree amounts to approximately 1200 hours (emc.nmmu.ac.za), in contrast to the 1000 hour per level component of the short course route. The latter training format has become somewhat less popular, while the university degree route has become more prevalent and seems to be the currently preferred qualification for new appointments. The distinctive differences between the two training methods, with the resultant tensions that are created between the two groups of differently trained paramedics, came through strongly in the narratives of the sample of paramedics in this study, and will be presented in Chapter 5. The statement below raises the possibility that the short course format of training may be suspended at some point in the future:

> The issue is a difficult one, which is both emotionally and politically charged. The latest directive from the ministry of health is that short course training will continue in its current form for the foreseeable future, until further clarity and agreement has been reached. (arrivealive.co.za/How-do-I-become-a-Paramedic)

MacFarlane et al. (2005) describe the National Diploma in Emergency Medical Care as follows:

> The top of the range in terms of the pre-hospital emergency care practitioner is a dedicated 3-year full-time training programme in emergency medical care at specific post-graduate technical colleges. This programme includes in-depth knowledge of the basic medical sciences such as anatomy and physiology, as well as a wide range of related paramedical disciplines such as rescue and communications. (p. 147)

At present there are four South African institutions that offer EMC diplomas and bachelor's degree (four years) programmes: Nelson Mandela Metropolitan University, the University of Johannesburg, Cape Peninsula University of Technology (CPUT), and the Durban University of Technology (DUT). In addition, two institutions offer postgraduate programmes: CPUT (Masters in EMC), and DUT (Masters in Health Science in EMS, and a PhD in EMC) (University Websites). These qualifications are listed on the South African National Qualifications Framework (www.saqa.org).

ER24, one of the private EMC providers in South Africa, presents an article on their website wherein they provide information on how to become a paramedic. The article notes that although the industry has shown substantial growth over the last two decades, there is still a great demand for professionally qualified and well-skilled paramedics. It is significant that the article terms the Emergency Medical Care profession a calling, not just a job, and notes that paramedics have to be dedicated to care for their patients and at all times maintain professional integrity. The EMC career is described as follows:

> The Emergency Services is a rewarding field offering an incredible amount of job satisfaction and personal growth. However, it can be emotionally and physically challenging and the decision to enter the profession should not be taken lightly. (arrivealive.co.za/Information-on-how-to-become-a-Paramedic)

In another article, 'How do I become a paramedic', the authors address the reality of individuals deciding on their study and training route:

> This is a personal choice which will depend on many factors including academic performance, finances, location and personal preference. Many candidates who have recently matriculated, have the required academic record and can afford to attend university full-time for four years choose the degree route. (arrivealive.co.za/How-do-I-become-a-Paramedic)

Financial challenges may cause individuals to opt for the short course route, as university study is more expensive.

While each method of training has its benefits, it also has challenges. Challenges mainly concern the readiness of paramedics on qualifying, especially as regards the extent of their practical experience, and their psychological and emotional preparedness. The EMC industry will be obliged to wait for the directive from the Professional Board for Emergency Care Personnel at the HPCSA, and finally the national Department of Health.

South African Emergency Medical Care Overview. This section provides a brief chronological overview regarding the history of Emergency Medical Care in South Africa.

In an article on the history of the South African ambulance service, Kotzé (1990) describes the establishment of Ambulance Training Colleges in each province, and notes that the training courses presented at the time were suitable, of a high quality, focussed, and of a practical nature. The courses included "basic and advanced life support, emergency medical rescue, disaster management, administration, advanced driving and instructors' modules,

aeromedical evacuation and water-related rescue" (p. 320). The author further provides an historical description of the role of the ambulance service as part of the South African health profession from the early 1900s to 1990. The important pre-hospital role that paramedics play in caring for the sick and injured are highlighted, and it is noted that the "ambulanceman is usually the first suitably qualified person on the scene to deal with medical emergencies", and that they have to work under "difficult and often extreme conditions, mostly without the benefit of the direct supervision of a medical doctor" (Kotzé, 1990, p. 321).

Brysiewicz (2001) discusses both forms of ambulance services in South Africa, namely the provincial health services and privately owned EMS companies. Serious financial restraints were experienced by the provincial services, resulting in particular areas being serviced by too few ambulances with a corresponding increase in the use of private providers, although access to this service is limited by medical aid tariffs.

Violence towards paramedics was common, with ambulances being hijacked and stolen resulting in some "prehospital personnel routinely wear[ing] a bullet-proof vest to work every day" (Brysiewicz, 2001, p. 129). In the fifteen years since this article was written, the high risk reality of paramedics' working environment has only intensified and worsened. Due to the high rate of patients infected with the Human Immunodeficiency Virus (HIV) and diagnosed with Acquired Immunodeficiency Disease Syndrome (AIDS), South African paramedics were "at great risk for the transmission of HIV and AIDS due to exposure to large amounts of blood" (Brysiewicz, 2001, p. 131). However, it should be noted that South Africa currently has the largest number of people receiving antiretroviral therapy worldwide (Bekker et al., 2014).

Goosen, Bowley, Degiannis, and Plani (2003) describe South Africa as being the only country on the continent of Africa that has an "organized, statutory system of pre-hospital care, and the National Healthcare Plan aims to ensure at least basic life support available to all within

20 min" (p. 706). The authors further comment on the disparity between the public versus private emergency services, noting the shortage of paramedics and poor access in the former, and the rapid response rate and highly experienced, advanced levels of care for those with medical aid funding.

The demanding nature of the work paramedics often impacts negatively on their health. A survey by Naudé and Rothmann (2003) found that South African emergency workers suffered from the following stressors: safety concerns, physical and verbal abuse, with many experiencing being threatened by weapons while out on a call. If support interventions are not able to help the paramedics cope with these realities, they may be at risk of experiencing negative physical and psychological effects which could result in them having a breakdown or leaving the profession.

According to Crabbe, Bowley, Boffard, Alexander, and Klein (2004), South Africa has one of the highest rates of violence in the world, with the result that paramedics, as well as the healthcare staff in hospital emergency departments they deliver their patients to, consequently experience above average levels of trauma. Their study found that car accidents and pedestrian fatalities accounted for a large percentage of deaths, while at the Johannesburg Hospital Trauma Unit "60% of all resuscitations were attributable to assault" (p. 568).

In an overview and succinct description of emergency medical services in South Africa, MacFarlane et al. (2005) note the rapid development of these services pre- and post-1994 into a "complex, sophisticated system of ground and air response covering the whole country to varying degrees" (p. 145). They also point out, however, that a dichotomy existed concerning the services that rural areas receive compared to large urban cities. For example, at the time response times varied from 15 minutes in rural areas to 40 minutes in urban areas.

After 1977 the former four provinces were mandated by legislation to be responsible for and administer the ambulance services. The services were funded from government allocated subsidies. The following quote describes the reality at the time:

> These provinces inherited very basic ambulance services which served communities within local government boundaries, while in many parts of the country no services existed at all. In 1994 steps were taken to rectify the situation and strengthen the ambulance services, being a key pillar of community health care. Regulations were promulgated making it compulsory for all emergency medical care practitioners to register with the then South African Medical and Dental Council, and national curricula for emergency medical care were established. (p. 146)

EMS care was nationally accessible by calling a toll-free national emergency number, as well as emergency numbers from the national cellular telephone companies which routed calls to the closest government EMS service. In certain call centres software programmes were utilized in order to efficiently triage the emergency calls and send out appropriate vehicles. EMS care was, and still is, free to those citizens who fall in a certain socioeconomic category (MacFarlane et al., 2005).

During this time post-graduate EMS training was being considered, which would further enhance the standard of pre-hospital care in South Africa. The article concludes by pointing out that the national emergency medical services faced very real and challenging problems. However:

> Given the thoroughness and extent of their training, the significant on-road experience that they receive, and the high quality of advanced medical instruction, they may, in fact, be amongst the best trained paramedics in the world... Compared to the rest of the world, EMS personnel in South Africa experience a remarkable spectrum of

> clinical exposure, and their training is of the highest standard worldwide. (MacFarlane et al., 2005, pp. 147, 148)

MacFarlane et al. (2005) focused on another aspect of EMS systems, and commented that South African emergency medical services had shown rapid development:

> In the last 15 years, overlapping the 10 years since the transition to democracy in South Africa, pre-hospital care has moved from isolated fire departments providing basic medical assistance, to a complex, sophisticated system of ground and air response covering the whole country to varying degrees. (p. 145)

The authors provided a background to the national emergency service in terms of its communication systems, training, emergency departments and their structure, medical staff, nursing and allied health professional staff, and on-site medical support. The article described emergency medical care practitioners becoming a self-regulating body, stating that it is within the ambit of paramedics "to administer medications according to designated protocols within their scope of practice" (p. 147).

MacFarlane et al. (2005) shared their observation that "South African pre-hospital emergency medical care practitioners are immersed in a vast amount of pre-hospital trauma care, and unfortunately tend to 'burn out' quickly" (p. 147). For this reason, many local paramedics considered employment out of the country for better remuneration, or even moved into other occupations. The authors concluded with a summary of the best and worst features of being a paramedic in South Africa. On a negative note, the problems they faced are "patient overload, under-financing and a lack of equity in distribution of resources"; while they positively commented that in contrast with the rest of the world, "EMS personnel in South Africa experience a remarkable spectrum of clinical exposure, and the training is of the highest standard worldwide" (p. 148).

> Fifteen years ago the EMS situation in South Africa was summarized as follows:
>
> It would seem that the pre-hospital situation in South Africa is largely a contrast of insufficient personnel and poorly maintained vehicles and equipment in the public sector due to financial constraints with a growing competence in the private sector to provide sophisticated pre-hospital care and exceptional clinical experience; a dichotomy of the extremely good and the dreadfully poor. (MacFarlane et al., 2005, p. 147)

In a follow-up to their 2005 article, Naudé and Rothmann (2006) quoted from a survey by the Work Trauma Foundation in South Africa, wherein paramedics indicated "safety concerns as well as physical and verbal abuse as major stressors in their jobs", with the highly stressful work conditions often resulting in "increased risk of injury, cardiovascular disease and other health problems, psychological health disorders and burnout" (p. 64). The authors' own research indicated that paramedics, in addition to job demand stress, experience, "working overtime, assignment of new or unfamiliar duties, dealing with crisis situations and assignment of increased responsibility ... emotional exhaustion and depersonalisation" (p. 76). By and large the realities and conditions as described in these two articles still prevail. In actual fact, the safety concerns have become even more critical.

Another South African study by Ward et al. (2006), included the "multiple stressors arising from dealing with fires in informal settlements", noting that the data revealed "higher rates of general psychopathology than found by studies of Scottish and English ambulance personnel" (p. 228). Certain organizational stressors were also identified, namely the cooperation within and between organizations. For example, the fact that where there were "no clear co-operation agreements between services, there is likely to be confusion when members of several services respond to an incident and this confusion may lead to greater loss of life" (p. 230). Findings that were similar to those reported in 'developed world contexts' included

high rates of problem drinking, and the stress of dealing with the families of patients and having to do death notifications. In addition:

> … it is clear from our findings that symptoms of anxiety, depression, and PTSD, and experience of both physical and psychological aggression increase, without levelling off, as exposure to critical incidents increases, although rate of increase may slow as exposure increases. (Ward et al., 2006, p. 229)

Positive aspects regarding the national Emergency Medical Care profession is presented in the South African literature above with reference to the highly qualified and skilled paramedics that work the industry. However, the literature also sketches a very negative and sobering picture when describing the extremely challenging and dangerous working conditions of paramedics. The trauma experienced by paramedics on a daily basis as a result of their high-risk working environment may have various effects on them. It is therefore not surprising that the more recent literature focusses almost exclusively on South African paramedics leaving the country to work abroad where both working conditions and remuneration are better, thus resulting in a national shortage of skilled paramedics.

Govender (2010) addresses the migration of advanced life support paramedics in South Africa, and proposes a retention framework. He comments on the serious inadequacy of the number of registered paramedics in relation to the pre-hospital emergency care needs of nearly 50 million people. He attributes the shortage of paramedics to the migration, both nationally and internationally, and concludes as follows:

> Current measures to manage migration appear to be ineffective. The success of future strategies is dependent on an understanding of the migration of South African ALS paramedics - an understanding that presently does not exist. (Govender, 2010, p. v)

Binks (2011) similarly comments on the migration of quite a number of paramedics between organizations, nationally and internationally. His study suggests that issues

surrounding the organizational support, personal development, and career advancement of paramedics will have to be dealt with in order to address the retention of South African paramedics, and adds the following observations:

> … job satisfaction of paramedics in South Africa is not at the level to maintain retention of these scarce skilled workers despite them loving their profession and the job they do. Basic needs to enhance job satisfaction are an area that requires further development within the pre-hospital industry. Many of the responses received in the questionnaire survey had displayed negativity and therefore resolution of these current issues requires immediate attention in order to improve retention of paramedics in South Africa. (Binks, 2011, p. 3)

It is significant to note that three further articles were published on the same topic in the next three years, all focusing on the loss of qualified paramedics in South Africa, that is, Hackland and Stein (2011), Govender, Grainger, Naidoo, and MacDonald (2012), and Govender, Grainger and Naidoo (2013). The factors cited in these articles regarding the paramedics' departure corroborate the factors as described by Govender (2010) and Binks (2011). The articles further suggest the development of retention and return strategies.

The issues in the South African EMC industry as highlighted in the articles above have remained constant during a span of nearly sixteen years, therefore proving their critical importance. This study corroborates many of the issues, and provides an added emphasis to those issues that need to be addressed with immediate effect.

Vicarious Trauma

Trauma exists due to the often unexpected stressful, painful or cruel happenings that take place on a daily basis and inserts itself into the lives of people. Traumatic occurrences may result in individuals experiencing 'terror' in the form of "feelings of extreme vulnerability, helplessness, loss of control, uncertainty, and threat to life" (Ursano et al.,1994 p. 405). The

following section presents an overview and description of various aspects relating to trauma and traumatic events.

Traumatic Stress. What makes something traumatic? How is trauma defined? Aldwin (2007) comments that the traditional and rather inflexible definition of trauma usually includes the threat of serious injury and possibly death. It has a fast onset, often occurring in many individuals at once. McCubbin and Figley's (1983) definition of catastrophic stress is quoted as being a "sudden and extreme threat to survival which is associated with a sense of helplessness, disruption, destruction, and loss" (Aldwin, 2007, p. 211).

Trauma can also be understood as being an enormously distressing event that may, momentarily, overwhelm an individual's resources. This may present "significant challenges to individuals' ways of understanding the world and their place in it" (Maitlis, in Roberts & Dutton, 2009, p. 49). The aftereffects of trauma bring new realities, and individuals may be required to change their assumptions and objectives and create new meanings and understandings of their world and themselves.

According to Aldwin (2007) the DSM-IV defines traumatic stress as "events that involve serious threat to life or physical integrity, either of oneself or significant others", or, alternatively as "those that shatter peoples' beliefs that they live in a meaningful, predictable world" (p. 211), while a trauma-exposed person is one who has "experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others" (McNally, in Rosen, 2004, p. 3).

Ursano, Fullerton, and McCaughey (1994) note that a traumatic event may be defined by the "nature of the event, by the effects of the trauma on individuals and groups, and by the responses of individuals and groups to the event" (in Ursano et al., 1994, p. 5). Traumatic events can further be described as "sudden, unexpected, perceived as undesirable and uncontrollable, out of the ordinary, and threatening to one's life and general well-being"

(Tedeschi, Park, & Calhoun, 1998, p. 216). Individuals who experience traumatic events may subsequently experience a number of stress responses after the fact (Linley & Joseph, 2004b).

Sterud et al. (2011) suggest that individuals' personalities may well interact with workplace factors. In some cases, this may explain the high levels of distress symptoms they experience. As a result, the fit between people and their jobs may lead to either greater or less stress. Paramedics typically view exposure to trauma as part of the job, and their reactions to trauma must be seen in this light. It is possible that many crisis workers are a self-selected group, and will therefore accept the exposure to trauma as being 'part of the job'. They may have chosen their occupation due to personality variables that include being dedicated to saving lives (Beaton & Murphy, in Figley, 1995).

Stressors. Clohessy and Ehlers (1999) identify the following incidents, in order of impact, that are potentially the most traumatic for paramedics: dealing with cot death; incidents involving children; dealing with relatives; burns patients; mental health patients; and handling dead bodies.

Regehr et al. (2002b) note that paramedics classify as 'traumatic' those cases that involved suicides, and dealing with the grief of others. Violence against children, specifically abuse and neglect, were found to be particularly traumatic, especially in the context of paramedics being "unable to understand why something like this might have occurred" (Regehr et al., 2002b, p. 507). Van der Ploeg and Kleber (2003) concur: according to them the most stress evoking critical incidents for paramedics involve working with children and having to deal with sad and hopeless patients.

Beaton and Murphy (1995) describe the immediate effects that paramedics may experience at incidents as including the "handling of dead bodies, being exposed to dangerous situations, witnessing property and environmental loss, working under suboptimal conditions, physical strain, and the necessity of conveying the tragic news to the family or friends of

victims" (in Figley, 1995, p. 55). Wilson and Raphael (1993) list the most stressful calls paramedics have to deal with as being infant deaths, child abuse, mass casualties, disaster, and high-rise fires.

Naudé and Rothmann (2006) identify the following work related individual stressors that emergency workers may experience: interaction with patients, boring tasks, slow shifts, physical danger due to locality, physical and verbal abuse from onlookers, shortage of equipment, long distance travelling, shift work, administrative work and deadlines, and interpersonal stressors, which includes personality clashes with and pettiness among colleagues, and an unwillingness to accept change. In addition, the following events typically cause distress for paramedics: line-of-duty death; serious injury to self; serious multiple-casualty incidents; the suicide of a co-worker; serious injuries to and the traumatic deaths of children; events that attract excessive media interest; events that have an unusually powerful impact; and events that involve victims familiar to the paramedic (Figley, 1995).

The Effects of Trauma on Paramedics. For some occupational groups, like emergency medical care practitioners, exposure to traumatic events is inevitable and part of the work day (Ursano et al., 1994, p. 202). Ursano and McCarroll (1994) point out that emergency workers may expect the stress they will be exposed to before their shifts even begin and be traumatized by just the 'expectation' of confronting death. Therefore, due to the commonality and frequency of the traumatic events paramedics are exposed to, the "stress of anticipation can itself be debilitating, affecting performance, behavior, and health" (in Ursano et al., 1994, pp. 47-48).

Research has shown that the stressors paramedics are exposed to during the course of their work can result in psychological, social, and physical effects, thus adding to their work stress. In order to prevent themselves becoming debilitated in the process of saving the lives of their patients, they have to apply their skills in order to contain their immediate reactions

(Wilson & Raphael, 1993). It can be noted that paramedics report many distinctive "somatic, emotional, and behavioural stress pathways" (Sauter & Murphy, 1995, p. 242).

In addition to being directly or indirectly exposed to life-threatening trauma and dealing with the medical emergencies of their patients on site, paramedics may experience role conflict that arises between their professional and personal needs. The cost of not attending to the secondary traumatic stress paramedics are exposed to may include short- and long-term emotional and physical disorders, "strains on interpersonal relationships, substance abuse, burnout, and shortened careers" (Beaton & Murphy, in Figley, 1995, p. 52).

McCammon (1996) identifies and summarizes the following factors which are important in studying and understanding the effects of duty-related trauma on emergency workers: individual characteristics (personality traits, psychiatric history, adverse life events, and sex and race); job and organizational characteristics (training, number of callouts, and length of service); event characteristics (exposure, work conditions, personal losses, and role conflict); mediating factors (appraisal, on-scene and post-event coping strategies, social support, and critical incident stress debriefing) (in Paton & Violanti, 1996).

Weiss, Marmar, Metzler, and Rondfeldt (1995) point out that distress and post-exposure responses are dependent on the level of exposure to the traumatic stressors. The effects of trauma may therefore be far reaching. Morren, Dirkzwager, Kessels, and Yzermans (2007) found that sick leave among rescue workers increased substantially during the year and a half after the traumatic incident, and attributed it mainly to increased psychological, physical (i.e. respiratory, musculoskeletal, and nonspecific ill health, e.g., malaise, fatigue), and neurological problems.

According to Weiss et al. (1995) post-traumatic responses associated with traumatic critical events is indeed a multifaceted phenomenon. The following two sections will provide a more detailed overview of the effects of traumatic exposure on paramedics.

Physical Effects. Paramedics are susceptible to experiencing a number of physical effects due to the nature of the emergency work they do. These include: increased injury rates; physical fatigue and dizziness; psychomotor dysfunction; sleep disturbance, nausea, and lowered sexual and eating appetites; sympathetic nervous system arousal, fatigue, gastrointestinal difficulties, headaches, loss of appetite, and breathing difficulties (Wilson & Raphael, 1993; Tedeschi & Calhoun, 1995).

Research has found that paramedics may experience higher levels of epinephrine, norepinephrine and cortisol (Paton & Violanti, 1996). They may also exhibit elevated blood pressure levels, particularly when on scene at accidents, during the transportation of patients, and after delivering them to the hospital (Goldstein, Jamner, & Shapiro, 1992).

Paramedics are also at "elevated risk for myocardial infarction and stroke … frequent and bothersome sleep disturbance associated with shift work … and shift-related increases in ketogenic steroids and adrenaline excretions" (Beaton, Murphy, Pike, & Jarrett, in Sauter & Murphy, 1995, p. 229). Moreover, the "acute and chronic changes in their neuroendocrine and neurotransmitter systems associated with repeated physiological arousal, frequent circadian disruptions, the potential for constant danger, and associated hypervigilance" (Beaton et al., in Sauter & Murphy, 1995, p. 230) can undoubtedly affect the physical health of paramedics.

When compared to the general population, paramedics self-report more musculoskeletal and physical health problems, specifically due to the lifting and carrying of patients which is an ever-present reality in the profession (Sterud et al., 2011).

Paramedics may be prone to crying and experiencing shortness of breath (Regehr et al., 2002b). Further physical effects include the following: increased pulse, respiration, blood pressure; nausea, indigestion, diarrhoea, psychogenic sweating or chills; hand, lip, and eye tremors; muffled hearing; tunnel vision; headaches; feeling uncoordinated; lower back pain; feeling a 'lump in the throat'; faintness or dizziness; exaggerated startle reaction; fatigue and

exhaustion; appetite change; change in sexual desire; and frequent colds and allergies (Myers & Wee, 2005).

The relationship between the physical and psychological effects paramedics experience as a result of their exposure to trauma is a very close one. The "prevalence of sleeping problems, headache and stomach symptoms were significantly associated with psychological demands among both female and male ambulance personnel" (Aasa, Brulin, Ängquist, & Barnekow-Bergkvist, 2005, p. 257).

Psychological and Emotional Effects. One of the high risks involved in emergency medical care is the constant exposure to mentally challenging tasks (Aasa et al., 2005). According to Clohessy and Ehlers (1999) research suggests that the psychological impact of paramedics' work is under-reported due to the fact that their professional helping role may necessitate a denial of their own vulnerability. Within the first few years of their careers, many paramedics may experience variable levels of psychological distress (Lowery & Stokes, 2005). Ursano et al. (1994) note that various stress disorders have been described in emergency workers. Tedeschi and Calhoun (1995) list the following negative psychological consequences of traumatic events: effects on thoughts (intrusions – thoughts, images and recollections breaking into consciousness, and heightened vigilance in matters related to the trauma); emotional effects (guilt, anger, irritability, fear, anxiety, and depression); and negative changes in behaviour (increased drug use, withdrawal from others, and increase in aggressive behaviour).

Chronic stressors that result from traumatic events could have lasting costs for the psychological health of certain paramedics in that they can suffer from either moderate, high, or severe levels of depressive symptoms. Furthermore, mental health problems in the form of suicidal thoughts, and even suicide attempts, may occur that could necessitate having to take mental health stress leave or psychiatric medication. Recurring memories and night terrors can

ensue, while PTSD indicators might also manifest, consisting of intrusion, arousal, and avoidance symptoms (Regehr et al., 2002b).

According to Miller (1995) the stress induced by paramedics' jobs can become overwhelming, "and the very toughness that facilitates smooth functioning in their daily duties now becomes an impediment to these helpers" (p. 592). Although paramedics may have many life–saving, often even heroic experiences, for many "the more common succession of tragedies and occasional stark horrors takes a grim psychological and existential toll, especially if the incident resonates with events from the worker's personal history" (Miller, 1995, p. 594).

According to Regehr et al. (2002a) there is an increased consciousness of "exposure to tragic and gruesome events in emergency-service work and the potential for traumatic stress symptoms" that include "rates of significant distress, or severe distress, … symptoms that included recurrent dreams; feelings of detachment, dissociation, anger, irritability, or depression, and memory or concentration impairment" (pp. 953, 954). As reported in Lowery and Stokes (2005), "detachment from others (28%) and irritability (13%) were two of the most commonly experienced symptoms in relation to critical incidents" (p. 172). Some occupational groups, like emergency medical care practitioners, "may develop a 'macho' image and deny any emotional impact of confronting death and disfigurement" (Joseph, Williams, & Yule, 1997, p. 135). Studies have shown that paramedics have an inclination to reject their feelings, partly because they believe they have to be 'tough' in order to do their work effectively. Any show of weakness may therefore result in their 'manhood' being questioned and consequently being stigmatized by their co-workers.

The study of Weis et al. (1995) found that higher levels of symptomatic distress in paramedics were associated with traumatic critical incident exposure, and that high levels of stress correlated with diminished psychological adjustment, and conclude that "peritraumatic

dissociation is an important risk factor for future problems after exposure to critical incidents" (p. 367).

Beaton et al. (in Sauter & Murphy, 1995) note that the majority of paramedics could experience the following acute and chronic secondary trauma symptoms: intrusion, avoidance, hypervigilance, demoralization, anger, fear, alienation, isolation-withdrawal, delayed loss of confidence, guilt, feelings of insanity and loss of control. Further acute post-trauma responses may include re-experiencing the event in the form of nightmares, and the numbing of responsiveness (Beaton & Murphy, in Figley, 1995).

Courtois and Gold (2009) document the following disorders that may be associated with a history of trauma: dissociation, depression, bipolar disorder, anxiety disorders, substance abuse, psychosis, personality disorders, as well as physical illness.

Myers and Wee (2005) refer to the following emotional reactions: shock, numbness, disbelief; feeling 'high', heroic, invulnerable; feeling grateful for being alive, relief, euphoria; anxiety, fear; identification with victims; anger, resentment; irritability, restlessness, hyper-excitability; sadness, grief, depression, moodiness; despair, hopelessness; recurrent dreams, other sleep problems; guilt, self-doubt; feelings of isolation, detachment, loss, abandonment; apathy, diminished interest in usual activities; denial or constriction of feelings, numbness; worry about safety of others; feeling overwhelmed, helpless; unpredictable mood swings (p. 153).

Paramedics need to find a balance between maintaining a professional distance regarding the overwhelming emotions they experience while working, and total emotional detachment and dissociation (Clohessy & Ehlers, 1999). Van der Ploeg and Kleber (2003) state that the enduring nature of post-traumatic symptoms may result in posttraumatic responses, chronic fatigue, and burnout.

There is, however, a strong correlation between the physical and the psychological. Aasa et al. (2005) point out that paramedics' health complaints may ensue from the psychological burdens placed on them by emergency callouts and station work. It is important to note though, that paramedics' perceptions concerning demanding situations may be "more important than the total time for developing ill health" (p. 256).

Regehr (2005) categorizes the effects of traumatic events related to paramedics and their stressful work environment under the following four themes, providing examples:

- Everyday hassles: Increased call volume; inappropriate or nuisance calls; changing schedules; changing co-workers; inadequate equipment stock; performance appraisal; lack of respect from the public; dealing with shift work; compromised couple time; fatigue due to long shifts resulting in physical, emotional, and cognitive energy; and affected sex lives.
- Concerns about danger of the job: Exposure to high levels of violence; dangerous road conditions; and the risk of contagious disease.
- The effects of stress and trauma: Symptoms consistent with PTSD such as withdrawal; intrusion symptoms including nightmares; arousal symptoms; depressive symptoms; suicidal ideation; long term effects including physical reactions, chronic sleep deprivation, somatic conditions; temperament and personality changes such as impatience, aggression, hardening, being unsympathetic and less nurturing.
- Family impact: Experiencing the workplace trauma event vicariously; related mood states (irritability, quiet, angry, emotionally distant; effect on parenting, such as being overly concerned about the safety of their children.

In view of the fact that paramedics are continually exposed to potentially traumatic events, it is no surprise that they may in fact "experience symptoms similar to those they assist" (Van der Ploeg & Kleber, 2003, p. 140).

The Concept and Definition of Vicarious Trauma. Paramedics always attempt to save the lives of their patients on the scenes of accidents, injury and illness and, if possible, stabilize and transport them to the hospital. It is part of their job to routinely deal with loss of life and scenes of the bloodiest, most shocking injuries and dismemberment that can be visited on the human body. They are continuously exposed to their patients' physical trauma, and even though the trauma is experienced 'second hand', it most certainly has a considerable effect on them.

Traumatization may occur either directly or indirectly. Traumatic stress may be transferred through observation or witnessing traumatic events (Figley, 2002). Indirect trauma is thus experienced without being physically injured or endangered (Figley, 1995). Since the 1980s research has acknowledged that the suffering of others may have both a positive and negative or secondary effect on individuals:

> The attunement and effort needed to help others in trouble may provide great rewards for helpers when they meet with success. But when they are strained, or worse, when they fail, helpers may be the next dominoes who follow primary victims in suffering themselves. (Figley, 2002, p. 17)

When paramedics respond to disaster victims and experience the direct intensity of the disaster as part of their professional role and responsibility, they may therefore also become victims of the traumatic event.

Indirect exposure is consequently an inherent characteristic of those occupations that deal with health care, especially when providing medical services to traumatized populations (Cieslak et al., 2013). Paton (in Paton & Violanti, 1996) comments that "professionals who are

called upon to assist those affected by traumatic events can themselves become secondary victims … susceptible to traumatic aftereffects as a result of either primary or secondary involvement with disasters or other traumatic events" (p. 6). Harrison and Westwood (2009) note that the "primary exposure to traumatic events by one person becomes the traumatizing event for the second person" (p. 204).

Paramedics, as first responders, may experience similar reactions when exposed to their patients' trauma. Responses may range from "minor to devastating, life-altering, and even life-ending" (Courtois & Gold, 2009, p. 6). Working with trauma victims therefore undoubtedly has an impact on those who work with or care for them (Collins & Long, 2003a).

The following factors may contribute to vicarious trauma: the individual context and personality traits of the paramedic; a previous history of psychiatric symptoms; demographic characteristic, for example age and ethnicity; stress appraisal; organizational, social, and community contexts; as well as the specific characteristics of traumatic events that include the potential for personal loss, injury, death, and possible mission failure (Figley, 1995).

Paton and Violanti (1996) point out that not much literature exists in the area of work-related trauma. Research has been dominated by a focus on the short and/or long term psychological effects on the victims of disasters. Little attention has been paid to EMC personnel due to the belief that their training 'immunizes' them "from the psychological sequelae which bef[a]ll the victims and survivors" (Wilson & Raphael, 1993, p. 905). The possible damaging impact on paramedics and the manner in which they respond after experiencing trauma "has received little scientific scrutiny" (Ursano et al., 1994, p. 47). There is thus a dearth of literature related to the effects of trauma on paramedics.

Precursors to the term 'vicarious trauma' include the following: secondary traumatic stress, compassion stress, secondary victimization, co-victimization, secondary survivor, and emotional contagion (Figley, 1995). A literature review by Collins and Long (2003b) describes

a number of related and synonymous terms for vicarious traumatization utilized by various researchers, that is, traumatic countertransference, burnout, and secondary traumatic stress disorder.

'Secondary traumatic stress' is a concept synonymous to vicarious trauma, and is defined as "stress resulting from helping or wanting to help a traumatized or suffering person" (Collins & Long, 2003b, p. 418). The authors note that these stress reactions are unavoidable in trauma workers. Sauter and Murphy (1995) comment that this may be due to paramedics' being exposed to work-related trauma, and the critical incidents being "repetitive and potentially cumulative" (p. 228).

A related concept is that of 'compassion fatigue'. Figley (1995) argues that compassion fatigue is "a natural consequence of working with people who have experienced extremely stressful events, [and] develops as a result of the exposure of helpers to experiences of patients, in tandem with the empathy that they experience for their patients" (in Collins & Long, 2003b, p. 421). Adams, Boscarino, and Figley (2006) define compassion fatigue as being the "reduced capacity or interest in being empathic or 'bearing the suffering of clients'..., a hazard associated primarily with ... first responders to traumatic stress" (p. 103). Due to paramedics' exposure to trauma in the context of their work environment, compassion fatigue can result in particular behaviour and emotions when working with traumatized individuals, especially when the professionals possess a strong empathic orientation.

In the early 1990s, McCann and Pearlman introduced the concept of 'vicarious traumatization', describing it as "the transformation in the inner experience … that comes about as a result of empathetic engagement with clients' trauma" (Collins & Long, 2003b, p. 417). According to Harrison and Westwood (2009), McCann and Pearlman (1990) conceptualized vicarious traumatization as being an "interactive, cumulative, and inevitable process, distinct

from burnout or countertransference" (p. 204). It is an effect that may occur in professionals working with those who have survived trauma (Kinzel & Nanson, 2000).

The original definition of vicarious traumatization can be summarized as the "harmful changes that occur in professionals' views of themselves, others, and the world as a result of exposure to graphic and/or traumatic material" (Baird & Kracen, 2006, p. 182). The definition was later revised to read as follows: "vicarious traumatization refers to the cumulative effect … of working with survivors of traumatic life events. Anyone who engages empathetically with victims or survivors is vulnerable" (Collins & Long, 2003b, p. 417).

Serious and permanent psychological consequences may result from working with trauma victims. Research evidence points out that "emergency services personnel may be traumatized due to the nature of their work, particularly following a major traumatic incident, [the] effects of vicarious traumatisation are widespread; its costs immeasurable" (Sabin-Farrell & Turpin, 2003, pp. 451, 452). These authors concur that there seems to be a certain confusion concerning the terms 'vicarious traumatisation, compassion fatigue, secondary traumatic stress, and burnout', commenting that while the terms have common characteristics, there are also particular differences.

A number of psychological mechanisms may be involved in explaining how vicarious traumatisation might occur, for example: countertransference, empathy, emotional contagion, cognitive factors, organizational context, social and professional climate, the financial climate of the organization, the wider health care system, and, lastly, aspects of the individual (i.e. coping mechanisms, personal history, and current life context) (Sabin-Farrell & Turpin, 2003, pp. 454 – 457).

The terms compassion fatigue and secondary traumatic stress may be used interchangeably. However, "[t]hese focus on the symptoms and emotional responses resulting from work with trauma survivors but do not take into account the specific cognitive changes

that VT definitions emphasize" (Sabin-Farrell & Turpin, 2003, p. 453). It is for this reason that the present study utilizes the concept *vicarious trauma*.

Sabin-Farrell and Turpin (2003) note the need for further investigation into vicarious traumatization due to its possible negative effects. In addition, factors should be evaluated that may lead to the identification of interventions that can contribute not only to the protection of workers, but also reduce the possibility of such trauma occurring. Research of this nature would greatly benefit and assist those who are suffering from such trauma.

The Effects of Vicarious Trauma. The members of those occupations who work with victims of trauma may experience symptoms that are comparable to those victims who survive (Joseph et al., 1997). Collins and Long (2003b) note that vicarious traumatization "has been identified in individuals who, in the course of working with victims of traumatic events, themselves fall victim to secondary traumatic stress reactions brought on by helping, or wanting to help, a traumatized person" (p. 417). Pearlman and Mac Ian (1995) comment that vicarious traumatisation in trauma workers 'transforms' the worker "as a result of empathic engagement with clients' trauma experiences and their sequelae ... an occupational hazard for those who work with trauma survivors" (p. 558).

The concepts of secondary trauma, or vicarious traumatization, could be used to describe the experience of workers who, as a result of working with people who are going through trauma, may develop similar stress indicators. In the course of being intimately involved with the "graphic details of other peoples' horrifying experiences the worker can begin to experience symptoms that include intrusive imagery, generalized fears, sleep disturbances, a changed worldview, and effective arousal" (Regehr et al., 2002b, p. 505). Research has shown that responses that are comparable with those of trauma survivors have been found in emergency workers. Vicarious traumatization is thus "an occupational hazard" (Pearlman & Mac Ian, p. 558).

Baird and Kracen (2006) note that vicarious traumatization can be seen as a normal reaction to working in traumatic settings. This reaction, however, comes at a cost: "empathic engagement can have deleterious effects", and "physical, emotional, and cognitive symptoms similar to those of their traumatized clients' may be experienced" (Harrison & Westwood, 2009, p. 203).

Vicarious trauma may result in the following changes: "self- and professional identity, one's view of the world, spirituality, self-capacities and abilities, and psychological needs and beliefs, particularly relating to safety, trust, esteem, intimacy, and control" (Sabin-Farrell & Turpin, 2003, p. 452). Even the empathy helpers 'bestow' on traumatized persons can lead to trauma, and this may clarify why "emergency workers such as paramedics score low on empathy measures... and use avoidance strategies to cope with their work" (Sabin-Farrell & Turpin, 2003, p. 455). Although this is not best practice, it is what enables helpers to continue with their work duties.

Coping with Vicarious Trauma. How do paramedics, as first responders, cope with the trauma they are exposed to when treating their patients under conditions that are frequently challenging and dangerous? Sauter and Murphy (1995) note that it is the "[i]ndividual personality, cognitive appraisal, social support, and organizational variables" (p. 243) of each EMC practitioner that come into play in having to deal with the reality of their working conditions. The combination of these factors may test the cognitive assumptions they have regarding expectations of what should be safe and predictable. This section will address various factors that contribute to an understanding of how paramedics cope with the traumatic reality of their occupation.

In order to deal with traumatic stress effectively, it is important that psychological equilibrium is established as soon as possible after exposure to the trauma provoking event (Weiss et al., 1995). Individuals cope with trauma in a markedly different manner, and their

particular environmental factors may limit choices. Different responses are employed when coping with traumatic events as opposed to ordinary life events due to the following: individuals have less control over their thoughts and behaviours, and may resort to the use of defence mechanisms; the degree of exposure could determine short- and long term consequences; coping with trauma is far more protracted than coping with life events; and, meaning has to be re-made in terms of reorganization, reappraisal, and reinterpretation of the event in the context of the individuals life (Aldwin, 2007).

It is important to note that not all who work with trauma are negatively affected by it. This may be due to the protective mechanisms those who work under such conditions apply, thus enabling them to maintain their well-being.

Coping Methods. The coping strategies of EMC practitioners may prevent the compassion fatigue they are prone to experience. Stratagems can be developed to "protect and maintain their mental health and well-being when working with trauma (Collins & Long, 2003a, p. 25). Specific coping methods will be discussed below.

Psychological. The emotional stresses of a job can have "pervasive and profound emotional and physical effects on the lives of workers (Antoniou & Cooper, 2005, p. 441). Paramedics often employ coping strategies similarly used by other emergency service workers:

> These include desensitization processes that are an actual part of some paramedic training, the use of dark humor and crass joking, overuse of technical jargon and a special working language, the ability to cognitively fragment scientifically and escape into paramedical work, and rationalization as to both the importance of the emergency medical function and the condition of the patient, that is, that the patients would have died no matter what. (Miller, 1995, p. 594)

Clohessy and Ehlers (1999) concur that paramedics employ rationalization to remind themselves that, without their intervention, their patients would have an even smaller chance of surviving.

When job-related factors mount up and combine with personal, relational and other 'life' factors "the strain sometimes becomes too much" (Miller, 1995, p. 594). Paramedics may need to "shut down their own emotions" (Regehr et al., 2002b, p. 510). Emotional numbing is one of the methods utilized by paramedics in order to cope with their stressful realities, and includes "avoiding experiencing the emotional impact of tragic events by consciously minimizing emotions and focusing on the cognitive aspect of the job" (Regehr, 2005, p. 99). This is clearly not the best coping strategy to use. Lowery and Stokes (2005) comment that emotional detachment is a "maladaptive coping strategy" (p. 177). Previous research has shown that failing to acknowledge and process emotions will adversely affect recovering from trauma. However, it is a well-established fact that various negative effects may be prevented if protective psychological factors are in place (Bonanno, 2008).

Cognitive. According to Regehr et al. (2002b) paramedics often use cognitive coping techniques in order to maintain focus and function effectively. To this end they may use visualization and distance themselves emotionally from patients and their families. They also seek information to achieve closure, and reframe events into learning experiences with the purpose of reframing their own lives. The authors note that the coping mechanism that respondents in their study most frequently cited was making use of cognitive strategies: "Paramedics described making conscious attempts during a traumatic event to shut out the emotional reactions of family members of the victim and visualizing the next technical step to be accomplished" (Regehr et al., 2002b, p. 510).

Naudé and Rothmann (2006) comment that possessing a high measure of 'sense of coherence' can assist paramedics with the following: understanding the contribution they make

through their work; the belief that they can manage; encourage them to identify with their work; and increase their ability to view their work as worthwhile. According to the authors, sense of coherence consists of three dimensions, namely, comprehensibility, manageability, and meaningfulness.

It appears that certain beliefs can function as a defence when confronted with adversarial occurrences: "[the] belief that the world operates in meaningful and coherent ways also has been shown to buffer posttraumatic reactions" (Rosen, 2004, pp. 22, 23), and that an internal locus of control may contribute to appropriately attributing responsibility in the event of a traumatic event.

The seminal work of Lazarus and Folkman (1984) refers when discussing the importance of appraisal as a cognitive function, particularly in the context of traumatic events. They define appraisal as being "the process of evaluation of the meaning or significance of an experience in terms of its relationship to one's well-being" (in Ursano et al., 1994, p. 19). According to Lazarus and Folkman (1984) people are able to distinguish between primary and secondary appraisal. Primary appraisal refers to the "evaluation of the perceived threat to well-being and safety, as well as the perceived challenge and the potential for gain and growth", while secondary appraisal refers to "an individual's assessment of what, if anything, can be done to prevent or decrease harm" (in Ursano et al., 1994, p. 19).

Emergency workers' appraisal and coping reveal four patterns of involvement: "obligations to heroism, each other, the public, and the job" (Paton & Violanti, 1996, p. 75). Sabin-Farrell and Turpin (2003) note that "a trauma worker's appraisals of the current situation, in particular their appraisal of their responses to trauma material, and also their coping strategies may influence how much they are afflicted by working with traumatic material" (p. 457).

McCammon (1996) presents the following additional cognitive coping methods which were identified by factor analysis: "seeking meaning, regaining mastery through individual action and through interpersonal action, and philosophical self-contemplation" (in Paton & Violanti, 1996, p. 75).

Social. Research findings confirm that the underlying personality factors of paramedics may moderate the traumatic stress symptoms they exhibit due to their perceptions of social support (Regehr et al., 2002a). Support systems may "act as buffers for the individual and help maintain psychological and physical well-being over time" (Gilliland & James, 1993, p. 554).

Families can be a significant resource for emergency workers as far as comfort, understanding, and emotional and instrumental support is concerned (Ursano et al., 1994). Aasa et al. (2005) similarly comment that "… high social support is considered to modify stress at work, and to serve as a buffer against health risks under stressful conditions" (p. 257). High levels of family support may reduce the impact of the highly stressful work that paramedics do resulting in them taking less mental health leave after a traumatic work experience (Regehr, 2005).

Lowery and Stokes (2005) cite research that suggests that social support from work colleagues, in addition to their professional support, is vital in lessening the impact of the traumatic events that form part of their job, and that this type of support provides "greater psychological protection" (p. 171).

A safe place, free from work stress, is therefore very important. The personal support system of paramedics, particularly their spouses, partners, children, parents, extended family, friends, and religious leaders is therefore imperative. This may greatly aid paramedics in coping with trauma (Regehr et al., 2002b).

Occupational. It is common for paramedics to turn to their work partners and peers in order to cope with the realities of their job. 'Gallows humour' and telling jokes are commonly used to relieve the awfulness of some situations.

Moreover, the psychological support services offered by the employing organizations of paramedics are imperative. It is essential that the counselling services offered are effective, both for individual and for group crisis debriefings. This will go a long way in helping paramedics to work through their work-related trauma (Regehr et al., 2002b).

Positive Coping. Positive coping can also be termed active or transformational coping. This type of coping is healthy because stressors are dealt with "by transforming high stress environments into benign experiences, such as engaging in problem-focus coping" (Eschleman & Bowling, 2010, p. 282).

Van der Ploeg and Kleber (2003) comment that most paramedics cope relatively well with the variety of incidents they have to deal with: "They appreciate their profession, in particular, taking care for patients may be rewarding and satisfying which makes it possible to cope with the negative aspects of the job" (p. 144). Paramedics find personal satisfaction in caring for others.

Alexander and Wells (1991) identified the following positive ways paramedics cope with traumatic events: humour, including so-called 'black' humour (as long as it is used only in context); talking with colleagues; and thinking about the positive aspects of the work.

Naudé and Rothmann (2006) found that paramedics experienced less burnout and more work engagement due to a "strong sense of coherence ... presumably because they are predisposed to experiencing stimuli from the environment in a positive manner" (p. 76). They were able to combat the effects of trauma through their support networks, as well as viewing their work as providing meaningful service. Paton (1996) similarly points out that positive outcomes may be generated by working in a highly traumatic environment, and that it can take

the form of "an opportunity for personal growth, stronger emotional bonds with significant others, and a heightened awareness of the need to live life to the full" (in Paton & Violanti, 1996, p. 222).

A great deal can be learned from paramedics' "successful coping and tremendous capacity to function in adverse circumstances and provide aid to others" (McCammon, in Paton & Violanti, 1996), and it is worth noting the positive impact being involved in rescue work has on their lives. It would therefore be invaluable to identify the coping strategies and methods of paramedics. Inoculation against the repeated risk of exposure to trauma during their training period could be effected and is of critical importance for successful coping (Fullerton, Ursano, & Wang, 2004).

Posttraumatic Growth

The concept of posttraumatic growth (PTG) can be construed as being a precursor of adversarial growth, one of the main constructs in this study, and will therefore be briefly described in order to contextualize the construct of adversarial growth.

The Concept of Posttraumatic Growth. Growth after trauma has been acknowledged for centuries and has been an important topic in both religion and literature, as well as in culturally related mythologies. According to Tedeschi et al. (1998) "existential psychologists have long recognized opportunities for growth in trauma and suffering, and have described trauma as a time when meaning may be created and courage may be found" (p. 4).

Throughout history, especially in the disciplines of psychology and psychiatry, there has been an almost singular focus on pathology and pathological behaviour, especially in those who have been exposed to traumatic events. Yet literature exists that describe how individuals are capable of coping successfully with negative events, and the measures that can be taken in preventing negative outcomes that has existed outside the prevailing "mainstream disease-oriented framework" (Tedeschi et al., 1998, p. 1).

Hitherto the phenomenon of growth after trauma has not received much attention and research has very much focussed almost exclusive on primary victims, the survivors of disasters, yet "increasing concern has been shown towards those whose duties require them to deal with many of the unpleasant consequences of disasters" (Alexander & Wells, 1991, p. 551).

The empirical and theoretical investigation into the topic of growth through adversity has only relatively recently become a research focus (Linley & Joseph, 2006). Tedeschi et al. (1998), tracing the evolution of the concept, comment that before the 1980s so-called posttraumatic growth was rarely explored and that it has only been since the mid-1980s, specifically in the 1990s, that "focused attempts to measure PTG and explore the relationship of this construct to other variables have developed" (p. 6).

Aldwin (2007) similarly notes that for quite some time certain researchers have suggested that positive effects may result from stress, and that in fact it may be "a necessary condition in order for individuals to grow as human beings" (p. 308). Hence, methodical research has been conducted in the last decade on the positive aspects of stress, and there has been a notable change in attitude towards the topic. Cadell, Regehr, and Hemsworth (2003) call attention to the fact that while research has provided growing knowledge about trauma, loss and the affected victims, "positive outcomes have long been overlooked in the investigation of how humans respond to these situations", and that "little research has been undertaken to examine the factors that contribute to growth" (pp. 279, 280). For this reason, post-traumatic growth is an important area of research:

> …focusing only on the negative sequelae of trauma and adversity can lead to a biased understanding of posttraumatic reactions. Any understanding of reactions to trauma and adversity must take account of the potential for positive as well as negative changes if it is to be considered comprehensive. (Linley & Joseph, 2004a, p. 11)

Posttraumatic growth research therefore "explore[s] *positive* changes and *enhanced* functioning following trauma (in other words, a person might grow *beyond* his or her pre-trauma level of adjustment)" (Baumgardner & Crothers, 2010, p. 67).

Researchers describe posttraumatic growth as being "wholly transformative and reflecting wisdom and a pervasive cognitive shift that is gained by relatively few of those who report positive changes following adversity" (Lopez & Snyder, 2009, p. 633). Staub and Vollhardt (2008) add that posttraumatic growth depends on how people interpret or evaluate the traumatic events, and not on the characteristics of the events themselves. It can be deduced that posttraumatic growth is not imposed externally, but is rather enabled intrapersonally (Linsey & Joseph, 2004b). Research findings in the area of posttraumatic growth may therefore offer an improved understanding of the capability that humans have to not only endure and survive adversity "but to actually thrive and become stronger as a result of them" (Park & Helgeson, 2006, p. 795).

Shakespeare-Finch and Enders (2008) state that a "growing body of evidence is forming that supports the concept of PTG, its dimensions and constructs" (p. 421). However, while there is "extensive literature on the delineation of the qualities of events that make them a threat to psychological adjustment and well-being, a similar identification still remains to be done in the area of PTG" (Tedeschi et al., 1998, p. 216).

Defining Posttraumatic Growth. Dealing with challenges in life and experiencing trauma can have various enduring effects: individuals may either remain weakened, return to their earlier level of functioning, or react by transcending their previous level of functioning. Researchers acknowledge that while exposure to adversity may have negative traumatic effects, it can also lead to positive consequences and changes in individuals' lives in the form of posttraumatic growth (Aspinwall & Staudinger, 2003; Durkin & Joseph, 2009; Linley & Joseph, 2004b; Tedeschi & Calhoun, 2004).

The term *posttraumatic growth* was coined by Tedeschi and Calhoun (1996), and is defined as the "reports of positive changes in individuals that occur as the result of attempts to cope in the aftermath of traumatic life events" (in Linley & Joseph, 2004b, p. 406). Posttraumatic growth is therefore the "beyond successful return to adequate functioning following trauma" (Ritchie, Watson, & Friedman, 2006, p. 40). Tedeschi et al. (1998) comment that this term best describes the phenomenon, because it focuses on the extent to which people develop "beyond their previous level of adaptation, psychological functioning, or life awareness" (p. 3).

Anderson and Lopez-Baez (2008) note that posttraumatic growth is "both an outcome (growth) and a process (struggle after a traumatic event)" (p. 215). Individuals who experience posttraumatic growth may initially not view the trauma as positive, but may come to believe "that good has come from having to deal with it" (Roberts & Dutton, 2006, p. 51). Posttraumatic growth is therefore not merely a return to a pre-trauma state, but an extension beyond growth, and the achievement of a higher level of well-being (Cadell et al., 2003). As a result of experiencing traumatic experiences, individuals may experience, for example, "meaningful life lessons, a renewed appreciation for life, and increased feelings of personal strength" (Baumgardner & Crothers, 2010, p. 66), or "develop a greater awareness of their capabilities" (Linley & Joseph, 2004b, p. 406).

People who help other people who are in crisis, like paramedics, may experience vicarious trauma-related growth (Aldwin, 2007). Research has shown that despite paramedics working in highly traumatic contexts, they find their work rewarding and have many positive experiences (Paton & Violanti, 1996). When applying the concept of posttraumatic stress to occupations, it can thus be noted that while workers testify as to experiencing job related stress, there are likewise indications that they may experience personal growth and positive change as a result of their work (Linley & Joseph, 2006).

Research has shown that not all trauma workers necessarily experience negative effects after exposure to secondary traumatic stress, and may even possess some 'defence mechanisms' that sustain their well-being. Collins and Long (2003b) describe this mechanism as 'compassion satisfaction'. The authors view this as being a necessary component for those working in human services, and point out the contradiction that workers who assist traumatized people can experience harmful effects while engaging in compassionate deeds.

Despite the risk of being exposed to trauma, paramedics persist in their work and may function well. The value of the application of the concept of posttraumatic growth to the emergency medical care profession is therefore apparent.

Adversarial Growth

Continuous exposure to trauma forms part of the nature of the emergency medical care occupation. As a result, paramedics may experience a lifetime of adversity, inclusive of all work-related vicarious trauma and its posttraumatic effects on them after retirement. Seery, Holman, and Silver (2010) refer to this reality as "cumulative adversity—the total amount of adversity experienced by a person" (p. 1026).

However, the fields of philosophy, literature, and religion have long acknowledged that positive changes may follow adversity (Linley & Joseph, 2004a). Seery et al. (2010) point out that recent research done on various populations have documented the fact that individuals exposed to prolonged periods of trauma frequently experience increased levels of distress, functional impairment, posttraumatic stress indicators, and decreased life satisfaction. However, researchers have also identified "U-shaped patterns, demonstrating a critical qualification to the seemingly simple relationship between lifetime adversity and outcomes" (Seery et al., 2010, p. 1035). This finding suggests the existence of an alternative outcome to the experience of adversity. Individuals that have overcome and survived the effects of traumatic events may therefore experience growth after the adversity, and can be described as

being “a movement toward more optimal function … prior to the event rather than simply the maintenance of a previous equilibrium” (Linley & Joseph, 2005, p. 263).

In order to express and explain the phenomenon of growth through trauma, various terms and concepts have been put forward. Compton and Hoffman (2013) note though that “differing nomenclature in the research on positive adaptation to crisis or trauma is a difficulty” (p. 189). Lechner, Tennen, and Affleck (in Lopez & Snyder, 2009) similarly point out that “research in this area has been plagued by a lack of uniformity in terminology and measurement” (p. 634).

Various terms have been suggested to ‘capture’ and describe the phenomenon of post-traumatic growth in individuals: stren (the opposite of trauma) conversion, positive psychological change, perceived benefits or construing benefits, stress-related growth, discovery of meaning, positive emotions, flourishing, thriving, positive illusions, benefit finding, blessings, positive-by-products, positive adjustment, and positive adaptation (Linley & Joseph, 2004a; Linley & Joseph, 2004b; Tedeschi et al., 1998; Park & Helgeson, 2006; Aldwin, 2007).

Linley and Joseph (2005) state that all these terms may be “collectively described as *adversarial growth*” (p. 263). For the purpose of this study the term ***adversarial growth*** is therefore utilized in lieu of other terms, in that it describes the reality of the trauma or ‘adversity’ paramedics are exposed to continuously in their profession. The concept of adversarial growth was thus introduced in order to describe the “constellation of positive changes reported by people following stressful and traumatic events … and captures … the essence of what this phenomenon is all about” (Linley & Joseph, 2006, p. 125). The following quote provides further motivation for the use of this term:

> ... growth seems to occur when a person’s experience is conflicting with their assumptions about themselves and the world. It is the conflict between experience of

> the world and our assumptions about the world that creates adversarial tension, in which the person must either revise their assumptions of the world to fit their experience or they must perceive their experience in such a way as to fit in with their assumptions. We propose that growth can occur when we revise our assumptions as a result of this adversarial tension, and we revise our expectations and assumptions about the world in a positive way. (Joseph & Linley, 2006, p. 125)

The discipline of psychology as a whole, and the field of positive psychology in particular, has increasingly acknowledged the hardiness of individuals. Linley and Joseph (2005) comment that people "use aversive events as a springboard for further growth and development" (p. 263). Indeed, a person may be 'transformed' as a result of experiencing adversity, and even exhibit increased levels of functioning after going through adversarial experiences.

Significant evidence of individuals returning to previous levels of functioning following exposure to adversity has been cited. However, adversarial growth denotes the "process of coping with adversity lead(ing) to higher levels of psychological functioning and well-being than previously experienced" (Seery et al., 2010, p. 1038). This attests to the fact that positive benefits may result from living through adversity.

Theoretical Approaches to Adversarial Growth. According to Splevins, Cohen, Bowley, and Joseph (2010) there are currently two influential and comprehensive theories of adversarial growth: the 'functional descriptive model of posttraumatic growth' of Tedeschi and Calhoun (1995, 2004) and the 'organismic valuing process (OVP) theory of growth' of Joseph and Linley (2005):

> Both theories postulate that trauma can challenge an individual's assumptive world, creating dissonance between pre- and posttrauma worldviews and causing significant psychological distress and schematic chaos. It is the drive to resolve such dissonance,

> and the rebuilding of the assumptive world in a meaningful way, that is perceived as growth, leading to changes in an individual's self-perception, relationships with others, and life philosophy. (Splevins et al., 2010, p. 261)

Splevins et al. (2010) further note that there are certain factors that both theories consider to be instrumental in moderating the experience of emotional distress, and which will result in a 'growthful' outcome, i.e. personality structure, social support, and coping style. However, OVP theory differs from the functional descriptive model in the sense that it unequivocally describes the "meta-theoretical assumptions of the term growth and deliberately uses the word to convey the idea of an intrinsic drive toward actualization that is sparked by trauma" (p. 261).

Janoff-Bulman's (1989, 1992) social-cognitive approach provides a context for both theories of adversarial growth as discussed above:

> … individuals develop and are guided by core assumptions about the self (self-worth, self-control, and luck), about general benevolence (of people and the world), and about the meaningfulness or predictability of events (justice, controllability, randomness). It is postulated that these core assumptions can be challenged or shattered by a traumatic event and may require revision in the light of new, trauma-related material. (Splevins et al., 2010, p. 262)

Janoff-Bulman (1992) suggests that event-related disorders are a significant risk for individuals when their usual assumptions and beliefs about their selves or their world are 'shattered' by invasive events, implying that the "brittleness of beliefs may be the deeper risk factor" (in Rosen, 2004, p. 24). His basic premise is that of 'shattered assumptions' in which any trauma-related information has to be processed by an individual, with a world based on new assumptions having to be constructed. Linley and Joseph (2006) describe the process as follows:

> The confrontation with an adverse event has a shattering effect on the person's assumptive world. Traumatic events show us that we are fragile, that the future is uncertain, and that life is not just. Traumatic events show us the limits of the human condition and bring into question our assumptions about ourselves and the world. (p. 130)

Recovery from trauma is therefore dependent on the assimilation of the memory of the trauma, or the revision of existing schemas in order to cognitively accommodate new information: "people are intrinsically motivated to find meaning and seek benefit in their experience" (Joseph & Linley, 2006, p. 131).

As discussed above, the three theories regarding adversarial growth and its outcomes all propose that a probable outcome of trauma is growth.

Variables Associated with Adversarial Growth. Literature has identified a number of variables that may be instrumental in individuals experiencing positive change following trauma and adversity. They are as follows:

- Cognitive appraisal – awareness and controllability of an event;
- Sociodemographic variables – gender, age, and income;
- Personality – extraversion, openness to experience, agreeableness, conscientiousness, self-efficacy, hardiness, and self-esteem;
- Problem- and emotion-focused coping;
- Acceptance;
- Positive reinterpretation;
- Religion;
- Social support;
- Cognitive processing; and
- Positive affect (Linley & Joseph, 2004a).

Pearlman and Mac Ian (1995) concur that the manner an individual adapts to trauma is a function of their personality, significant aspects of the traumatic event, as well as applicable social and cultural variables that would affect their psychological response.

Linley and Joseph (2004a) state that significant traumatic experience, "dealt with by means of positive reinterpretation and acceptance coping, in people who are optimistic, intrinsically religious, and experience more positive affect, is likely to lead to reports of greater adversarial growth" (p. 17). Calhoun and Tedeschi (in Tedeschi et al., 1998) add that certain pre-trauma factors may predispose individuals to adversarial growth, namely, hope and optimism; an open and complex cognitive style; being action-oriented; and the level of mental health before the trauma.

In the same way, Aldwin (2007) found predictors of stress-related growth as falling into the following five categories: stressor characteristics, demographics, personality, social support, and coping. Cadell et al. (2003) linked spirituality, social support, and stressors to influencing adversarial growth.

Schaefer and Moos (1998) present a summary of those factors that contribute to the effective adaptation to life crises as follows: the characteristics/nature of the crises; environmental resources (i.e. social and family support, community groups and resources, and the post-crisis environment); personal resources (age, gender, marital and socioeconomic status, self-confidence, ego-resiliency, optimism, and prior crisis and coping experience); and appraisal and coping (in Tedeschi et al., 1998).

The Positive Effects of Adversarial Growth. Various researchers have commented on the effects traumatic events have on individuals' beliefs about themselves and their world:

> … some type of meaning making or cognitive processing to rebuild those beliefs and goals occurs, resulting in perceptions that one has grown through this process … growth emerges from a period of inquiry in which one attempts to make sense of a

> traumatic life event, including its causes and implications … reports of growth emerge from a need to make sense of a traumatic event and restore one's beliefs about the self and the world. (Park & Helgeson, 2006, pp. 793, 794)

As such, Boals, Steward, and Schuettler (2010) note that studies on adversarial growth should focus whether "the event challenged the individual's core beliefs and view of the world" (p. 520).

The overview of literature in the preceding sections has established that the experience of trauma, whether primary or vicarious, can lead to adversarial growth and have "positive effects that transcend simple adjustment and coping" (Taylor, 2012, p. 32). The consequences of this growth could be described as "a qualitative change in functioning across domains" (Taylor, 2012, pp. 32, 33).

While the previous three paragraphs have addressed the 'philosophical' effects of adversarial growth, some detailed effects will next be presented. Linley and Joseph (2006) note that growth through adversity has three main facets, namely: enhanced relationships; changed views of self, e.g. greater sense of resilience, wisdom, strength, and an increased acceptance of their vulnerabilities and limitations; and a changed philosophy of life (p. 124). Watson et al's. (2006) summary of the three broad domains of growth after trauma overlaps significantly with the preceding authors: changed sense of self; changed relationships; and a changed philosophy of life (in Ritchie et al., 2006, p. 40).

Roberts and Dutton (2009) likewise note that adversarial growth can result in more meaningful interpersonal relationships and a greater sense of personal strength, while Taylor (2012) adds the following: a new sense of possibility, a new appreciation of life, and spiritual development.

Tedeschi and Calhoun (1995) provide a categorization of the benefits of living 'beyond' trauma, as per the following list:

- Perceived changes in self: self-reliance and vulnerability;
- Increased self-reliance and personal strength;
- Recognition and appreciation of vulnerability;
- A changed sense of relationship with others;
- Self-disclosure and emotional expressiveness;
- Compassion, empathy, and effort in relationships; and
- A changed philosophy of life (pp. 30 - 40).

In addition to the benefits listed above, Lechner, Tennen, and Affleck (2009) add the following:

- A heightened sense of the preciousness and fragility of life;
- An enhanced appreciation of the little things in life;
- Redirected priorities; and
- A new openness to spiritual or religious experiences (in Lopez & Snyder, 2009).

In contrast to the heavy negative emphasis generally found in literature, positive psychology offers a more optimistic and affirming alternative viewpoint on post-trauma effects. It becomes especially significant in the context of the emergency medical care industry, and the work of paramedics in particular. The relevance of the application of the positive effects and benefits of adversarial growth to the practitioners of this occupation should be apparent. The outcome may certainly be that they are "more motivated to persist and be successful even beyond the level at which they were before the adverse event" (Bakker & Leiter, p. 56).

It is evident that there are many positive effects of great import that individuals in general, or members of specific occupations may experience after being exposed to various forms of trauma. In addition to the positive effects gained from experiencing adversarial

growth, as described above, there are two further constructs that are closely and significantly aligned with the manifestation of adversarial growth in an individual's life, namely 'resilience' and 'meaning', and will be discussed in the following two sections.

Resilience and Adversarial Growth. Synonyms for the word 'resilience' abound – hardiness, toughness, strength, and flexibility to name but a few. It is evident that resilience is embedded in the construct of adversarial growth, as was defined in a previous section. Seery et al. (2010) note that "coping with adversity may itself promote development of subsequent resilience" (p. 1037). Literature on adversarial growth and resilience is interrelated as the focus for both is the strength that humans exhibit despite being exposed to difficult life events (Baumgardner & Crothers, 2010). Carver (1998) suggests four possible outcomes regarding an individual's response to adversity:

> … a continued downward slide … in which the initial detrimental effect is compounded and the individual eventually succumbs… the person survives but is diminished or impaired in some respect… a return to the pre-adversity level of functioning… [and] the person may not merely return to the previous level of functioning but may surpass it in some manner. (p. 246)

It is the latter approach that may be termed *resilience*.

Definitions of resilience abound. The following selection may be taken as being representative: "Resilience is a dynamic and multi-dimensional process of adaptation to adverse and/or turbulent changes in human, institutional, and ecological systems" (Almedom, 2008, p. S11); "a personality characteristic that moderates the negative effects of stress and promotes adaptation" (Jacelon, 1997, pp. 123, 124); and, "a class of phenomena characterized by *good outcomes in spite of serious threats to adaptation or development*" (Masten, 2001, p. 228). Resilience may further be defined as "the process of adapting well in the face of adversity, trauma, tragedy, threats, or even significant sources of stress" (Ritchie et al., 2006, p. 37); or

"a broad array of abilities for constructively and positively adapting to risk, adversity, or some monumental negative event" (Compton & Hoffman, 2013, p. 190). Individuals are resilient when they "respond[s] favorably to a significant event that would otherwise produce a major decrease in well-being. Resilient people 'bounce back' from difficult situations" (Compton & Hoffman, 2013, p. 190).

According to Luthar, Cicchetti, and Becker (2000) resilience refers to a "dynamic process encompassing positive adaptation within the context of significant adversity" (p. 543). These authors draw attention to the fact that the definition includes two critical conditions, namely that for resilience to develop there needs to be exposure to substantial threat or serious adversity, and that positive adaptation may be achieved in spite of significant attacks on the developmental process. Resilience may also be described as "successful adaptation or the absence of a pathological outcome following exposure to stressful or potentially traumatic life events of life circumstances" (Seery et al., 2010, p. 1025). Bonanno's (2008) definition of resilience adds the following aspect: "the ability to maintain a stable equilibrium … more than the simple absence of psychopathology" (p. 102). Resilient individuals function healthily, having the capability for generative experiences and positive emotions.

Although definitions for the concept of resilience abound, central components may be discerned. Masten and her colleagues (2000) describe them as follows: "(1) at-risk individuals show better-than-expected outcomes, (2) positive adaptation is maintained despite the occurrence of stressful experiences, and (3) there is a good recovery from trauma" (in Luthar et al., 2000, pp. 544, 545). It is thus recommended that the term be used exclusively only when referring to an individual's ability to maintain positive adjustment when facing challenging life circumstances.

Bonanno (2008) makes the assertion that resilience may be more common than we think, and that there are "multiple and sometimes unexpected pathways to resilience" (p. 101).

Ritchie et al. (2006) concur regarding its frequency and that it "derives from the basic human ability to adapt to new situations … dependent on circumstances and individual variations" (p. 38). Seery et al. (2010) comment that while the psychological and social resources, which form part of resilience, help people endure adversity, "coping with adversity may itself promote development of subsequent resilience" (p. 1037). Furthermore, a by-product of resilience, psychological thriving, may also result in benefits for the individual as far as an increase in skills and knowledge, confidence, strengthened personal relationships, altered life philosophy, coping, and spirituality are concerned (Carver, 1998; Cohen, Cimbolic, Armeli, & Hettler, 1998).

Many individuals are able to withstand potentially traumatic events, with seemingly very little interference in their normal work or relational functions. Certain resilience characteristics may thus be differentiated. Semmer (in Schabracq et al., 2003) believes that resilient people deal with reality in a unique manner, and provides the following profile: They are likely to interpret their environment as 'benign'; accept setbacks and failures as normal and are able to put negative experiences into perspective; believe that they can influence life and act on it and perceive stressful events as being a challenge; and exhibit emotional stability while tending not to experience negative emotions.

A positive consequence of posttraumatic adaptation could come about when those exposed to the trauma notice positive changes or personal growth taking place in their lives that result from their struggle with said traumatic events (Cieslak et al. 2013). According to Quiros (2010), resilience and thriving are therefore likely to develop in an individual after trauma, and cites the following quote from Joseph and Linley (2008) which makes the link between resilience and posttraumatic growth:

> An enduring wonder of human nature is that many people respond to traumatic events by experiencing posttraumatic growth. They often become stronger personally and deepen their connections to other people as well as their faith life. (p. 119)

However, it is important to note that it is individuals' psychological and social resources that most effectively helps them endure adversity (Seery et al., 2010).

When addressing resilience in the work place, Lambert and Lambert (1999) note that the presence of psychological resilience in an individual is a benefit when having to deal with stressful work related events. Not only can resiliency function as a safeguard in stress-inducing work demands, it may also contribute to "undo the negative effects of past stresses" (Bakker & Leiter, 2010, p. 62).

In the context of the emergency medical care industry, rescue work is frequently hazardous and challenging, and results in traumatic effects for paramedics, i.e. health problems, both physical (possible fatal injury) and psychological, and that even though "rescue workers may suffer disaster-related health problems, their health seems to be affected less than that of primary victims, which suggests some level of additional resilience" (Morren et al., 2007, p. 1279). As Snyder and Lopez (2006) state, resiliency is hardiness in the face of trouble or failure.

Although trauma work therefore includes direct personal exposure as well as the risk of work-related vicarious exposure, "it would seem that the human spirit, while clearly breakable, is remarkably resilient" (Collins & Long, 2003b, p. 422). Alexander and Wells (1991) add that, notwithstanding the nature of their work, paramedics conduct their duties effectively, and emerge "relatively unscathed, and some even seem to have gained from their experiences" (p. 551).

The construct of resilience accentuates how individuals can return to pre-trauma functioning – and beyond – after adversity. Both literature and research therefore suggest that,

given the right circumstances, "experiencing life adversity may foster subsequent resilience" (Seery et al., 2010, p. 1025).

Adversarial Growth and Meaning in Life. Park, Cohen, and Murch, (1996) state that "it is possible that the tendency to find or create positive meaning in stressful situations is, to some extent, a stable characteristic of the individual" (pp. 101, 102). Having meaning in life is very closely related to dealing with life. In this context meaning may refer to "people's enduring belief and valued goals, to their assumptions about order and to their life goals and purpose" (Dierendonck, Garssen & Visser, in Antoniou & Cooper, 2005, p. 623). It is important to note in this context that "positive meaning can be obtained by finding benefits within adversity" (Fredrickson, 2003, p. 335).

Viktor Frankl, a renowned existential theorist, believed that the most important motivation in life is to strive for meaning. Frankl, a psychiatrist who conducted a scientific study of the concentration camps during World War II while himself an inmate, stated that "the maintenance of a sense of meaning or purpose in life (is) critical to survival" (Aldwin, 2007, p. 226). Frankl (1978a) himself added that "meaning must be found and cannot be given [and is] something to discover" (p. 113).

Existentialists take the view that humans need "to believe that their lives are meaningful, that the things they do are useful, important, even 'heroic'" (Pines, in Antoniou & Cooper, 2005, p. 579). Sources of life meaning are described as follows by Frankl (1978b):

> … man not only finds his life meaningful through his deeds, his works, his creativity, but also through his experiences, his encounters with what is true, good, and beautiful in the world, and last but not least, his encounter with others, with fellow human beings and their unique qualities. (p. 16)

Purpose in life is closely correlated with meaning in life, and can be described as "the capacity to find meaning and direction in one's experiences, as well as to create and pursue

goals in living, is profoundly grounded in confrontations with adversity" (Ryff & Singer, in Aspinwall & Staudinger, 2003, p. 277). The working reality of paramedics consists of being confronted with primary and vicarious trauma on each shift. Yet it is their singular intention to be of service, to treat and assist their patients. This can be seen as being their purpose in life.

Frankl (1978b) states that the "meaning of life must be conceived in terms of the specific meaning of a personal life in a given situation" (p. 17). The analogy may thus be drawn that an individual's occupational situation – their work – is inextricably part of their personal life, and often defines it. Meaning must therefore be created from it and through it. This is undoubtedly true for paramedics. Research ought to focus on work and its various aspects, specifically in order to "explore more fully the positive sides, so as to gain a full understanding of the meaning and effects of working" (Snyder & Lopez, 2005, p. 715).

It has been documented that both individuals and groups "actively construct the meaning of traumatic events" (Ursano et al., 1994, p. 20). 'Meaning making' is a dynamic process which could affect the outcome of traumatic experiences, while at the same time being affected by the trauma. It is the objective of this study to show that adversity, or the vicarious trauma experienced as a result of a particular critical occupation, need not be negative, but in fact may result in personal and professional growth after and through the trauma – adversarial growth.

Conclusion

This chapter presented an overview of literature related to the core components of this study: the emergency medical care profession; vicarious trauma; and posttraumatic and adversarial growth.

Chapter 4

Method

The aim of methodology, according to Brannen (in Seale, Gobo, Gubrium, & Silverman (2004), is to "help us *understand* … in the broadest possible terms, not the products of scientific enquiry but the process itself" (p. 312). This study followed an idiographically focused qualitative design in order to "explore lived experience and ascertain how individuals react to and are changed by significant life events" (Taylor, 2012, p. 33).

Doing research on existing groups, like paramedics, are useful in determining "norms and isolating factors that affect reactions through appropriate contrast [and whether] different patterns of individual reactions exist within pre-existing groups" (Paton & Smith, in Paton & Violanti, 1996, p. 49). Comparisons both within and between similar groups are thus facilitated.

Qualitative methods "are particularly oriented toward exploration, discovery, and inductive logic… the researcher attempts to make sense of the situation without imposing pre-existing expectations on the phenomenon or setting under study" (Patton, 1990, p. 44). Qualitative approaches to research also facilitate "*understanding of experience and processes*" (Harper & Thompson, 2012, p. 5). I elected to utilize a qualitative approach for these very reasons, as the approach lends itself particularly well to the exploration of personally lived experience. It was therefore deemed appropriate to explore the topic and main constructs of this study, that is, vicarious trauma and adversarial growth in a sample of South African paramedics. Interviews were conducted eliciting the narrations of a sample of paramedics for the purpose of their exploring their experiences and perceptions of the critical occupation they are engaged in.

Research Design

Not many qualitative studies in positive psychology have been done in South Africa. Local proponents like Strümpfer and Wissing have "urged that qualitative research is necessary to explore the field of fortology" (Coetzee & Viviers, 2007, pp. 487, 488), defined in this article as the study of the 'origin of strengths'.

Qualitative research methods "permit the evaluator to study selected issues in depth and detail. Approaching fieldwork without being constrained by predetermined categories of analysis contributes to the depth, openness, and detail of qualitative inquiry" (Patton, 1990, p. 13). A characteristic of qualitative methods are that they yield in-depth information about much smaller numbers of participants, with the researcher assuming the role of the 'instrument' in qualitative inquiry. Utilizing interviewing and observation, qualitative researchers focus on individuals' point of view (Seale et al., 2004).

Holloway and Biley (2011) offer a profile of qualitative researchers, asserting that they are scientists, with science being comprised of the "production of systematic knowledge which the researcher collects, transforms, and interprets" (p. 970). Qualitative researchers should be open as far as interpretations and explanations are concerned in order to guard against inflexibility in the study. This approach should then ensure the provision of rich descriptions that focus on meaning, thus enabling in-depth analysis (Holloway & Biley, 2011). The participants of this study indeed provided rich descriptions when describing the realities of their job, allowing for multi-tiered analysis to take place.

Qualitative research can be described as involving a three-part sequence of questions. The first stage concerns the primary and secondary research questions. The second stage concerns the questions that participants have responded to during, for example, interviews. Lastly, the third stage consists of the questions that guide the coding and analysis of the data (Braun & Clarke, 2006). This study similarly applied the stages as described in the sequence

above when investigating the research questions: I had a series of research objectives; I formulated questions to ask participants in interviews; lastly posing questions to the data itself, thereby developing the themes that comprise the data analysis.

It is important for qualitative researchers to be accountable, both "for the choice of data and for their interpretations", and to take cognisance of the "emotions and some of the motives of all participants – both their own and those of the people with whom they do the research" (Holloway & Biley, 2011, p. 970). The authors emphasize that reflectivity and reflexivity are very important in qualitative research:

> Reflectivity means that they take a critical stance to their work when they have completed it. Reflexivity is about the researchers' own reactions to the study, their position and location in the study, and the relationships encountered, which are reciprocal. (Holloway & Biley, 2011, p. 971)

I endeavoured to be respectful at all times, not only to the content that the participants shared, but also to the manner it was shared with me and the emotions that were elicited. I was profoundly affected by the experiences of the participants, and greatly appreciate their honesty and openness when recounting not only their professional realities, but also in how they have been personally affected to date in their careers. Reflectivity and reflexivity were equally applied in the process of presenting their subjective experiences in an objective manner.

Participants

The research was conducted utilizing both public and private emergency medical care organizations. Permission was obtained from the relevant authorities at Western Cape Government Health: Emergency Medical Services, and ER24, a private emergency medical care company, to recruit a sample of paramedics from randomly selected ambulance bases.

Purposive sampling was employed in order to secure participants. Potential participants who fulfilled certain criteria were identified within the specified "range of

situations in order to maximize variation" (Seale et al., 2004, p. 448). The value of purposeful sampling lies in being able to select information-rich cases for in-depth study, these cases being "those from which one can learn a great deal about issues of central importance to the purpose of the research" (Patton, 1990, p. 169). The sample of paramedics sourced by means of this method provided rich narratives which allowed for a meaningful exploration of the research objectives under study.

The following research criteria were utilized in order to secure a group of paramedics diverse enough to elicit responses, both factual and experiential, from the interview questions presented to them:

1) Professional level gained: Had completed either the intermediate or / and advanced life support level and duly registered as EMC practitioners; and
2) Length of service: Had completed at least two years of full-time service.

Although a sample size of approximately ten participants was initially projected in order to accommodate the long-interview method of data collection, eighteen interviews were eventually conducted due to the availability of paramedics that fit the participant criteria as outlined above. The participants were interviewed at six Metro Western Cape, and six ER24 ambulance bases. The sample consisted of eleven males (61%) and seven (39%) females.

It would be very challenging for any qualitative approach to reflect the views of all representatives of a particular occupation or organization within a profession. However, Regehr et al. (2002), in a study using a sample of paramedics, comment that while it may be impossible to reflect the views of all EMC practitioners in all organizations, it is possible to portray "a particular phenomenon experienced and described by one group of paramedics" (p. 512). It was therefore the objective of this study to describe and present the views and realities of paramedics from both public and private South African EMC organizations.

Data Collection

Verbal interview data are "at the root of thematic research" (Joffe, in Harper & Thompson p. 212). For this study, open-ended interviews were therefore conducted and constituted the primary data collection method. Such interviews have the advantage of focussing participants' thinking in relation to specific topics "where it may be preferable to gain a more naturalistic inroad into people's meaning systems concerning the phenomenon under study" (Joffe, in Harper & Thompson, p. 212). In this way all participants' views may be included, thus providing the opportunity of exploring individuals' unique perceptions whilst ensuring that they retain a degree of control during the proceedings (Frith & Gleeson, in Harper & Thompson, 2012).

Face-to-face, semi-structured interviews were conducted with the eighteen EMC participants. The interviews were designed around an organized set of themes, with all participants guided through the same sequence and wording of questions (Patton, 1990). Employing a semi-structured interview format ensured that themes were explored in a standardized manner, and allowed the interviewer to pursue unexpected and unique avenues with individual participants as they occurred (Regehr, 2005). The sample size proved to be sufficient for reaching data saturation, in that no different themes became apparent.

The interview themes were presented to the participants in the form of open-ended questions with the aim of encouraging conversational dialogue and eliciting focussed, meaningful experiences. Interviewees were thus allowed to "respond in their own words [and] express their own personal perspectives" (Patton, 1990, p. 287). Moreover, this interview format served the function of minimizing interviewer effects as the same questions were asked to all participants in a systematic manner.

However, in order to allow the participants freedom of response as well as the opportunity to respond to the questions as comprehensively as possible, I allowed for flexibility

as far as the wording of the questions were concerned. Participants were thus able to concentrate on the most significant aspects of their experiences (Taylor, 2012).

All interviews were conducted in the participants' mother tongues, that is, English or Afrikaans. Sixteen interviews were conducted in English, and two in Afrikaans. See Appendices D and E for the interview schedules.

In order to ensure data accuracy interviews were audiotaped and transcribed thereafter (Regehr et al., 2002). Each phrase and sentence of the interviews were repeatedly listened to before being typed phonetically. The interchange between me and the participants were indicated using an "I" (Interviewer) and "P" (Participant). Significant pauses and periods of silence were indicated with the symbol (.). Participants' coughing, laughter, and interruptions were indicated in square brackets.

The data was transcribed and coded in the original language of the interview. Extracts from the two Afrikaans interviews used in the text were translated into English.

Procedure

Once authorization and ethical clearance had been granted by both EMC organizations, meetings were scheduled with the branch managers at the respective Metro and ER24 ambulance bases. In consultation with the managers, a group of potential participants were identified who match the research criteria. The potential participants were contacted either by the managers or myself to confirm their willingness to take part in the study. In the event that the potential participants were not willing to be interviewed, additional potential participants were identified at each base and were placed on a reserve list.

The selected participants were contacted after receiving feedback from the base managers. The objectives of the study were briefly explained and they were requested to participate in an interview for the purpose of exploring certain elements of their work experience. All the participants' questions were addressed and they were provided with

clarification where needed regarding their participation in the study. Full confidentiality and anonymity was assured.

Assenting participants were informed that they would be requested to sign a prerequisite consent form before the interview was conducted. Appointments to conduct the interviews were scheduled with those participants who confirmed their availability. Arrangements made with each participant to conduct the interview at a time and venue of their own choosing. It was stipulated that the interview venues be private and free from distraction.

On the appointed day and time, I met with each participant and secured written informed consent before commencing with the interview. In order to set participants at ease and build rapport, participants were again provided with a brief overview of the study, and assured of confidentiality and anonymity. A semi-structured interview was then conducted, with participants being requested to share their experiences regarding a selection of themes pertaining to their occupation.

Interviews were audiotaped in order to ensure accurate source data for the purpose of transcription. Each participant was given the opportunity to choose a pseudonym, which, in the event of them being quoted, would ensure that they were not identifiable thus safeguarding their anonymity. However, no participant chose to make use of this provision and accepted the codes as awarded, i.e. Metro#1 – 9 and ER24#1 – 9, consequently granting permission for their interview data to be identified in this manner.

The audiotaped interviews were transcribed over a period of approximately six months. On completion of the process copies were made of the transcriptions and, together with a cover letter, dropped off at the ambulance bases. Participants were therefore offered a chance to peruse their transcribed interviews and send in any comments for correction, thereby ensuring an opportunity for the verification of the accuracy of their interview records. No comments

were received from any of the participants, and it was therefore assumed that the participants accepted the transcribed records of their interviews as presented.

A counselling psychologist, fully informed about the study, was contracted in the event that any participant required debriefing after their interview due to experiencing any emotional or psychological discomfort. The psychologist was available immediately following the interviews, and for a period of up to two weeks after the interviews had taken place. No participants made use of this provision.

Thematic Analysis

Thematic analysis, a qualitative research approach, was selected and utilized as the overarching method for the purpose of analysing the data in this study. A seminal article by Braun and Clarke (2006) describes thematic analysis as being "a method for identifying, analysing, and reporting patterns (themes) within data" (p. 79). Thematic analysis organizes and describes data sets in a detailed manner, and lends itself to interpreting various aspects of a research topic. A full, rich description of a particular theme, or groups of themes, from within the data may be extracted. Thematic analysis therefore involves "searching across a data set … to find repeated patterns of meaning … of what was done, and why" (Braun & Clarke, 2006, p. 86).

A thematic approach is versatile in the sense that it does not prescribe to any pre-existing theoretical framework and can consequently be employed very effectively within the positive psychology theoretical framework. According to Braun and Clarke (2006), the main phases of thematic analysis can be summarized as follows:

1) Familiarization with data;
2) Generating initial codes;
3) Searching for themes;
4) Reviewing themes;

5) Defining and naming themes; and

6) Producing the report (p. 87).

The authors argue that employing a 'rigorous' thematic investigation can result in "an insightful analysis that answers particular research questions" (Braun & Clarke, 2006, p. 97). This statement describes my motivation to utilize this particular qualitative technique.

An alternative description of thematic analysis can be found in the work of Boyatzis (1998), where he defines it as follows:

> Thematic analysis is a process for encoding qualitative information. The encoding requires an explicit "code". This may be a list of themes… A theme is a pattern found in the information that at minimum describes and organizes the possible observations and at maximum interprets aspects of the phenomenon. (p. 4)

Boyatzis (1998) notes that thematic analysis can be utilized as a tool for the following purposes: seeing; making sense out of seemingly unrelated material; analysing qualitative information; and systematically observing. These applications enable researchers to "use a wide variety of types of information in a systematic manner that increases their accuracy or sensitivity in understanding and interpreting observations about people, events, situations, and organizations", and therefore allows researchers to "access a wide variety of phenomenological information as an inductive beginning of the inquiry" (Boyatzis, 1998, p. 5).

The stages of thematic analysis may alternatively be described as follows:

1) Sensing themes – recognizing the codable moment;

2) Doing it reliably – recognizing the codable moment and encoding it consistently;

3) Developing codes; and

4) Interpreting the information and themes in the context of a theory or conceptual framework – contributing to the development of knowledge (Boyatzis, 1998, p. 11).

Finally, thematic analysis can also be defined as a "method for identifying and analysing patterns of meaning in a data set … illustrat[ing] which themes are important in the description of the phenomenon under study" (Joffe, in Harper & Thompson, 2012, p. 209). Ideally the analysis should result in extracting the most significant meaning patterns that are present in the data set. Themes are therefore central to this type of analysis, and contain both manifest (explicit) and latent (implicit) content. The following quote provides a concise summary of thematic analysis:

> TA facilitates the gleaning of knowledge of the meaning made of the phenomenon under study by the groups studied and provides the necessary groundwork for establishing valid models of human thinking, feeling and behaviour. However, TA is among the most systematic and transparent forms of such work, partly because it holds the prevalence of themes to be so important, without sacrificing depth of analysis. (Joffe, in Harper & Thompson, 2012, p. 210)

The process and functions of a thematic approach as described above by Braun and Clarke (2006), Boyatzis (1998), and Joffe (2012) were found to be applicable and relevant to this study.

However, I found the method of thematic analysis as described and presented in literature to be rather abstract and difficult to decipher as far as its practical application was concerned. It was challenging to conceptualize a predominantly theoretical process and to convert and operationalize it into a functional analysis system. The analysis of the data revealed two distinct analytic categories, and the interpretation of the practical thematic analysis process is thus presented in the following two sections.

Descriptive Analysis. Participants were requested to elicit factual information to three interview questions regarding the following:

1) Their studies and training, and whether they were of the opinion that it prepared them adequately for the job:
2) The support services available to them in their respective organizations, together with comments concerning its efficacy; and
3) The various coping strategies and mechanisms they employ in order to deal with the effects of their work.

The content of these responses are thus best presented in a descriptive format.

Experiential Analysis. The thematic approach proved to be a very effective method for processing and coding the transcribed interviews of the participants. It enabled me to extract units of meaning and formulate themes from my sample's reported experiences, hence permitting me to provide a voice to the narratives of the eighteen paramedic participants.

Multiple readings were made of the transcriptions, where after summarized units of meaning were noted in the margins for each interview question. The meaning units were mapped by means of grouping recurring facts or concepts together. Codes were next isolated by identifying meaningful and overlapping units of data sets. A data-driven approach was therefore employed for the coding process, "constructed inductively from the raw information" for the purpose of "enhanc[ing] appreciation of the information" (Boyatzis, 1998, p. 30).

Themes were extracted by employing a 'mapping' approach, similar to a mind mapping technique. Four core themes were isolated when engaging with the eighteen coded data sets. Themes were therefore not randomly imposed upon the data. These four themes are not deemed exhaustive of all themes that may be analysed in future. However, they captured the diversity and nuance of my eighteen participants' narratives in a manner that made it possible to relate the content of their experiential accounts to the research questions and

theoretical focus of this study. The core themes are: *Service*, *Realism*, *Changed Life Perspective*, and *Mortality*. Relevant descriptive quotes were sourced from the transcribed texts and inserted under each theme.

It was immediately apparent though that the four core themes could not and did not include a number of sub-themes. This became evident after analysing the selected extracts. Significant common or repetitive sub-themes from the quotes were therefore extracted and grouped together, again making use of a mapping technique. Another reading of the transcriptions was done to ensure that theme saturation had been reached. The sub-themes were categorized and additional significant quotes were collected from each transcription and inserted where relevant.

After a general introduction and description for each key theme in Chapter 5, each sub-theme will therefore be discussed by integrating and synthesizing data across all transcriptions. Differences and similarities, not only between the eighteen participants, but also between the two organizations will be presented and discussed. Comments are added if deemed significant, contribute to clarity of meaning, or provide an enhanced understanding, even if from only one participant. The thematic analysis process therefore effectively ensured that themes and sub-themes were inductively derived from the raw data.

Personal Reflection. The thematic analysis components as described by the literature cited earlier in the chapter were all evident, both in the independent operationalization process that emerged from engaging with my participants' narratives, and the practical application process. The methodical procedure allowed for the systematic organization of rich description that resulted in the identification of meaning patterns, and therefore serves as corroboration of the qualitative process. All participants had the opportunity to correct, disagree or comment on their transcribed interviews. As no feedback was received this can be taken as a measure of agreement, and therefore trustworthiness. Furthermore, all analyses were discussed with the

supervisor of this study throughout the analysis process and, where necessary, corroboration took place in order to reach a consensus of opinion. In this manner the reliability and validity of the analyses were addressed.

Ethical Clearance

Before commencing with the study and the fieldwork, authorisation and ethical approval was sought from the Stellenbosch University Research Ethics Committee: Human Research; the Western Cape Government: Health Emergency Medical Services; and ER24, a private EMC organization. Each organization was provided with the research proposal for this study, which included the objectives of the proposed study.

Ethical concerns were addressed by way of active inclusion and consultation with the relevant stakeholders as follows:

- Dr Heike Geduld (Clinical Head: Education & Training, Emergency Medicine Institute of South Africa);
- Dr Stevan Bruijns (Chair: Emergency Medicine Division Research Committee);
- Dr Shaheem de Vries (Head: Emergency Medical Services, Western Cape Government Health);
- Mr Willem Stassen (Chair: ER24 Research Committee);
- Ambulance branch managers where interviews were conducted; and
- The participants in the study.

Please see Appendices A, B, and C for copies of the ethical consent granted by the respective organizations.

Chapter 5

Results

This study utilized a qualitative research approach, and employed thematic analysis as method of investigation. Two dimensions of analysis were distinguished to aid the overall analysis: descriptive and experiential. The descriptive dimension captures the more practical, contextual aspects of the emergency medical care profession, while the experiential dimension explores the individual realities and sense-making processes of the participants. The various themes that were identified in the narratives of the participants will therefore be discussed under these two headings.

Descriptive Analysis

This section presents an analysis of the responses regarding the interview questions that required the participants to give information and express a factual opinion about aspects of their training and work. The questions concerned the following: the studies the participants had undergone to become a paramedic and whether, in their view, they were sufficiently prepared for the job; the characteristics of effective paramedics according to the participants; the nature and efficacy of organizational support services; and the coping strategies and mechanisms employed by paramedics in order to deal with the effects of their work.

Qualifications and Training. In South Africa there are currently two routes that can be followed in order to become a professional paramedic, namely, the short course and the university study route. During the interviews it became apparent that these two different routes of study and training resulted in two types of realities. The older participants were predominantly trained by the short course system (a fact which was corroborated by all of them), while the young participants had mostly qualified through the university route. In the course of the interviews the more senior participants, especially the base managers (who, as could be expected, were somewhat older), often referred to and used the distinction of the two

training routes to express their frustration regarding, in their view, the 'unpreparedness' of the younger paramedics and the struggles they experienced on the job because of this.

The two different training routes were therefore an emotionally charged and contentious issue, and clearly created somewhat of a tension between the differently trained participants that led to a certain vulnerability between the two groups. The short course trained paramedics viewed their level regulated, experience-based training as providing thorough preparation for the reality of the work, and considered the university trained paramedics – while acknowledging their sound academic knowledge – as lacking in practical preparedness to a certain extent. As a result, they were not able to be neutral regarding the issue of study and training. This context grounded all their responses, including how they make sense of their professional identities, their position within the industry, and even the trauma they are exposed to on the road from day one on the job.

In the following extract Participant Metro#5 addresses the different study and training routes, making reference to the National Qualifications Framework (NQF) as described in Chapter 3:

> *"… but uh things has changed nowadays you know … because uhm they said we have been subjected to the short courses and uhm now it's uh the NQF and I don't know what else that matters … tertiary institution as opposed to our ambulance college … training … which was more practical".* [Metro #5]

In this statement the participant categorizes himself as being short course trained, thus distinguishing himself from the university trained group. A certain defensiveness may be discerned, suggesting an 'us versus them' attitude. One of the reasons is that the university route is becoming more popular, and may be the only training route in the future.

Indeed, a number of the younger participants attested to the fact that for the past few years the university route has become more prevalent, largely due to the fact that the qualifications obtained are nationally recognized by the NQF.

Participants were asked to describe their practical training in addition to describing what and where they had studied in order to become advanced life support paramedics. They were also requested to express whether, in their opinion, their studies and training adequately prepared them for being emergency care practitioners in the context of the realities of what is termed a 'critical occupation'. These responses are presented below.

Metro Western Cape EMS. Participants very clearly distinguished between the short course training route as opposed to pursuing a university diploma or degree in Emergency Care. The branch managers and more senior participants included in the sample spoke very positively about the great value of learning through experience when completing the three short course levels, which included doing 1000 hours of practical work on the ambulances for each level. There was ample time to engage with the work, not only to gain experience in the many different situations they are exposed to, but also to acquire valuable knowledge in how to deal with the unexpected. Participant Metro#3 comments that the prescribed 1000-hour practicum requirement per level was more than adequate and that it provided on-the-job training:

> "*we had to have a thousand patient care hours in order to join intermediate my intermediate I also did at ems college and that also prepared you for that was more a more or a better preparation for what we do here on the road but it still don't uh uhm nothing compares to to actually being here and uh finding out things first hand".* [Metro#3]

According to this participant the short course method of training, specifically the 1000-hour practica in the ambulances and on the road that were required between each level, is the best preparation for the job. This model of practical training, when combined with the basic theoretical knowledge covered in the course syllabi is also endorsed by Metro Participant #6:

> *"I studied at ems uhm training college … I did all my three qualifications through them for my basic intermediate life support and advanced life support the difference uhm and and the positive out spin which we had during they they were called short courses ok but the the advantage of those short courses before I could go on and study to be an intermediate life support I needed to have a certain amount of experience practically on the road so I needed to go and get a thousand hours working on the road being exposed to all these things and I think the advantage that we had from the*

> *short courses to the new to the tertiary ones at the moment is the fact that that practical experience is is is missing … and and therefore you have these school leavers who come in all they see is the theory and they understand the theory and that but they cannot link the theory and practical together because there's that lack of experience which the short courses uhm covered for because we needed to go and get and when you're doing a thousand hours of patient care we're looking at another year before you can go and proceed to another qualification where these guys come out eighteen years old and they are allowed to do advanced life support skills uh whether or not they're emotionally capable of handling it if things go wrong I don't know".*

This participant concurs with Participant Metro#3 above that the 1000-hour practical experience the short course model offered was very advantageous in that it allowed for the linking of theory and practice, and is explicit in his opinion that, while the university training route produces qualified paramedics, they are too young and lack the experience and maturity to cope with the critical responsibilities of the job. The short course structure allowed for responsibility to be given to the trainee paramedics appropriate to the level (basic, intermediate and advanced), and that advancement took place 'naturally' with increasing experience.

It should be noted that Metro Participant #6 in the following extract is also a branch manager, and therefore speaks from experience regarding the difference between the two types of training, not only regarding his own training, but also as far as the field performance of the two differently trained groups of paramedics are concerned:

> *"… the short courses definitely eases you more … into the feel of emergency medical care because when you start off as a basic life support practitioner that's your first qualification that you have and although you're doing basic things on the road you're on that onus and responsibility is not really on you … cause you're not an advanced life support paramedic whereas we look at the tertiary guys … now that come at that age with an advanced life support qualification having to make decisions with people whose been working on the road for years … so you have an eighteen-year-old versus a thirty-four year old … with ten twelve years' experience whose calm who knows everything whose done everything and seen everything before there's going to be a mismatch … and therefore the short courses was definitely a way of how we could ease people into emergency medicine and that and the higher you went the more responsibility you got … until you decided no I actually want to be a paramedic because I've got enough experience I've seen a lot of the things where where the the guys obviously coming from tertiary institution is not exposed really to that so uhm ja".*

The participant draws attention to the 'age versus experience versus responsibility' disparity which results from the university study route. Graduates are still very young when

qualifying, and he again questions their maturational readiness. This is clearly highlighted in the extract.

Short-course trained participants were generally of the opinion that pursuing an Emergency Care diploma or degree programme at tertiary institutions consisted of a heavy emphasis on the academic – theory weighted very heavily with too little practical application.

Some participants found the degree curriculum frustrating due to all modules being compulsory, with certain modules included that they did not have an interest in, for example search and rescue, which includes high angle rescue and firefighting.

> "*I started with the degree course … basically it is very different to how we did it at ambulance college it has a lot more research and stuff that you do that is also good to do but … I learnt a lot I dropped out of my studies last year uhm but there were many things that I found to be not applicable to me on the road and if you take rescue I am not a rescue person … and I also won't go down in a mountain to fetch someone at the bottom or whatever there's rescue technicians that is speci specifically trained for that they are trained at Metro specifically for rescue and the one is specifically trained for a paramedic that works with patients … so if you look if you do the degree course then you must basically do rescue and paramedic and the the paramedic part I really enjoyed but the rescue part not at all … and it is just not me … yes you do your basic rescue it's basically all that I need if I go out to an accident … I must know how they must cut people out what is going to be best for my patient that's stuff you must know … so that's what I must know for my patient … so that's what I want … to go and abseil to go and dive … be in the mountain a bit we have rescue people that do that .. so that was basically not for me … so for me after all this time my training at Metro was for me more (.) for what I need on the road".* [Metro#9]

This participant is distinctive in that she was exposed to both types of study and training, thus enabling her to legitimately compare and comment on the advantages and disadvantages of both routes. She was of the opinion that the speciality related search and rescue modules should not form part of the general degree, and that students should be given a choice if they want to specialize, and cited this as the reason why she did not continue with the degree.

According to participants their primary objective in doing the degree was to gain knowledge and understanding in emergency care and receive practical training. For example, they saw the value of a research component being part of the study programme, but found it challenging. Some participants commented that it is quite common for a number of students to

complete all modules except the research module, and that the research projects consequently remain unfinished. This results in an incomplete qualification. One participant noted that he plans to return to university to complete his research project. However, some never do.

It is evident that the theory-oriented university programmes could therefore result in providing an inadequate connection to the practical exposure of on-scene realities and produce paramedics that are ill-prepared and have limited skills, thereby creating an experience deficit:

> "*… the actual work itself yes the training is absolutely fine I can do all the skills that's fine but they don't they can't prepare you for for what you're gonna see and you know how you're going to see it I don't think there's training for that other than actual exposure of it".* [Metro#4]

Here the participant is evaluating his own training experience, and provides an objective assessment of the insufficient preparation for the field. Not only does this extract bring home the reality of practical unpreparedness, but it also draws attention to the crucial question regarding paramedics' emotional and psychological preparedness. However, this applied to all the paramedics in the sample, not just the young and university trained. In this study, paramedics that qualified through both the short course and university routes seemingly did not receive adequate psychological preparation during their training equal to the stressful and traumatic nature of the job in addition to the demanding responsibility required from them – making decisions about life and death.

The branch managers in the sample expressed themselves very strongly regarding the youth of the paramedics that finish the diploma and degree programmes, and lamented their rapid progression to being fully qualified in contrast with the natural development that the short course model of training fostered. The managers commented on the young paramedics' emotional immaturity, and the effect of this on being granted too much responsibility too soon. In their opinion there is definite evidence of a mismatch between the young, academically trained – and in their view inexperienced – paramedics, and the older practically trained and more emotionally resilient paramedics that came through the short course system. The

dichotomy as regards training in the short courses versus university programmes was emphasized in the remarks of the branch managers when describing working with the differently trained paramedics, and could be viewed in terms of them attempting to make sense of the fact that no paramedic is immune to the traumatic effects of the job.

Finally, through the sample of paramedics in this study, the current challenges facing South African paramedics in the field were also highlighted, especially in the context of having to respond to calls in high-risk areas rife with crime and gang activity. Personal safety while on the job has become a serious concern. It is significant to note here that an ER24 participant remarked that her Metro colleagues were exposed to even greater safety risks due to the locations of the scenes they were called out to more frequently:

> *"... so I think there was a lot of frustration then uhm in the private service that we're in now there's not a lot that we have to identify with because we're not put in that in that same situation that the metro ... metro people are it's their people they're going out to their people that are stuck in this incredible poverty that are really getting the rough end of the gangs and the violence and that sort of thing so I'm sure they have a lot more to deal with than we in the private sector".* [ER24#8]

The high-risk reality is more evident for the national Metro emergency care service that usually caters for patients that have no medical benefits and are transported to state hospitals. In contrast, private EMC providers like ER24 and Netcare's services form part of medical aid benefits usually collect their patients in less high-risk areas and transport them to private hospitals.

ER24. It is significant to note that the ER24 participants responded almost identically to their Metro colleagues regarding Emergency Care studies and training, and made the same distinctions between the short course and university training approaches. They similarly viewed the short course approach with three distinct levels and 1000-hour practica between levels as providing thorough and comprehensive knowledge, as well as offering adequate in-service preparation for the reality of the job, including the psychological element:

> *"... we were trained with all the doctors that were doing their post qualification two year punishment service that we were allocated to six doctors and we ran with them for a year that's how we trained uhm I think we were adequately trained and and we were given you know we were we were put through the trenches there was no there was no pulling the wool over your eyes of what you were getting involved with and you were supported through it with qualified doctors qualified paramedics with you all the time you weren't allowed to make mistakes without people holding your hands so ja I definitely think we were put in a position you know where we could cope with things ... you know and the training wasn't only practical it was on a emotional level too I can still remember some of the final questions on how to deal with relatives of uh who've lost a loved one how to deal with children that were sick you know the whole psychological side of it was brought into it".* [ER24#8]

However, participants testified to the fact that no matter how adequate the training, the reality of actual emergency calls is an unknown that no training can really prepare you for:

> *"I doesn't really uh I wouldn't say it prepares you for what lies ahead uhm the physical aspect of it yes so having to do for the patient what you must do yes it it definitely teaches you things like that but you need to think out of the box uhm you never know they give you a call and they'll tell you it's an asthmatic and when you get there you get to something totally different so you've got to start thinking what do I have to do here theory says this reality says that you know you have to weigh your options here but ja uhm no it doesn't really expose you to or how do I say it won't prepare you for what lies ahead but like the treating of the patient yes that's important and yes we were taught everything possible there we can treat patients and things like that".* [ER24#5]

The branch managers in the sample commented that the balance between the theoretical and practical aspects, as was maintained in the short courses, ensured immediate opportunities to apply theory to practice. In addition, they believe that this model allowed for practical training, where they could apply the basics of the psychological and emotional coping mechanisms they had been taught and work on strengthening and refining them. However, as the participant states: nothing can really "prepare you for what lies ahead".

The ER24 participants were, to some extent, slightly more positive regarding the university study route, and it was evident that more of them had followed this study route compared to their Metro colleagues. In their opinion the theory to practice ratio prescribed by the programmes were sufficient, not only as far as basic knowledge, skills and adequate practical training shifts were concerned, but also extensive. They described it as making provision for advanced training, support throughout the training, as well as the inclusion of

psychology modules which address coping mechanisms and techniques. However, some participants pointed out that the very structured curriculum made little provision for the development of innovative thinking. Some felt that the amount of time allocated for the practical component was inadequate and not sufficient to prepare trainee paramedics for the reality of job, especially in light of the potentially overwhelming psychological and emotional impact. The following extracts show that participants are of the opinion that actual, 'real' learning can only take place after graduation, and where the cases they have to deal with are not mere simulations:

> *"... is quite an extensive programme whether they do enough for a student to come out and then practice and are they ready for the outside world I think is highly debatable ... basic life support not a chance they do not equip you at all ... I think you actually learn much more post graduation".* [ER24#1]

> *"... by the second course I did one was ready to be on the road ... yes yes I think it helped me better than if I would have gone to study my four years at the university and after being on the road four years I have all the information and the knowledge but I still don't have any experience on the road so I think it would have had a bit more of a I don't know impact yes".* [ER24#6]

> *"... uhm I think theoretically they they trained me adequately and practically but oh let's say when I say practically I mean for the skills that are required to do the job skills and procedures required I was trained adequately but what they train you and what happens outside of the training department is two very different things I mean things get done very differently from the simulation lab to the actual the real world experience".* [ER24#7]

A branch manager recommended that students, if they are truly committed to becoming the best paramedics they possibly can be, should take responsibility to supplement the prescribed number of practical hours in the field, as he himself did when a student:

> *"... I think then the onus rests on the student themselves I don't think if the institute tell uh says you need to do ten shifts that you should only do ten ... if you do ten and you have done nothing in the ten what have you learnt ... I think the responsibility should then lie on the student ... to actually approach the tertiary institute ... and say look I've done really nothing I need to do more I do not feel ready and they need to learn as well there's lots of things that a student can also do".* [ER24#1]

One of the recent 'academically' qualified paramedics stated that from entering the field he felt unprepared for the psychological and emotional trauma he was exposed to:

> *"it was in a very quiet area in [town] which is a small town about two hours from here a farmer's town so I didn't get to see much there but uhm if you move closer to the city where you see a lot more stuff and a lot worse stuff then I think ja it's there there is a psychological aspect which they did not prepare you for uhm so ja that that that should maybe be added in there like I don't know how they would do it but it should maybe be added to the uhm syllabus".* [ER24#7]

This quote accentuates that the *type* of training seems to be 'irrelevant' in the context of the reality of the practical experiences of this sample of paramedics in the field, and again provides evidence of the great challenge that exists in preparing student paramedics psychologically and emotionally as far as possible before they go out into the field, thus implying the necessity for the addition of modules in the curricula of EMC training programmes that address their psychological preparation.

In addition, a branch manager participant strongly expressed the need for making debriefing mandatory, and that it forms part of a structured organizational debriefing programme that takes place at least every three to six months. This would allow for continuous in-service training regarding the psychological realities paramedics face every day, as well as expand on the knowledge, information, and techniques they already possess on how to cope with their own and their patients' trauma.

Similarities Between EMC Organizations. It is very evident, in both organizations, that the more senior groups of paramedics that have worked in the industry for a substantial number of years made a strong distinction between the previously predominant short course training model compared to the current emphasis on a university based system of study and training. A definite tension was evident between the two groups of differently trained paramedics, especially from the perspective of the participants that were short course trained:

> *"... the older paramedics us that that did it years ago there was it was a lot more difficult for us to do it and to get to the point of doing it than what it is today the old guys are still there the old guys still work in the industry we still treat patients it's the young generation the young guys that don't last they don't so paramedics in essence there's a big gap between you there's the old group and then this new young young group of people that last two three years if that much so it's a continuous new new paramedics new paramedics new paramedics new paramedics with no experience and*

> *they don't last the guys don't reach twenty eight in the service they don't maybe pushing it thirty … and then there's a gap between thirty and forty and then upwards … there's a big gap… that's my opinion".* [ER24#3]

As has been highlighted on more than one occasion in this section, a critical gap is evident between the older and the younger paramedics in this sample. This is based on the subjective evaluations of the two groups regarding the efficacy of newly qualified paramedics as regards to their practical, psychological and emotional preparedness and readiness. It is clear, from Participant ER#3's comment above, that in his opinion new paramedics "don't last" due to their having *no* experience. This inevitably leads to tension between the two groups, and has to affect the optimal functioning of the ambulance bases. Gauging by their responses, it appears that the branch managers find it preferable to work with short course qualified paramedics due to their advanced knowledge, understanding and excellent practical abilities.

Senior participants affirmed that short course training provided thorough theoretical knowledge and effective preparation and skills training, and that trainees learnt through experience. Special mention was made of the first rate professional lecturers that conducted the short courses:

> *"it was absolutely excellent uhm we also didn't we did not get second hand training cause the doctors that came to lecture you its doctors that sit in your examination and it is not only doctors its specialists … so you have all the specialists that sit in your exam";* and *"…you must remember when I did my courses we had a doctor that was the principal of the college … so I think things have changed a bit … but when I did it a doctor was principal of the college doctor decided what goes on and no one that is also a paramedic … not with a degree or a national diploma it was a doctor and he was a Metro doctor … which means he knew everything about everything … so that also made a big difference".* [Metro#9]

The short course trained participants from both organizations shared that they were currently experiencing a measure of pressure to enrol for either the tertiary level diploma or degree in order to upgrade their qualifications. While they appreciated the concept of continuing education, it was causing them stress. Some felt they were too old to embark on the rigorous academic programmes and feared failure.

The participants described diploma and degree programmes as being too theoretical and 'academic', with inadequate time scheduled for working on the road, thus leading to insufficient practical application and engagement with the reality of job. Participants from both organizations, Metro EMS and ER24, expressed the view that they did not favour university study programmes. In their opinion, these programmes produce paramedics that are too young and immature, are awarded too much responsibility too soon, and advance too rapidly in the system. Branch managers emphasized the psychological and emotional unpreparedness of the newly qualified paramedics, and commented on the difficulty they had in coping with the trauma they are exposed to because of not being adequately prepared.

The more senior participants were very outspoken, and concerned, about what they perceived to be the effect on newly qualified paramedics fresh out of university in the context of what the job entails:

> *"… because you have to make as an advanced life support paramedic you stop resuscitations you make the call … whether the person lives or not and and I I personally feel that's a very heavy decision on a eighteen year old … it is an extremely heavy and and and those eighteen year olds and nineteen year olds that come from university you know they are so vulnerable because it's it's when you sit and you terminate that kiddie resus that you look at that parents and that and they hate you and they they and and that eighteen-year-old nineteen year olds I don't think is ready for it … I don't think they can handle that that frustration and and that … hurt and crying and and stuff".* [Metro#6]

> *"I mean young people young people just came out of school went to varsity quickly did a three year or four year degree came out now they start working yes it's fine if you do that in a different career not if you work with people's lives and* ***you*** *are the person in charge you are the person you know calling the shots or making certain decisions which is influencing a patient or a life … the guys go and study they finish studying four years after school so they twenty one twenty two when they qualify as a paramedic … suddenly they are the person on scene making those choices do we continue to resus do we stop terminate and declare someone dead uhm do we do certain things to impact a person's life uhm and it's fine for them at first because suddenly there's a* ***whole*** *lot of things pushed on onto them and onto their shoulders that they need to deal with … a lot of the guys that study at the university with the* ***new*** *way of studying they s they they stop studying and the year after that they'll work on the road or operationally with patients for a couple of months and then they want to go into training positions or they want to go do contract work up in Africa now yes they want to do it because of financial reasons they want to go do contract work but my belie my belief is is that there's more involved they don't just want to do it for the*

> *contract work they can't cope with what's going on in the road they're not coping with it so they rather want to go sit in a foreign country where they hardly ever see a patient earn a lot of money but don't get to deal with it why then did you do it … why then do it is the structure correct from the start should there not be something different getting you to a point should you not be a little bit older when you qualify as a paramedic I don't know it's just my opinion I I don't know what the answer is I'm of the opinion that it isn't the right way to do it".* [ER24#3]

ER24 Participant #3 is a branch manager, and during the interview he expressed very strong sentiments as regards paramedics qualified by way of the "**new** way of studying". His concern for his young colleagues was evident, particularly in the context of making death declarations and then having to manage the painful emotional reactions of families and having to cope with this heavy burden of responsibility. In his view this is the reason many young paramedics want training positions after a very short space of time in the field, while others leave South Africa to work abroad where the job tasks are much less taxing. He suggested that paramedics should qualify when they are "a little bit older", possibly implying that EMC selection criteria and admission requirements should be revised.

The participant makes reference to the often unrealistic motivation of young people for wanting to be paramedics, their unpreparedness once qualified, and the inadequate organizational support systems. He then concludes with a particularly pessimistic outlook on the future of the emergency care industry, and links it to the tertiary education method whereby paramedics are qualified:

> *"… so personally I don't agree with the new qualifications and how things are done I don't and I have a huge issue with it but and I think it's causing it's it's making the industry more it's breaking the industry it's going to destroy the industry … people don't look at it like that they don't want to listen so sorry … I can't change it on my own and I can't change it it's not going to happen … unfortunately it's going to be too late I think".*

The extract above makes a very strong statement regarding the current university training route for training paramedics. However, the participant does make it clear that it is his personal opinion. At the heart of this expression of frustration is, yet again, the concern for

newly qualified paramedics that may be unprepared to meet the challenges of the EMC profession.

It would be prudent for EMC organizations to take these strong views regarding the current university training system for paramedics under advisement, and that these comments and recommendations be shared with those institutions offering Emergency Medical Care programmes, especially regarding the length of the practicum components.

It is evident that both the short course and university routes to becoming a qualified paramedic have their advantages. The short course approach offers the required emergency medical care knowledge, skills, and ample practical experience. The university degrees offer in-depth academic knowledge, the opportunity to conduct a research project, as well as scheduled practical rotations. However, as was described above, it is also clear that each approach has inherent challenges. Furthermore, these differences and inherent challenges are sometimes used superficially to make 'sense' of difficulties and contradictions, but may contain more deep-seated flaws. Not only branch managers, but also EMC organizations should be aware of the differences between the two training routes, yet guard against using these differences to conceal issues that have to be addressed.

Characteristics of Effective Paramedics. The reality of the critical occupation of emergency medical care places challenging demands on paramedics. In order to function optimally they should possess characteristics that will enhance and increase their resilience, thus allowing them to cope more effectively.

Based on the responses elicited from the sample, a summary was made of the characteristics or personality types that the participants deemed necessary to be effective paramedics. Nine characteristics had the highest frequency across the eighteen participants and were thus accepted to be definitive.

1) Possession of a strong character, which includes inner strength and will, and what some termed as being a 'strong personality':

"you need to have a very strong personality…". [ER24#3]

"I I think you've got to be you've got to have a strong will to want to do this job you you mustn't come and do it just because it's a job …". [ER24#7]

"… I think you need to have a certain amount of inner strength…". [ER24#8]

2) The ability to be well-balanced and multi-faceted, to multi-task successfully and assume multiple roles:

"I think you need to be a well-balanced person … I think you need to be a well-balanced person in life before you actually enter…". [ER24#1]

3) Be truly compassionate, caring, empathic, and considerate:

"… you must have a sort of insight in what is going on around you you must be able to feel when people have gotten hurt badly when they really need help". [Metro#9]

"… I do think you need to have a lot of compassion (.) I think if you can clearly see the difference between guys who have compassion and guys who don't I think guys who have compassion perform at a much higher level much better than guys who actually don't…". [ER24#1]

4) Have the capacity to think quickly and analytically:

> *"someone that can think quickly you know off their feet uhm (.) someone that understands the different environments different situations uh quick change of I almost want to say personality uh because you deal with such a vast number of people and different personalities you need to be able to adapt to certain conditions and people …".* [ER24#3]

5) Possess interpersonal skills:

> *"… you need to know how to you know work with people…".* [Metro#7]
>
> "*… you need to know how to handle people you need to be able to be a people's person …".* [ER24#5]
>
> *"… uhm one of the big things … is to be uhm comfortable with people be able to sit and easily discuss and talk to people uhm be patient is one big thing".* [ER24#9]

6) Be flexible and adaptable:

"*uhm I do believe you should be able to adapt be adaptive adapt to any environment especially in the type of environment we stay in and flexible if ja flexible to any changes that might occur …".* [Metro#2]

"… you also need to be extremely flexible and be able to change yourself and change your working technique according to the situation so you've got to have certain aspects of multiple types of personalities …". [ER24#4]

"*… I would say the characteristics would be someone that adapts easily to to anything uh because we would have to uh things are not always according to the book uhm things are always change continuously you have to easily adapt to things uhm so your knowledge base your clinical knowledge things need to have a basis and you need to be able to adapt to continuously develop yourself so it characteristic in that regard easily adapt uhm continuously evolve so someone that won't just sit and expect things to to work you need to continuously develop yourself …".* [ER24#9]

7) Possess emotional strength and toughness:

"… I think you also have to be a bit hard sometimes you can't become too involved in certain situations…". [ER24#6]

8) Have the ability to apply emotional detachment:

"*… you definitely need to be uhm compassion compassionate as well as uhm considerate but uhm being able to distance yourself … uhm need to be able to distance yourself from from what you're doing at the same time you know being able to be uh empathetic but at the same time distant you know uhm not becoming emotionally involved"* [Metro#4]

"… you are forced to s to shut yourself down emotionally…". [Metro#6]

9) Maturity:

"… the type of mentality that you need to have is is is a mature mentality you cannot come and and be involved in ems without having uh some life skills and I think one of the the difficults parts of new intakes that we find is that uhm they get given this responsibility as an advanced life support paramedic and they are eighteen nineteen years old … they have no life skills they don't know how to handle emotions and to deal with people who whose emotionally not just physically ill but emotionally as well and having to deal with the family and I think that's a bit much for a eighteen nineteen year old to take all that responsibility on you so uhm that's the reason why uhm I feel that the mentality that you need to have you need to be strong …". [Metro#6]

The participants had very strong opinions as to what characteristics empower paramedics to deliver successful and competent service to their patients. By implication, the

above listed characteristics as identified and shared by the sample in their narrations are self-descriptive and are those they themselves possess. The nine characteristics ranged from describing general character strength and responsibility, practical qualities, specific cognitive abilities, emotional sensitivity and control, and psychological 'intelligence'.

While it is important to note that these characteristics represent the participants' subjective opinions regarding a profile for the 'ideal' EMC practitioner, similar paramedic characteristics from literature was cited in Chapter 3, thus providing substantiation for these characteristics.

Support Services. The participants were very outspoken regarding the importance of having access to effective support services. Their observations will again be presented separately as they are employed by two different organizations.

Metro Western Cape EMS. Metro Western Cape forms part of a provincial EMC service. All the participants were aware of the availability of the support service their organization subscribes to, that is, Independent Counselling & Advisory Services (ICAS). ICAS forms part of the Employee Health & Well-being Programme (EHWP), and is a 24-hour toll-free helpline that offers telephonic support in the form of a call-back service, counselling, and general consulting as regards wellness, communication and health promotion information, and family care advice and resources. In addition to telephonic counselling they offer a referral and trauma management service that includes onsite debriefing (www.icas.co.za).

All the Metro participants commented that they were aware of the ICAS support service that was available to them, though some admitted to having only limited knowledge concerning the procedure that had to be followed to access the service. However, they perceived the service to be inefficient and inappropriate due to its telephonic nature, especially in the context of how time consuming – the delayed contact time when requiring urgent assistance and being put through to different counsellors every time:

> *"you have to first have to do it telephonically … you give your story to them uhm I phone them today and then perhaps I'm still not dealing with this issue as I thought I would and I phone them tomorrow again and I end up with somebody else and I have to explain it over again so it's it's quite tedious and it can get quite frustrating to the point where you just you just don't want to you know phone them and if you do end up sitting down with the psychologist then you're only allowed a few sessions and then from there they would decide you know".* [Metro#8]

> *"… so it isn't that they help you there … you just have to tell your whole story and then they tell you it's like this …if if you don't feel better then you phone us back then we refer you … so they also will not just refer you immediately … so it's basically a waste of time sort of … cause what you need if something happens with you on the road you need someone* ***now*** *you want to talk now".* [Metro#9]

Further comments were made on how impersonal the system is, and of the disconnect with the counsellors due to having to talk to them over the phone:

> *"I think one of the shortfalls of the particular ICAS programme is sometimes people after a heavy call where kids and family were lost and that you need to have a face to face with someone you don't need to speak to someone over a phone … and I think uhm and as a psychologist it it's very important that I speak on an emotional issue of something that has just happened I lost a a colleague I lost a uhm a a someone that was close to me and that I I don't need to speak to someone over a phone because that's very impersonal and it's it's it's inappropriate … I think that uh there's nothing better than the human touch when you're sitting opposite someone and you're looking at someone and talking to them about your emotional state because at the time when you speaking over a phone to someone explaining there there's no it's it's it's a big miss because there's no personal interaction".* [Metro#6]

Participants expressed the need for counsellors familiar with the emergency medical care industry and acquainted with the realities of the job. In their opinion this would enable them to provide focused counselling.

Significantly, all the Metro participants stated that they had not personally used the service. However, based on reports from colleagues that had previously used the service, they expressed concern about and distrust in its level of confidentiality, and intimated that they had knowledge of the organization insisting, should colleagues be booked off, on the disclosure of specific reasons for doing so. The participants all preferred and practiced peer debriefing, that is, doing post-call debriefings with their partners and with other colleagues at the base:

> *"handle it at work we don't take it home".* [Metro#3]

> *"… as a team as my shift we've gotten together after the slightly more hectic calls and sat down and spoke about it together uh gone through what we've done and uh what we could have done what we shouldn't have done … if we need to we talk about stuff so … and we're quite open to talk about it especially on my shift … we are a close bunch we find it quite easy to talk to each other should we need it no one's going to judge each other for you know struggling with something".* [Metro #4]

It has to be recognized that paramedics are working under increasingly high-risk conditions on every shift. Rapid and effective support is crucial as a result of the dangerous experiences they frequently go through.

ER24. ER24 is a private emergency medical care provider, and forms part of the Mediclinic Southern Africa group. As per the organization's website, they offer Trauma Counselling Solutions for both employees and patients which include the following: telephonic counselling by a professional trauma counsellor; face-to-face trauma counselling; critical incident management and emotional support; and referral to a specialist network of psychologists and psychiatrists (www.er24.co.za).

All participants confirmed that they had knowledge of the 24-hour support service the organization offers in the form of a trauma counsellor who is on permanent standby. The participants who have had personal contact with the counsellor described him in very positive terms and as being very compassionate. Some participants were also aware of additional counselling support that was available through Mediclinic. Participants that had utilized the service reported differing personal experiences regarding its efficiency, and ranged from neutral to rather more negative.

However, the majority of participants stated that they do not use the organisational support service. They described the system as having questionable efficacy in terms of the counsellors' knowledge of and experience with the reality of the job:

> "… *and to actually speak to people with the same qualification who are doing the same job so they know the atmosphere you work in just helps give that point of view…"* [ER24#4]

Participants also had reservations about the ability of a support service to address the high-risk working environment of paramedics, specifically as regards their personal safety, and sketches the following scenario:

> *"… how much support can you give a person (.) … so if I am driving into an area where I need to jump into the back of a Nyala uh it's a specialized police vehicle and go into a riot go into riots or go passed riots and get a patient out …"* [ER24#1]

The support service was generally perceived to be adequate by certain participants, but they noted that there was room for improvement. Those participants who deemed the service inefficient attributed it to the need for immediate and sustained follow-up, which was not apparent. They acknowledged that a referral system was in place, generally through approaching their base managers for assistance, but that they had concerns regarding full confidentiality. They feared that personal details would be reported to the organization.

All participants stated that they preferred taking care of their own 'counselling' by engaging in post-call evaluations and debriefing exercises with their peers:

> *"… you have to in a sense uh counsel yourself a lot too … if you don't go for the the professional help …".* [ER24#1]

In addition, they employed professional introspection – reflecting on how they might improve their skills and techniques when exposed to similar cases – most often with their colleagues:

> *"… if I've done something or I've seen something I actually I would speak just say I got something like this and this is how I did it what do you think you would have done and then it's over and done with".* [ER24#5]

According to literature paramedics have the image and reputation of being 'tough', and being able to handle their equally tough job. Participants admitted to being obstinate when it comes to asking for professional help and support to deal with the realities they encounter:

> *"… I think a lot of us are very stubborn and we don't make use of it enough".* [ER24#7]

Their reticence in not seeking help might have the very real effect of them not being able to cope. The question is whether only 'self-counselling' will be sufficient for them to deal

with the various challenges of their job. The existence of efficient and user-friendly organizational support services thus remain crucial.

Similarities Between EMC Organizations. When comparing the comments of the Metro and ER24 participants, it is significant that both groups viewed their respective organizational support systems as lacking in efficiency due to it being phone-in services. Both the Metro (ICAS) and ER24 (Trauma Counselling Solutions) support systems do not address their paramedics' immediate debriefing needs, and counsellors are often not familiar with the EMC industry. A disconnect is thus created in their ability to provide appropriately focussed counselling. All participants stated their preference for developing a personal support structure, that is, taking responsibility for their own psychological and emotional maintenance, and developing and using their own coping methods and techniques that enable them to do their job successfully and efficiently.

Both groups of participants attested to how useful and invaluable they found the process of peer debriefing – engaging in post-call professional introspection with their colleagues. The participants' main motivation for consistently evaluating their performance after each case is the desire to continually learn and improve their skills and techniques:

> *"… my support structure in terms of my friends my colleagues has been a lot greater uhm also my mind set is that if I lose a patient it's not oh my goodness I've lost a patient it's a case of why what went wrong how can I improve and I do a lot of debriefing with other paramedics you so go to them and say I had this call this is what I found this is what I did what would you have done and then you sit and you talk your call through and discuss it and you can see where you went wrong where you went right you can learn from it … which I think that has probably been my greatest support that I've needed it's been absolutely fantastic … did I do something wrong if I did what was wrong or was there anything else I could have done or did I do everything and it was just that person's time … which helps you a lot cause that understanding of what happened is what helps you to deal with it … learn from it and do better next time".* [ER24#4]

It is significant that Metro Participant #6 and ER24 Participant #1, who are both base managers, made a strong appeal for the 'regularizing' of ongoing trauma counselling and that it be made compulsory for all paramedics in the field:

> "*… it does get to you emotionally and that and therefore I think and and uh I'm a firm believer of there should be* ***compulsor****y whether it's quarterly or whether it's uhm every every year once to go and see a psychologist";*
>
> *"… the people who are in ems it is not anybody that just comes and do ems it is people that are passionate about helping people but after four five years of no intervention they die they die emotionally and you can see it and you can look around and you can see the people that are dead emotionally … and that is something that is very passionate to me that must be addressed very very urgently";*
>
> *"… because there's no outlet there's no way of how we can control how the s the stuff that they are seeing and the emotional stuff unless you start doing this regular uhm trauma counselling".* [Metro #6]
>
> *"… in terms of uh the psychological aspect I think there I maybe you need to debrief every three to six months it debriefing doesn't in my opinion mean you have a mass casualty incident and then you sit down and debrief … or you notice that the guy is suddenly comes to work depressed or sad then you need to debrief in my opinion that's a bit late … I think you need to sit down at least every three to six months and have a conversation … and say hey guys how was your past three months how was work … yes it should be structured it should be built in and it should happen automatically thereafter".* [ER24#1]

Further motivation and the utter necessity for mandatory regular debriefing of paramedics is captured in the following powerful extract. The participant expresses himself very strongly, and is apparent in how he emphasizes and repeats the word "extremely". He describes harrowing examples of scenes paramedics are exposed to, ending off with a description of the destructive emotional effect:

> "*… I think the emotional side of this job is* ***extremely*** *draining and it's extremely and and therefore I feel that it should be compulsory there there should be a psychological test on you you should be able to sit and go uhm Mr [name] tell me uhm how are you feeling you know every three months or six months and that you know we see people die daily and it's not normal … it's not normal … we see people hanging kids dying bodies babies found in toilets drains you know … so many things that the human should not be seeing you know ordinary person should not be seeing … so uhm we are not supermen or or or or special people that are just naïve and that we are actually intelligent people but it does affect you it does emotionally affect you and it kills you emotionally".* [Metro#6]

Participants were unanimous in their opinion that the inefficiency of their respective support systems need urgent attention. The following extract is representative of this view:

> *"… I think companies should do more or the industry should do more to assist those case or those* ***every*** *staff member not just look at the big scenarios the big cases where uhm you know to debrief people to discuss matters with people uh or to to assist uhm*

> *we are not machines people are not machines … unfortunately the industry looks at people like that and ja just carry on carry on you know the typical thing men don't cry … or don't be a don't be a wussy you know … carry on I could do this sixty years ago so you can do it as well … not the same people we we older older guys grew up differently than what the the younger people do today young people today don't know how to deal with certain things now suddenly we ex we expect them to be (.) adults in this difficult world difficult environment and to deal with it on their own it's never going to work".* [ER24#3]

Concern for the newly qualified young and inexperienced paramedics that join the industry is thus apparent in both organizations. In the opinion of the participants, most notably the base managers, this is especially in view of the fact that they receive inadequate psychological training and preparation. Participant ER24#3 appeals to EMC organizations that they remind themselves that paramedics are not machines that are able to function 'mechanically' without pause, but that they are humans that can easily 'break' and have to be cared for – especially the inexperienced newly qualified paramedics entering the field.

Coping Mechanisms. Taking into account the daunting realities of emergency care, how do paramedics cope? What coping strategies or methods do they make use of in order to cope with the traumatic aspects of their critical job? Eight common coping mechanisms were identified across the sample and are presented below:

1) The most effective and valuable coping mechanism, cited by all participants, was talking to their colleagues, peers, or work partners:

> *"uhm normally like I'll go home I'll chat to other guys that I work with you know whether they're within ER24 or outside ER24 you know they'll all just we're all in the same industry we're all friends so we'll chat about calls…".* [ER24#3]

> *"… and then usually afterwards we chat with crew partners with each other what we did what could we have done better or is there anything else we could have done I think it is a way of getting over the whole thing".* [ER24#6]

It is clear why talking to their colleagues are the paramedics' preferred method for managing the trauma brought about by their job. They all go through the same studies, are similarly trained, live through the same job realities, and are intimately familiar with the nuances of the job. They are therefore able to share experiences with each other knowing they

will be understood. Participants described how their shift partners and colleagues at the ambulance station they are based became like family.

2) Closely associated with talking to colleagues was making use of regular self-debriefing and post-call evaluations with their colleagues for the purpose of improving techniques:

> *"…and you can debrief a little bit you know with each other so I had this bad call did that did that you know then they'll tell you ok you know you just have a chat …".* [ER24#3]

Participants found this a very efficient and valuable method for processing and coping with the stresses their shifts bring. They would informally discuss the cases of the day and compare notes as to what alternative methods they might have used, motivated to find new solutions. It was clear that they considered it very important to continuously work on improving their treatment skills and becoming increasingly proficient and effective, including the senior paramedics with many years of experience. They took it upon themselves to keep up with the latest developments in the EMC field.

3) In addition to the professional introspection that was most frequently used by the participants as stated in number one, some also engaged in personal introspection:

> *"…and then talking to yourself that helps a lot I t I'm very verbal to myself I'll sit and talk it through and say what could you have done different could you have done anything different is it your fault isn't it your fault could they have done anything different how could how could circumstances have been changed you know and and just running through the cases like that …".* [ER24#8]

Participants constantly analysed their calls after each shift, even when off duty, questioning and challenging themselves that they had applied the correct and most effective treatment for their patients. They would continue 'dissecting' the treating protocols they had applied, methodically working through them, noting possible improvements in preparation for similar cases they would be called on to deal with.

4) Participants talked to spouses, fiancés, friends, and in some cases, parents, about their work experiences:

> "*I actually have a very supportive my wife and my parents both really do support what I do and uh uhm they always are there for me should I need someone to talk to uhm I try not to divulge too many too much detail with them but uh uhm I know they're there for me…".* [Metro#4]

> *"… and my wife exactly the same you know she she would just mention in passing geez there was this big accident did your guys go there and I would said yes … so it has to go into my family life there's no two ways about it but there's I think it's the way me as an adult how I bring them how I articulate the message across so I think I talk about all the good things I will never talk to my child about seeing another dead child I will never do that I won't I I will tell my wife yes I would tell my wife a lot more than what I tell my child I think which is understandable but I also I am look I'm not careful with my wife I just I am how I am I would tell anyone almost anything but I try not to if there's something really horrible I try not to tell it to her".* [ER24#1]

> *"I'm a talker I I don't keep quiet so I will I'm not the type of person I I don't drink I don't smoke a lot of I know a lot of people do that I'm not like that so I would talk about things so if things uhm if I did any call may it have been small may it have been big uhm I would discuss it with my wife …".* [ER24#3]

Participants' home support systems were described as fulfilling a very important personal support role. In talking about their work experiences, it was evident that participants received significant emotional and psychological support from their families and loved ones.

5) A number of participants acknowledged the role that religion and prayer plays in their life and helps them cope with the job:

> *"… I'm a Christian uhm I rely very heavily on on prayer and uhm trying to keep myself grounded in knowing that what happens is the Lord's will uhm sounds a little bit like a cop out sometimes but … it does help to to know that you know I'm not ultimately in control uhm what I do is you know what the best that I can do and what I can't do well I simply cannot do that…".* [Metro#4]

> *"I believe I have a God who loves me and so when I like you know really have like a hard time or like a struggle I go to Him like this is how I feel this is my process and I find that He helps me with that".* [Metro#7]

Participants described praying while on call, and in so doing drew the necessary strength and calmness needed for the job from being in constant 'conversation' with God. It was important for them to recognize and accept that it is not they who save the lives of their patients, but God who ultimately holds the power over life and death. It was noteworthy that

these participants identified themselves as being instruments in the hands of God. They believed the death of a patient, even after they have applied all of their medical skill, signified that it was their 'time'. It was evident that for these participants' their religion was a way of life and a significant way of coping.

6) The ability to emotionally detach, or intentionally suppress their emotions, was seen by the participants as being a crucial characteristic of being a paramedic:

> *"... the traumatic is if children are involved but I (.) don't know like I say I dissociate myself ... or half cut myself totally off if I get to such a thing ... and then I just do my work what I must do";*

> *"...I try and cut myself off totally from the emotional thing of a scene or say for instance it's a child and (.) the child did not live anymore or whatever I try to cut myself off totally just do my work so when the call is finished and I have handed over the patient or whatever then it is as if a light comes on again and I am with myself again I don't know if it makes sense".* [ER24#6]

The deliberate effort of reacting as unemotionally as possible to the gruesome things they see and experience was cited as serving as an essential coping mechanism, critical for their survival in the field, due to the horrific scenes they are often exposed to. A major disadvantage to the enforced emotional indifference was how it affected their relationships with their family and friends, as they found it very challenging to 'switch' their feelings on and off between work and home.

7) It was striking that for such a 'serious' occupation, making use of humour and laughter was an effective and important coping method for a number of participants:

> *"laughter sorry laughing ... uh sometimes it sounds cruel but actually making not making fun of but trying to see the humour out of every situation ... you know this also helps a lot for some things".* [Metro #2]

> *"I think the biggest thing you need to have is a sense of humour ... these harsh realities I mean you've got to have a sense of humour you've got to be able to see the funny side of it otherwise if you don't if you're only looking at the reality of it and not looking at a lighter side it kinda like gets a bit morbid and ... you know so to have a sense of humour to find the lighter side in a situation just helps you cope with it and get through it".* [ER#4]

> *"… I half think we're a sick group because how we get over things if it was a serious accident or something then we try and make light of the situation … make a joke or two to get over it … and we always try to find a joke in something you know that we can just laugh and get over it other people don't always see it … as a good thing".* [ER24#6]

> *"… I think you've got to have a … very dark sense of humour because that is the way we deal with a lot of the stuff we we won't do it publicly but once we've come home from something that wasn't nice we'd most probably joke about it because that is how a lot of us deal with it … we we joke a lot about it dark dark humour uhm lots of times I I even think to myself I probably shouldn't be saying it but we we end up saying it anyway and try to laugh about it because that that's the way I know how to cope with it so I I just try and make a joke about it and that way it brings humour into it brings light to the … to the situations that we face".* [ER24#7]

However, from these extracts it is clear that it is not typical light humour the participants employ, but black, dark, or so called gallows humour. This type of humour tries to make light of hopeless situations by using irony and satire as 'weapons'. 'Humour' is therefore used as a defence mechanism. Paramedics have to joke about and make light of what they see and have to deal with on accident scenes – carnage and dismemberment – in order to downplay, endure and continue with what they have to deal with.

8) Physical activity, for example going to the gym and exercising, was also a popular coping strategy:

> *"… venture out into nature go hiking or go jog or something like that … you know just to clear my mind".* [Metro#5]

> "*… I run and I try and keep myself physically fit and and exercise and gym on a daily basis…".* [Metro#6]

> *"… uhm I gym run cycle … ja and I find that if you you know run and exercise it does help with the stress …".* [Metro#7]

Participants described how they would go to the gym, engage in sport, or walk so as to disengage their minds for a moment as well as to rejuvenate their bodies. With the above average stress and trauma that paramedics are exposed to, it is very clear why they would want to, and need to clear their minds.

The analyses in this section described the two qualification and training routes that the participants in this study underwent to qualify as paramedics; the characteristics profile of

effective paramedics as depicted by the participants; the support services available to the two organizations, i.e. Metro Western Cape and ER24; and finally the mechanisms employed by the participants to cope with their challenging job. The descriptive analysis of the content-based narrative data as presented above provides valuable information about key components of the EMC occupation, and contributes to a better understanding of the issues affecting paramedics as they go about fulfilling their duties.

Experiential Analysis

In this section a closer analysis of the participants' experiences will be presented. Thematic content will be presented as described by the participants and extracted from the transcribed interviews. Four key themes, that is, *Service*, *Realism*, *Changed Life Experience*, and *Mortality*, as well as a number of sub-themes were deemed significant. As stated in Chapter 4, these key and sub-themes are by no means presented as being the only themes. These themes as yielded by the analysis of the participants' narratives were considered the most appropriate to organize the discussion.

Service. In this section the definitions and descriptions of the samples' relationship to their job will be discussed in relation to emergency medical care being a helping profession, ranging from their initial motives for joining the service, to the perception of their current everyday experiences.

Paramedics may experience their work as being more than just a job – it is a calling. They are dedicated to assisting people, to saving lives, and find immense fulfilment when a call results in a positive outcome. This leads to questions such as: What motivated the participants to become paramedics? With all the stresses, challenges and difficulties associated with the job, why do they remain in the industry? How do they justify staying in the job? The data revealed that a significant motive resides in how my participants defined their job, characterized its

nature, and expressed their commitment to it, and will be discussed under the first key theme of *Service*.

Helping People. Virtually all the participants cited 'helping people' as the main motivation for becoming paramedics. The following five extracts illustrate this:

> *"so ja I can help you know being that extending helping hand to them in any way".* [Metro#2]
>
> *"a passion for working for people helping people who need the help now uh that was kind of my my biggest thing was that I I don't want to be you know sitting in the background and you know waiting for people to arrive to me I wanted to go out and help".* [Metro#4]
>
> *"the ability to to to help someone in their time of need … I think my most rewarding part is whether it's delivering babies whether it's saving someone's life cutting someone out of a vehicle".* [Metro#6]
>
> "*…you have a chance to do good for others…you're brought onto this earth one of the reasons is for you is to do good for others…to actually help people".* [ER24#1]
>
> *"… chose this profession uh because I liked helping people and that's always the same thing that always comes out with a lot of people but I enjoyed helping people uhm and this was my way of helping people".* [ER24#9]

While all participants wanted to help, they articulated it in different ways. Metro Participant #2 and #4's choice of words depicted the proactive nature of the help they wanted to provide, i.e. 'extending a hand' and 'wanting to go out'. Metro #6 provided two specific examples of help, and described how satisfying it felt being able to help in this manner. Participant ER#9 similarly expressed the positive effect of helping, and "enjoyed" it.

Participant ER#1 introduces an 'existential' theme which will be discussed later in the section. In a powerful statement he equates helping others as being one of the main reasons for existence: we are "brought onto this earth" to help. The participants' expressions in the extracts above illustrate how rich in meaning the act of helping is: from the practical act, to the feelings the act of helping produces in them, to the philosophical thoughts and declarations elicited by helping others.

The participants' passion for and commitment to the job came across very strongly:

> *"I developed that passion … that passion for the work and to assist and help people"; "the passion is for the patient … or the passion for the community's needs".* [Metro#1]

> *"… it's always a pleasure for me to help other people that has always been my passion to help other people…".* [Metro#5]

> *"… the people who are in ems it is not anybody that just comes and do ems it is people that are passionate about helping people".* [Metro#6]

> *"my passion is to help people … deep down inside you've really got to want to do this and you've got to be positive about things and you you have to have a passion for people wanting to help them and make them better at the end of the day if you can or save their lives that's what the job is all about".* [ER24#5]

The repeated use of the word 'passion' in the quotes above is a strong indication of the participants' fervour and enthusiasm for helping people – the personal service they render to their patients, as well as their communities at large. Often the patients they are called to assist are from their own communities, from the very suburbs they live, which makes helping even more personal.

For some participants it was almost an obligation to become a paramedic due to having family members involved in an accident or witnessing one:

> *"… my uhm mom and gran was they were involved in an motor vehicle accident about two in the morning … and my mom called me to come out to the accident scene and that because there was a lot of people injured … jumped in the car went out there and I actually felt useless because there were a couple of dead people on scene taxi that flipped onto my mom and them's car my mom and gran was trapped in the vehicle broken uhm legs and and arms … I felt useless and unable to do anything … and then from that point on I decided that uhm I'd like to do a first aid course or some basic course so that I can help injured people in in the future … so that basically spurred me on to go and do a first aid course but I ended up doing the basic life support course and and that's when I basically started volunteering and from that time onwards uhm I've been involved in ems and that's basi basically spurred me on to to get involved … in emergency medicine".* [Metro#6]

> *".. I went out one night and I had a way too much to drink and I drove home and I and I came across an accident where a little child passed away and I felt extremely helpless".* [ER24#7]

The resultant powerlessness the participant felt in not being able to be of assistance at an accident scene is what inspired him and provided the motivation to pursue a career in emergency medical care.

The satisfaction participants experience in helping people is evident. They find it particularly meaningful if they can be of assistance and 'give back' to the people of their own communities. The manner they have chosen to do this is to help all their patients, and, by default, the families of those patients, to the greatest extent possible:

> *"I've been reared that we need to basically give back to the people that we live close with … and that is basically motivation for being here is that I work closely with the very people that I live with".* [Metro#3]

> *"… just knowing that you were there for someone knowing that you could do something to help someone an make their day a little bit better or you know help them to be there tomorrow an you know in all other cases they may have not been there tomorrow you know they can be with their families again…".* [Metro#4]

The participants displayed a strong sense of responsibility towards their communities. The ambulance bases where they serve are often situated in their own neighbourhood. During the interviews I could discern the strong kinship they had with the people of their neighbourhoods, the sense of interconnectedness – resulting in an ethical commitment towards society at large by way of their loyalty to their particular communities. Not only are they able to give back to their people, but they have the knowledge that in helping a patient they have been instrumental in reuniting them with their families, often in the face of death.

Saving People. Paramedics are constantly engaged in a struggle between life and death. The essence of and main objective of emergency medical care is a commitment to saving lives. The most positive outcome of resuscitating patients is overcoming death – literally. Metro Participant #7 describes this as being the absolute highlight of what it means to be a paramedic:

> *"sometimes … we fix a issue you know like they're choking … we pull out the object that's choking them and they live like you know it's clear like life or death … or like you know like drowning like they drown we take them out give them CPR we fix the issue … where you can actually fix the problem you can make a difference … saving a life is like the climax".*

Saving a life is the ultimate help paramedics can give. However, this sub-theme also alludes to and is a variation of the fourth key theme of 'mortality', which addresses life and death in an existential sense.

More Than Service. In analysing the participants' narratives, a somewhat more 'philosophical' element became apparent with regard to helping people. Participants expressed that they want to offer 'more than' help – they feel the work they are engaged in may well go beyond merely providing medical assistance. They want to make a difference to their patients, be instrumental in saving their very lives if possible, thus enabling them to continue living meaningful lives after recovery. They want to 'do good':

> *"… there is a purpose there is that that that a greater meaning there is you're basically* ***the*** *first line of of assisting the next person … being a paramedic … I can do more for whoever needs more I can uh … (.) we are needed yes I am needed".* [Metro#3]

> *"… it is when you make a difference in somebody's life you've you've uhm done your best and you've revived somebody and that person uhm can sh have a meaningful life again ja or that person is is is is (.) uhm happy about the service that were rendered you know … the contribution that I made".* [Metro#5]

These extracts express the fact that being a first responder satisfies two fundamental human desires, namely to be needed, and to make a difference. Participants expressed the sentiment that they have the ability to contribute something very meaningful, not only to the patients whose lives they save – literally helping them 'return' to life – but to life overall.

Receiving Positive Feedback. A participant described the emergency medical care profession as "thankless". However, simply one 'thank you' makes being a paramedic worthwhile and provides the impetus to continue in spite of witnessing and being a part of the trauma their patients go through.

The following extracts illustrate differing reactions from participants on receiving positive responses from patients and their families:

> *"if I picked up a patient and I took him to hospital (.) and the outcome was good and a mother or a father or a relative say to me thank you very much … then my day is made … that's all that I want".* [Metro#1]

> *"… personally seeing the smile on someone's face with the relief of of of family members after you've treated their family even though you don't expect a thank you the the relief alone on any individuals face that alone personally that is the best reward ever I told them now not too long back a hundred pa you can treat a hundred patients for the day a hundred patients and everyone can swear at you and that hundred and 1th patient that you treat and you can see their gratitude that makes the entire day and*

> *that alone is is personally uhm personally rewarding … that thank you that they give that gratitude on their faces that is the ultimate reward ever".* [Metro#3]

> *"… and if they say thank you of goodness then you feel … sjoe I have now received pay".* [Metro#9]

> *"the most fulfilling part is when you know even just that acknowledgement of a thank you nothing bigger than that that's that's the most fulfilling part when you you know the family can see you've done everything you've could uhm or there's a positive outcome and you know their gratitude is it's unsurmountable they cannot stop saying thank you know it's those times it just makes you feel appreciated and I think that's what I don't know about everyone else but for me that's just feeling appreciated".* [Metro#8]

Participants truly appreciate receiving thanks from their patients' families after a positive outcome has been achieved. Even non-verbal expressions of thanks suffice – participants equate their "days being made' by just seeing patients smile and being able to read the gratitude on their faces. Participant Metro#9 states that receiving salary is often less important than being thanked.

Expressions of thankfulness from patients, sometimes long after the incident took place, is another simple yet significant reason that makes being a paramedic worthwhile and fulfilling:

> *"…mine is very basic uhm that thank you and that extra hug from patients at the end of the day makes my life and my job worthwhile uhm kids that remember you grown ups wherever you walk I mean it's like hi how are you and thank you for doing that and you know those are things that keep me going it's it's just qualities you know in life that that make things worthwhile stuff like that hugs and people still remembering you and so it means that you did did something good".* [ER24#5]

> *"…look all we want I want is a thank you now and then you get it so seldom so it's when I get a thank you it's a very positive thing for me … if you have helped someone uhm for instance like a patient has crashed now went into cardiac arrest or something and you brought them back and afterwards they come and say … thank you to you and they appreciate it".* [ER24#6]

> *"I think the most positive thing is we we don't get thanked often for what we do but when you have that one person that actually goes out of his way to come and and* ***find*** *you and then personally come and say thank you to for what you have do to help them through the need especially if it was a serious case uhm which I just have the other day again we had a patient who had a fracture of his C7 C6 vertebra and he started or he he lost all motor function in his legs so he couldn't move them at all he still had feeling in them but no movement and we transported him through to [hospital] where he saw a neurosurgeon and probably about a month and a half ago I was sitting at the*

> *[clinic] and his mother recognized me from the transfer and she came she came to thank me for it so I just asked how is he doing so she said well come see for yourself so we walked to the x-ray department and he got up and he greeted me and everything and said thank you so I think that's probably the most rewarding thing of the profession it's knowing that you have done somebody something for somebody in their in their time of need".* [ER24#7]

> *".. you know with all the negativity that I have uhm that we face on a daily basis all we ask is for members of public just to say thank you you know if I treat twen twenty patients thirty patients the night if I get one thank you that's a lot … so the most rewarding part of my job is when someone turns around or a family member or kid or anyone says thank you very much uhm and and and that rewards every personnel out there".* [Metro#6]

In these extracts participants convey that what makes it worthwhile being paramedics is the personal thanks they receive from patients, especially from those who take the trouble to track them down and find them at the bases they operate from. This is what provides meaning in their professional lives and allow them to continue doing this selfless work. The most powerful incentive for them to keep doing their job is when they see physical evidence of the positive outcome that their assistance effected. Participant ER#7 shared how pleasing it was to see a young man get up and walk towards him to thank him, when, because of the nature of the injury, there was a good chance he would be paralyzed.

The narratives showed that one of the major negatives for paramedics – and an indictment on the ungratefulness of people in general – is that these expressions of gratitude are unfortunately in short supply. However, even when no thank you is forthcoming, satisfaction comes from the job itself:

> *"…you know there's a lot of things people say oh it's a thankless profession no one says thank you to us I think uhm there's it's always very fulfilling when you get a thank you regardless of what you've done when someone says thank you that that's always fulfilling but even when they don't to take a patient who's in a critical condition and do something and make them better and then go and follow up later and go oh they've gone home that gives you that sense of … yes I did something which I think that is probably the most fulfilling its usually in your medical cases as opposed to your trauma cases but I think just that aspect of knowing that I did something to help make them better and they go home to their families".* [ER24#4]

Participant ER24#4 testifies to the fact that it is the recovery of their patients that paramedics find the most fulfilling. This is what lends them constant motivation and rewards them for becoming and staying a paramedic, and is the essence of the service theme.

Realism. What is it like being a paramedic? What do they have to deal with every day? To what extent does their working reality have an effect on them? Do they experience the consequences as more negative or positive? On almost every shift paramedics face grim realities on reaching the scenes they are called out to. They do not know what they will have to face, who their patients will be – babies, children, youth, adults, or the aged. They go wherever their calls take them, no matter how risky the environment. Whoever their patients are, whether they be innocent victims, the perpetrators of crime, or an individual bent on self-destruction, they are trained to help and save.

The support paramedics receive, both professionally and personally, is vital in order for them to function effectively. In many instances they have to suppress their emotions in order to cope, find ways to deal with and accept whatever they have to face, and accept the helplessness when saving a patient's life is not possible. They keep their focus on the positive, those cases that have a happy outcome. They recognize and realize both the negative and positive effects on them, the personal growth they experience and that becomes part of them.

The impact of their critical occupation, and the professional and personal consequences paramedics experience in the aftermath of the incidents they deal with is discussed under the second key theme of *Realism.*

Ambivalence. Participants expressed the challenge they have of making sense of both negative and positive consequences when applying their skills to assist patients. On the one hand they have to deal with calls where there will be loss of life and recognize that death will not always be defied, then immediately move onto the next call that may have a positive outcome:

> *"… some days I go home going I love my job I love what I do you know cause I saved a life or like I made a difference in someone's life but then some days you go home going I don't know what I'm doing that was a horrible shift and you're like close to tears cause you're like I'm not prepared for this … mentally or physically or … you know in terms of knowledge you're capable of uh your capacity".* [Metro#7]

This extract describes the constant conflicting emotions paramedics experience. From the high of saving a life to the low of having to deal with a bad shift, from "loving the job' to "horrible shifts". Feelings change rapidly all the time, and are dependent on the outcome of calls – the horrible shift can bring you "close to tears". Participants shared that the contradictory reality of the job therefore has a noted psychosomatic effect on them. It may even result in existential uncertainty, causing them to question their preparedness and capability, their knowledge and skills – in effect, all of their training: "I'm not prepared for this".

Acceptance. Death is final, irrevocable. The participants narrated how, immediately on commencing their careers, they have to deal with and accept that it is not possible to save everybody:

> *"… here's nothing more I can do for someone who is dying … we are life support … you know we're not you know grim reapers or you know chasing after death like it's … we're not heroes … but I have this mind set of you know we live we die you know you like like like we will all die that's not a morbid fact it's a truth";*

> *"we have done all we can we aren't God we you know we don't have control over life … you need to stop thinking that you're God and think that you can fix every problem where you can't … when you know someone's dying there's little we can do about like you know trauma you know like bad trauma there's you know … when you've punched the heart the heart is punched you can't reverse that".* [Metro#7]

> *"… I mean the realities there's there's some cases that you unfortunately cannot do anything for it's it's it's life and the quicker you learn to understand that and to know that the the better for you as a as a practitioner and as a human being as well it's you you we cannot always we can't help everyone … you can only help but those ones you can help those are the ones you should definitely help".* [ER24#3]

The participants expressed themselves strongly on the importance of accepting their professional boundaries when assisting patients: having the right "mind set", and acknowledging that the medical skills they have cannot save everyone. That there is a 'higher power' at work.

Participant ER#3 comments that they have to learn there is a limit: "when you've punched the heart the heart is punched you can't reverse that". Instead they concentrate on those patients they know they can help.

Adaptation. Paramedics have to adapt in order to survive the continuous emotional onslaught that many cases bring – realism regarding life and death is imposed and they may experience negative consequences should they be unable to adapt and employ successful coping mechanisms. Adapting and adjusting to the critical nature of their occupation is thus a necessity:

> "*… you certainly don't know what you're getting yourself into while you're studying it's only once you are actually working that you actually realize what you've gotten yourself into and you must either now uh adapt or get out it's one of the two…".* [Metro#4]

> *"… you see people uhm helpless on their lowest low whether it's people that comes from from the street the vagrant or whether it's your rich guy … uhm you have to deal and that is challenge of th this this profession you have to be able to adapt to any situation and it's sometimes not easy".* [Metro #5]

> *"I think [sighs] your first your first death is always traumatic and that's both your first adult and your first child deaths uhm my most traumatic thing was my first paediatric resus that I ever did I was in charge of the resus and then had to call it uhm and kids are always a soft spot you know but then you learn from it you come the next time it gets better so now when I look back at that it's now a case of it's no longer a trauma it's now a case of I learnt these valuable lessons from that to move on… uhm I think nowadays it's not so much (.) seeing something that traumatized me".* [ER24#4]

> *"… death is really it's it's it's a sad thing but it's part of life I've learnt that over the years but for people that are just coming into the service and things like that those are things that you're not exposed to every day and to learn to deal with it is is it's either or it's this is make or break for you".* [ER24#5]

Participant Metro#4 describes the alternatives of not becoming accustomed to the reality of the EMC profession as being "adapt or get out" – there is no middle ground. Participant ER#5 uses the term "this is make or break" to express the same truth. Participants seem to suggest that it is better for paramedics to leave the industry if they are not able to deal with the reality of the job or else the job will overwhelm them. Participant Metro#4 states that there is more to the job than you can ever be trained for – nothing can prepare you for it fully: "you certainly don't know what you are getting yourself into". Participant ER#4 explains how

the experience of the death of their first patient has a profound effect on paramedics and that the worst, most intense and most traumatic cases are the deaths of children. During the interviews all participants concurred and rated the death of children as being the most stressful experience they have to cope with in the course of their work.

However, the resilience of these paramedics is evident. Participants described how they soon realize that they have to deal with the stark reality of death and adapt accordingly, and if possible to change even this into a positive learning experience: "I learnt these valuable lessons from that to move on" (Participant ER24#4).

Emotional Impact. All eighteen participants described how detached, hard, cold, blunted, and emotionally desensitized they became in a short space of time. They have to, are forced to, simply to survive and endure the emotional impact of incident after incident. While the emotional toughness or hardiness enables them to cope with the job, it regrettably also affects their emotional responsivity towards their spouses, children, family and friends, as the following extracts show:

> "… *our ability in order to to sympathize with others is diminished to a point that uhm we start even not sympathizing with our own family members … the job hardens you as such it hardens you … you become desensitized but without you realizing that as such happening … I normally tell if uh females women that want to come into the service I will always ask them the question do you want kids they tell me yes why I tell them then don't come to the service … they ask me why wouldn't you know why don't you I tell them because your emotions will start leaving you … I tell them you'll start feeling nothing for your children cause of the things you see every day … and I think that that is the the the key thing that uhm specially actually all of us we become desensitized towards nearly everyone and everything … even if our colleagues get hurt at work we would for us it's more that we need to get this sorted because it's the way we are we've been uh programmed we've been groomed in order to do this and after it's done we can then decide if we're going to be emotional about it … or we're going to be uh or we're not going to be emotional … most of the times we don't get emotionally involved with anything even pertaining our own family … so we become desensitized … at times at first you are you you you you can't control yourself but feel … then you start telling yourself you know what if I'm going to feel I'm going to lose it … so you start controlling (.) afterwards it is no longer there … after controlling it to an a point whereby you just don't feel anything any longer sorting out the patient get onto the next one … at that specific moment we're there in order to save your life we're there in order to sort you out there* ***is*** *no emotion … there is no emotion for us*

at that moment this we need to do this now so let's get this sorted … the emotions … has faded". [Metro#3]

"… I do know that I'm I (.) how do I word this properly that it's uh I've become a bit colder than I used to be you know I'm not quite as caring when it would come to even my my personal life my friends etcetera I can easily just sort of shut off and ok that's your problem you know you go deal with it over there uhm I make a conscious effort not to to do that especially with my friends uhm but uh ja I do find that comes a little bit too naturally sometimes which is I guess a uhm something that stems from work…". [Metro #4]

"I think (.) you get hard emotionally like (.) it this industry definitely toughens you so emotionally you harden like for an example my godson uh went and fell down two stairs and I went like are you bleeding ok stand up go play and his mom is like freaking out next to me and I'm like it's fine there's nothing wrong so you definitely get a little bit harder uhm but you kinda ***have*** *to for this job which makes it slightly more difficult when you're at home to like show someone else love and affection because you are hardened".;*

"… personally you do my family calls it my paramedic switch where you you try and become desensitized and inhuman so it doesn't affect you you know sort of inhuman but sympathetic but so that it doesn't affect you". [ER24#4]

"… my family has told me I'm uhm I (.) am unfeeling if it comes to certain things if it comes to a death in the family or if someone got hurt … I may be hard towards my family and I am because I am used to I have to be strong here at work also for patients and their families and then I transfer it to my family then they think I am unfeeling or something". [ER24#6]

"… you must have the ability to to be able to cut yourself off from everyone else everyone else's emotional uhm uh status at the time we go to people in their time of needs and uhm I myself I I deal as a manager I deal with I go out and do declarations on a daily basis whether it's five six declarations a day so I deal with everyone's emotional state and uh as as you know if you've lost a loved one every time you go out to these places and you go and declare someone else's loved one you feel exactly how they feel … so it does take a a toll on you … because everyone's emotional status comes upon you at that time and if you're the type of person that takes it on or you're the type of person that is too emotional … and get too involved with the patient or the family or the loved one uhm it will definitely be a toll on your career and it will be very short very very quick … because you will go home with everyone's emotions uhm and uh that's the negative part about this job is that you do feel you do see your kids in this little pedestrian that you are resuscitating or this kiddie that has drowned so I think that uh (.) mostly to b to succeed in this industry you must be able to cut yourself off emotionally and you must be emotionally strong… so that's the mentality that you need to have you need to become more be able to set yourself emotionally cut yourself emotionally off from what you're doing … I've become emotionally cold that if my son for example my son on a skateboard falls breaks his arm it doesn't look bad to me although his arm's broken I've seen so much worse I've seen gunshot heads I've seen people who've hanged themselves people's necks are slit and that I see such a lot of trauma and carnage that that means nothing to me … but in the same breath it's it's my kid looks at me and says jeez you you don't even scared that my arm's broken or

> *anything I would tell him come get up stop being a baby and that because I associate pain and trauma to what I deal with on a daily basis so that's nothing to me and that's why you become emotionally cold … and you are not that you want to become a cold person you are* ***forced*** *to become a cold person …".* [Metro #6]

> *"the way that I've taught myself is what people do is that they go you know that doesn't matter you know like we sorry wh feel we can't feel for them and so then they completely re they completely remove them self from being able to feel". [Metro#7]*

These seven extracts very vividly describe the "paramedic switch", a term participant ER24#4 uses to describe the 'control button' EMC practitioners use to regulate their emotions. The participants' words tell the story of the emotional impact their job has on them: "the job hardens you as such … it hardens you … you become desensitized" and "start feeling nothing" (Metro#3); "I've become colder … I'm not quite as caring" (Metro#4); "you get hard emotionally" (ER24#4); "I (.) am unfeeling" (ER24#6); "they completely remove them self from being able to feel" (Metro#7); "you must have the ability to to be able to cut yourself off", and "you become emotionally cold". (Metro #6).

Participant Metro#3 describes the emotional desensitization as coming about almost unnoticed: "but without you realizing that as such happening". This has a notable impact on their relationships with their loved ones, as the following two quotes illustrate: "[it] makes it slightly more difficult when you're at home to like show someone else love and affection because you are hardened" (ER24#4); and, "I have to be strong here at work also for patients and their families and then I transfer it to my family" (ER24#6).

When they are unable to reset the 'emotional hardness switch', which makes dealing with work trauma bearable, problems may arise in participants' personal lives and at home where they interact with their families. Participant ER24#4 describes the 'on' position as "sort of inhuman but sympathetic". Participant Metro#6 provides the example of "my kid looks at me and says jeez you you don't even scared that my arm's broken or anything I would tell him come get up stop being a baby", and tries to explain his reaction as follows: "I associate pain

and trauma to what I deal with on a daily basis so that's nothing to me" – "you are **forced** to become a cold person". I recall the anguish in his voice during the interview when he said this.

Participant Metro#6, who is a base manager and a paramedic with many years of experience, provides his perspective in an endeavour to answer the question of why paramedics are compelled to shut down their emotions: "that's the negative part about this job is that you do feel you do see your kids in this little pedestrian that you are resuscitating or this kiddie that has drowned"; "to succeed in this industry you must be able to cut yourself off emotionally and you must be emotionally strong… so that's the mentality that you need to have". Participants recounted how they 'see' their loved ones in many patients they treat, and how difficult and awful this is. It is thus clear why they find it necessary to shut down emotionally – it is in order to survive in the EMC industry.

Personal Growth. The repeated exposure to death, and the participants' acceptance thereof, brings an unexpected positive outcome in the form of personal growth. These experiences add meaning to their lives and they are strengthened by the growth. Many participants commented on practically being 'forced' to grow personally and undergoing accelerated maturation because of the job:

> "*… you don't have a choice you are forced to it's not a conscious decision remember being a paramedic is taking someone else's troubles and trauma and emotional status and putting it on your shoulders and you're for you're forced to grow you don't have a choice".* [Metro#6]

> *"yes you have no choice [laughs] … you have no choice you know your there's no age here there's no gender here you know you you develop much faster than you would had you been working with in an office and this is this is how I think of it I'm sure other people will disagree with me but you know you work with people that are sometimes four five times older than you … you work with different religions different cultures so you your mind set your the things you learn about other people you know uhm it's amazing …".* [Metro#8]

> *"(.) I think I've grown up faster ja … with my experiences and things that I've seen and see how short life can be and is uhm it's def I've grown up faster uhm because I obviously got to deal with life quicker than what they would I mean I have a lot of friends that has never seen a dead person in their lives before whose never lost a family member and they are you know forty forty five years old maybe have lost a grandparent you know years ago or maybe not yet uhm where I've stopped counting how many*

> *dead people I've seen in my life years and years and years ago uhm I've stopped counting how many family members and friends I've lost uhm so but from a career point of view I think that's on a personal in a personal capacity that's definitely changed me … or definitely had a ja (.) I must say positive it's a it's a positive I think uhm maybe that I've missed out on some things but it's never ever worried me I'm happy that I've grown up faster and that I've had to deal with it".* [ER24#3]

> *"(.) mm yes uhm I definitely have I've grown a lot in terms of maturity uhm my family thinks I matured too quickly but I've definitely grown a lot in terms of maturity and uhm that has helped in terms of making life decisions at a younger age …".* [ER24#4]

The participants attribute their personal growth to their job, to being a paramedic. They equate their personal growth with the speed and level of their development: "you develop much faster" (Metro#8); "I've grown up faster… I'm happy that I've grown up faster" (ER24#3); and "I definitely have I've grown a lot in terms of maturity" (ER24#4).

Participants felt that, as a result of the nature of their work, they have almost had no option but to grow: "you have no choice" (Metro#8); "it's not a conscious decision … taking someone else's troubles and trauma and emotional status and putting it on your shoulders …you're forced to grow you don't have a choice" (Metro#6). This last extract illustrates the essence of posttraumatic or adversarial growth, and this participant makes a significant addition to the presently defined parameters of the construct. He asserts that posttraumatic growth is *forced* for EMC practitioners – growth may inevitably take place – as a result of the nature of the work.

The participants view their growth in positive terms, and cite the advantage of being better equipped to deal with life and decision-making. Even the constant exposure to death can result in a positive outcome: "I've stopped counting how many dead people I've seen in my life years and years and years ago … but from a career point of view I think that's on a personal in a personal capacity that's definitely changed me … I must say positive it's a it's a positive" (Metro#6). Personal resilience may develop from the work trauma they experience.

Participant ER24#1 points out an additional positive outcome of emergency medical care in the following quote:

> *"you have to understand what has happened has happened you can't change what has happened what you can do is moving forward".* [ER24#1]

This extract refers back to the sub-theme of acceptance discussed earlier in the section. The participant states that paramedics have to acknowledge their reality, and that they cannot alter the experiences their job brings. They can however move on and move ahead. The work creates a compulsion to continually "move forward'.

Respect. Paramedics put their own lives on the line every day. Many calls or accident scenes they are called out to are situated in high-risk environments. They work under difficult conditions, and are the recipients of negative attitudes and downright disrespect at times from those they try to assist, ill-treated by the very people they offer their services to:

> "*… in the communities uhm like things has change you get mugged the people don't have respect for you…".* [Metro#5]

> "*… you get dispatched to a call and you arrive although you've just been given a call the community goes and attacks you because you're you're late or the first words they say is that you're late and that and it's like but I just got this call it took me six minutes to get to you they don't care … and you know with all this other stresses and emotional stuff that you have on you to still be attacked by community for you wanting to do something good … it takes its toll on the guys … it takes its toll you you try and put on a brave face you try and and and not be emotional and that but but you're human".* [Metro#6]

> *"… the abuse that we get from you know the people out there uhm the [fff] gun shots…".* [Metro#8]

> *"… not everyone is friendly not everyone has a kind word for you and of course you have to have a very thick skin [laughs] cause when they start swearing you have to be able to keep your mouth shut…".* [Metro#9]

The participants refer to various forms of abuse and hostility they are exposed to from bystanders at scenes. They are mugged, attacked, sworn at, and even exposed to shootings. The disrespect they are shown and way they are treated can have an extremely disheartening effect on them: "it takes its toll on the guys … it takes its toll you you try and put on a brave face you try and and and not be emotional and that but but you're human" (Metro#6). The actions and reactions from the very community members these participants serve goes against belief, and the participant describes the effect it has on him and his colleagues, because they are just

"human". However, instead of retaliating in like manner, they hide their fear or anger and courageously carry on with the job they have come to do. The necessity for emotional detachment, as discussed earlier, again becomes relevant.

Moreover, participants shared how demoralizing it is to experience professional disrespect from colleagues in the allied medical services on occasion when delivering patients to hospitals and clinics:

> *"... the most difficult aspects of being a paramedic is when people I don't want a pat on my back but people are very ungrateful at times and they don't respect the profession and it hurts when you see how they treat the emergency staff or uniformed staff abroad as opposed to South Africa we don't really invest in our uh emergency services and things like that ... and uhm what in the hospital some doctors they disrespectful towards paramedics you know ... so they think they're all it and you as a individual you're nothing but uhm I see the world as we're all equal you know because we share the same fate and uhm I don't think anybody is superior to the next person ... uh even though if you're a professor or you're learned in other fields uhm I think we all have some purpose ... and uhm sometime people will will make you feel small as if you're nothing so even the vagrant and even everybody has a right you know to be respected".* [Metro#5]

> *"... you come to the hospital (.) you take the stress from those nurses at the hospitals cause they are sometimes ugh I'm not going to say the word uhm which means you fight there the doctors are usually not so bad uhm here and there you get a doctor that is rude its mostly the nursing sisters".* [Metro#9]

Participants related that they have to "take the stress' and "fight" with staff from other health professions (Metro#9). On occasion the same staff act in a superior manner and make them "feel small" – "people are very ungrateful at times and they don't respect the profession and it hurts when you see how they treat the emergency staff" (Metro#5), and are often treated with rudeness (Metro#9).

Participant Metro#5 makes the following statement as regards the treatment paramedics in South Africa receive: "they don't respect the profession and it hurts when you see how they treat the emergency staff or uniformed staff abroad as opposed to South Africa we don't really invest in our uh emergency services". This quote becomes even more sad when the participant points out the following: "I think we all have some purpose". All medical services have the same objective, providing the best care possible to their patients, with each

contributing their particular specialization. These participants do not receive recognition for the fact that they, as first responders, have stabilized the patients and transported them safely to the hospital for the next phase of their medical care. Why then are EMC practitioners not respected?

Participants shared that they feel similarly disrespected by the manner in which they are treated on occasion by their employing organizations, and do not always receive the necessary support:

> *"what I do think though is this country I do think your ems is really not looked at as a professional entity I don't I don't think there's no respect for ems or there is very little … not a lot … I think the problem as a professional me sitting in this country is that lots of paramedics and understandably so leave South Africa and they go and work on contracts they go and work everywhere else and everyone can say it's for financial gain it's not only for financial gain it's cause there* ***are*** *issues South African paramedics should be treated a lot better I would like to see that as a professional people in the South African context paramedics be treated a lot better than what they currently are … firstly by their firstly they need to treat themselves better and act as professionals … secondly by their organizations and thirdly by society at large".* [ER24#1]

> *"… you've got somebody running the bean counting and uhm and then you've got the paramedics out there doing it and trying to make it happen and they don't always speak to each other so I think that's where the stress comes as well it's not only the type of patients you're seeing and the the reality of life but it's the other stresses that don't allow you to optimize those patients".* [ER24#8]

Participant ER24#1 comments that EMC practitioners in South Africa generally do not receive appropriate professional respect: "ems is really not looked at as a professional entity I don't I don't think there's no respect for ems or there is very little". According to the participant, second on the list of those who are disrespectful are the "organizations" (interestingly, paramedics themselves and society at large are numbers one and three on the list). As a result, paramedics find jobs abroad and leave the country: "it's not only for financial gain it's cause there **are** issues South African paramedics should be treated a lot better I would like to see that as a professional people in the South African context paramedics be treated a lot better than what they currently are". The participant, who is also a base manager and frequently deals with the organization directly, at this point reiterates that certain concerns exist in the

industry, and that these need to be addressed, including the unprofessional treatment of South African paramedics.

Participant ER24#8 raises the issue of communication – more specifically the danger of miscommunication between paramedics in the field and their employing organization: "they don't always speak to each other" – "you've got somebody running the bean counting and uhm and then you've got the paramedics out there doing it and trying to make it happen and they don't always speak to each other". She comments that the resulting stress can affect the quality of care for the very clients they are providing a service for: "it's the other stresses that don't allow you to optimize those patients".

Working Environment. The safety of South African paramedics has become a great concern of late, in that they are becoming the victims of violence and crime more and more often. It is lamentable, of late, to often see media reports on the latest attacks on local EMC personnel. Not only do these emergency care workers have to contend with the high risks of their job, but the threats in and from the very communities they serve have sadly increased significantly:

> *"we sit with currently with the situation that we have all these uhm attacks against our ems staff they been gunpoint … they been robbed the vehicles have been broken into".* [Metro #1]

> *"I'm a guy a person I can cope with the with the trauma I've been I've been subjected to but not all of the people are subjected to or or or are prepared physically emotionally to deal with with the trauma out there and uh it's becoming more and more difficult and challenging as a paramedic because you're not only helping people you also have to look after your own safety … because of uh all the contagious diseases it's popping up and then gangsterism crime is becoming a big problem and that's why at cer at a certain stage most paramedics they they go abroad and go work abroad it's not the money that's the motivation it is more the consideration of their own safety … because I think being mugged or subjected to a gun being held against your head and being in a in a gang uh infested area does more harm than seeing a patient that's apart".* [Metro#5]

> *"there's people with those type of mind sets that you know uhm they would use opportunity to break in and gun point you".* [Metro#8]

Paramedics have to take calls in extremely high-risk areas, rife with crime and controlled by dangerous gangs, and the participants shared that paramedics are being attacked far more frequently, and that ambulances had been broken into, with both their personal belongings and ambulance equipment being stolen, in addition to being mugged and robbed at gunpoint, "a gun being held against your head" (Metro#5).

Participant Metro#5 states that being a paramedic in South Africa is becoming more and more dangerous. It is becoming a 'critical' occupation in more than one sense of the word. Their personal safety is constantly under threat while treating patients, and the psychological effects thereof are significant, even more so than being confronted with the gruesome scenes they are exposed to: "being in a in a gang uh infested area does more harm than seeing a patient that's apart".

Quite a number of participants shared that their risky working environments have made them more fearful and concerned for their personal safety:

> *"it's not nice going through life and being scared of not driving here or going there but uh ja I'm a bit more scared than what I was maybe two or three years ago".* [Metro#2]

> *"I used to be comfortable in going into the [place] area now I'm more vigilant definitely more vigilant uhm I used to be very giving person very open person very you know anyone could come to me now I've taken a step back a bit and say yes you know what I'm a good person I'm a kind person but not everyone has the same mind … set as I do".* [Metro#8]

Participants noted that they have consequently become far more cautious and safety conscious when going out. It is a shame that the practitioners of this helping profession have become fearful and distrustful of people: "now I've taken a step back … not everyone has the same [mind set] as I do" (Metro#8).

Related to the reality of the increasingly dangerous working conditions is the fact that quite a number of South African paramedics resign from the service to pursue employment abroad. These paramedics, more so those with a university qualification, have high expectations when they join the service, yet after a few years of exposure to the current challenging working

environments and the limited promotion opportunities, many find work abroad for better remuneration and leave the country. However, they may find themselves not doing the work they were trained to do and using their advanced life support skills:

> *"they're gonna to work in oil rigs … uhm in Saudi Arabia they're gonna work in hospital where they are porters basically … and that's what happen uh for big money … yes they go to all these other countries and they become just normal like porters here … moving patient one to the other … the comments that I've got from guys that went over to uh on the oil rigs he's just dispensing a headache tablet … do up cut and a bruise there and they when they come back sir I lost my skill … gone is my skills that I'm supposed to have".* [Metro#1]

A further reason for a number of paramedics to opt for employment abroad has to do with the manner in which they are treated by their organizations, as also described above:

> *"… the people that are leaving are our young people who just qualified at university and they're all going ok your older guys who've been doing this for years they should be rewarded they should be looked after because they are the people who have taken ems more than fifteen twenty years and made it evolve to what it is today and that and unfortunately those guys are not being appreciated by the employer as much as they should be … and the employer should focus on those guys… we should also be looking at guys whose contributed so much to this service".* [Metro#6]

Participant Metro#6 intimated that EMC organizations are not respecting their employees, or rewarding the contributions they have made – both the newly qualified and the senior paramedics that have dedicated many years to the service: "those guys are not being appreciated by the employer as much as they should be". This statement represents a serious indictment in light of the qualified and experienced paramedics leaving South Africa to work elsewhere, as referred to in the extract, when they are so urgently needed here. The evidence presented through the narratives of the participants suggests that organizations need to acknowledge the dangerous and traumatic circumstances their employees work under, do what they can to support them, and pay attention and address the serious organizational issues that have been highlighted.

Gender Realities. It is noteworthy that most male participants referred to their colleagues as "the guys" or "he". In contrast, female participants spoke of their fellow paramedics as "we", "practitioners", and "staff". Female participants were therefore more

'inclusive' and gender neutral, using terms such as "us', "colleagues", "paramedics", "crew partners", and as being a "tightly knit community".

A senior participant and base manager pointed out that in his opinion the job is too dangerous for women due to all the risks involved:

> *"if you were my wife I wouldn't let you work in this environment currently because number one it's it's fairly a risk ... a risky uh occupation to be uhm you're exposed to all the elements right".* [Metro#1]

The high-risk working environments are applicable to *all* EMC practitioners though. Only female paramedics themselves will be able to comment on whether they feel that they are even at more risk than their male counterparts, yet no one in this sample indicated this and spoke only in general terms about their safety realities.

Metro#1 admitted that a 'certain type of woman' can do the job of paramedic just as well as her male colleagues:

> *"I must say there is some females that manage it but that is one out of a ...thousand or or or a hundred ... it's the minority ... you get this really tough type of ladies tough it's only one maybe one out of a thousand that you get".* [Metro#1]

In this participant's opinion these women were in the vast minority and were described as being the "tough" type, but did not expand on his description.

Moreover, the participant referred to the interrelationship problems that may arise between females working together on shift as compared to males:

> *"we've got quite a number of inter relationship uh problems ... especially among the females ... because it's maybe the different characters ... it is among the gentleman we do find but but no it's not so common ... among the ladies you find all the uh problems related to character".* [Metro#1]

One could only speculate as to what the participant was referring to when he spoke of "character problems" between female paramedics, and should not generalize this statement – it is possible this had occurred only at the particular ambulance base he manages.

However, it should be noted that the participant hastened to add that he does not discriminate against women, but that they do experience some challenges regarding certain aspects of the work:

> *"a lady a female can do any type of job and I I believe that … they can but there is certain instance in this environment that we are working that ladies they they do struggle".* [Metro#1]

Participant Metro#2 provides a female perspective, and very assertively states her perspective regarding women that work in the EMC industry:

> *"a female can do anything she puts her mind to … so it it is more uh strenuous where physical attributes are concerned like strength …so it is a bit challenging we do need a male or male strength … but females have more I I think my own personal opinion we have more that emotional connection with with people than men … so a female have that feminine touch uh that sense of care for other people not that I'm saying men don't have but ja …"*

This participant, as were the other female participants in the sample, were very candid, admitting that they need the physical strength of their male partners when out on calls, especially as regards the "strenuous" lifting of patients. She expressed the opinion however that female paramedics have an added attribute that males 'possibly' don't have – the "emotional connection" and "feminine touch" that is very important when working with the seriously injured or ill, patients in distress.

It is therefore apparent that some evidence of gender tension exists at certain of the bases where interviews were conducted. However, there was no indication that this had created serious conflict and that operations were negatively affected.

Changed Life Perspective. Do paramedics experience philosophical or existential consequences besides the physical and emotional aftereffects of the job? Does it change their attitude, outlook, and lead to a better understanding of life? Do they view their own circumstances and lives differently, or gain new insights regarding the meaning of life? How do they express the effects or traumatic impact their job has? Do they feel or see themselves

personally growing? If they do, are the effects mostly negative, or do they experience positive growth?

These questions lead to the identification of the third key theme, *Changed Life Perspective.* The participants' accounts of how they view life as a result of their job are explored.

Different Outlook. Participants almost unanimously stated that their jobs have caused them to view life in a different light, and that they have been made aware of the existence of different dimensions:

> *"you do look at things very differently and you look at the way people act very differently".* [ER24#2]
>
> *"... yes I definitely see things differently... I definitely see things differently".* [ER24#6]
>
> *"... it gives you a rounded view on life and it makes you it makes you realize what's important and what's not important".* [ER24#]

It is interesting that participants used the verbs "look" and "see" to express their changed outlook on life. They reported gaining new perspectives on what is significant regarding life in general, and human behaviour in particular. Participants shared evidence of experiencing the following due to their job: expanded understanding and knowledge, increased insight, expanded yet more refined worldviews – "a rounded view of life", and that they are able to discern more effectively what is important in life.

Adversarial Growth. The narratives of the participants provided much evidence of the professional growth their job has afforded them. Although the traumatic nature of the job was confirmed, participants also attested to the fact that they had grown, developed or 'evolved' as a result of being paramedics. However, they found it very challenging to express themselves in describing this growth, and responses ranged as follows: equating growth with the job while at the same time stating that the nature of the EMC occupation forces any practitioner to grow;

talking about growth in general; citing particular characteristics that they deem synonymous with growth; and descriptions detailing negative to positive change.

Two participants directly attributed the personal growth they have experienced to the fact that they are paramedics:

> *"... I think I'm actually growing mostly because of the the job".* [ER24#7]

> *"definitely I have definitely grown and it's part of the process I think of becoming a paramedic".* [Metro#7]

The participants stated that it is the job itself that forces paramedics to grow. It was significant that participants spoke strongly about 'forced' nature of the maturation, and the rapid personal, emotional, and psychological growth and development due to being a paramedic:

> *"... you are forced to to to grow more ... because of the the emotional side of things upon your life and that uhm so do people grow more because of of posttraumatic stress and stuff uhm ... or learn or move forward ... yes you do".* [Metro#6]

> *"... I think I've definitely grown I think when somebody puts their life in your hands you've got to grow you've got to you know uhm (.) I'm trying to find the right words (.) uhm (.) ja no [phoof] you grow in ways that well you're forced to grow actually it's not that you want to grow you're put into situations where deal with this [hits table] bang and you have to for everybody around you for the person whose lying in front of you for for all sorts of reasons you have to deal with it and and that that makes you grow it gives you confidence it gives you perspective you know you it it makes you research stuff it ja definitely growth".* [ER24#8]

It appears as if growth is an inevitable consequence of the job, yet ultimately participants view the gains in a positive light. Participant Metro#6 describes the emotional hardiness that results from the posttraumatic stress paramedics are subjected to. Participant ER#8 refers to the increased responsibility and confidence that comes about almost involuntarily because of the countless incidents paramedics deal with that require immediate action.

Comments were made descriptive of the 'overall' growth that takes place by working in the emergency medical care service:

> *"... definitely definitely definitely definitely if I think what I thought what I knew when I started here and what I know about people now it is a very big difference you grow continuously everything becomes you understand things better uhm you just grow*

> *[laughs] you you just become a better person"; "… it's made me care a lot more about people and life it's made me look at things in a very different light prior to me actually working in ems it's made me look at certain things in a serious way and lots of other things … you know ems yes it is it does help you grow it does help you see things in a different light it does".* [Metro#9]

> *"… and I think you get a lot of uhm growth just from experiencing all of that might be not nice things to to experience that all the time but I think you do get a lot of growth from that and you appreciate things a lot more".* [ER24#2]

> *"definitely I mean the the experiences and uh the way of the world that we see and the the type of life that you see you're exposed to…".* [ER24#9]

The repeated use of the word "definitely" in these quotes provides a clear indication of the powerful impact the job has had on the participants. They attribute their personal development and changed outlook on life to the growth they have experienced.

Participants had a challenge though in articulating whether they had experienced personal growth in their lives, and resorted to using practical examples or citing 'characteristics', as the following extracts illustrate:

> *"the way I see life the way I uh the way I live life all of that I think again what it does it builds you it really builds you it builds your character"*; *"I think for me lots of things I think as I've said the way I see life the way I uh the way I live life all of that I think again what it does it builds you it really builds you it builds your character I you need to or what it does is it* ***forces*** *you in a way to speak more to people if you're introvert introverted it will* ***force*** *you to actually speak up a lot more it will* ***force*** *you to take a stand it will* ***force*** *you to make decisions essentially it builds up a lot of leadership qualities in you so if you want to leave the field after a couple of years it builds you up to a certain level it exposes you to a lot and experience there's no sometimes there's no better teacher than experience so it pushes you to actually reinvent yourself if you're a quieter person or even if you're a talkative person so personally that can take you and push you into different places…"; "has it made me hard no has it made me a horrible person no it hasn't if anything it's made me care more that's what it's done".* [ER24#1]

Participant ER24#1 first makes a statement wherein he provides a general description of the personal impact growth makes, then describes the powerful, all-encompassing effect his job has had on him with the following words: "the way I see life … the way I live life". By repeating the word "builds" three times, he emphasizes how being a paramedic develops your character in a positive manner, then proceeds to give examples: the job pushed him to become more of an extrovert; compelled him to make judgements; he became more tolerant, and in so

doing became a better leader; and he became more caring. Earlier in the interview he shared his belief that this is the reason why he was appointed a base manager. In his opinion the EMC profession develops an individual to reach a higher personal level than had they chosen a different occupation, and literally changes you: "it pushes you to actually reinvent yourself".

Participant ER24#4 similarly testifies about growing in character strength, maturity, and an increased resilience that has enabled her to cope more capably with life:

> *"so I've definitely grown in terms of maturity in that way uhm I've also grown in terms of character strength uhm certain things that would've hurt me or you know caused me some upset of some sort previously doesn't anymore uhm … so in terms of character strength and uhm learning that I give power to certain things to upset me or not uhm is definitely been a positive character growth for me uhm things don't upset me anymore".* [ER24#4]

In the next four extracts participants add the following job-related growth examples – problem-solving, openness, wisdom, decision-making skills, empathy, self-assurance and responsibility:

> "*yes definitely uhm it has developed me in in such a way that I can uh I can always I always have solutions for for problems and it made me a innovative thinker you know uhm and uh and I can always uh uhm express uhm my thoughts or help other people you know give them good advice sound advice based on my experience";* "*because you seen … what it does you know the destruction … so all that destruction that you saw uhm it makes you more open and it makes you wiser … not to to com to make the same mistake … that other people has made".* [Metro#5]

> *"you need to you need to be able to take charge and take risks other than that you can't come here and think that you are not going to be put into a situation where you're gonna not have to make a decision that could be the difference between someone's life or death which can be difficult which something I struggled with in the beginning it's hard to make a decision knowing that what you choose to do … can have an effect on someone's life … uhm so you need to have a strong will…".* [Metro#7]

> *"… it's helped me to be a more sympathetic and empathetic person …".* [ER24#3]

> "*… I think it gives you a lot of autonomy you you you are your own practitioner you are responsible for what you do you you know you have to be responsible…".*
> [ER24#8]

In addition to the characteristics cited in the extracts above, the sample associated the following attributes with growing on the job: increased knowledge about people and life; being

multi-skilled; possessing communication skills; and having the ability to assume a leadership role.

The trauma they encounter in their job has led this sample of paramedics to an awareness of how they have developed to the positive, through the negative:

> *"paramedics grow after the trauma … as a result of the trauma …as a result of it yes it is as a result of it because no paramedic does not have trauma … there is no such thing every paramedic has his trauma and as a result of this you become larger in your view of all things of everything [sighs](.) yes that's right … as a result of your trauma cause if you didn't have that trauma you still would have seen things differently … yes you would have seen it very differently if you didn't have it … and you wouldn't have understood many things until you went through that trauma and you know what it's about … now you also understand things and now you also know what people go through".* [Metro#9]

This participant refers to the fact that her view of life expanded "as a result of your trauma cause if you didn't have that trauma you still would have seen things differently". She makes the point that it is the experience of living through the trauma the job brings that has enabled her to view things differently.

> *"out of negative situations uhm I would try and turn it into something positive … at the end of the day I learn from things like that so I think that actually makes uhm oh well if you can learn from your negative situation and try and turn it into something positive at the end of the day it makes a difference … it's not always possible … but I mean you try your best like try and see the positive into whatever the negative thing was try and see something positive in it it's like I said it's uh it might be a learning curve for you maybe it isn't something that you can turn into something positive at the end of the day … but uh uhm ja I I like I said I always try and learn something out of something like that and try and do something better the next time ok if there if it's possible if the situation allows that … or whatever I've been exposed to something like this before uhm I don't think I handled it correctly I think I can do something better next time … that type of thing so ja just try and stay positive".* [ER24#5]

Participant ER24#5 states that, for the most part, it is possible to change the many negative realities they encounter on the job into "something positive", learning experiences that "makes a difference":

> *"I I would say I've experience a lot more growth uhm from the trauma because I find the positive side of things uhm especially after a case a traumatic experience remember my my traumatic experiences might be different … from from other people but my my post traumatic evaluation of things uhm is a lot more positive … because it try to find the positive at the immediate point in time it's negative … uhm the emotional*

> *feeling is negative the impact of it is negative on all aspects of my life uhm but after dealing with it a couple of weeks later uhm I always stand back and find find the positive about it uhm and the positive would be rectifying the issues … preventing it from happening again uhm perhaps uh dealing with it a lot better uh for me also the car accidents trauma will always happen uhm the patients will always be there there will always be a big car accident with with people in it uh there's nothing you can do to go and change that but how you're dealing with it … and how you're dealing with your patient and making difference in their lives or their families' lives is is always the positive thing for me to find".* [ER24#9]

This extract provides evidence that the trauma paramedics experience in the course of their job do not necessarily result in negative consequences, but instead may bring about growth. Participant ER24#9 attributes this directly to a positive "post traumatic evaluation of things" because of having the ability to "find the positive at the immediate point in time it's negative".

> *"… I think when I started as a paramedic seven years ago definitely I'd say I had more of a post traumatic distress post traumatic symptoms uhm not having understanding behind it and you know why all the time and why we seeing this and how can people be so stupid to I think I've transitioned from that into more of a growth from it so definitely over the last seven years it's definitely has changed in the beginning you know you're all eager you know I'm a paramedic I'm going to save lives and then suddenly you're faced with the harsh reality and like this is not what I signed up for and it does affect you but I've just been very fortunate in life of making the right friends at the right time to help me with it uhm that now it has turned into growth so if I look at myself* ***then*** *yes definitely post traumatic stress that was then but* ***now*** *I'd say I'm in more of a growth phase now when I experience things and see things I now am able to learn from it and grow from it".* [ER24#4]

This extract epitomizes the core meaning of adversarial growth, which are revised assumptions and positive changes that occur following stressful and traumatic events (Linley & Joseph, 2006). Participant ER24#4 uses the word "transitioned" to explain the progression of changing the posttraumatic distress the job brings, into posttraumatic growth. She describes it as being a process that takes time, and that all subsequent experiences are evaluated in the context of the growth. The result is a lasting "growth phase".

In the following extract Participant Metro#7 emphasizes that paramedics themselves ultimately determine the outcome of the traumatic experiences they experience. The outcome

is dependent on how they "deal" with and "reflect" on it – a cognitive process that includes positive thinking and results in invaluable learning:

> *"I think it's how you deal with it and you reflect on it I find that the purpose of or the place of reflection is critical … because when you deal with something negative and you don't reflect on what happened you repeat negativity… and it's just compounded on but when you reflect positively you know you know like when you have like some bad call then reflect on it you go ok this is what happened let's learn from the situation deal with it differently then it comes out positively the second time you know cool that then lays on top of the negative you go cool that was a positive … cause I learned something from it".* [Metro#7]

Participant Metro#9 states in the extract below that the attitude of paramedics play an important role in transforming negative trauma events into positive change:

> *"but again it's up to a person it's it's up to an individual how you take everything I could have taken my whole life and I could have said this is horrible and I could have said you know I am depressed and I need to become an alcoholic".*

Growth is a personal decision. If no growth is forthcoming life may be unbearable. The participant comments that depression or alcoholism may be an outcome, and that growth is therefore dependent on how each paramedic chooses to react to the traumas of the job.

The following two participants succinctly state that growth through adversity depends on the individual:

> *"I think it's an individual thing I have some colleagues that it's definitely true for … it's definitely a individual thing or in my experience that it's a individual thing".* [ER24#4]

> *"… I can't give you a yes or no because I think it really does depend on the individual".* [ER24#8]

In Chapter 3 it was noted that posttraumatic growth refers to the "reports of positive changes in individuals that occur as the result of attempts to cope in the aftermath of traumatic life events" (in Linley & Joseph, 2004b, p. 406). The narratives of the participants in this study sample thus confirm that adversarial growth is individualistic in nature, and is an active process.

Gratitude. Paramedics travel to their patients, no matter where they are. They enter their realities, into the very communities and homes and they live. Participants commented on the dire and harsh conditions many of their patients find themselves in – some living in informal

settlements in abject poverty – and how deeply they have been affected by witnessing these living conditions. They described these experiences as having a profound effect on them, forcing them to compare their own situations with those of their patients – especially the stark differences:

> *"… you know you see people in very uhm dire situations an you know you kind of get a new perspective on life and kind of also just the the walking into to you know where people live and seeing how other people live and you know especially in the the informal settlements and that sort of thing where there is just absolute poverty and just realizing how much I have you know always grow up thinking oh ja here's one of the poor people and you kind of realize just how rich you are … even if it's just a few things that you have you know I have a car I have a place to stay that's more than a lot of people have … just seeing that it's definitely uhm helped me to realize uhm ja I have it much better than a lot of people do".* [Metro#4]

> *"there's a lot of different elements that you work with you work with rich you work with poor it gives you a different dimension into* ***your*** *world that you're living in uhm not everyone is as lucky as you are as blessed as you are so you walk away with a lot of gratitude".* [Metro#8]

> *"… I would think normal civilian guys uh people don't get exposed to to that side of the world normally so they don't get to go into the informal settlements and and see how harsh and bad … other people live and the the type of things that people go through on a daily basis we're so lucky to just live in a house with a with a roof over us uhm I think that was one of the major uhm steppings for me from from the beginning even when we started when I started in matric working on the ambulances you already started seeing this different outlook on life sometimes it's a bleak outlook on life but when you're sitting and dealing with your own problems you can immediately see the the difference…".* [ER24#9]

The participants' narratives were similar when describing the powerful effect of being exposed to these realities, and all compared their own situations to what they had witnessed: what they had was "much better", and they felt "blessed" and "lucky". They expressed appreciation and thankfulness for their own circumstances.

The exposure to the appalling conditions some of their patients live in led to an existential review in the participants' own lives: it gave them "a new perspective on life", "a different dimension into [their] world", and "a different outlook on life".

> *"the way you see other people in the world you know you might like before you might have seen a homeless person and then like ah you know what is that but when you actually see their side of it you know when you're working in it and deal with those people every day you see you know that they maybe how they've become there you*

> *know the struggles they've had and a lot of the people go through a lot and that where they actually are it's remarkable how you know how positive some of the people still are when you look at their situations they're in and the things they've gone through".* [ER24#2]

In the extract above participant ER24#2 describes the new awareness he came to in his life as a result of being exposed to the alternative realities of people in the course of doing his job – a renewed empathy for people in general. He expresses his admiration for the resilience of people in the face of the "struggles" they go through, noting "it's remarkable how you know how positive some of the people still are". This sentiment is definitive of the 'changed life perspective' theme, and is also one of the characteristics of adversarial growth.

Meaning. Participants were asked to express themselves on whether they believed that being paramedics had contributed to them experiencing added meaning in their lives. They found it challenging to express and articulate their thoughts on the 'conception' of meaning brought about by their occupation. This will be further explored in Chapter 6. Responses ranged from participants alluding to functional, work and career-related instances, interpersonal elements, abstract and philosophical expressions on the significance of life, to the association of meaning with religion.

Certain participants equated having meaning in their life directly with the job:

> *"… this job is just one of those jobs that you just don't find every day it is not like a is not an office job it is not a hospital job it is on its own this is something on its own … I don't think there is a comparison for it … so its its its very special … and it gives you the the meaning it gives you the meaning … gives meaning in your life yes there is not something like it something else that you can say is basically the same".* [Metro#9]

Participant Metro#9 described being a paramedic as being unique, "something on its own", "special". The extract seems to suggest that the participant's whole identity is constructed on being a paramedic, and therefore the singular source from which meaning is obtained.

Participants associated meaning with their thrilling and stimulating work environment:

> "*I don't think I'd change my profession for anything uhm with this type of work you'll always there are always uh new things you're exposed to uhm technology changes you can never master it never as far as I'm concerned there's always something new …*

> *and that is what keeps me going … if I master something I start getting bored so with this like I said there's always something new to learn and there's always the next step and you always want to get there like so studying further would be next step for me".* [ER24#5]

> "*… I think just being out there with and uh it it all there's that rush also uhm I don't know if it's maybe selfish but it's nice to be out there you know running on a call going there being (.) not that you I don't think I'm I'm I'm all that uh I believe uh I'm I'm not all that but just going there you know having fun for the day it is a fun job not sitting in in one room or paperwork …".* [Metro#2]

> *"… it's always good fun running around and and and doing all of these things because we see it more of a game not a game but we see it more of a a a fun thing of doing it because it's all this adrenaline rush the whole time … so we enjoy the adrenaline rush…".* [ER24#9]

The participants declared that there is always something new in their work – there are always new developments in emergency medical care, and it is therefore exciting and never boring. Both Participants Metro#2 and ER#9 describe the work as being "fun" and talk about the adrenaline rush they experience. Might some paramedics be sensation-seeking personalities?

In the following extract Participant Metro#3 describes how the fact that he is a paramedic brings meaning to his life. He has a career, and did not succumb to becoming involved in the gangsterism that is rife in his community:

> *"you see I uhm I live in the very community that we serve very same area and if I should look at where I was ten eleven twelve years old and what things that has transpired in those years to now I'm actually quite gra uh uh grateful for that because there's certain individuals that is still in that or still doing those things that that that I have uh that I've left behind if I should put it that way seeing people uhm you know families going through uh you know difficult times in the sense of they're struggling with gangsterism they're struggling with violence it uh makes me more wiser or makes me more uh witty over the fact that you know what this is where I've been this is the people that I've grown up with and this is where I am so in order for me to stay I need to progress not progress only in my career but progress as an individual".*

This participant therefore equates meaning in life to his job and the professional development he enjoys as a result.

Participant ER24#5 obtains meaning by observing people and learning how they manage their lives:

> *"… to see what people go through in life and how they deal with things differently uhm you're experiencing things like this with them…".*

In addition, she finds it meaningful that she shares common experiences with her patients, albeit brief.

The same participant similarly associates meaning with experiencing increased caring or compassion, and empathy, as did another participant:

> *"(.) you I don't know it's if you can feel for someone else it makes a difference you know if you can put yourself in in that person's shoes just for those few minutes and and experience what they and their feelings their emotions and things like that if if you can actually feel that then it makes you a better person at the end of the day I mean how would you handle it this is the way this person is handling it how would I do something like that and how would you encourage that person to get over whatever fear or depression or everything else they're going through".* [ER24#5]

Participant Metro#3 compares meaning with experiencing continuous growth, increased understanding and insight:

> "*… the understanding behind doing certain things is greater it's more there and I feel that …*".

From the participants' narratives it becomes apparent that by doing emergency medical care work the preciousness of life becomes apparent, and that it can lead to an increased, changed, or different life perspective. Their appreciation for life is also enhanced and intensified:

> *"… I I (.) I know you must live more (.) you must not live in a little box you must experience it more you can decease or die any time … or whatever so you must I think I found meaning I find beauty in the smallest things even if it is the mountains things that come over or the rainbow … every time I see something small or a pretty little bird or a pretty little flower I see I try to see the beauty … I immediately see the beauty in everything".* [ER24#6]

The sentiment and goal of living life to the fullest is very evident. In this participant's words, it has the effect of finding beauty and meaning "in everything", especially nature.

The participants' accounts revealed that it is very important for paramedics to be needed and to make a positive difference. Participant ER#2 compared the act of helping people to acquiring meaning in life:

> *"look I think you do get more meaning in your in your life because you are physically helping people and every day you see the help that you generate but also at the same time you see that you might be what you might be doing might be helping that person then and now that it's not a lasting help and then that also could give you a bit of a helpless feeling you think like you know you want to if you want to do something to save everyone … so it's a bit of a (.) it gives you meaning and also maybe takes away a little bit you actually realize how small you are".* [ER24#2]

The participant is very realistic when commenting that paramedics are aware that the assistance they provide might be just temporary, that it is not "lasting help". He describes the resulting helplessness they feel, and that it makes them realize how "small" they are. The experience of meaning in the context of the job therefore has an ambiguous quality – on the one hand it takes away, but on the other it gives meaning.

ER24 Participant #4 refers to her religion when she explains experiencing meaning in her life:

> *"I was brought up as a Christian I've always been a Christian but since being a paramedic I've been able to actually physically see God's work which both look people die people get hurt and that you know used to play with that idea of why would God allow this to happen but then you see the other aspects of it and I think through it I've been able to grow as a Christian and see God* ***more*** *in life and in what has happened which translates for both professional life and personal life so I think ja I think it's the only aspect that's really meaningful … I can see God's hand at work and it's not obvious but I think by knowing that there is a God and in seeing what is happening it's definitely given more meaning to what I'm doing uhm it's given more meaning to my life outside of work because now I can definitely my job has confirmed to me that there is a God and now when I do things at work it's more meaningful because I know that it's part of something larger and I can see what's happening in terms of that which has given me more meaning to go into my personal life as well".*

The participant's religion has influenced her perspective of meaning in both her personal and professional life. She sees evidence of "God's hand at work", and this has helped her make sense of the trauma she is exposed to being a paramedic. She states that the "job has confirmed to [her] that there is a God". This has provided the context for her whole existence: "now when I do things at work it's more meaningful because I know that it's part of something larger and I can see what's happening in terms of that which has given me more meaning".

Mortality. The whole focus and goal of emergency care is to help people, save lives and combat death. Yet the bleak reality is that not all lives can be saved. Life is short and precious. Part of the job entails informing families and friends that the resuscitation has failed, and to make the death declaration. Very few jobs deal as intimately with the cycle of life – birth to death – as does emergency medical care. Few jobs witness how unexpectedly and quickly an accident, often fatal, can happen. What effect does this have on paramedics? What are the existential consequences of being confronted with death every day?

However, a seemingly paradoxical outcome of working with death so closely can be discerned. My participants, who so often deal with and process the loss of life, also expressed positive, life affirming sentiments. It was clear that they appreciate life far more intensely because of constantly being exposed to death. The concept of *Mortality,* and the fourth key theme, summarizes the life and death cycle.

Impermanence of Life. During each shift paramedics are confronted with the inescapability of death. Many of the participants made statements about the stark reality of life, its transience, and the inevitability and swiftness of death.

Having a 'philosophy of death' becomes crucial in how EMC practitioners process and cope with losing a patient to death, as the following participant expresses:

> "*… we come with a philosophy yes we here in order to assist people but we're not here to save lives and uh fortunately for myself and uh the colleagues that I worked with we uh I tell them always we maintain this that life and death is not by us so* ***knowing*** *that we haven't resusced the child successfully knowing that we we yes we feel bad we feel that we could have done more therefore we sit down we analyse things go through things could there have been any loophole could there have been anything that we could have done … if there isn't then you know we can only you know it was just meant to be and the child shouldn't shouldn't make it".* [Metro#3]

This extract expresses the viewpoint that paramedics are there to help people, "but not to save lives". The participant explains this seemingly shocking statement when he makes his belief clear that life and death are ultimately not directly under the control of paramedics, and

that there is another or a 'higher' power at work. When they have applied all their skill, but the child still dies "it was just meant to be".

The same participant reflects further on in his narrative:

> *"… you start realizing you know what it's not you … it can't be you because that three died but the other eight … made it … so where you know it was just their time and you start to cope you start realizing that death is not up to you life and death is not up to you and that's starting to become a coping mechanism for the resus we did everything we can the patient still died it was their time … and you stop with the wondering and could I have should have's".* [Metro#3]

The extract implies that for their own psychological survival and sanity paramedics have to accept that they cannot blame themselves for patients' deaths. The participant states that if a resuscitation was unsuccessful it "was their time".

Participant Metro#7 expresses his 'philosophy of death' in an almost 'matter-of-fact' manner:

> *"I I think you might look at life differently cause you see death all the time … and you have to catch babies like relatively often so we see death and life so we have to deal with it on a daily basis so you know I know that I will die one day which is ok".*

The work of a paramedic consists of a constant interplay between birth and death. Not only do they have to cope with this reality, but they have to accept the certainty that "I know that I will die one day which is ok", as Participant Metro#7 states. This extract is a stark expression of the fact that ultimately paramedics have to accept, even with all the training and skill they possess, that they do not hold the power over death in their hands, and that they themselves will become its victim someday.

Clearly Defined Focus. Participants reported that their frequent close encounters with death resulted in their life priorities coming into sharper focus:

> "*… you have to again as an individual look at life and go hey what is life about what do I want to achieve how can I make other people happier today am I doing something different today am I doing it better and I think there's simple simple simple philosophies or theories that you take and if you apply them to your life but just try and be good you won't let anything really bad happen bad things can happen take it and turn it into good look I might sound like I'm probably taking some happy pills … but I can assure you I'm not … I just I just think again it's a person's outlook on life*

> *you can take a situation and see the good or see the bad … they say you must always look at the brighter side of life … look at things more positively … look at the positive side cause everything's brighter there … something along those lines … but yes no I think that's that's what I think those are my opinions I think just take a situation look at it and say hey let's make it better … that's why we live".* [ER24#1]

The participant comments that the job brings about a compulsion to decide what is significant in life, that a critical evaluation is needed, then specifically mentions the importance of setting goals. He states his life philosophy, with his main goal being to do good, to make people happy, and to transform negative situations into positive. Being a paramedic allows him to fulfil these goals.

Living Life to the Fullest. Working in close proximity to death continually has the contradictory effect of becoming more intensely aware of the preciousness of life. Experiencing all, living each moment to the fullest extent, and finding beauty in everything becomes of the utmost importance:

> *"… you know being a paramedic has has definitely taught me not to take life for granted because of what we see and uhm the stories and the calls that we go to … and you realize that life cannot be taken for granted because we see how quickly people die … quickly and and as I say you get there and they'll tell you but he was just talking to us now … and you kind of want to live it to the fullest as much as you can".* [Metro#6]

> *"you see death you see that my response was it depends how you look at it I said I want you to picture it this way I want you to picture my life this way I said I see the beginning of life (.) I see people in between I see the end of life I see people in happy moments during work outside work I see people at their most vulnerable I say I see people you know at their most honest moments they say the on most honest you can be is with a gun to your head … I think it's when you're really critically injured … so I said if that now that makes me appreciate life I said you come out of that and you understand that life can be taken away from you at any moment so shouldn't that actually make you appreciate life ten times more … [laughs] so it's and it does it does … if you see the beginning you see the end you see how quick it can be taken live every day give every day a hundred and fifty percent … you should be doing that any way but my job actually made me do that even more so you must love like there's no tomorrow live life like there's you know like it's your last day".* [ER24#1]

> *"… you never know when your life would be ended uhm I I think we we see that quite often cause uhm you have a perfectly health healthy person that could be in a accident and he'd pass away and then you'd have a ninety year old person that passes away so you never know when it's going to end so I think we all learn to enjoy the time that we have uhm while we have it and enjoy it to the utmost and not let small things uhm impact on the way that you're going to live your life so I think being in this profession*

> *has taught me that a lot quicker than what it would in most other professions I think".* [ER24#7]

Participant Metro#6 strongly asserts that life should not be taken for granted. He remarks how quickly death can come, and that this should be the motivation to live life all-out, "as much as you can". Participant ER24#1 provides examples of paramedics' close proximity to death, also in the context of their own safety when at scenes. Because "life can be taken away from you at any moment" you have a responsibility to "give every day a hundred and fifty percent". Participant ER24#7 concurs that "you never know when your life would be ended", and that this should be enough reason for individuals to appreciate each minute of the life they are granted. He attributes this 'realization' to his job: "I think being in this profession has taught me that a lot quicker than what it would in most other professions".

Religion. Six participants testified as to how religion has influenced and affected their attitude to having a job that constantly has to contend with death:

> "*I believe in you know my creator God the Father who always guides me and so prayer prayer helps a lot … praying before I leave home praying at night praying throughout the day the whole day … you know asking for guidance and speaking about … what experience"; "I don't believe in it as saving a life … I believe more it's uh like an extension of God's hand … God has the upper just spiritually now … He has the upper hand so you're the helping hand of God … but because of you if you think of it as saving a life some people do die … while you treat them so and there's* ***nothing*** *you can only do what you were taught and then maybe some wisdom from God as well to guide you but if that life ends there (.) it ends … and it if you think of it as saving a life it can be more stressful on you as a person going home thinking oh I didn't save that person's life today his life was in my hands".* [Metro#2]

> *"I do believe in God I sometimes do believe there's divine intervention I think sometimes you need to say work is work and you need to leave it at that I think you need to make peace with the fact that people do die I think you need to make peace with reality".* [ER24#1]

Participant Metro#2 describes how important her faith is to her, that she prays constantly and has a running conversation with God throughout the day. She strongly believes that she, as a paramedic, is merely the "helping hand of God", and that He holds the power over life and death. She remarks that "if you think of it as saving a life it can be more stressful on

you as a person going home thinking oh I didn't save that person's life today his life was in my hands", thus suggesting the possibility of serious emotional consequences.

Participant ER#1 states that he believes in "divine intervention". Many paramedics similarly believe that they do not have the final power over life and death.

The comments of these participants suggest that paramedics can be severely affected if they think of it as 'losing' a life every time a patient dies and should therefore accept that they are ultimately not responsible for a patient living or dying.

Appreciation for Life. Paramedics are always conscious of how close death is. This brings about a 'paradox' in that they appreciate and value life far more than had they been in a different occupation.

In the following two quotes participants state their realization of the worth of life brought about by the fact that they are paramedics:

> "*… and and yes you do kind of appreciate life more".* [Metro#6]

> *"… and if anything it's taught me that life is very very very precious it's taught me a lot".* [ER24#1]

Paramedics undoubtedly make a significant difference to society through the critical services they render. The constant exposure to the very 'negative' aspects of life bring participants to a new appreciation of life itself and helps them define what is most valuable in life:

> *"… because you've seen such negative side of the world you feel that you you do you do make a difference because you've seen a different side of the world you appreciate your life a lot more you appreciate your family a lot more uhm like after a bad bad case I would phone my my parents and just chat to them and just to hear their voice because they don't live in [town] so we it's always nice to to get that uhm and go home and feeling renewed about life after especially bad cases uhm I don't have children yet but to me that would be after treating a child you would appreciate your your family and your circumstance a lot more".* [ER24#9]

Being a paramedic has led this participant to a personal awareness and appreciation of his own circumstances, including the privilege of having family.

The following extract illustrates paramedics' very 'literal' involvement with life:

> "*… then there's the other side of the coin of it's strange but one of my favourite things to do is actually deliver a baby … it's such a different vibe it's such a different uhm energy that's there it's such a positive thing of bringing life into the world instead of seeing life leaving you know uhm and you get to you know just be part of that it's really something special something that it's a always brings a smile to my face and you know brightens my day uhm and dirties my ambulance".* [Metro#4]

When assisting with births paramedics are actively involved in bringing life into world. This participant describes the joy of "bringing a life into the world" and the positive energy it generates, thus bringing much needed "brightness" to a job that often deals with the darkness of death.

Conclusion

This chapter presented the thematic analysis of the narratives of the sample of paramedics, and the themes and sub-themes that were identified in the participants' narratives. In the course of the data analysis process two dimensions of analysis were identified. A *descriptive* analysis was effected of the following aspects pertaining to the study: the qualifications and training of paramedics; the characteristics of effective paramedics; the support services available to paramedics in their organizations; and the mechanisms the participants utilized in coping with a job filled with trauma.

An *experiential* analysis revealed four key themes in the narratives of the participants: Service; Realism, Changed Life Perspective; and Mortality. A number of sub-themes were also discussed for each of the four key themes.

Chapter 6

Discussion and Conclusion

The purpose of this study was to explore the different strategies employed by paramedics in order to cope with the vicarious trauma they are subjected to as a result of being in a critical occupation, along with a description of the extent and nature of adversarial growth they possibly experience after being consistently exposed to vicarious trauma as a result of the nature of their work.

Wilson and Raphael (1993) observed that not much attention has been paid to emergency medical care practitioners in international research. There is an even greater paucity of research on the South African Emergency Medical Care industry and paramedics. This became apparent when conducting a literature search. I was able to source only a limited number of rather dated articles. However, there was some indication of the industry being researched on a postgraduate level in the form of a master's thesis. In addition, every South African article employed quantitative research methods. No articles were found that specifically utilized qualitative methodology or thematic analysis.

Summary of Findings

Not much attention has been paid to *positive* aspects as regards paramedics in research specifically due to the somewhat erroneous belief that paramedics are 'inoculated' from the psychological aftereffects by their studies and training (Wilson & Raphael,1993). It was the intent of this study, as stated in Chapter 4, to contribute to the body of research exploring the EMC industry, with specific reference to a sample of South African paramedics, in an endeavour to understand and present, without any expectancies, their experiential reality. The profile descriptions regarding paramedics, as presented in Chapter 3, together with the narratives of this study's participants, have contributed to a descriptive profile of South African paramedics that are inclusive of both their vulnerabilities and resilience.

No South African studies on growth through adversity in the context of the EMC industry could be sourced. Indications of adversarial growth were observed in the participants of this study. As stated earlier, it was the intention of this study to add to existing literature on the topic and contribute focussed knowledge that may contribute to a better understanding of the experiences of South African paramedics, and furthermore, to present suggestions that may have a practical significance for the training of paramedics in South Africa, enhance the theoretical and skill aspects while preparing for their chosen occupation, as well as highlight current areas of concern with regard to EMC employing organizations.

The field of positive psychology was selected as the theoretical framework for this study. As was discussed in Chapter 2, positive psychology explores the resilience of humans despite the adversities they are confronted with throughout their lives. The field was founded with the purpose of counteracting the prevalent clinical explanations of post-trauma aftereffects. As such this approach offers a shift in focus from disease and pathology to resilience, optimal functioning, and what makes life meaningful.

The application of the positive psychology framework to the critical occupation of Emergency Medical Care proved to be very useful and insightful. A quote used in Chapter 2 as regards applied positive psychology warrants repeating at this juncture, in that the positive psychology approach indeed facilitated an exploration of the paramedic sample's "strengths, capacities, and resources, the key attributes and assets that have allowed them to survive, and in some cases flourish, despite the obstacles they have faced" (Linley & Joseph, 2004a, p. 8).

In accordance with Peterson and Seligman (2004), the participants' place of work provided a natural setting for the application of positive psychology, in that for many of the participants a 'right-fit' with their job afforded them the opportunity to 'construct and shape' their job, and even turn it into a calling if it was not one already. Positive psychology therefore indeed provided a very fitting theoretical framework for the exploration of adversarial growth

in the sample of paramedics. This study was able to confirm that exposure to traumatic events, even when experienced in the context of a life occupation, does not always result in dysfunctional or pathological reactions. A purely clinical approach would have limited this finding, and becomes even more significant when taking into account the current high-risk working condition crisis for paramedics in South Africa. The statement of Paton (1996) is thus echoed: positive professional and personal outcomes can be associated with working in an occupation that is situated in trauma and adversity (in Paton & Violanti, 1996).

The specific objectives of the study were as follows:

1) To describe how paramedics cope with vicarious trauma;
2) To explore the relationship between the coping methods paramedics apply and how they make sense of and express their experience of adversarial growth.
3) To describe characteristics of adversarial growth in paramedics; and
4) To identify the kinds of factors within paramedics and their work environment that can contribute to and encourage adversarial growth.

The study revealed that these four objectives differentiate into two distinct components. The first two related to coping, and more specifically, the mechanisms utilized by the sample to cope with the trauma of their job. For this component a descriptive discussion was deemed appropriate regarding factors that underpin coping, that is, the paramedics qualifications and training, the characteristics of successful paramedics, and the support services available to them in their organizations. The latter two objectives focused on a deeper, experiential exploration of adversarial growth, specifically as regards its characteristics and those factors that may contribute to encouraging posttraumatic growth in paramedics.

Vicarious Trauma and Coping. Paramedics experience vicarious trauma due to the reality of their job and the conditions they work under. They may similarly go through trauma due to the empathy they display towards their patients (Collins & Long, 2003b). This

interactive process between paramedics and their patients is inevitable and has a cumulative effect. Certain negative consequences may come about as a result of the exposure to the traumatic incidents that form part of the reality of the EMC industry (Harrison & Westwood, 2009; Baird & Kracen, 2006). In this regard South African paramedics showed similarities to descriptions of paramedics in international research studies.

Participants were requested to describe the most difficult, stressful, or traumatic aspects of being a paramedic, as well as the negative effects they had experienced in fulfilling their duties. Examples were provided in all of the following categories: physical, psychological/emotional, cognitive, behavioural, social, and occupational. The emotional impact of the vicarious trauma they experienced was significant enough to warrant a sub-theme under the key theme of Realism, as documented in Chapter 5. There was therefore extensive confirmation in participants' narratives of the trauma they had been exposed to and its effects on them.

When individuals experience stress or trauma they may interpret the resulting challenges they face as too demanding, and in attempting to deal with it exhaust their physical and psychological resources. Coping is a process that attempts to manage these demands. The coping efforts that individuals make "seek to manage, master, tolerate, reduce, or minimize the demands of a stressful environment" (Taylor & Stanton, 2007, p. 375).

In Chapter 3 four types of coping mechanisms as employed by paramedics to counteract the traumatic nature of their work were discussed, that is, psychological, cognitive, social, and occupational. As presented in Chapter 5, the analysis of the participants' narratives identified eight commonly used coping mechanisms, and provided confirmation for the presence of all four coping types. According to Taylor and Stanton (2007) these four categories of coping can be condensed into two all-encompassing coping approaches, namely intrapsychic, and behavioural or action-oriented. The intrapsychic mechanisms of the

participants in this study included personal introspection, religion, and emotional detachment, while talking to colleagues, debriefing and post-call evaluations, personal social support network, humour, and physical activity were indicative of the behavioural approach.

The coping strategies as identified in this sample of paramedics were thus as expected when compared to those identified in existing literature. The participants shared and described the mechanisms they utilized in coping with their trauma-filled job in a notably positive manner, therefore confirming the existence of active or transformational coping as described by Eschleman and Bowling (2010) in Chapter 3. These paramedics certainly engaged in problem-focused coping, which allowed them to convert their high-risk job and working environment into positive experiences. As a group they exhibited strong work engagement, and were, similar to Naudé and Rothmann's (2006) findings, "predisposed to experiencing stimuli from the environment in a positive manner" (p. 76), and their peer and personal support networks provided an invaluable and effective foundation from which to combat the effects of trauma. As documented by Paton and Violanti (1996), when working in the highly traumatic environment of emergency medical care, these paramedics were awarded opportunities for "personal growth, stronger emotional bonds with significant others, and a heightened awareness of the need to live life to the full" (p. 222).

Adversarial Growth. It was the objective of this qualitative study to explore adversarial growth in a sample of South African paramedics. The concept of adversarial growth was presented in Chapter 3, and was described and defined by Linley and Joseph (2006) as the manner in which people adjust their expectancies and beliefs about the world in a positive way through the process of living through and managing the anxiety brought about by adversity, in addition to being the "constellation of positive changes reported by people following stressful and traumatic events" (p. 125). The outcome of coping with adversarial growth was described

by Seery et al. (2010) as leading to increased levels of psychological functioning and well-being.

In Chapter 3 a number of characteristics of adversarial growth were similarly recorded, and a brief summary thereof will again be provided in order to facilitate the discussion of adversarial growth in the participants of this study. Tedeschi et al. (1998) noted that three specific pre-trauma factors would be conducive for the occurrence of adversarial growth, namely hope, optimism, and being action-oriented, while Linley and Joseph (2004a) provided a comprehensive list of those components descriptive of or essential for the manifestation of adversarial growth as follows: cognitive appraisal and processing; specific personality traits including conscientiousness, self-efficacy, hardiness, self-esteem, and optimism; problem- and emotion-focused coping; acceptance; positive reinterpretation; social support; and positive affect.

This study corroborated Cadell et al's. (2003) research findings that identified spirituality as being a factor that could also play a part in leading to adversarial growth. It was similarly found that religion could play a significant role in the development of AG. Schaefer and Moos (in Tedeschi et al., 1998) added that individuals' appraisal of trauma incidents, their coping experience, the coping mechanisms they employ, and the efficacy thereof could add to the development of adversarial growth.

During the interviews participants were asked whether, in their opinion, they generally experience more negative or more positive posttraumatic growth because of their occupation. Their responses as regards adversarial growth show a clear association with the defined aspects as described above. Participants indeed expressed their beliefs about the world in relation to their critical occupation, and three main categories of responses could be discerned. The majority of the sample, sixteen out of the eighteen participants, expressed either a fully positive opinion regarding their experience of posttraumatic growth, or a balanced view incorporating

both positive and negative aspects. Even the two participants who answered more negatively as regards posttraumatic growth admitted that they have indeed experienced elements of growth.

The participants' narratives therefore captured their perceptions of growth through adversity. The manner they made sense of and expressed this growth in positive terms thus conveyed what it meant to *them*. In the context of positive psychology, the narratives further captured facets of how humans manage and cope with trauma. In terms of adversarial growth, it captured how it affected their future orientation and positively influenced their insight, psychological and emotional development, and sense of meaning.

All the participants attested to the negative, dangerous circumstances they work under. In spite of this reality the participants managed the trauma and anxiety brought about by the adversity they experience in their job, and consistently reported on growing professionally as well as constantly being exposed to learning opportunities. Specific mention was made of the positive rewards the job brings, most significantly the privilege they have of helping people and saving lives. Participants similarly testified as to experiencing positive personal, psychological, and emotional growth, most notably attaining increased wisdom and meaning, and acquiring changed life perspectives.

Participants described their growth through adversity as being a very dynamic process: the positive had to be actively sought, often through the literal conversion of negative into positive. A number of participants emphasized that transformational growth through and from trauma is dependent on how effectively individuals are coping, with their support systems playing a crucial role in this regard, be it personal or organizational.

In the section on 'Personal Growth' in Chapter 5, participants' narratives clearly illustrated the belief that posttraumatic growth takes place due to the nature of being an emergency medical care practitioner working in an extremely high-risk environment. However,

they did not view this in a negative light, or as forced growth, but instead described it as 'involuntary' growth. In their perception they *had* to grow in order to survive in the industry, and expressed this in a very matter-of-fact manner. This suggests that it is these paramedics perception that growth through trauma and adversity is integrated in their occupation and is part of continuously being in a 'survival mode'. There is a constant subtle interplay between living through, managing, and coping with the adversity that forms part of the work reality of a paramedic, which in turn results in positive professional and personal growth and adaptation. Increased levels of psychological functioning and well-being results from adapting, as described above.

As alluded to earlier, participants found it challenging to express themselves in a 'language of experience' fitting to the abstract constructs of growth and meaning they were requested to respond to. Participants had some difficulty in articulating their perceptions regarding the relationship between trauma, adversity, and posttraumatic growth, there being an apparent 'absence' of language and suitable vocabulary to express these. Many of their responses were based on and limited to their concrete work engagement, with descriptions of personal work experiences offered in an attempt to answer the question. Based on their studies, practical training, and the support structures they have available in their organizations, the question may be asked whether these paramedics, or any other emergency medical care practitioners, gain sufficient conceptual 'tools' in the duration of their studies and training to articulate, talk about, and make sense of concepts like adversarial growth and meaning.

There consequently appears to be a gap in the study and training programmes of paramedics as regards the accumulation of knowledge they gain during their academic and skills training, and their ability to conceptualize and express the more abstract concepts relevant to the reality of working in the field. Though they will certainly experience adversity in the field, it is of importance that they be granted the opportunity to develop a 'language of growth'

that they can make use of to articulate the positive effects that comes with adversarial growth. The application of positive psychology processes, if incorporated in EMC training, may offer an effective non-threatening, non-clinical framework through which paramedics may be coached to make sense of growth and meaning, and how it can be facilitated, fostered, and supported.

Though an abstract concept, the definition of adversarial growth epitomizes the reality of the EMC occupation – in this study there is evidence that it is in effect 'produced' through the work. The concept of adversarial growth contributed significantly when attempting to make sense of the critical occupation that is Emergency Medical Care, and the description of growth as discerned in the narratives of the participants of this study proved to be distinctive. Participants expressed their growth through adversity in a very specific, concrete manner, thus providing substance to and expanding on the AG definitions in the literature as presented in this study. Paramedics, being confronted with life and death on every shift, are forced to make sense of their own lives, to re-define their well-being in the context of what they see and experience in every call they respond to.

As identified by the analysis of the narratives in Chapter 5, the themes and sub-themes described *how* the participants understood and articulated what is significant in their lives because of being paramedics, particularly the third and fourth key themes *Changed Life Perspective* and *Mortality.* Merely listing the sub-themes provides an expanded profile of posttraumatic growth: different outlook; adversarial growth itself; gratitude; meaning; the impermanence of life; clearly defined focus; living life to the fullest; the significant role religion plays; and appreciation for life. Therefore, although the participants may have found it challenging to express themselves on the topic of adversarial growth, the 'practical' manner in which they expressed themselves has distinctly added to an increased understanding of the concept.

A further finding was corroborated in that through the process of adversarial growth the participants' assumptions of their world were rebuilt, leading to changes in how they perceived themselves as well as their life philosophy (Splevins et al., 2010). Confirmation was similarly found regarding the fact that participants' fundamental assumptions were challenged and revised by the traumatic events they had experienced.

Articulation of the positive effects of adversarial growth was similarly found in the narratives of the sample, to name but a few: making meaning and applying cognitive processing, changed perceptions, and making sense through inquiry (Park & Helgeson, 2006); challenged beliefs (Boals et al., 2010); enhanced relationships, changed view of self, and changed philosophies of life (Linley & Joseph, 2006); a greater sense of personal strength (Roberts & Dutton, 2009); and new appreciation of life (Taylor, 2012). The examples regarding the positive effects of adversarial growth as sourced from literature and presented in Chapter 3 was therefore verified.

Emergency Medical Care in South Africa. A noteworthy finding brought to light through the narratives of the participants was the identification of some inconsistency between the manner of study and training to become an EMC practitioner, and the work itself. This primarily concerned the structure of the EMC short course training programmes versus the university degree programmes. As discussed in Chapter 5, the older and more senior participants' perceived a disparity between the efficacy of those paramedics trained by the short course model that included three distinct levels separated by 1000 hour practica between each of the levels, and the more academic EMC bachelor's degrees, of which the average practical component accumulated over a four-year bachelor's degree is 1200 hours (emc.nmmu.ac.za). In their opinion, compared to the minimum of 3000 hours they had completed during their training, 1200 hours is too little practical experience to prepare trainee paramedics adequately for the rigorous work reality. They expressed a certain frustration with the level of practical

skill of their younger colleagues, while at the same time also expressing concern regarding their level of psychological preparedness.

In addition, there was a degree of sensitivity that their short-course qualifications were viewed as somewhat less prestigious, and expressed negativity when describing instances of being bypassed for promotion in favour of the young, in their opinion less experienced, degree-holding paramedics. A critical issue was therefore the 'currency' of experience.

It is of utmost importance that attention be paid to increasing coursework in South African EMC curricula regarding the adequate psychological and emotional preparedness of trainee paramedics. The necessity for the inclusion of psychology modules, or expansion thereof if already included in the syllabi of EMC study and training programmes, became apparent in the narratives of the participants. Although nothing can prepare paramedics-in-training for the traumatic realities they will be exposed to on scene, the addition of content material in Psychology modules pertaining to the mechanics of stress and trauma, stress management, and coping methods, will go some way to address this crucial preparatory component to equip them as effectively possible for the reality in the field.

Both routes of training, short course and university, need to provide trainee paramedics adequate time to engage with their professional identities and expectations. In spite of the short course approach being more practical, and the university route being more academic in nature, they need to be given the opportunity to form and process accurate perceptions of a realistic paramedic work context while busy completing the various EMC modules and training components. Not only will this allow for the more effective management of their perceptions, but, as discussed in the adversarial growth section above, it will provide them with a language and vocabulary that can be used to articulate their concrete work-related issues and concerns in addition to those issues that are more abstract and possibly subconscious as yet.

The working conditions of paramedics in South Africa have become a serious challenge. Their personal safety, while attending to calls in certain communities, are being endangered. The narratives of the participants under the sub-theme 'working environment' in Chapter 5, sketched an extremely gloomy state of affairs. In the time of writing this dissertation, news reports describing the dire work circumstances of paramedics in certain areas in the Western Cape Province have appeared with increasing frequency.

Regular articles that document the worrying circumstances paramedics are working under appeared in News24, a South African online news publication. Paramedics have been held at gunpoint, and incidents of muggings have been documented (de Klerk, 2014). In many cases when paramedics are attacked and robbed the incidents are of an opportunistic nature. A Western Cape Health Department spokesperson described these occurrences as a societal problem that affects everybody (Herman, 2016a, par. 4).

Paramedics have started acting in response to the dangerous working conditions they are required to work under, and their trade union, Hospersa, has also become involved. Talks with the Provincial Health Department have started, as there are fears that "they will refuse going into the troubled areas" (Herman, 2016b, par. 6). Paramedics are described as being 'soft targets'. A different article pointed out the increased safety concerns of EMC workers after yet another ambulance attack, and the psychological and emotional trauma they suffered as a result. An EMC manager requested the community for assistance: "We urge people to remember that we are there to help. It could be your mother, sister, son or brother in the ambulance" (Etheridge, 2016a, par. 11). The paramedics do not always accept counselling to help them debrief after incidents, thereby living up to their 'tough' image. It is appalling that in some cases these perpetrators are protected, and that it is the very community members who may need medical care at some point in the future that are victimizing those paramedics who may be called out to attend to them.

Just two days after the previous article, an article appeared describing the constant 'state of fear' paramedics live in, while their "managers dread the day they are told someone has been killed on the job" (Etheridge, 2016b, par. 1). The high-risk hot-spot areas have been identified, and it is now common for police escorts to accompany the ambulances, especially during peak periods at night during weekends. The article further reported the low morale of paramedics, and how some are resorting to booking off sick at night and weekends. In contrast to earlier rejecting counselling, those paramedics involved in incidents now accept the offer, a clear indication of the trauma they are experiencing. The article describes how seriously work productivity has been affected: "The department has lost more than 4 470 working hours so far this year due to workers being depressed or stressed, more than for the whole of last year" (Etheridge, 2016b, par. 18).

In a second article on the same day, the issue was raised of whether paramedics should be given self-defence lessons, or, more drastically, armed. According to the Health Department this was not an option due to the fear that paramedics will be at risk even more. Instead they remain 'armed' only with radios. Police escorts after dark are now compulsory to any hot-spot area. However, it is the prerogative of ambulance teams to leave the area should they deem it necessary (Etheridge, 2016c). In a third article on the same day the journalist reported on a large group of EMC workers that had embarked on a protest march in one of the hot-spot areas. A memorandum demanded that attacks on EMS personnel stop before fatalities occur and appealed for support from residents. Forty attacks on ambulances have been documented in 2016 thus far. The following quote provided a sober contrast: "Even in countries where there are wars, we have never heard of ambulances being attacked" (Etheridge, 2016d, par. 2).

The EMC paramedics' 'march for safety', part of an anti-crime campaign, was the lead article of the Cape Times on the 15th of September 2016. A positive outcome of the march was that community policing forums, with the assistance of the South African Police Services,

will escort paramedics when they are called to crime hot-spots. The article reiterated that "opportunistic criminals take advantage of the paramedics because they know they are alone and are unarmed and defenceless" (Phaliso & Nkalane, 2016, p. 1). The despair of the paramedics was very evident in the following two quotes: "What kind of society attacks the people who help them?"; and "Safety is our concern. We don't have joy when we come to work because we don't know what will happen while we are working" (Phaliso & Nkalane, 2016, p. 1). They also intimated that they may consider 'downing tools' and striking to show their fear and unwillingness to respond should they be called out to one of the hot-spot areas.

An article in an Afrikaans newspaper that appeared on the same day similarly described the paramedics consciousness-raising march as an attempt to plead for their safety in the midst of the violent attacks against them while on the job. A paramedic was quoted as saying that if you are called out to a hot-spot, "your nerves are immediately on edge, because you don't know if you are going to come out alive" (Botha, 2016, p. 8, translated from Afrikaans). The article further mentioned that ambulances would henceforth be escorted by the police. However, community members could expect delays as a result of this action, the implication being that some patients would receive treatment too late and possibly die.

Less than two weeks later another article appeared describing an attack on paramedics in another province. A spokesperson of an EMC organization again posed the following question: "How do we go in and treat people when we also have to worry about the crew's safety all the time? The attacks on paramedics have increased and it is horrifying. Paramedics need to be careful wherever they go" (Pieterse, 2016, par. 10, 11). The spokesperson of a different EMC organization echoed the sentiment expressed in an earlier article: "As EMS their aim is to save as many lives as possible and it is shocking that the very same people who are dedicated to saving lives now find their lives at risk" (Pieterse, 2016, par. 15). This particular organization have already launched an 'EMS in hostile environments' course some five years

ago, and the focus is on various concerns related to violent crimes committed against paramedics. Paramedics are taught "…various skills, such as identifying hostile environments, how to deal with these situations and, if the need arises, how to defend themselves and the patient" (Pieterse, 2016, par. 18). This quote brings to mind a participant raising the question of whether paramedics should bear arms in order to protect themselves.

Spanning two years and nine months, these articles have recorded an increasingly disquieting description of the high-risk conditions South African paramedics are working under. It is certain that the participants in my study are part of this reality, and have perhaps been victims themselves recently. The trauma South African paramedics are exposed to currently has changed from being vicarious to primary. All the traumatic experiences and effects they described in their narratives have possibly intensified. However, based on the verification of growth through the adversity of their work as presented in their narratives, one would hope that even under these trying conditions the positive benefits of adversarial growth continue to be evident.

Taking into account the current status as regards the on-duty safety of paramedics in South Africa, the support systems available to them in their employing organizations are of crucial importance. As presented in Chapter 5, the narratives of the participants clearly indicated their preference for peer- and self-counselling. On the whole, they found the support services offered by their organizations inefficient and not very helpful due to it being telephonic call-in services. However, with paramedics now accepting the offer of counselling support in order to deal with the trauma of more frequent ambulance attacks as reported in the newspaper articles above, the implication is that the review and improvement of the organizational support interventions is imperative, and that the objective should be to improve their efficiency in order to facilitate the paramedics making use of it. It also points to the need, once again, for an

increased focus on the psychological preparedness trainee paramedics, and that they be provided with trauma and stress management skills during their training.

The importance of paramedics' personal support system should again be emphasized. Home is where they can de-stress and find temporary respite from the trauma of work shifts. However, the current crisis regarding their dangerous working conditions have a very real effect on their spouses, children, family and friends. Etheridge (2016b) reports that the families of paramedics are starting to be affected: "Now frequently the families are checking on them" (par 17). Paramedics' families are therefore similarly affected by the risk of their loved ones suffering not only physical injury, but also suffering adverse effects on their state of mind.

At present Emergency Medical Care qualifications and training programmes in South Africa do not cater for paramedics to specialize in a particular area. According to an ER24 participant, South African paramedics have to pursue and organize their own speciality training, as he himself did. As a result of an initiative launched by him and his colleague currently serving at the same base, a special unit focusing on the transfer of ICU patients and neonates has been established by the ER24 EMC organization at a hospital near the Cape Metropole. The organization plans to expand these units to other hospitals countrywide.

Participant ER#9 describes the state of affairs as follows:

> *"… recently what I've done while working at ER24 two three years I became got into this position which is a ICU paramedic uh which is completely different it's not a a organized thing it's not something that's recognized … in South Africa at the moment uhm so started building this process up and with that I learnt that there was a lot of lack of knowledge that we have for ICU transfers specifically so that when it comes to critical neonates and critical patients uhm so I've learnt all of those went to go spend time at mediclinic uhm in ICU so I did a nursing course … a critical care nursing course uhm that specifically showed me all the aspects of of ICU uhm and specifically neonates because it was a big thing that was lacking in our training during national diploma and during any paramedic course that we did … so I went to go learn all of those things separately uhm then I recently went overseas to go do a critical care paramedic course and also wrote a American registration … so I'm a registered … critical care paramedic in United States … which we brought over to South Africa in the hopes that we can now build … this process so we're currently working on a process where we can build the education for this…".*

Further confirmation of support for the provision of training in specialization fields, with paramedics being able to select what area they are interested in and want advanced training in, comes from Participant Metro#9. She recounted that she had dropped out of the degree programme due to having been 'forced' to do modules on search and rescue. She viewed these as specialization areas and did not have an interest in being trained in them.

The expressions of these participants, I would argue, points out the need for the establishment and formalization of specialization fields within the existing South African EMC study and training programmes, particularly in the degree programmes. These would provide the option for individualized areas of professional focus, and would be a welcome and important addition for those paramedics who wish to pursue further training in their field of choice.

Against the backdrop of the current high-risk working conditions of South African paramedics, and their experience on a daily basis of not only vicarious trauma, but equally intense primary trauma at present, it is important to refer back to the earlier discussion in Chapter 3, wherein it was suggested that as a group, paramedics are diverse as regards individual differences. This study confirmed that responses to trauma are dependent on personality characteristics, support resources, appraisal, and management styles, and is therefore in accord with Regehr et al.'s (2002) statement that paramedics will react to trauma in manners that are individualized.

Conclusion

Growth is contingent on individuals' abilities to make sense of and ascribe meaning to their experiences. It is also dependent on the language they have available to articulate and describe their experiences. It is not events themselves that generate growth, but rather how these events are appraised, integrated, and processed. This study suggests that it is this factor

that makes it possible for individuals, and therefore paramedics, to cope with the trauma of their profession.

An analysis of the narratives of the participants in this study indicated that the essence of their adversarial growth was the changes that occurred because of the *manner* in which they processed stressful and traumatic events. These changes resulted in positive adaptations and transformations in their views, beliefs, and philosophies, and ultimately the ability to function more optimally, and at higher levels of psychological functioning (Linley & Joseph, 2005; Seery et al., 2010). Bakker and Leiter (2010) noted that the stated focus and objective of positive psychology is optimal functioning. This study revealed a significant alignment between the focus of positive psychology and the essence of adversarial growth, which is optimal functioning.

Research Limitations

Eighteen interviews were conducted in this qualitative study. The participants equally represented a public and a private emergency medical care organization. In qualitative research theory this number of interviews is considered to be more than acceptable. Thematic saturation was reached, as indicated in Chapter 4. However, it is feasible that a large sample may provide an even richer thematic analysis.

Although the purpose of qualitative and thematic analysis is to provide descriptions of individual experiential realities, caution should be taken in making generalized statements regarding the constructs under study in this dissertation. It should be noted that the responses contained in this study's participants' narratives represented their expressed views and therefore their subjectively expressed experiences.

It is also conceivable that the four key themes, together with their corresponding sub-themes as identified through the process of coding and thematic analysis, were not exhaustive.

Recommendations for Further Research

The theoretical framework utilized in this study, and the three main constructs encapsulated in the title of this dissertation may be used as guidelines to formulate recommendations for further study. They are: positive psychology, vicarious trauma, adversarial growth, and South African paramedics.

The framework of positive psychology made a meaningful contribution in contextualizing the study, and the practical benefits of this approach merits further investigation. As far as could be ascertained, there is at present no record of fortological research, specifically with paramedics as subjects. The orientation of positive psychology could provide an invaluable alternative, non-pathological 'language' with which to engage with South African paramedics' traumatic experiences and high-risk working conditions.

Sabin-Farrell and Turpin (2003) noted the need for further investigation into vicarious trauma due to its negative effects. In light of the current dangerous working conditions of paramedics in South Africa, research is needed to comprehensively investigate the specific types of trauma they are subjected to, together with the most effective coping strategies and mechanisms.

Even though this explorative study discovered evidence of the presence of adversarial growth in the narratives of paramedics, and in how they made sense of elements of positive growth amidst the reality of their professional trauma, a systematic interrogation of the construct would lead to an improved understanding of its characteristics, and how it may be promoted and developed, preferably included in the EMC study and training curricula.

In light of the strong opinion of the senior paramedics and branch managers in the sample regarding the psychological under-preparedness of recently graduated paramedics, it is further recommended that institutions offering bachelor's degree EMC qualifications evaluate their programme designs and curricula, particularly regarding the need for substantially

increased work integrated learning components, as well as an inclusion and deeper focus on stress inoculation and coping mechanisms.

This study highlighted certain factors that proved the critical importance of personal and professional support, and the fact that these interventions could significantly contribute to the protection of paramedics, thereby reducing the possibility of such trauma occurring. Further research into the design and inclusion of effective intervention programmes in all EMC study and training programmes would greatly benefit and assist South African paramedics as they deal with the reality of both vicarious and primary traumata.

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Appendix A Ethical Clearance from Stellenbosch University

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Approval Notice

Response to Modifications (New Application)

09-Dec-2014
Reinecke, Charlene R

Proposal #: HS1135/2014

Title: Beyond Vicarious Trauma: Exploring Adversarial Growth in a Sample of South African Paramedics

Dear Ms Charlene Reinecke,

Your **Response to Modifications** - ***(New Application)*** received on **21-Nov-2014**, was reviewed by members of the **Research Ethics Committee:**
Human Research (Humanities) via Expedited review procedures on **08-Dec-2014** and was approved.
Please note the following information about your approved research proposal:

Proposal Approval Period: **08-Dec-2014 -07-Dec-2015**

Please take note of the general Investigator Responsibilities attached to this letter. You may commence with your research after complying fully with these guidelines.

Please remember to use your **proposal number** (**HS1135/2014**) on any documents or correspondence with the REC concerning your research proposal.

Please note that the REC has the prerogative and authority to ask further questions, seek additional information, require further modifications, or monitor the conduct of your research and the consent process.

Also note that a progress report should be submitted to the Committee before the approval period has expired if a continuation is required. The Committee will then consider the continuation of the project for a further year (if necessary).

This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki and the Guidelines for Ethical Research: Principles Structures and Processes 2004 (Department of Health). Annually a number of projects may be selected randomly for an external audit.

National Health Research Ethics Committee (NHREC) registration number REC-050411-032.

We wish you the best as you conduct your research.

If you have any questions or need further help, please contact the REC office at 218089183.

Included Documents:
REVISED_Response to modifications
Institutional permission_provisional
Interview schedule

DESC decision
Research proposal
Cover letter for ethics clearance
REVISED_Informed consent form_Eng
REVISED_REC application form
Informed consent form
REVISED_Research proposal
REVISED_Informed consent form_ Afr
REC Application form
Ingeligte toestemmingsvorm

Sincerely,

Clarissa Graham
REC Coordinator
Research Ethics Committee: Human Research (Humanities)

Investigator Responsibilities

Protection of Human Research Participants

Some of the general responsibilities investigators have when conducting research involving human participants are listed below:

1.Conducting the Research. You are responsible for making sure that the research is conducted according to the REC approved research protocol. You are also responsible for the actions of all your co-investigators and research staff involved with this research. You must also ensure that the research is conducted within the standards of your field of research.

2.Participant Enrolment. You may not recruit or enrol participants prior to the REC approval date or after the expiration date of REC approval. All recruitment materials for any form of media must be approved by the REC prior to their use. If you need to recruit more participants than was noted in your REC approval letter, you must submit an amendment requesting an increase in the number of participants.

3.Informed Consent. You are responsible for obtaining and documenting effective informed consent using **only** the REC-approved consent documents, and for ensuring that no human participants are involved in research prior to obtaining their informed consent. Please give all participants copies of the signed informed consent documents. Keep the originals in your secured research files for at least five (5) years.

4.Continuing Review. The REC must review and approve all REC-approved research proposals at intervals appropriate to the degree of risk but not less than once per year. There is **no grace period.** Prior to the date on which the REC approval of the research expires, **it is your responsibility to submit the continuing review report in a timely fashion to ensure a lapse in REC approval does not occur.** If REC approval of your research lapses, you must stop new participant enrolment, and contact the REC office immediately.

5.Amendments and Changes. If you wish to amend or change any aspect of your research (such as research design, interventions or procedures, number of participants, participant population, informed consent document, instruments, surveys or recruiting material), you must submit the amendment to the REC for review using the current Amendment Form. You **may not initiate** any amendments or changes to your research without first obtaining written REC review and approval. The **only exception** is when it is necessary to eliminate apparent immediate hazards to participants and the REC should be immediately informed of this necessity.

6.Adverse or Unanticipated Events. Any serious adverse events, participant complaints, and all unanticipated problems that involve risks to participants or others, as well as any research related injuries, occurring at this institution or at other performance sites must be reported to Malene Fouché within **five**
(5) days of discovery of the incident. You must also report any instances of serious or continuing problems, or non-compliance with the RECs requirements for protecting human research participants. The only exception to this policy is that the death of a research participant must be reported in accordance with the Stellenbosch University Research Ethics Committee Standard Operating Procedures. All reportable events should be submitted to the REC using the Serious Adverse Event Report Form.

7.Research Record Keeping. You must keep the following research related records, at a minimum, in a secure location for a minimum of five years: the REC approved research proposal and all amendments; all informed consent documents; recruiting materials; continuing review reports; adverse or unanticipated events; and all correspondence from the REC

8.Provision of Counselling or emergency support. When a dedicated counsellor or psychologist provides support to a participant without prior REC review and approval, to the extent permitted by law, such activities will not be recognised as research nor the data used in support of research. Such cases should be indicated in the progress report or final report.

9.Final reports. When you have completed (no further participant enrolment, interactions, interventions or data analysis) or stopped work on your research, you must submit a Final Report to the REC.

10.On-Site Evaluations, Inspections, or Audits. If you are notified that your research will be reviewed or audited by the sponsor or any other external agency or any internal group, you must inform the REC immediately of the impending audit/evaluation.

Appendix B Ethical Clearance from Western Cape Government Health: EMS

Western Cape Government
Health

DIRECTORATE: **EMERGENCY MEDICAL SERVICES**
ENQUIRIES: **Dr Shaheem de Vries**
shaheem.devries@pgwc.gov.za
☎: +27 21 932 1966

Attention: Charlene Reinecke

RE: REQUEST FOR PERMISSION TO CONDUCT RESEARCH

Dear Ms. Charlene Reinecke,

Your letter on the above matter refers.

Thank you for the request to conduct research within the Western Cape Government Emergency Medical Services. Your revised proposal has been evaluated by the Emergency Medicine Division Research Committee and has been recommended for approval by this office.

I am therefore pleased to inform you that such approval is hereby granted.

I wish you well in your endeavour and trust that you will keep this office and its department informed of your findings when these become available.

Yours sincerely

Dr Shaheem de Vries
Head: Emergency Medical Services
Western Cape Government Health

Date: 7th January 2015

WCG Health: EMS - Emergency Communications Centre
Private Bag X24; Bellville (+27) 21 932 1367 (+27) 21 931 8490
www.capegateway.go.v.za

Appendix C Ethical Clearance from ER24

084 124

Address
Manor 1, Cambridge Manor
Cnr Witkoppen & Stonehaven rd, Paulshof
Postal
PO Box 242, Paulshof, 2056
Webaddress:
www.er24.co.za

31 January 2015

Charlene Reinecke
Department of Psychology
Stellenbosch University

Dear Ms Reinecke,

RE: **PROJECT 2014/10**
PROJECT TITLE: Beyond vicarious traumatisation: Exploring adversarial growth in a sample of South African paramedics

The above research protocol has been reviewed by the ER24 Research Committee and I am pleased to inform you that your request has been approved. Access is hereby granted to the data required as stipulated in your protocol.

Should your methodology change or any concerns arise during the data collection period, it is your responsibility to inform the ER24 Research Committee in due course.

I look forward to viewing the results of your study. I am positive that the knowledge that you will create will be of benefit to the profession.

Kind Regards,

Willem Stassen
Chair: ER24 Research Committee

ER24 EMS (Pty) Ltd t/a ER24 Registration Number 2000/005657/07
VAT Registration No. 4730193887
Directors: AR Boden (Chief Executive Officer), AJ Joubert, Dr CA van der Merwe, DC Nel
Company Secretary: HK Gerber

Appendix D English Interview Questions

INTERVIEW QUESTIONS

The following themes were explored in the semi-structured interviews with the participants:

1) What motivated you to become a paramedic?

2) What personality type / characteristics do you think is needed to effectively work as a paramedic?

3) What and where did you study in order to become a qualified paramedic? Would you say your studies and training prepared you adequately for the realities of the work?

4) What support services are available to you in your organization? Would you say these support services are adequate should you need it, and that it allows you to do your work to the best of your ability?

5) What would you say are the most difficult, stressful, or traumatic aspects of being a paramedic?

6) What negative effects have you experienced / do you experience in fulfilling your duties as a paramedic? Physical, psychological/emotional, cognitive, behavioural, social, occupational?

7) What coping strategies / methods do you use in order to cope with the traumatic aspects of your job?

8) Could you please describe the most positive or fulfilling personal and professional aspects about being a paramedic?

9) What factors – based on your job – would you say can lead to experiencing job-related personal growth? Would you say you have experienced personal growth as a result of your job as a paramedic? Please describe.

10) Would you say being a paramedic has contributed to you experiencing added meaning in life? How have you experienced this meaning / how have you noticed this additional meaning in your daily personal and professional life?

11) Would you say you generally experience more negative, or positive growth (posttraumatic growth) because of being a paramedic?

Appendix E Afrikaans Interview Questions

ONDERHOUDSVRAE

Die volgende temas was verken in semi-gestruktureerde onderhoude met die deelnemers:

1) Wat het jou gemotiveer om ‘n paramedikus te word?

2) Watter persoonlikheidstipe / eienskappe dink jy is nodig om doeltreffend te werk as ‘n paramedikus?

3) Wat en waar het jy studeer om ‘n gekwalifiseerde paramedikus te word? Sou jy sê jou studies en opleiding het jou voldoende voorberei vir die realiteit van jou werk?

4) Watter ondersteuningsdienste is beskikbaar in jou organisasie? Sou jy sê hierdie ondersteuningsdienste is voldoende sou jy dit benodig, en dat dit jou in staat stel om jou werk tot die beste van jou vermoë te doen?

5) Wat sou jy sê is die moeilikste, mees stresvolle, of mees traumatise aspekte van om ‘n paramedikus te wees?

6) Watter negatiewe effekte het jy al ervaar / ervaar jy in die uitvoering van jou pligte as paramedikus? Fisies, sielkundig/emosioneel, kognitief, sosiaal, gedrags- of werksgewys?

7) Watter hanteringstrategieë / metodes gebruik jy om die traumatise aspekte can jou werk te hanteer?

8) Kan jy asseblief die mees positiewe of vervullende persoonlike en professionele aspekte beskryf van paramedikus wees?

9) Watter faktore – gebaseer op jou werk – sou jy sê kan lei tot die ervaring van werksverwante persoonlike groei? Sou jy sê jy het persoonlike groei ervaar as gevolg van jou werk as ‘n paramedikus? Beskryf dit asseblief.

10) Sou jy sê die feit dat jy ‘n paramedikus is bygedra het vir jou om addisionele betekenis in jou lewe te ervaar? Hoe ervaar jy hierdie betekenis / het jy al hierdie additionele betekenis in jou daaglikse persoonlike en professionele lewe ervaar?

11) Sou jy sê jy ervaar, in die algemeen, meer negatiewe, of positiewe groei (posttraumatiese groei) as gevolg van die feit dat jy ‘n paramedikus is?

Appendix F Informed Consent Form

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STELLENBOSCH UNIVERSITY
CONSENT TO PARTICIPATE IN RESEARCH

TITLE OF THE STUDY

Beyond Vicarious Trauma: Adversarial Growth in a Sample of South African Paramedics

INVESTIGATOR

Charlene Reinecke [MA (Psychology); Hons BA (Counselling Psychology); HED (Sec PG); BA], from the Department of Psychology at Stellenbosch University.

RESEARCH SUPERVISOR

Prof. Desmond Painter, Associate Professor in the Department of Psychology, Stellenbosch University.

1. INTRODUCTION

You were selected as a possible participant in this study because you are a paramedic in the employ of Western Cape Metro EMS or ER24. Furthermore, you have completed and registered as either an intermediate or advanced life support practitioner, and have completed at least two years of full-time service.

This study will contribute towards a doctoral dissertation.

2. PURPOSE OF THE STUDY

The purpose of the study is to explore the different strategies that paramedics employ in order to cope with a consequence of their occupation - vicarious traumatization - and to investigate the possibility of the manifestation of adversarial growth following the consistent exposure to vicarious trauma.

3. PROCEDURES

If you volunteer to participate in this study, you will be asked to participate in a semi-structured interview, wherein you will be requested to share your experiences around certain themes regarding your work experiences as a paramedic.

The investigator will schedule an appointment with you to conduct a once-off interview, at a location and time of your own choosing. The length of the interview will depend on your responses.

4. POTENTIAL RISKS AND DISCOMFORTS

No foreseeable discomfort, inconvenience, physical or psychological risks are envisaged in participating in the interview. However, should you be in need of debriefing, the services of a psychologist will be available to you immediately following the interview, and for a period of up to two weeks after the interview has taken place. In order to ensure client privacy and anonymity, the individual session will be conducted at a location and time at your convenience.

5. POTENTIAL BENEFITS FOR PARTICIPANTS

Although you will not benefit directly from the research, your input will enable the investigator to, at the conclusion of the study, present findings to your employing organization which will be pertinent to the curriculum, training, and support services of paramedics.

6. PAYMENT FOR PARTICIPATION

Participants will receive no remuneration.

7. CONFIDENTIALITY

Any information that is obtained in connection with this study and that can identify you will remain confidential. It will be disclosed only with your permission or as required by law. Confidentiality will be maintained by means of only the investigator and her supervisor having access to the transcribed interviews. The interviews will be transcribed and coded by the investigator.

The transcribed protocol will be stored in a password protected file on Dropbox as well as on an external hard drive. Only the investigator and her supervisor will have access to your data file. On completion of the study the data will be safely stored on a USB flash drive that will be kept locked in an office in the Department of Psychology of Stellenbosch University. Only the research supervisor will have access.

No information will be released to any other party.

You will be granted the opportunity to read through your transcribed interview so as to confirm the accuracy of the interview record. You will also be able to choose a pseudonym / assumed name for referral purposes. Should any examples from your transcribed interview be quoted in-text, your pseudonym will be used. This will guarantee your confidentiality and anonymity.

Should the results of the study be published, confidentiality will be maintained through consistently making use of your pseudonym.

8. PARTICIPATION AND WITHDRAWAL

You can choose whether to take part in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions during the interview and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

9. IDENTIFICATION OF INVESTIGATORS

If you have any questions or concerns about the research, please feel free to contact Charlene Reinecke or Prof. Desmond Painter.

Principal Investigator:	Charlene Reinecke (082 6313 622 / 021 850 7509), Helderberg College, PO Box 22, Somerset West, 7129.
Supervisor:	Prof. Desmond Painter (021 808 3458), Department of Psychology, Stellenbosch University.

10. RIGHTS OF PARTICIPANTS

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research subject, contact Ms. Maléne Fouché [mfouche@sun.ac.za; 021 808 4622] at the Division for Research Development.

SIGNATURE OF PARTICIPANT

The information above was described to _____ (Me, the participant) by Charlene Reinecke in English, and I am in command of this language, or it was satisfactorily translated to me. I was given the opportunity to ask questions and these questions were answered to my satisfaction.

I hereby voluntarily consent to participate in this study. I have been given a copy of this form.

_____

Name of Participant

_____ _____

Signature of Participant **Date**

SIGNATURE OF INVESTIGATOR

I declare that the information contained in this document accurately describes the purpose and procedure of this study. I confirm that the participant was encouraged and given ample time to ask any questions, that the interview was conducted in English, and that no translator was used.

_____ _____

Signature of Investigator **Date**

Appendix G Transcription Feedback Letter

24 February 2016

Dear Participant

INTERVIEW TRANSCRIPTION: OPPORTUNITY FOR COMMENT / FEEDBACK

You kindly consented to be a participant in my doctoral research entitled *Beyond Vicarious Trauma: Exploring Adversarial Growth in a Sample of South African Paramedics*, conducted under the supervision of Professor Desmond Painter from the Psychology Department at Stellenbosch University.

The interview was conducted on 23 June 2015 at the South Division Metro base.

The Informed Consent Form you signed on this day stated that *"You will be granted the opportunity to read through your transcribed interview so as to confirm the accuracy of the interview record. You will also be able to choose a pseudonym / assumed name for referral purposes".* I would therefore like to give you the opportunity to do so at this time.

Please send any comments or feedback you might have to me at the following email address by the **11th of March**: reinec@hbc.ac.za

If you do not have access to email, please contact me at the following number for us to make alternative arrangements: 082 631 3622

I would once again like to assure you that, as stated in the Informed Consent Form, *"Should any examples from your transcribed interview be quoted in-text, your pseudonym will be used. This will guarantee your anonymity and ensure confidentiality"*, and that *"Should the results of the study be published, confidentiality will be maintained through consistently making use of your pseudonym"*. You have been allocated a **participant code** as indicated at the top of the transcription. Should you wish to choose a different personal pseudonym, please provide me with such.

I thank you again for the privilege of engaging with you regarding your profession. It was an honour becoming part of the reality of the world of paramedics for a brief moment.

Kind regards,

Charlene Reinecke
PhD Candidate