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The coping strategies of the Ekurhuleni Emergency Service employees.

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CHAPTER ONE

1.1 INTRODUCTION

A lot of studies have found that emergency service employees are amongst the highest group of professionals at risk to suffer occupational stress. Based on literature emergency service employees globally include firefighters, paramedics, rescue workers, doctors, nurses, psychologists, social workers, as well as non-professional assistants to these professionals. As put by Young and Cooper in Firth-Cozens and Payne (1999, p.119) “ambulance personnel fall amongst the highest risk group of health care for stress and burnout”. In addition, Somer, Buchbinder, Peled-Avram and Ben-Yizhack (2004) found evidence from ambulance workers, that suggests that “even traumatic everyday traumas in emergency work take their toll, with 21% showing above-threshold symptoms of post-traumatic disorders”.

Other studies have shown that “victims, onlookers and rescue workers are traumatised by the experience or expectation of confronting death” (Ursano & Carroll in Ursano, McCaughey & Fullerton, 1994). “Regardless of profession or past experience, exposure to violent death can create additional victims in those who assist after a disaster”. It has also been observed that those in the helping professions, including emergency service workers, are usually ignored during and after intervention in a rescue call. Instead it is the primary victims that get attention. Hodgkinson and Stewart (1998) have also found that service providers, i.e. the rescuers and helpers, are often forgotten survivors of a disaster.

In South Africa studies on emergency service employees have also included the above mentioned professions, as well as people in the police service and traffic officers. If one considers the working terrain of emergency workers within the South African context in general, it includes some of the following incidents; firefighting in homes and office or industrial buildings, intervention at various modes of transport accident scenes, human violence against one another, as well as natural disasters like floods. Such interventions have also been experienced as stressful by people in these occupations (Naudè, 2003; Nkomo, 2002; van der Colff & Rothmann, 2009). As put by Naudé (2003, p.1) in his study of occupational stress, coping burnout and work engagement of Gauteng emergency workers, “emergency workers are often confronted with extremely stressful and demanding situations that they have to deal with, such as violent, disagreeable, demanding or manipulative patients or patients with severe trauma and also

cardiac arrest". In addition, South Africa is one of those counties characterised by high crime levels, something which adds to stress and trauma amongst local emergency service employees (Du Toit, 1997). Some of the negative effects of such occupational stress have been found to include impaired performance and effectiveness, reduction in productivity, absenteeism, turnover, alcohol and drug abuse (van der Colff & Rothmann, 2009).

There is also evidence that coping influences the relationship between stress and illness or health (Iwasaki, Manell, Smale & Butcher, 2005, p.80) and some studies have established that people in emergency services have at times acknowledged difficulty in coping within their respective professions (Pienaar, Rothmann & Van der Vijver, 2007). In this regard Naudé (2003, p.6) argues that "the deciding factor in the coping process is the selection of an appropriate coping strategy, which would result in an increase in professional efficacy due to goals, the achievement of goals and consequently the strengthening of coping resources".

Given the foregoing discussion evidence from previous studies seems to suggest that individuals, who stay in high risk occupations for prolonged periods, especially those involved in emergency service work are most likely to suffer post-traumatic stress disorder. It is therefore essential for such individuals to have effective coping resources and strategies. This study has described the perceived coping strategies, formal or informal, of the Ekurhuleni Emergency Service employees. In addition, the study also investigated the extent to which these coping strategies are used by these employees, as well as identified those coping strategies as reported by the employees themselves that were functional and those that were not.

1.2 RATIONALE FOR UNDERTAKING STUDY

Studies on occupational stress in South Africa have also been undertaken. The studies reviewed on emergency service workers focused on nurses, police service employees, firefighters, disaster workers, ambulance attendants, trauma workers (therapists, counsellors, social workers,) including non-professional trauma workers (Du Toit, 1998; Pienaar & Rothmann, 2006). Other professionals such as employees in higher education institutions, women in educational management and men in predominantly women-dominated positions have also been studied.

The focus of the present study was on emergency service employees, specifically the Ekurhuleni Emergency Service employees that include firefighters, paramedics and rescue workers. The rationale for undertaking the present is:

- Although similar studies have been undertaken, they did not focus on the Ekurhuleni Emergency Service employees. From personal interviews with the organisation's management (Leotlela, 17 December 2008, Manti, 17 March 2009 & Masibi, 07 August 2009), there was an awareness of the stress that their staff was subjected to as well as appreciation for their commitment to their work. Management also indicated that their region was characterised by a very high rate of crime in its northern parts, whilst in its eastern parts gruesome accidents in the outskirts on highways were common. Referrals to chaplains were the standard intervention mode. However, management expressed concerns about not knowing exactly how their staff coped. There was also concern about those that use alcohol as a coping strategy.

- Having analysed the coping strategies of the Ekurhuleni Emergency Services employees using a self designed instrument based on the literature reviewed, the researcher hoped that the main coping strategies unique to this region of emergency service employees would emerge.

1.3 ANTICIPATED VALUE OF THE STUDY

The study is intended to help both employers and employees of the Ekurhuleni Emergency Management Services to be more aware of the coping resources and strategies used by the employees. Further, individual workers will be in a position to identify those resources that are more effective for them, whilst the latter will enable employers to meaningfully support the workers whenever necessary. How well an individual is able to cope effectively with stress has a bearing on his performance. As put by Rice (1999) addressing job stress can therefore not be a private matter with which the employee has to deal with alone and in isolation.

In supporting employees meaningfully with appropriate coping strategies management will be in a better position to transform or introduce employee assistance programmes that both employees and management find beneficial. According to Rice (1999, p.194):

> employee assistance programmes that solely focus on the employee perpetuate the myth that job stress is the worker's problem and the worker's fault. Removing job stress also requires some intervention and change in the organisation. Until this happens, personal coping strategies are little more than Band-Aids that help the employee survive from one crisis to the next

Looking at the above, there is a role for occupational social work intervention in this context. Occupational social work is defined as "a specialised field of social work practice which addresses the human and social needs of the work community through a variety of interventions

which aim to foster optimal adaptation between individuals and their environments" (Straussner, 1990, p.2). The primary aim of the occupational social worker is to meet the needs of individual employees. However, the occupational social worker can also be in a position to assist both the employee and the organisation by implementing programmes that can benefit management by increasing worker productivity and commitment to the organisation, or the union by increasing or maintaining allegiance to the latter.

1.4 AIMS OF THE STUDY

1.4.1 Primary Aim:

The overall purpose of the study was to:

Describe coping strategies of the Ekurhuleni Emergency Services employees as perceived by the participants.

1.4.2 Secondary Objectives:

The secondary objectives that guided the study were:

(i) To gain an understanding of the nature (i.e. the kind of) of coping strategies used by the Ekurhuleni Emergency Management Services employees.

(ii) To establish the extent to which these coping strategies are used by the Ekurhuleni Emergency Management Services employees.

(iii) To describe the outcomes, that is the direct consequences, effective or not, of these coping resources and strategies.

1.4.3 Research Questions:

(i) What is the nature of coping strategies used by the Ekurhukeni Emergency Services employees?

(ii) To what extent do they use these coping strategies?

(iii) What are the outcomes, effective or not, of these coping resources and strategies?

1.5 BRIEF OVERVIEW OF RESEARCH DESIGN AND METHODOLOGY

The strategy used was a qualitative descriptive research design which is used to describe situations and events after the researcher has observed them (Rubin & Babbie, 2005, p.124). The researcher designed a questionnaire based on information from relevant literature reviewed. A pilot study was conducted to investigate the feasibility of the planned study, as well as to identify possible deficiencies of the tool and bring them to the fore (Strydom & Delport in De Vos, 2002).

A sample of 50 individuals was drawn from the population of the Ekurhuleni Emergency Services employees. During a personal interview with Makhubalo, (12 September 2008) the organisation's Chief Executive Officer, he informed the researcher that the Ekurhuleni Emergency Services included a total population of 1,127 emergency medical technicians and firefighters. The researcher used non-probability availability sampling, i.e. using the first available appropriate sampling units available to the researcher (Rubin & Babbie, 2005, p.245). This sample also formed the units of analysis for the purpose of the study *(*Marlow & Boone, 2005).

For data collection participants were required to complete self-administered questionnaires with open-ended questions by themselves (Rubin & Babbie, 1993; De Vos, 2002). The researcher waited for the completed questionnaires as advised by management, instead of collecting them at a later date. Generally when a researcher either delivers or picks questionnaires, the response rate tends to be higher (Rubin & Babbie, 2005; De Vos, 2002).

To process demographic data, the researcher used descriptive statistics for analysis and interpretation of data. With regards to qualitative data, in processing the data the researcher started by reading some of the completed questionnaires individually in order to get a sense of the individual responses before it was broken down into parts (Creswell, 1998). For data management, the researcher then put similar responses together, i.e. broke the data into parts, in order to get a sense of the general response by all participants. The researcher made notes along the way as she explored the data. Thereafter themes were then identified as they emerged, and the themes were not similar to the categories in the questionnaire. The themes were subsequently classified and data was then interpreted, i.e. making sense of the data (Creswell, 1998) in terms of the researcher's own understanding of the emergent themes, as well as linking these to theory from the literature reviewed. Finally, a narrative report was then compiled (Creswell, 1998).

1.6 LIMITATIONS

The following were limitations of the study:

- The sampling method used, i.e. that of relying on available samples, although frequently used in social work research, tends not to be representative of the population being studied (Rubin & Babbie, 2005, p.245).

- Due to the above, findings of the study cannot be used to generalise in other situations. In addition, the sample size was also not representative of the population. As stated by Rubin and Babbie (2005, p.462)

> generalisation is a problem for the field researcher in that: (i) the researcher's observations and measurements are of a personal nature and may produce results that would not necessarily be replicated by another independent researcher; (ii) because qualitative researchers get a full and in-depth view of their subject matter, they can reach an unusually comprehensive understanding, which is less generalisable than results based on rigorous sampling and standardised measurements.

- In addition to the above, not all prospective participants returned completed questionnaires. This seems to be in line with literature especially with regards to hand-delivered questionnaires, that participants may simply have lost the questionnaires or did not complete the questionnaires (De Vos, 2002).

- Although the researcher designed a questionnaire with open-ended questions so as to elicit as much information as possible, a few questions were close-ended. Due to the latter, the questionnaire confirmed that as a tool it is not very helpful in assisting respondents to explore their responses with lot of depth. However, as this is a descriptive study, the researcher recorded and read the participants' responses as presented, and then described what they indicated as their coping strategies and resources. Regardless of the lack of depth in responses within this study, the researcher envisages that findings emanating from this study will assist in identifying areas for more qualitative study on the topic in future.

- Legibility of responses in some questionnaires was a problem, as well as the fact that as much as English was the language generally used for official business within the organisation, some respondents were not quite proficient in the language. De Vos (2002) also alludes to issues of literacy, visual and writing competences which influence the completion of questionnaires. As a result the researcher had to decipher the handwriting

of some of the participants and try to make sense from some of the perceived grammatical and spelling mistakes.

- The researcher's own perceptions may influence the way in which interpretations are made, especially due to the fact that the design is descriptive. As put by Rubin and Babbie (2005, p.462) "qualitative field research measurements are often very personal and one must therefore be wary of any purely descriptive measurements in this regard". The researcher will therefore have to exercise self-awareness and maintain as much objectivity as possible.

- Subjective reporting by the participants also has to be taken cognisance of (Marlow & Boone, 2005; Rubin & Babbie, 2005). As people's behaviour cannot be studied objectively, it is their subjective experiences that need to be observed. Due to the fact that reality is perceived as being a result of the individual' interaction with the environment, the participant's role is more active in the research process (Marlow & Boone, 2005).

1.7 DEFINITION OF KEY TERMS

The following key words that are related to this study will be defined, with the main focus being on coping strategies:

Acute Stress Response: Benight and Harper define acute stress response as"the emotional dissociative and physical reaction during a traumatic event" (2002, p.177).

Coping: According to the Concise Oxford Dictionary (1990, p.254) coping as"dealing effectively or contending successfully with a person or task, managing successfully, or dealing with a situation or problem". The New Dictionary of Social Work (1995, p.15) defines coping as "a process whereby a person successfully deals with a problem and life situations, which indicates "goodness of fit".

Job Stress: Rice (1999, p.194) sees this as "work demands that exceed the worker's coping ability". At a broader level he states that "it involves interactions of work conditions with worker traits that change the normal psychological or physiological functions or both". According to Schrabracq, Winnbust and Cooper (2003) work stress is considered to be a response to a loss or lack of control over our work performance.

Post Traumatic Stress Disorder (PTSD): "An anxiety disorder produced by an common, extremely stressful event, (e.g. rape, assault, etc.) and characterised by (i) re-experiencing the trauma in painful recollections or recurrent dreams or nightmares, (ii) diminished responsiveness (emotional numbing), with disinterest in significant activities and with feelings of detachment and estrangement from others, and (iii) including symptoms as exaggerated startle response, disturbed sleep, difficulty in concentrating or remembering, guilt about surviving when others did not, and avoidance of activities that call the trauma" (Figley, 1985, p.xx).

Post Traumatic Stress Reaction: This as "a set of conscious or unconscious behaviours and emotions associated with dealing with the *memories* of the stressors of the catastrophe and immediately afterwards" (Figley 1985, p.xix).

Resilience: This refers to "the ability to spring back in the case of a substance, or readily recovering from shock, depression, etc. in the case of persons" (The Concise Oxford Dictionary, 1990, p.1024). Bonanno and Mancini (2008, p.6) define the concept as "the ability of adults in otherwise normal circumstances who are exposed to an isolated and potentially highly disruptive event such as death of a close relation or a violent or life-threatening situation to maintain relatively stable, healthy levels of psychological and physical functioning as well as the capacity for generative experiences and positive emotions".

Secondary Traumatic Stress: According to Figley, this term "refers to responses that might follow indirect traumatic exposure" or as described in the American Psychiatric Association, it involves "witnessing an event that involves death, injury, or other threats to the physical integrity of another person" (Hymen, 2002, p.129).

Stress: Schrabracq, Winnbust and Cooper (2003) maintain that it evolves when we must do something that we are not able and/or willing to do. It has to do with appraisals of threat and/or loss.

Trauma: According to Briere and Scott (2006), the term trauma is often used to refer to both negative events that produce distress and to the distress itself. These authors contend that technically the trauma refers only to the event not the reaction, and should be reserved for major events that are psychologically overwhelming for the individual. Figley (1985, p.xviii) on the other hand uses it as "an emotional state of discomfort and stress resulting from memories of an extraordinary, catastrophic experience which shattered the survivor's sense of invulnerability to harm". From the two definitions it is clear that there are seemingly two schools of thought with

regards to the term 'trauma'. In this study the student will focus on trauma as defined by both schools of thought.

Traumatic Stress Reaction: Figley (1985, p.xix) defines this as "a set of conscious and unconscious actions and emotions associated with dealing with the stressors of the catastrophe and the period immediately afterwards".

1.8 OVERVIEW OF RESEARCH REPORT

The purpose of the study was to describe the coping strategies of the Ekurhuleni Emergency Services employees, and through their own their responses, establish whether they are effective or not.

Chapter One addresses aims of the study, the rational for undertaking the study, anticipated value of the study, a brief overview of the research methodology, limitations of the study as well as a brief definition of key terms.

Chapter Two addresses the literature review. In the review the concepts of stress and trauma are explained so as to highlight the differences between the two terms. In addition, stress and trauma are discussed in relation to how they impact people generally, at the workplace and special reference is made to stress amongst emergency service employees.

Chapter Three continues to address literature review with the focus being on coping strategies which are discussed in general, but also look at how people in the caring professions cope, in particular emergency service workers. Some of the main coping strategies discussed include personal traits, social support (family, peers, and colleagues), educational qualification, training and experience, etc. In addition, stress, trauma and coping within the South African context have also been discussed.

Chapter Four focused on the research design and methodology. The research strategy was a qualitative descriptive research design (Marlow & Boon, 2005). The research tool was a self-administered questionnaire with mostly open-ended questions, designed by the researcher based on relevant literature reviewed on the subject under study. A pilot study was conducted with sample from the population under study (Strydom in De Vos, 2002), namely the Ekurhuleni Emergency Services employees, to assess whether the methodology, sampling, instrument and analysis will be adequate and appropriate. The sample was a non-probability one, based on the availability of the appropriate sampling units.

Chapter Five data analysis, which include demographics and thematic analyses of the study. Demographic information included race, gender, age group, marital status, emergency work experience, level of education, as well as specific training and qualification in emergency work per se. The analysis of these variables with due regard to the impact they have on the coping strategies of the Ekurhuleni Emergency Services employees was integrated into the categories in the thematic analysis. Thematic analysis focused on coping resources and strategies. Categories in the questionnaire that were analysed included peer contribution, family resource utilisation, counselling (be it at the workplace or an outside resource), personal efforts which included: stress monitoring, changing perceptions, problem-solving, the use of hobbies and recreational activities, tension reduction strategies, structuring, the use of defense mechanisms and self-medication. From this analysis the main emergent themes with regard to coping strategies and resources were identified.

Chapter Six includes summary of the study, its main findings, the conclusion and recommendations for practice and further research.

CHAPTER 2

LITERATURE REVIEW

STRESS AND TRAUMA

2.1 INTRODUCTION

The focus of the present study is on the coping strategies. So in this chapter the terms 'stress' and 'trauma' will be discussed in general and also with specific reference to the helping professions and emergency service employees. From literature reviewed, whenever coping is addressed, this is done in relation to concepts like stress and traumatic events. As put by Rice (1999, p.288), "the term 'coping' is admirably suited to a discussion with stress, since stress is usually viewed as an adversary or something that threatens our psychic safety". Studies on emergency service workers globally and in South Africa have also focused on occupational stress and trauma, sense of coherence, burnout and work engagement, secondary traumatic stress and coping (Mostert & Joubert, 2005; Pienaar & Rothmann, 2006; van der Colff & Rothmann, 2009).

The discussion on stress will briefly include among others its historical background, theories, definitions, occupational stress, stress in relation to work and family conflict; gender specific responses to stress; stress, work and family conflict; stress and emergency service employees; stress symptoms and lastly costs of work stress. Trauma will also include historical background; definitions; the different perspectives on coping; the positive effects of trauma and stress and trauma within the South African context.

2.2 UNDERSTANDING STRESS

2.2.1 Brief Historical Perspectives on the Term "Stress"

These are based on Shaffer's work. From his studies on stress Shaffer (1982, p.1) found that the basic meaning of the word "stress" can be traced to as far back as the 15th century, when it was simply used to refer to physical strain or pressure, especially in the fields of engineering and architecture, where it referred to stress on a wall or against the piling if a bridge. By 1704 "stress" was used to describe for instance "hardship or adversity" referring to pressure against a person instead of a thing. Around 1936, Dr. Hans Selye a researcher, also initially avoided using the term "stress" in his work. By the mid-1940's he however changed his mind. What was found significant

about his usage of the term was that he viewed it as the result produced within an organism instead of viewing it as an agent or force.

2.2.2 Stress Theories

Rice (1999, p.14) identified four schools of thought with regard to theories on stress, namely:

> Selye's physiological theory, which attempts to explain the way the body responds to stress; psychological theories which address the ways in which personality, expectations and interpretations turn a personal event into a stressful situation; social theories provide explanations on stress based more on group conflict and the unequal distribution of power and wealth; and holistic theories which espouse a set of personal and social values based on the idea that the body and mind must treated in a unified way

Although each category has a few models, the following is a summary of each as discussed by Rice (1999). Only one example is given:

- *Physiological:* Hans Selye's General Adaptation Syndrome is one such theory. Selye maintains that (i) all biological organisms have an innate drive to maintain a state of internal balance or equilibrium through homeostasis. (ii) Stressors disturb the internal equilibrium and the body will respond to any stressor pleasant or unpleasant. (iii) Adjustment to stress is gradual and (iv) the body have a finite reserve of adaptive energy (Rice, 1999, p.15).
- *Psychological:* According to Rice (1999, p.20) these theories include the psychodynamic, learning, cognitive and general systems models. Lazarus proposed the most influential of cognitive models, which is based on cognitive sciences, social research, health research, attitude research, personality theory and behavioural medicine (Rice, 1999, p.22). Through this theory Lazarus assumed that stress and health have reciprocal influences, i.e. stress can have a powerful influence on health and vice versa.
- *Social:* These include conflict and life-change theories (Rice, 1999, p.24). Conflict theories are based on the belief that society has to engage in some degree of coercion to get members to comply with social norms. These theories also look at the stability of social relationships, the distribution of interpersonal power and personal control.
- *Holistic:* Treatment of the whole person is paramount. The trademarks of this theory include (i) recognition of human complexity and diversity (ii) emphasis on the mental events and personal value systems, and (iii) a recognition of the desirability of responsibility for oneself (Rice, 1999, p.25).

According to Rice (1999, p.28) “many different sciences are engaged in stress research, each with a slightly different perspective. These different contributions reflect contact with different domains of stress, which in the end gives a round picture. No one theory has provided a complete picture”.

2.2.3 Stress Defined

Some researchers have found it to be an illusive concept (Rice, 1999, p.4) – “everyone knows what the term means, but no two people define it the same way. According to Rice (1999) when most people talk about stress, it is usually in terms of pressure they are feeling from something happening around them or to them. That is why according to Rice (1999) the term *stress,* can be easily substituted by other terms like *pressure* and *strain*. The term “strain” refers to overtasking or injuring by overuse or excessive demands, making an intensive effort, using one’s ears, eyes, voice, etc. to the best of one’s power (The Concise Oxford Dictionary, 1990). Hence Arroba and James as cited in Collins (2007, p.1178) describe stress as a response to an inappropriate level of pressure - it is a response to pressure not the pressure itself.

Stress is a term generally used to explain some kind of hardship caused by the lack of ability or resources to meet the demands of a certain task. Other studies refer to stress as a process which involves the interaction between an individual with the environment. For instance, Collins (2007, p.1176) sees it as:

> the product of complex interactions between the environmental and organisational demands and the individual’s ability to cope with these demands. Stress has been said to arise from a disparity between *perceived* demands made on an individual and their *perceived* ability to cope with these demands. If demands are high and perceived ability to cope are high, then a person will not feel stressed

Lazarus as cited in Rice (1999, p.80) defines stress as “a mismatch between demands and coping resources”. In addition, from contemporary scientific literature studied by Rice (1999, p.7) he found stress to have at least three distinct meanings:

- First it may refer to any event or environmental stimulus that causes a person to feel tense or aroused. In this sense it is *external*.
- Second, stress may refer to a subjective response. In this sense it is the *internal* mental state of tension or arousal. It is interpretive, emotive, defensive and constitutes coping processes occurring inside a person. Such processes may promote growth and maturity, and they may also produce mental strain.
- Finally, stress may be the body’s *physical reaction* to demand or damaging intrusions. Demand promotes natural arousal of the body to a higher level of activity. The function of these physical reactions is probably to support behavioural and psychological efforts at coping

Several studies have found that conditions of chronic stress, especially amongst emergency service employees, may bring about negative states, including exhaustion, disease and death, (Luce, Firth-Cozens, Midgley & Burges, 2002; North, et al., 2002; Rice, 1999). Several researchers have found that some good may come from physiological challenge (Beaton, Murphy, Pike & Corneil, 1999; Rice, 1999). Rice cites Seyle who differentiated between the negative and positive views of stress, for which he introduced the terms *distress* and *eustress* respectively. According to Seyle as cited in Rice (1999) distress is damaging or unpleasant stress, whilst pleasurable, satisfying experiences come from eustress. The latter heightens awareness and even leads to superior cognitive and behavioural performance. It is stress to be sought and used as an ally for personal and professional growth.

"People experience stress directly or indirectly" (Gates & Wolverton, 2002). The authors contend that past experience alone does not determine the current meaning of the stressor. Instead the way a person perceives and interprets the actual situation is also important. This last argument has reference to individual differences in the perception of stress, which many researchers have alluded to (Bonanno & Mancini, 2008; Moran, 1998).

2.2.4 Occupational Stress

Most occupations have been experienced as stressful at one point or another, depending on the type of occupation one is in. According to Hatvany (1996) "there is nothing like a stress-free job. Everyone who works experiences tensions, frustrations and anxieties as they try to get through the various duties assigned to them. We therefore have to learn where stress is coming from, and realise that both its causes and effects are different for different people".

According to Pienaar, Rothmann and Van de Vijver (2007, p.248) occupational stress is defined as "the mind-body arousal resulting from the physical and/or psychological job demands". Rice (1999, p.194) defines job stress as "work demands that exceed the worker's coping ability". He adds that, at a broader level work stress involves interaction of work conditions with worker traits that change normal psychological or physiological functions or both. Collins (2007, p.1178) states that "stress is seen as the product of complex interactions between environmental and organisational demands and the individual's ability to cope with these demands. It arises from a disparity between the perceived demands made on an individual and their perceived ability to cope with these demands".

Havatny (1996) when looking at stress in the workplace found that, peoples' views tended to fall into two predominant areas. Firstly there are those people who treat stress as a kind of illness, a

threat and a hindrance - something to be avoided at all costs, at all times. They may even deny that they suffer from any stress at all, or may have a stiff lip approach whereby any discussion of stress is an indication of weakness. The truth is often that they are afraid of their own reactions to pressure and the best way for them is to close off everything and avoid looking inwards into their feelings and emotions. Emergency workers may fall into this category, particularly with regard to the latter part of the discussion. The second situation demands that one must appear stressed at all times to show how well one is doing at work (Havatny, 1996). When someone does not look stressed, there must be something wrong.

Employees tend to evaluate their work environment in terms of the severity and frequency of occurrence of specific job demands and pressure, the level of support provided by other employees (supervisors or coworkers), as well as organisational features (policies and procedures) (Pienaar et al., 2007, p.248). Pienaar et al. (2007) point out that failing to take the frequency of the occurrence of a particular stressor into account, may contribute to the overestimation of the effects of highly stressful situations that rarely occur, whilst underestimating the effects of moderately stressful events that are frequently experienced.

With special reference to policing researchers found that occupational stressors could generally be divided into two broad categories. The first involves organisational aspects of police work, such as lack of confidence in management, lack of internal communication and frequent organisational change (Mostert & Joubert, 2005; Pienaar et al. (2007). Kohan and Mazmanian (2003) as cited in Pienaar et al. (2007) found that the wellness of police officers is more strongly associated with organisational experiences than operational ones. Operational experiences refer to the nature of police work such as physical threat, force, exposure to danger, facing the unknown and shift work. Other organisational sources include social change and transformation, especially in South Africa since the democratic change in 1994 (Mostert & Joubert, 2005; Pienaar et al., 2007). The latter process also had an impact on workplace policies, for instance, with the introduction of the affirmative action policy.

Literature suggests that sources of occupational stress may include: stress related to job conditions – work overload, decision-making responsibility, physical danger, shift work, role ambiguity, interpersonal stress, career development, organisational structure, as well as the home-work connection (Frone, 2000; Mclean, 2002; Rice, 1999).

2.2.5 Stress and Gender Specific Responses

Research suggests that women may be more psychologically susceptible to the stressful effects of events than men (Aranda, Castaneda, Lee & Sobel's (2001; Mclean, 2002), due to the multiple roles that women generally face that can lead to a variety of daily stressors. Further, women's social roles have been found to be associated more with ongoing stress than those of men. Aranda et al. (2001) as an example, point out that among married people, women do more house work than men, and that house work is more associated with household strain among women.

Although some studies have suggested that married individuals have the lowest prevalence of depression as compared to divorced, cohabiting and single people, in Mclean's study of stress, depression and role conflict in working mothers the author found similar results in that, 69% of her sample included married women who showed a high prevalence of reported depression (Mclean, 2002, p.15). Hence the author argues that individuals suffering from depression are unlikely to be functioning optimally in their work and family lives. According Mclean (2005) although having a spouse may provide some sort of psychological support and security, the quality of the relationship may also have an impact. These multiple roles tend to expose women to other people's stressors particularly significant others, like spouses and children, including their own. In addition, women may be affected more adversely by marital stress and lack of marital social support.

In a study of males in predominantly female-dominated positions in South Africa, Antwerpen and Ferreira (2010) administrative positions in workplaces seem to have been the domain of female employees. Although this is changing, many people still perceive such professions as female jobs (Antwerpen & Ferreira, 2010). According to these authors women who work away from home, especially in traditionally :male-dominated" professional occupations tend to gain higher status, self-esteem and a sense of control over their lives, whilst men who select non-traditional "male" careers are frequently viewed as being "out of the ordinary" or "effeminate". Antwerpen and Ferreira's (2010) study was necessitated by the reality that males, especially male office or administrative managers are crossing over to a traditionally female-dominated occupational environment. The authors argue that careers are often stereotypically classified into "male's work" and "female's work.

2.2.6 Stress, Work and Family Conflict

According to Rice (1999, p.207)

> Most people think of home as a sanctuary, a place that is private and quiet and where one can be alone It is a place that allows rebuilding and regrouping of inner strengths to meet outside demands. When pressure invades that sanctuary, however, it may magnify the effects of stress at work

Frone (2000, p.888) who studied work-family conflict and employee psychiatric disorders in a national comorbidity survey, found that "work can interfere with family life (work-to-family conflict) and family can interfere with work (family-to-work conflict)". He basis his argument on identity theory, "which postulates that (a) people devote considerable time and energy to constructing and maintaining desired identities and that (b) people are threatened when their self-images are damaged by impediments to self-identifying activities'. From this context work-to family conflict represents an impediment to successfully meeting family-related demands and responsibilities, thereby undermining a person's ability to construct and maintain a positive work-related self-image. Rice (1999) seems to concur with Frone when he points out that, job stress involves both the organisation and its employees. Employees may transport personal and family problems to the work, but work problems also spill over to the home" (Rice, 1999). According to Rousseau who argues that employees may carry personal and family problems to work, but work problems also spill over to the home situation (Rice, 1999).

Frone (2000, p.892) adds that "because both work and family roles represent core components of adult identity, impediments to both work- and family-related identity formation and maintenance are likely to be experienced as stressful". Results of Frone's study (2000, p.892) revealed that family-to-work conflict was more related to psychiatric disorders than work-to-family conflict. For instance, in people with work-to-family conflict, about 3% were likely to have a mood disorder and almost 2% were likely to have a substance dependence disorder. Where as in people with family-to-work conflict, the likelihood of a mood disorder increases sharply to almost 30%, and the same increase was observed with substance abuse, it rose to just above 11%. Implications for the present study are that if amongst the participant emergency service workers there are individuals who experience family-to-work or work-to-family conflict, the researcher should look at how this will impact on them.

2.2.7 Stress and Emergency Services Employees

Available literature globally has suggested that emergency service employees experience high levels of stress due to the nature of their work (North et al., 2002; Beaton, Murphy, Johnson, Pike & Corneil, 1999; Luce, Firth-Cozens, Midgely & Burges, 2002; Hyman, 2004; Nkosi, 2002), as well as organisational stress (Collins, 2007, Pienaar, Rothmanns & van der Vijver, 2007). The following are event stressors that have been identified with regards to emergency workers: gruesome victim incidents, mass casualty accidents, body handling, completed suicides, children's deaths, personal loss or injury, mission failure (Beaton, et al., 1999; Briere & Scott, 2006; Moran, 1998). These have been found to contribute to negative psychological as well physiological after-effects that the emergency workers may suffer from, either in the short term or in the long term. Symptoms may include sleep disturbances, nightmares, loss of appetite and sex drive, anxiety, anger and hostility**.**

When studying emergency worker characteristics Moran (1998) established that f*or* many years there was the stereotype of the worker who showed great control under stress. Subsequent studies have however found that there are individual differences in the way emergency workers respond to their typically highly stressful work environment (Beaton et al., 1999; Moran, 1998). As a result some emergency workers have been found to fit the stereotype of the stoic worker. Literature has suggested that professional firefighters with more years of experience seemed better able to cope with mass casualties and mass death (Beaton, et al., 1999; Moran, 1998). Years of service, training, and exposure to previous traumatic incidents made it easier for what Beaton et al. (1999, p.295) refer to "seasoned" volunteer fire fighters to "digest" the presumably traumatic apartment fire event they had to address.

Other studies have however found extended exposure to traumatic events still resulted in severe posttraumatic stress disorders. Beaton et al. (1999, p.296) from their studies found that this may attributed to the fact that some samples of populations studied were partially or entirely made up of volunteers who probably had neither any amount of preparatory training nor the frequency of traumatic incident exposure as did professional United States urban fire fighters or paramedics like those that participated in their investigation. Moran (1998), adds that the evaluation of emergency worker's characteristics usually relies on studies performed on workers with some years of experience. As a result several studies have come to the conclusion that there is nothing like the 'right stuff' i.e. the right kind of person for emergency work (Moran, 1998).

2.2.8 Stress Symptoms

The following are some of the symptoms of stress as identified by Rice (1999**)**:
(a) psychological symptoms include; anxiety, tension, confusion, irritability, feelings of frustration, anger, resentment, emotional hypersensitivity and hyperactivity, suppression of feelings, withdrawal, depression, reduced effectiveness in communication, feelings of isolation and alienation, boredom, job dissatisfaction, mental fatigue, lowered intellectual functioning and loss of concentration, loss of spontaneity and creativity, lowered self-esteem (Rice, 1999, p.195).

(b) *physical symptoms* include: increased heart rate, blood pressure, potential cardiovascular disease, increased secretion of stress hormones, gastro-intestinal disorders such as colitis and ulcers, increased frequency of bodily injuries, physical fatigue and possible chronic fatigue syndrome, respiratory problems including aggravation of existing conditions, skin disorders, headaches low back pain and muscular tension, sleep disturbances, impaired immune function including the possible risk of cancer (Rice, 1999, p.196).

(c) *behavioural symptoms* include: procrastination, work avoidance and absenteeism, lowered performance and productivity, increased alcohol and drug use and abuse, outright sabotage on the job, overeating as escape – leading to obesity, under-eating as a withdrawal and sudden weight loss probably combined with signs of depression, increased risk-taking behaviour including reckless driving and gambling, aggression, vandalism and stealing, deteriorating relationships with family and friends, suicide or attempted suicide (Rice, 1999, p.197).

2.2.9 Costs of Work Stress

With reference to the above discussion it is clear that work stress can be costly to the individual and the organisation as well as to the individual's family. When people start experiencing severe stress levels and their coping efforts and strategies are not effective, they are most likely to be sick and may end up being absent from work due to ill-health. During a personal discussion with Manti, (December 2008) a shift manager at one of the Ekurhuleni fire stations, he indicated that sometimes when employees experienced work overload and fatigue, they resorted to taking sick leave to rest. Unmanaged stress in its worst form can result in suicide. Studies that have been conducted globally have also have also focused on suicide amongst police (Pienaar, Rothmann & van der Vijver, 2007, p.246). Prince (Cape Argus, 25 May 2009) also reported attempted suicide by three South African Police Service (SAPS) employees in Cape Town for about two months since the beginning of April 2009, with one employee having attempted suicide four times whilst working at a call centre, indicating that the problem is ongoing.

Sieberhagen, Rothmann and Pienaar (2009) from their study of health and wellness is South Africa, looking at the role of legislation and management standards found that Europe and the United States of America used to regard psychosociaL stressors at work as unimportant. As a result the trend in organisations was to treat psychosocial stressors as an individual problem, managed by enhancing only the coping skills of an individual employee. This resulted in lack of consideration of the effect of psychosocial stressors on employees.

There has been evidence from a lot of studies that occupational stress does have a negative impact on employees. Rice's (1999) contends that job stress produces negative effects for both the organisation and the employee. For the organisation the results are disorganisation, disruption in normal operations, lowered performance and productivity, as well as lower profit in a profit making concern. For the employee on the other hand, the effects are threefold: (a) increased physical health problems, (b) psychological distress and (c) behavioural changes. The latter tends to affect both productivity within the company and lifestyle outside the workplace. Rice (1999, p.194) refers to several studies on the matter. The author reports that the United States federal government reported 6,220 job fatalities in 1995, although this incident showed a decline when observed in 1980.

Intervention programmes can also prove to be costly. Hence the occupational social worker must be sensitive to issues such as cost containment and benefits issues (McCarthy & Steck in Straussner, 1990, p.32). The authors give the example of referring a substance abuser for treatment, often the treatment is at a twenty-eight day in-patient centre. Whilst the intervention may be appropriate, the costs may be quite high.

2.3 UNDERSTANDING TRAUMA

2.3.1 Origins of and Perspectives on the Term "trauma"

"The word 'trauma' comes from the Greek and is defined as 'to pierce or puncture armour'" (Gibson & Iwaniec, 2003, p.852). The authors add that traumatic incidents present incidents of major change. Laungani (2002, p.128) in studying" stress, trauma, and coping strategies" cross-cultural variations notes that:

> the term trauma has been investigated from several different theoretical and applied perspectives: medical, organic, genetic, biological, psychological, social anthropological, sociological, and cross-cultural to name but a few. Each theoretical perspective offers its own concepts, meanings, nuances, configurations and diagnostic nomenclature. In addition, each approach has its own research methodologies, therapeutic strategies and

> outcome measures. Given the diversification in this field, it is not clear whether the investigation of trauma falls within the preserve of any particular discipline. Each discipline – medicine, psychiatry, biology, anthropology, etc – lays claim to the subject. ……. even within a single discipline, one would need to know whether the experience of trauma is related to personality characteristics, early socialisation processes, frequent exposure to threatening situations, age, ethnic, social class and other differences

Historically the origins of the word trauma are linked to Shakespeare's play, Henry IV Part 1 (Act 2, Scene III) when he made the character of Lady Percy describe the "'malaise' of her husband since he returned from the War of the Roses in terms of fearful dreams, terror reactions, lack of sexual interest and times of intense feelings of helplessness" (Gibson & Iwaniec, 2003, p.852). The authors have found these descriptions very similar to those given by the partners of Peace Keepers returning from Kosova, as well as of emergency service personnel involved in the aftermath of 11 September New York or Washington.

2.3.2 Trauma Defined

According to Laungani (2002) in medical terms trauma refers to the morbid condition of a body produced by a serious physical wound or external injury, or by an act of violence. Briere and Scott (2006, p.3) cite the Diagnostic and Statistical Manual of Mental Disorders (hereafter abbreviated as DSM-IV-TR) which defines trauma as follows:

> direct personal experiences of an event that involves actual or threatened death or serious injury, or other threat to one's physical integrity; or witnessing an event that involves death, injury, or a threat to the physical integrity of another person; or learning about unexpected or violent death, serious harm or threat of death or injury experienced by a family member or other close associate (criterion 1). The person's response to the event must involve intense fear, helplessness, or horror (or in children, the response must involve disorganised or agitated behaviour) (criterion 2)

Trauma is simply defined as a state of physical and/or emotional shock, which may be a result of real, anticipated, imagined or forgotten (repressed) experiences or encounters (Laungani, 2002; Denham, 2008).

Some authors define the term trauma in relation to the events that have occurred. For instance, Briere and Scott (2006) maintain that an event is traumatic if it is extremely upsetting and at least temporarily overwhelms the individual's internal resources. According to the authors people who experience major threats to psychological integrity, can suffer as much as those traumatised by physical injury or life-threat and can equally respond well to trauma-focused therapy. They cite the fourth edition of the DSM-IV-TR which lists the following as potentially traumatic events: combat, sexual and physical assault, terrorist attacks, torture, disasters, severe automobile

accidents, life-threatening illnesses, as well as witnessing death or serious injury by violent assault and war.

Briere and Scott (2006) list the following events as *types of trauma*: natural disasters, mass interpersonal violence, large-scale transportation accidents, house or other domestic fires, motor vehicle accidents, rape and sexual assault, stranger physical assault, partner battery, torture, war and child abuse. According to Ursano, Fulllerton and McCaughey as cited in Ursano, Fullerton & McCaughey (1994, p.5) *"*a traumatic event is recognised by its nature, by the effects of the trauma on individuals and groups, and by the responses of individuals and groups to the event". Most authors agree that traumatic events are dangerous, overwhelming and sudden and unexpected (Laungani, 2002; Ursano, Fullerton & McCaughey, 1994).

Ursano et al., (1994) continue to argue that the events are marked by their extreme or sudden force, typically causing fear, anxiety, withdrawal and avoidance. They have a high intensity, are unexpected, infrequent and vary in duration from acute to chronic. They may affect a single individual, as in a motor vehicle accident; a group and at a cultural level as when a whole community experiences an earthquake or hurricane (Laungani, 2002; Ursano, Fullerton & McCaughey, 1994). Lastly, Briere & Scott, 2006) note that "a stressful event cannot be considered to be a trauma unless the individual reports feelings of horror, fear, or helplessness at the time it happened or soon thereafter".

Bonani and Mancini (2008) prefer to refer to traumatic events as *potentially* traumatic, because they argue that there are measurable and important individual differences in how people respond to such events, and not everyone experiences them as traumatic. In addition, the authors also describe them highly aversive and typically fall outside the range of normal every day experience. Bonanno and Mancini (2008) mention that historically, the emphasis on psychological and physiological dysfunction after a potentially traumatic event has suggested that such events almost always produce lasting emotional damage. According to theses authors, several studies have however found that, there is substantial individual personality variations in responses to potentially traumatic events that are relatively stable (Hatvany, 1996; Scarpa, Haden & Hurley, 2006).

Ursano, Fullerton and McCaughey as cited in Ursano, McCaughey and Fullerton (1994, p.5) in differentiating between ***trauma and disasters*** state that "disasters are by definition both traumatic and overwhelm the available community resources, further threatening the individuals" and community's ability to cope. They add that they can either be natural or manmade. Natural disasters include hurricanes, floods, tornadoes, earthquakes and avalanches, whilst manmade

disasters include airplane crashes, personal assaults, serious motor vehicle accidents, war, terrorism, hostage and prisoner of war events (Ursano, Fullerton & Mc Caughey, 1994). These authors add that disasters cause social disruption, loss and damage of property and mass casualties. The effects on individuals are physical, psychological and social - both immediate as well as long term. The DSM-IV-TR has included disaster as part of a traumatic event. The Concise Oxford Dictionary (1990, p.331) defines the term as "a great or sudden misfortune". Catastrophe is another term that tends to be used inter-changeably with disaster (Rice, 1999). Figley (1985, p.xviii) explains catastrophy as "an extraordinary event or series of events which is sudden, overwhelming, and often dangerous, either to one self or significant others".

2.3.3 Effects of Trauma

Briere and Scott's (2006) study identified three domains that are responsible for the amount and type of posttraumatic symptomatology that an individual experiences. The three domains will be discussed as follows:

(i) *variables specific to the victim*: These are those "variables that were in place before the trauma and include female gender; age with younger or older individuals being at greater risk than those in middle adulthood; race; lower socio-economic status; previous psychological dysfunction or disorder; less functional coping styles, previous history of trauma exposure, etc". The authors state that "other peritraumatic responses like anger, shame, and guilt are also likely to increase the risk of posttraumatic stress" (Briere & Scott, 2006, p.14).

(ii) *characteristics of the stressor*: intentional acts of violence, the presence of a life threat, physical injury, witnessing death, the loss of a friend or a loved one, unpredictability or uncontrollability, and sexual victimisation as opposed to non-sexual (Briere & Scott, 2006, p.16)

(iii) *social response, support and resources*: How those around the victim respond towards the victim is very important. Psychological support by friends, family and others is known to reduce the intensity of posttraumatic stress. Support may include acceptance (i.e. non-blaming, non-stigmatising), responses after trauma disclosure, caring and nurturing from loved ones, availability of helpers as well as support or aid from agencies after a traumatic event. The authors point add that social response to the victim is dependent of trauma characteristics or victim variables and that some trauma events are more socially acceptable than others (e.g. earthquake victim is more likely to be considered worthy of compassion that a rape victim) (Briere & Scott, 2006, p.16).

2.3.3.1 Post Traumatic Stress Disorder, Secondary Traumatic Stress and Burnout

Growing literature is coming up with evidence indicating that individuals exposed to high levels of stress on an ongoing basis, regardless of whether the stress is personal (as in community violence and crime) or work-related (as with individuals that are in high risk professions as well as those in higher managerial posts), may end up with emotional, cognitive and physical reactions that may result in negative health consequences which resemble Post Traumatic Stress Disorder (PTSD) (Briere & Scott, 2006; Cohen, Gagin & Peled-Avram, 2006; Gibson & Iwaneic, 2003; Hyman, 2004; Khawaja, White, Shweitzer & Greenslade, 2008; Luce, Firth-Cozens, Midgely & Burges, 2002).

According to Briere and Scott (2006) some of most significant types of posttraumatic responses include depression (Briere & Scott, 2006, p.17), anxiety (includes generalised anxiety, panic and phobic anxiety) (Briere & Scott, 2006, p.19), stress disorders (includes PTSD and Acute Stress Disorder) (Briere & Scott, 2006, p.21), drug and alcohol abuse. PTSD is identified by the following symptoms that are divided into three clusters: re-experiencing of the traumatic event which presents as flashbacks and intrusive thoughts and/or memories of the trauma, as well as physiologic reactivity upon exposure to stimuli that resembles the event; avoidance of trauma-relevant stimuli and numbing of responsiveness - symptoms may be cognitive, behavioural, dissociative and partially physiological; and persistent hyper-arousal which may present as jumpiness, irritability, sleep disturbance, or attention/concentration difficulties (Briere & Scott, 2006, p.21). Acute Stress Disorder is a recent inclusion in the DSM-IV (Benight & Harper, 2002; Briere & Scott, 2006) The acute stress response must last at least two days following the trauma, whilst these two days can occur any time during the first thirty days after the event.

Burnout is characterised by physical depletion, feelings of helplessness, emotional drain, and by the development of a negative concept and negative attitudes towards work (Nkosi, 2002). According to the Gibson and Iwaniec (2003, p.855) “the word burnout has been replaced by the terms ‘Secondary Trauma Stress’ and ‘Compassion Fatigue and that Secondary Traumatic Stress is sometimes referred to as Compassion Fatigue, which has to do with experiencing stress indirectly. The authors further believe that whilst the experience of the loss of a loved one may result in a lifetime of memories for those directly involved, research supports the view that there will be negative outcomes for these tertiary victims although the emotional impact may be to a lower degree and the time involved in overcoming the trauma may be shorter.

Figley as cited in Gibson and Iwaneic (2003, p.855) identified four reasons why trauma workers are especially vulnerable to Compassion Fatigue and give these as follows:

- Empathy is a major resource for trauma workers to help the traumatised but it can also make the worker vulnerable to transference;
- Most trauma workers have experienced some traumatic event in their own lives and this they can use to aid their understanding of trauma but they must maintain boundaries with the person seeking their help;
- Unresolved trauma of the worker will be activated if the client's trauma is similar;
- All relevant research idicates that children's trauma is more difficult for helpers to cope with.

The concept ***"shattered assumptions"*** is significant in the study of trauma. With reference to trauma, the survivor often has to come to terms with the fact that the world can be unsafe, unjust, unpredictable and without meaning (Connor, Davidson & Lee, 2003). Janoff-Bulman as cited by Gibson & Iwaneic (2003, p.853), in her work with rape and road traffic accident victims established that, 'we all live with the assurance of the following three basic assumptions that are "shattered" by trauma:

- A belief in personal invulnerability
- The perception of the world as meaningful and comprehensible
- The ability to view ourselves in a positive light
- Therefore, all those affected need time to confront their "shattered assumptions" and rebuild new ones that incorporate their traumatic experience.

2.3.3.2 Interpersonal trauma

Briere and Scott (2006) in discussing the problem of combined and cumulative trauma, point out a significant issue that, the *listing of traumas separately* may give the wrong impression that such traumas are independent of one another – meaning that undergoing one trauma does not necessarily increase the likelihood of experiencing another. They argue that this is generally true of non-interpersonal traumas such as disasters or house fires. A number of studies have found that victims of interpersonal traumas are statistically greater risk of additional interpersonal traumas. Similarly Cohen, Gagin and Peled-Avram (2006) in their study also noted that emergency workers dealing with human-induced trauma tended to exhibit higher PTSD symptoms than when working with cancer patients

In addition, many clinicians have noticed that some clients seem to have more than their normal share of adult traumas due to lifestyle, environmental, behavioural, personality, and/or social

issues that tend to increase the likelihood of the individual being traumatised. Emergency workers tend to be mostly adversely impacted by specific situations such as the death of their colleagues. It is interesting to note that some studies

2.3.3.3 Traumatic Memories

Denham (2008, p.408), in his study narratives of resilience in rethinking historical trauma states that:

> in their raw state trauma memories may differ from normal memories, as they may lack a cohesive plot and narrative development. Therefore a person's ability to manage a traumatic experience is related to her ability to place the experience into narrative form. Denham adds that traumatic experiences may initially be registered as sensations or feeling states with the resulting 'speechless terror' leaving memory traces that may remain unmodified by the passage of time, and further experience. If severe or persistent, these trauma experiences may result fragmentation of one's self or identity

Denham (2008) suggests that it may be useful for caregivers to focus on the creation and maintenance of narratives in an effort to resolve or integrate a fragmented or misunderstood past, and to help individuals and communities negotiate and establish the meaning of contemporary histor. He adds that focusing on survival or adopting a strength-based perspective may also be useful.

2.3.3.4 Positive effects of trauma

According to Ursano, Fullerton & McCaughey (1994, p.8) "effects of trauma are not always bad", but can have positive outcomes. The authors cite a study of the survivors of a tornado at Xenia in Ohio, although they experienced psychological distress, a majority of them reported positive outcomes like; learning that they could handle crisis effectively, feeling that they were better off for having met this type of challenge. One survivor after the Oklahoma told reporters that he valued his family more thereafter, noting that little things in life matter. Ursano, Fullerton & McCaughey (1994, p.8) add that

> Trauma may also bring a community together or reorient an individual to new priorities, goals and values. …. Trauma acts as a psychic organiser, producing a clustering of specific affects, cognitions and behaviours that can be released under certain symbolic, environmental or biological stimuli. For some trauma facilitates a move towards health. A traumatic experience can become the centre around which a victim reorganises a previously disorganised life

2.4 STRESS AND TRAUMA WITHIN THE SOUTH AFRICAN CONTEXT

Literature within the South African context has also addressed stress and trauma, looking at domestic violence and community violence (crime in general), medical trauma, emergency services, i.e. ambulance attendants, medical technicians and rescue workers. Focus will however be on occupational stress and trauma. In studying stress, depression and role conflict in working mothers Mclean (2002, p.13) mentions that South Africa is ranked as one of the most highly stressed societies in the world, with many social problems that can lead to both high levels of stress and depression. Studies on occupational stress have also been undertaken in South Africa. From the literature reviewed focus has been given to the following occupations: the South African Police Service, emergency service employees – which include nurses, paediatricians, firefighters, rescue workers, paramedics, ambulance attendants, working mothers, people in higher education institutions, women in educational management. The following are some of sources of stress that emerged from prior studies on occupational stress:

Political transition and related transformational issues: political transition in the country especially since 1994 has exposed a lot of South Africans to constant changes, politically, ideologically as well as economically (Long, 2006; Pienaar, Rothmann & van der Vijver, 2007). These changes have had ramifications in business - public or private, as well as government. According to Long (2006):

> South African health and change management consultants reported that employees suffered from high levels of anxiety due to an increase in corporate mergers, new technology, rationalisation and affirmative action. In addition stress tended to be most prominent amongst middle managers…..Black managers in South Africa face a history of inadequate education and a lack of exposure to cultural underpinnings that have previously assisted White children in their preparation for work in the labour market

Pienaar, Rothmann and van der Vijver, (2007) also observed similar outcomes. The authors found that changes which often involved the implementation of the employment equity policy and transformation have even impacted on the internal relationships and solidarity amongst employees, with former political enemies having to work together. Long (2002, p.21) notes that ”the new labour legislation, The Basic Conditions of Employment Act of 1997 recognises the impact of occupational sources of stress as having an adverse effect if not monitored”. The author discusses a few provisions of the Employment Act (1997) including Section 8 which urges employers to identify the following health problems: any psychological, emotional and social stresses experienced by the employee (Long, 2002, p.22).

Gender differences: Perceived gender differences amongst men and women in the workplace can create sources of occupational stress for both men and women (Long, 2006.) Long (2006, p.23) gives an example of what she termed 'gender related expectations'. The author as an example mentions the assumption that male managers are more assertive making them stronger leaders than female managers, whilst female managers are more nurturing and sensitive, i.e. better care-givers that their male counterparts.

Mclean (2002) also found from a sample of working women in their prime years had rating scale scores indicating depression due to the fact that they had multiple roles to play. According to Mclean (2002, p.15) "functioning in all spheres deteriorates when an individual is suffering from depression and thus it is questionable whether these subjects could be functioning optimally in their work and family lives.

Nature of the work and work performance: Based on local studies, the nature of the work seems to be one of the major sources of stress. Pienaar, Rothmann and van der Vijver. (2007) in their study of occupational stress, personality traits, coping strategies and suicide ideation in the South African Police Service found that the nature of work can be stressful, if this involves physical threat, force, exposure to danger, facing the unknown and shift work. Challenges that are specific to Ekurhuleni Emergency Services include (Insight, 2008) high risk areas like highways in the eastern region where a number of horrific accidents occur, informal settlements and low housing areas, industrial areas like Kloorkop and Alberton where dangerous including inflammable petrochemicals are manufactured. In informal settlements emergency service employees have to contend with paraffin-related fatalities and injuries (Steyn, 2004, p.6). This makes these areas vulnerable to fire accidents. Flooding throughout Ekurhuleni is another likely potent natural disaster depending on the severity of the rainy seasons.

Health care providers in an emergency unit were found to have the following stressors: workload, time constraints, communications problems, lack of trained personnel, police attitudes and behaviour (impatience, inconsistent guidelines, provincial discrepancies) (Skhosana & Peu, 2009, p.128). Another study by Pienaar and Rothmann (2006, p.76) on occupational stress in the South African Police Service stressors identified were related to lack of support which was regarded as severe, other officers not doing their work, inadequate or poor quality equipment, inadequate salary, lack of advancement opportunities and lack of recognition.

In addition, Naudé (2003) in his study also found travelling long distances, shift work, lack of equipment, physical danger in terms of geographiocal location, physical and verbal abuse from bystanders, interpersonal stressors such as personality clashes at work, colleagues not accepting

change as well as pettiness amongst colleagues. From a personal discussion with Skhosana and his colleagues at one of the Ekurhuleni fire stations (December, 2009), exposure to physical danger and verbal abuse amongst the communities they served were also perceived as stress factors, particularly in informal settlements where access to prospective service beneficiaries can be at times impossible.

Kop and Euwena as cited in Mostert and Joubert (2005) found that job demands and a lack of resources are the most salient factors in organisational stress in police organisations. Mostert and Joubert (2005, p.40) explain job demands as ”those aspects of the job that require sustained physical or mental effort and are associated with certain physiological and psychological costs (e.g. meeting deadlines, working overtime, shift work, excessive paperwork). Job resources on the other hand are those aspects of the job that may be functional in achieving work goals, reducing job demands and are associated with physiological and psychological costs, and stimulating growth and development”.

Employee intervention programmes were introduced in many South African companies to address stress prevention, problems relating to drug and alcohol abuse and training programmes relating to healthier and more balanced lifestyles (Long, 2006, p.27). Within the emergency services sector in South Africa the Emergency Services Chaplaincy was introduced around 1998 to provide emotional support and counseling services to Emergency Services employees and the victims of trauma and violence (van Zyl, 2002, p.19). It started in the East Rand, i.e. the Ekurhuleni Metropolitan Council, of which Ekurhuleni Emergency Services is part. The service providers are volunteer ministers, pastors and Christian workers who are not part of the Ekurhuleni Metropolitan Council, but give of their time on an honorary basis. They are called out major traumas like national disasters, floods, bomb explosions, building collapses, hostages situations, etc.

Occupational social workers are among those professional that have been involved in intervention programmes at workplaces and have played a role in support services amongst emergency service employees. As put by McCarthy and Steck in Straussner (1990, p.27**)** because of the nature of the Employee Assistance Programme service delivery system and the client’s expectation of the social worker in this system, certain clinical issues may be prominent within the corporate setting.

2.5 CONCLUSION

With reference to the above discussion, several studies have suggested that stress is part of daily living. All occupations are likely to be stressful at one time or another. Emergency work in particular can be very stressful and that working in emergency situations does affect those who directly render services under those circumstances. It is also important to take cognisance of the frequency of the occurrence of a particular stressor. Failing to do so may contribute to the over-estimation of highly stressful situations that occur rarely, whilst underestimating the effects of moderately stressful events that occur frequently.

Stress that is not managed does lead to ill-health. At its worst it can be incapacitating and be costly to the individual worker, the organisation as well as the family. Hence employee wellness programmes have been introduced in workplaces and occupational social workers have a role to play in these situations.

The following chapter will focus on coping. The concept will be defined and the various approach to coping discussed.

CHAPTER 3

COPING

3.1 INTRODUCTION

Coping is seen as part of the natural process of growing and acquiring social skills (Weisman, 1986). The author argues that coping well is a skill, part of which is an ability to identify problems which we are good at resolving and know most about**.** He adds that, it begins in infancy through socialisation. Seen in this light coping can be said to be an evolving process as one grows, is exposed to new and different situations, thereby being challenged to learn new ways of coping.

Focus in the literature has been on several aspects of coping; what it is and what it is not. The work of Lazarus and Lazarus and Folkman as cited in many studies proposed that there are two main strategies of coping, namely problem-focused and emotion-focused coping (Beaton, Murphy, Johnson, Pike & Corneil, 1999; Collins, 2007; Moran, 1998; Mostert & Joubert, 2005; Rice, 1999). Additional literature has also focused on its functions, styles (individuals' tendencies) and strategies (actual behaviours) in coping (Moran, 1998), socio-cultural aspects of coping and gender differences (Aranda, Castaneda, Lee & Sobel, 2001), the role of debriefing and individual differences (Bonnano & Mancini, 1998; Moran, 1998) in coping, personal traits. The coping strategies as well as coping preferences of emergency service employees have also received extensive attention with focus on for instance, the availability and satisfaction from social support, organisational culture and resources, personality traits, cultural and gender differences, etc. (Collins, 2007; Scarpa, Haden & Hurley 2006; Moran, 1998; Pienaar, Rothmann & van der Vijver, 2007; Scarpa, Shalvi & Luzzatto, 2006), and whether they are adaptive or not.

3.2 COPING DEFINED

The phrase "to cope with" is a British expression, which literally means to confront an adversary or obstacle head-on, or to contend with some foe successfully on equal terms (Rice, 1999, p.288). Coping describes a very basic human competency (Valtonen, Sogren & Cameron-Palmer, 2005). It is often seen as a factor that helps an individual maintain psychosocial adaptation when faced with stress (Scarpa, Haden & Hurley, 2006). For the average person, coping represents a description of what must be done to keep his or her life at a reasonable high level of satisfaction, and it refers to the things that people do to avoid being harmed by life strains. In some way it seeks to soften the impact of demands of difficult life situations (Cauble & Patterson, 1982; Seuss, 2001). According to Collins (2007) coping is the process of executing a mentally conceived response to perceived threat to the self.

In an early attempt to define coping, Folkman and Lazarus (1980) as cited in Rice (1999, p.289) suggested that “coping is all the cognitive and behavioural efforts to master, reduce or reduce demands. It makes no difference whether the demands are imposed from the outside (by family, job, or friends) or from inside (while wrestling with an emotional conflict) or setting impossibly high standards. Coping seeks to soften the impact of demands”. Matheny, Aycock, Pugh, Curlette and Silva-Cannella as cited in Rice (1999) after reviewing a large body of research also came up with a similar definition namely “any effort, healthy or unhealthy, conscious or unconscious, to prevent, eliminate or weaken stressors or to tolerate their effects in the least hurtful manner”. The latter definition points out to the fact that people sometimes adopt coping strategies that actually get them into more difficulty.

Scarpa, Haden and Hurley (2006) define coping as the cognitive and behavioural strategies an individual employs to reduce distress and tension or eliminate stressors, and to manage internal or external demands that are perceived to exceed the individual’s personal resources. From this definition the authors argue that coping seems to have two functions, namely, the first being to solve or change the problem that is creating the stress and thus change the situation. The second function is to regulate the associated emotional arousal or tension

According to Weisman (1986) each generation will cope with different problems, or traces of traces of previous ones cast in new forms. Weisman (1986) adds that, coping as a strategic effort to master a problem, overcome an obstacle, answer a question, dispel a dilemma - anything that impedes our progress. In comparing coping with defending, Weisman (1986) sees coping as dealing with an open system of options which makes an attempt at resolving a problem, while defending is essentially a closed system which tends to dismiss the problem. He adds that coping and defending can happen simultaneously. (1986)

With due regard to terminology, Rice (1999, p.289) further warns that when talking about coping ”we should be careful to note whether we are talking about the process of coping or its outcome”. Rudolph, Dennig and Wise (1995) as cited in Rice (1999, p.289) addressed this by referring to coping episodes, which according to them included three components, namely:

- A *coping response* which refers to any deliberate action, mental or physical, that occurs in response to a perceived stressor and is directed to changing the external event or the internal state;
- A *coping goal* which refers to the objective to be achieved by engaging in the coping response. Typically therefore the goal would be to eliminate, reduce the level of a stressor, or transform the stressor. In this regard Gates and Wolverton (2002) a theory of

coping with stress in addition to trying to understand what the different types of stressors mean to different people, it must also look at a person's coping goal and the unique way it is linked to his/her decision making, and

- A *coping outcome* which is the direct consequence be it good or bad of the coping response.

Murgatroyd and Woolfe (1982, p.24) conclude that the "term coping is used to describe a person's *attempts* to change or manage a situation, and *not* whether they succeed in doing so".

3.3 THEORETICAL PERSPECTIVES ON COPING

Extensive literature cites the work of Lazarus and Folkman (Collins, 2007; Beaton, Murphy, Johnson, Pike and Corneil, 1999; Rice, 1999) as having been highly influential in the studies of stress and coping. Beaton et al. (1999, p.294) state that "Lazarus and Folkman's theory on coping suggests that it is a highly contextual process involving the cognitive appraisal and re-appraisal of threats and whether anything can be done to change the situation". According to Beaton et al. (1999) Lazarus and Folkman's model hypothesises that measuring a stressful encounter may be difficult, as the coping strategies may change from one stage of a complex stressful encounter to another. Many researchers have based their studies of coping on Lazarus's problem-focused and emotion-focused work on coping (Valtonen, Sogren & Cameron-Padmore, 2005).

Snyder and Pulvers in Snyder (2001) in their study found that over the last three decades the history of coping shifted from emphasising situational factors to looking at individual differences as factors. According to the authors (Snyder & Pulvers, p.5) "the individual differences approach assumes that there are important dimensions of personhood along which people can be rated and measured, and that such information is critical for understanding their subsequent coping adventures. Quite a few researchers have also emphasized the importance of individual differences in coping (Bonnani & Mancini, 2008; Moran, 1998; Gates & Wolverton, 2002)

3.4 COPING CATEGORIES

Quite a few studies have provided classifying schemes to bring some order to coping research (Rice, 1999). There are two main categories that have been referred to by many authors, namely **problem-focused** and **emotion-focused** coping, which from literature are attributed to the work of Lazarus & Folkman (Agaibi & Wilson, 2005; Gates & Wolverton, 2002; Murgatroyd & Woolfe, 1982; Rice, 1999).

Problem-focused coping is also seen as instrumental (Rice, 1999) or “vigilant coping”, when we try to change the relationship between the self and the environment (Collins, 2007, p.1177; Gates & Wolverton, 2002) and is aimed at problem solving, or doing something to alter the source of the stress to prevent or control it (Collins, 2007; Scarpa, Haden & Hurley, 2006). In addition, it is a style of coping that tends to be predominant when something constructive can be done (Collins, 2007) and includes planning, suppression of competing activities, restraint and seeking out social support. *Planning* involves thinking about how we cope with a stressor, coming up with action strategies, thinking about steps to take and how best to handle the problem (Collins, 2007, p.1177); *suppression of competing activities* involves putting other competing information and projects aside, to avoid distractions in order to cope with the stressor and *restraint coping* involves waiting for an appropriate opportunity, holding oneself back and not acting prematurely”.

With the problem-focused strategy stress is approached in an attempt to change the situation for the better and this can be done in two ways (Gates & Wolverton, 2002, p.53) by: (a) not accepting the stressor and here one tends to be mindful of the one’s action and uses problem-solving; or (b) preventing loss of resources and here aggression is operative and action is not reviewed.

Emotion-focused coping involves the attempt to manage or deal with our thoughts, feelings and bodily reactions under conditions of stress and (Scarpa, Haden & Hurley, 2006). This second function is called management (Murgatroyd & Woolfe, 1982). It works to lessen emotional pain, and is seen as palliative. In this regard again Collins (2007, p.1177) states that this style of coping tends to be predominant when the stress is something that must be endured. Gates and Wolverton (2002, p.53) see it avoidant where one turns away either actually or mentally from the source of stress. This can be done by accepting one’s own limits or the constraints of the situation: (a) in order to come to terms with the situation or (b) meaning to turn away from the stressor either actually or mentally. In the first instance one disengages or seeks help, whilst in the second situation there is denial, neglect, passivity and avoidance.

Rice (1999) suggests that the two strategies, namely problem-focused and emotion-focused, are not independent of each other, as one can be attending to problem solving whilst dealing with emotional pain as well.

Weisman (1986) identified the following 15 coping strategies: Seek information, get guidance; share concern, find consolation; laugh it off, change emotional tone; forget it happened, put it out of your mind; keep busy, distract yourself; confront the issue, act accordingly; redefine, take a more sanguine view; resign yourself, make the best of what cannot be changed; do something,

anything, perhaps exceeding good judgement; review alternatives, examine consequences; get away from it all, find an escape somehow; conform comply, do what is expected, or advised; blame or shame someone or something; deny as much as possible. Weisman (1986) having reviewed all these strategies concludes that his list is both too long and too short. He also adds that coping is seldom simple, unambiguous and plain. Even Weisman's strategies fall within the two categories identified by Lazarus, namely, emotion-focused (the first few) and problem-focused (the last starting from do something).

3.5 COPING RESOURCES, STRATEGIES AND EFFORTS

Rice (1999, p.290), differentiates amongst the different aspects of coping, namely; coping resources, strategies and efforts. "Coping resources refer to (a) *personal traits* like self-efficacy, optimism, perception of control and self-esteem; (b) *social resources* e.g. family, friends workplace and extended local agency networks; and lastly (c) *physical resources* e.g. good health, adequate physical energy, functional housing and minimum financial stability".

3.5.1 Coping Resources:

Personal traits are part of personal coping resources to which quite a few studies have referred to (Pienaar, Rothmann & van der Vijver, 2007; Rice, 1999). "They include our self-concept which is shaped by past experiences, but powerfully influenced by how we deal current stressors. It shapes our expectations for success in the future. Past failure tends to feed a negative self-concept. Personal traits include self-efficacy, optimism, perception of control and self-esteem" (Rice, 1999, p.291).

With regards to Hauser and Solomon as cited in Beaton, Murphy, Johnson, Pike and Corneil (1999, p.294) point out that "coping responses may have enduring trait-like qualities, especially when one is required to cope with a certain class of chronic demands, for instance as in fire service stressors". Further, they add that there is widespread agreement that certain personality traits and coping responses, such as problem solving are generally adaptive and protective, while others, such as brooding or an over reliance on alcohol, may be maladaptive.

A factor relevant to the discussion of personal traits is an individual's *perceived coping self-efficacy,* which Benight and Harper (2002) found to a potential mediator to acute stress response. Coping Self-Efficacy is defined as "the perceived capability for managing posttraumatic recovery demands" (Benight & Harper, 2002, p.177). According to the authors coping self-efficacy plays a role in the development of vigilance towards potential threats, handling of emotions and orchestration of coping behaviours. Benight and Harper (2002) studied the mediating effects of

coping self-efficacy perceptions between acute stress response and one-year distress following two natural disasters in Colorado. These researchers argue that acute stress response, the emotional, dissociative and physical reaction during a traumatic event, has been shown to be predictive in an individual's subsequent ability to cope.

It has been used to describe traumatic responses varying over time from during the trauma to days or even weeks after the event. It has also been used to describe reactions that occur during and shortly after the trauma (Benight & Harper, 2002). The authors add that research on trauma specific to coping self-efficacy, that is, when coping self-efficacy is directly linked to the specific coping demands of the traumatic situation, the research has shown coping self-efficacy to be related to post-trauma recovery both cross-sectionally as well longitudinally.

Cognitive Coping: Rice (1999, p.72) came up with the idea that "stress is in the eye of the beholder", just after watching his four year old daughter, who was jumping around amongst family members and ended up irritating her grandmother. When the grandmother commanded the child to sit down for a minute because she was driving her up the wall, the child simply replied that the grandmother could simply stop watching her. The author adds that cognitive scientists in their efforts to construct general theories about basic processes in cognition, also thought about the cognitive processes involved in stress and health. As a result cognitive therapists began to develop ways to help people change self-defeating thoughts and build a sense of control. Cognition is defined as "all the ways of knowing, thinking, reasoning, and deciding. It includes attention, perception, memory, problem solving and creativity. In short, cognition is everything that it is everything that we have come to associate with intelligence" (Rice, 1999, p.73).

Based on the above discussion, the researcher found Winje's (1998) study on cognitive coping relevant for the present study. Winje (1998, p.627) stated that "clinical observations indicate that traumatised people are characterised by a search for information about the possible causes of the traumatic event, what happened, and what could have been done to prevent it". According to the author, the process of working through such information is assumed to be important in adjusting trauma. He cites a model that was developed for understanding factors that might aid or impede short- and long-term recovery after a traumatic event. In his study of a fatal bus accident in Norway, this model had the acronym 'CESBE', abbreviated according to the first letters of the five themes representing the different but possibly related aspects of coping with trauma as follows:

According this model, "the traumatised individual needs to: know what happened (**C**ognitive coping), to express emotions (**E**motional coping), share thoughts and feelings with others (**S**ocial

coping), respond according to the new situation (**B**ehavioural coping) and to re-establish a sense of meaning with life and death (**E**xistential coping) (Winje, 1998, p.628). The assumption was that favourable coping aimed at assimilating and accommodating of the new situation would be easier when the traumatised people focus on these themes over time". Results from Winje's study, with reference to the themes in the CESBE-model, showed that, whilst the search for facts was going on, there were no associations between the need for information and symptoms, indicating that efforts to understand what happened should be regarded as part of a normal adjustment process. However, Winje points out that when a strong need for information persisted after factual information had been provided, it was related to poor psychological adjustment.

Studies have also referred to ***cognitive restructuring*** as a coping cognitive Collins (2007, p.1177) states that "coping can involve **,** which is re-interpreting stressful situations more positively, and he sees it as a type of emotion-focused coping aimed at managing distress emotions, rather than dealing with the stressor itself". He gives as an example, putting stressful circumstances into broader and wider perspective, making positive social comparisons with others in worse situations than one self, using humour selectively, sensitively and appropriately. "Cognitive restructuring changes the meaning of an event or changes perceptions of personal adequacy to handle a situation" (Rice, 1999, p.296).

In this regard Khawaja, White, Schweitzer, Greenslade (2008) in their study of the difficulties and coping strategies of Sudanese refugees also found cognitive reframing to be one of the significant strategies used by the refugees. "Individuals described how they maintained hope for the future despite current difficulties" (Khawaja et al., 2008, p.505). To this Collins (2007) adds *cognitive-behavioural* approaches such as stress inoculation, by preparing for possible stressful situations and rehearsing possible responses. According to Young and Cooper (in Firth-Cozen & Payne, 1999) coping can be seen as a preventative strategy rather than just a reaction, an effective means of reducing work stress if it is *anticipated.*

The above seems to be in line with ***anticipatory coping*** which was documented by Pearlin and Schooner for the first time as a kind of coping (Murgatroyd & Woolfe, 1982). According to Murgatroyd and Wolf (1982, p.26), "it involves the prediction of some stressful or crisis-laden situation and the taking of action to either avoid or change the situation". Murgatroyd and Woolfe (1982) see anticipatory coping as a common coping strategy, whose use removes the need for many people to seek help when confronted with crisis situations. However, they also note that studies have revealed that this is not a widely used strategy as might be expected. Murgatroyd and Woolfe (1982, p.27) identified three reasons for this namely:

(i) It requires the accurate identification of the potential source of crisis, which is not always easy.

(ii) Even when the potential source of stress has been identified, people do not always have the knowledge, skills or strengths to eliminate, modify or transform them.

(iii) The development of a coping tactic to deal with one aspect of a person's life (e.g. work) may lead to stresses in others (e.g. marriage)

In looking at coping history Lazarus (1999) states that coping has to do with the way people manage life conditions that are stressful. According to him, to a certain extent, stress and coping could be said to be reciprocals of each other. When coping is ineffective, the level of stress is high. Alternatively, when coping is effective, the level of stress is likely to be low. Lazarus (1999) however warns that we must be conservative in offering this as a principle, because effective copers probably extend themselves more than ineffective ones – creating more potential stress for themselves which they somehow can handle.

3.5.2 Coping Strategies

With regards to ***coping strategies*** Rice (1999, p.293) explains that they are coping resources "that we have learnt to use either through experience, observation of others' novel coping strategies or even by reading instructive material on coping techniques". Matheny, Aycock, Pugh, Curlette and Silva-Cannella as cited in Rice (1999) provided a framework which divided coping strategies into two broad categories, which are based on classical conditioning theories, namely ***combative coping*** and ***preventive coping*****.** Combative coping is described as "a provoked reaction to some stressor, the intent being to terminate the stressor, making it reactive" (Rice, 1999, p.293). They include stress monitoring, marshalling resources, tolerating the stressor, attacking the stressor and lower arousal. Preventive coping on the other hand is seen as proactive, "actively trying to prevent stressors from ever appearing" (Rice, 1999, p.294).

3.5.2.1 Social support*:* Payne as cited in Collins (2007, p.1180) defines social support as "the degree to which the environment makes available resources relevant to the demand made upon the system". Family, friends, colleagues tend to generally be the most used form of social support (Collins, 2007; Rice, 1999). Although "it emerged as a major resource for effective coping, social support has been found to make a small contribution to coping efforts by itself" (Rice, 1999, p.292). The author points that evidence suggests that the quality of social support is not as important as its quality.

Khawaja, White, Schweitzer and Greenslade (2008) also found social support to be a significant coping strategy amongst Sudanese refugees, when they studied their difficulties as well as coping strategies. "Although the refugees had experienced a breakdown in their social networks, they continued to use remaining friends, family and community as a source of support" (Khawaja et al., p.504).

3.5.2.2 Social Support and Cross-Cultural Variations

Laungani (2002, p.130) from her studies on cross-cultural variations in stress, trauma and coping, also noted

> that cognitive appraisal is important in emotional experience and generally precedes any affective reaction. She adds that certain kinds of experiences like natural disasters, earthquakes, tornadoes, etc would be universally perceived as being traumatic, whilst other events or experiences which occur at a specific cultural level, may be collectively perceived by members of that culture as being extremely traumatic. With the latter, persons from another culture, unfamiliar with the norms and values of the people of the first culture may fail to perceive the same events in a like manner

Laungani (2002) cites India, where the extended family network in which people live makes it almost impossible even if it were desired, to shield children from witnessing illnesses, accidents and deaths at home. She adds that both children and adults learn to 'accept' the tyrannies of nature, e.g. floods, droughts, cyclones, earthquakes, etc. as part of their being or their *karma,* the latter meaning that "happiness or sorrow is the predetermined effect of actions committed by the person either in his present life or in one of his numerous past lives" (Laungani, 2002, p.144). Over time they tend to get immunised against natural and/or man made calamities. Due to living in close-knit extended families, the Indian children soon acquire a high degree of resilience, which somehow trains them to cope effectively with such tragic and unfortunate events.

Laungani (2002, p.133) in her study of cross-cultural variations in stress, trauma and coping strategies also noted that the cognition of an event as 'trauma' varies from one individual to another, from one culture to another, from group to another, from one occasion to another, as well as from one culture to another.

3.5.2.3 Social Support and Gender Differences

Literature has suggested that gender differences do have an impact on how men and women respond to stress, as well as in the role that social support plays in moderating the effects of stress on depression (Aranda, Castaneda, Lee & Sobel, 2001; Collins, 2007; Rice, 1999). A few studies that have examined social support for women in the form of role relationships such as spousal support, found that if there are family and friendship networks and there is frequency of interaction with these networks, depression tended to decrease in the women (Aranda, et al., 2001).

In addition, Aranda, Castaneda, Lee and Sobel (2001) argue that women who reported more family support relied less on avoidance coping and showed less depressed mood than women

with low levels of family support. This pattern was however not evident in men. In this regard Collins (2007) cites Berkowitz and Perkins who, according to them, the more a woman receives support from her husband or partner, the less her feelings of being overloaded with conflicting job and family demands become. Thus, they argue that the link between avoidance coping and depression may be similar in both men and women, although the influence of social support on coping responses may be more prominent in women's reliance on certain types of coping. Further, social support and depression suggest that low social support is strongly associated with subsequent depression, especially when it occurs together with stressful life events (Aranda, et al., 2001).

Findings by Rice (1999, p.293) with regard to social support seem to suggest that "compared with women, men typically have a more extensive support network than women". However, although women have a more limited network, it tends to be more intimate and intense. For most males their intimate and intense support comes from their spouses, whilst women generally have several friends outside marriage that can adequately serve this function.

Aranda et al.'s study (2001) also suggests that *adults lacking an intimate relationship* are at higher risk of depression, especially when individuals experience major stressors in their lives. According to the authors a few studies have looked into social support in women in the form of the role relationships such as spousal and family support. With reference to their study of Mexican Americans, Aranda et al. (2001) found the presence of both family and friendship interaction networks and the frequency of interaction with these network resources have been associated with decreased depression in women of Mexican origin. On the other hand, women's lack of social support may be related to the use of ineffective coping strategies.

Collins (2007) adds that a lot of evidence suggests that women are better at seeking out and providing social support for themselves than men and get more satisfaction from receiving it. Kirschbaum et al. as cited in Collins (2007) points out that although men are much less likely to seek and provide social support than women, they are often its recipients from a female partner, a close relative or close female friend. In addition, a study of mental health social workers suggested that women's lower levels of stress could well have been the result of their ability to make better use of opportunities for support (Collins, 2007). This is in contrast with Rice's (1999) above.

Buchanan and Flouri (2001, p.133) in their study of examining the relationship between *parental background and expectations of familial support in adulthood*, found that men from birth families who had experienced disadvantages and men from stepfathers who have experienced public

care (e.g. alternative care as in foster care placement) were less likely to turn to family for emotional support. Another significant finding in the authors' study was that women who are relatively highly educated and men who are employed tended to call upon family first in times of emotional difficulties. This study has relevance for professionals intervening amongst male emergency service employees especially who might have been brought up in alternate care, making them more vulnerable with regard to seeking family support in difficult times.

Carver, Scheier and Weintraub (as cited in Collins, 2007) maintain that social support is sought for two reasons. Firstly, for seeking social support for instrumental reasons, like seeking advice, assistance or information – which makes this part of problem-focused coping. Secondly, social support is sought for emotional reasons, namely getting moral support, sympathy or understanding, and therefore be seen as emotion-focused coping. Collins (2007, p.1180) also cites Lepore to argue that "talking about stress-related thoughts and feelings helps people to impose a cognitive structure to facilitate integration and resolution of stressful experiences, whereas constraints on disclosure of these feelings can impede these processes. Healthy emotional adjustment can therefore be facilitated by talking about stress, through the elimination of negative emotional responses to it or by creating more benign or neutral (kinder) associations with memories of the stressor. Disclosure of stressful events and talking about the emotions associated with them is much more likely to lead to positive psychological adjustment when supportive social networks are available".

There can be a down side to seeking out emotional support. Carver et al. (as cited in Collins, 2007, p.1180) state that "emotional support can offer positive reassurance and a return to problem-based coping. However, its overuse may be maladaptive and actually impede adjustment, as it is believed that too much focus on distress can distract people from active coping and movement beyond distress. Lastly, many religious institutions function as sources of social support for youth and families (Plante & Sharma in Plante & Sherman, 2001). Lastly it should be noted that evidence suggests that social support makes only a small contribution to coping efforts by itself, but it is very important when combined with other coping techniques (Rice, 1999).

Leisure: Iwasaki, Mannell, Smale and Butcher (2005, p.80) have identified leisure as a coping resource. According to authors little attention has been paid to the role of leisure perhaps as a behaviour it tends to be perceived as trivial or insignificant as opposed to more *serious* behaviour. In addition, Iwasaki, et al. (2005) established from research literature that, leisure has often been conceptualised as a form of emotion-focused coping.

It is interesting to note that some authors refer to coping strategies as coping styles, (Scarpa, Haden & Hurley, 2006) which are generally used by people to cope across a wide variety of stressors or their typical habitual preferences in coping with problems. Other authors differentiate between coping styles (tendencies to deal with situations in a particular way) and coping strategies (specific behaviours they engage in to deal with a stressor or event) (Moran, 1998). The researcher chooses to follow the latter, i.e. the differentiation between coping styles and coping strategies. Although other authors approach coping similarly, they tend to focus on one or two of these aspects of coping, i.e. personal traits and social support (Winje, 1998; Aranda, Castaneda, Lee & Sobel, 2001)

3.5.3 Coping Efforts

These include some of the following; tension reduction, cognitive restructuring, problem solving, social skills, information seeking, positive diversions, etc (Rice, 1999).

Snyder and Pulvers (2001) in discussing coping with stress looked at ***factors*** that enhance the coping process, as well as those that impede it. He identified the following factors as those that enhance coping: (a) *Obtaining social support,* which involves getting information from others as well as interacting with them in many meaningful ways (p.288). (b) *Finding meaning*, which involves trying to understand what caused events to happen, as well as determine the impact of those events on their lives (p.290). (c) *Using humour,* which Snyder and Pulvers (2001) view as form of emotion focused coping. Humour is seen as a moderator of stress and has been linked to surviving traumatic stress. Snyder and Pulvers (2001) also differentiate between self-calming humour which involves laughing at oneself and is seen as beneficial, whilst hostile humour involves asserting control by directing humour towards other people who are experiencing stress and is not beneficial. (d) *Comparing with others,* which is a cognitive process whereby one compares one's attributes with those of another, thereby improving subjective well-being (Snyder & Pulvers, 2001, p.291). The authors add that in downward social comparison, better feelings result from comparing one's own circumstances to those worse off. (e) *Revealing secrets* is also seen as a good coping strategy as it reduces the distress caused by the harboring of secrets (p.292). (f) *Remaining active* is an action-oriented coping strategy. Williamson and Dooley as cited in Snyder and Pulvers (2001, p.291) recommend that people need to be aided in identifying those activities in which they can participate and be encouraged to pursue them. (g) *Learning distraction,* i.e. engaging in cognitively challenging activities which do not leave much mental energy for a person to become consumed with self-focused attention; and mindfulness, i.e. shifting from an attentional self-focus to an ongoing focus in sensory affective and cognitive awareness which helps in tying up enough cognitive resources so as to preclude the emergence of counter-productive and evaluative thought provoking processes (Snyder & Pulvers, p.293). (h)

Forgiving this enables a person to break the angry thoughts that tend to continue to link a person to the source of the transgression (Snyder & Pulvers, 2001, p.293). Snyder and Pulvers' factors also seem to be proactive efforts at coping and involve some problem solving. They can therefore be seen as problem-focused coping.

3.6 RELIGIOUS FAITH, SPIRITUALITY AND COPING

Religion, faith and spirituality have been found by many to have a mediating effect on stress and trauma (Gilligan & Furness, 2003; Holloway, 2006; Pienaar, Rothmann & van der Vijver, 2007; Plante & Sherman, 2001). Some authors have used the terms interchangeably as having the same meaning (Plante & Sharma in Plante & Sherman, 2001), whilst others have differentiated between the two terms (Connor, Davidson & Lee, 2003; Tan & Dong in Plante & Sherman, 2001). Tan and Dong (as cited in Plante & Sherman, 2001, p.293) define religion as "a process, a search for the sacred", whilst spirituality is defined as a "search for the sacred, so that spirituality is a core of religion". "Spirituality refers to a belief in a power apart from one's own existence and implies a connection with a universal force transcending everyday sense-bound reality" (Connor, Davidson & Lee, 2003, p.487). Connor et al. (2003) add that spirituality defines the search for purpose and meaning within a context that accommodates the super-natural that is omnipresent.

Religion is seen as an issue for all families regardless of race, is considered a basic aspect of human experience, regardless of whether it within or outside the context of religious institutions and (Gilligan & Furness, 2005). Stewart as cited in Holloway (2006) for instance argues that religion and spirituality are entrenched in culture. Literature suggests that mental health care professionals cannot respond appropriately if they ignore spirituality and religion (Gilligan & Furness, 2005; Holloway, 2006).

Plante and Sharma as cited in Plante and Sherman (2001, p.241) found evidence that "socialisation through religious worship participation in a congregational setting may promote prosocial and adaptive qualities, elevating mood and decreasing levels of distress". The authors give the example of church attendance and related activities amongst African American community members, which were found to be an effective coping mechanism which promoted well-being. Further, Plante and Boccaccini as cited in Plante and Sharma (2001, p.241) found that "college students with high strength of religious faith had higher self-esteem, hope and adaptive coping and less interpersonal sensitivity. The authors argued that positive associations with well-being may be due to the impact of faith on both positive and negative emotions, such as increased forgiveness and reduced guilt, respectively, which may enhance the individual's

development. They add that ritualistic religious behaviour is likely to have a positive impact on both positive and negative emotions".

In their study of difficulties and coping strategies of Sudanese refugees, Khawaja, White, Schweitzer and Greenside (2008) found religion to be a commonly used coping strategy especially during the pre-migration and transition periods when the church was perceived as assisting the refugees by providing emotional as well as material support.

Aldridge and Roesch (2008, p.350) point out to the possible "negative effects of religious coping when combined with distancing, in their study of coping with daily stressors amongst Mexican American youths. According to the authors, this could be due the sparse research concerning religious coping amongst in minority adolescents or that Mexican American adolescents may be more amenable to the cultural socialisation pressures that emphasise religious traditions". Implications of religious faith and spirituality in this study will be for the researcher to find out what impact faith has, if any, on the coping strategies employed by the Ekurhuleni emergency service employees.

Religiosity has been found to have mediating effects on depression and anxiety (Plante & Sharma as cited in Plante & Sherman, 2001). In their study of the impact of religion on depression, the authors found that religious or spiritual practices tended to ease the grieving or bereavement process of many individuals experiencing exceptionally difficulties and may be at risk for developing depression (Plante & Sherman, 2001, p.243). Intrinsic religiosity, which according to the authors refers to religiosity that is based on internal beliefs such as faith, as opposed to external benefits such as social connections, has been found to positively mediate against depression (Plante & Sherman, 2001, p.244). In addition Plante and Sharma (as cited in Plante & Sherman, 2001) found that, for instance those individuals who attended church regularly prior to a death experience and even after, were less likely to report depressive symptoms as compared to those who did not. Similarly with anxiety, Plante and Sharma as cited in Plante and Sherman (2001, p.247) in their study amongst anxiety patients, found a positive relationship between patients with intrinsic religiosity who employ religious or spiritually based coping mechanisms and decreased anxiety levels, as opposed to those who did not.

Literature has suggested that it is essential for mental health care professionals to take cognisance of the role of religion and spirituality in order to render holistic services to their clients and patients (Gilligan & Furness, 2003; Holloway, 2006; Tan & Dong in Plante & Sherman, 2001). For instance, Gilligan and Furness (2003, p.617) in their study of the role of religion and spirituality in social work practice argue that "social workers need to be able to respond

appropriately to the needs of all service users, including those for whom religious and spiritual beliefs are crucial. A spiritual approach can be helpful in restoring hope, acquiring a more balanced view about justice and injustice, safety and danger, good and evil". Gilligan and Furness (2003) add that the cultural appropriate practice depends, amongst other things, on an understanding and appreciation of the impact of faith and belief.

3.7 HELPFUL AND UNHELPFUL COPING STRATEGIES

Collins (2007) points out that, not all coping strategies are positive. As put by Scarpa, Haden and Hurley (2006), certain coping strategies or styles seem to be more beneficial in psychosocial adaptation than others. Whilst Collins (2007) refers to two strategies in particular that may be dysfunctional, namely behavioural and mental disengagement, Scarpa et al. (2006) look at both functional and dysfunctional coping strategies. According to the latter researchers approach strategies which are active, seem to have a positive influence on mental health. They involve problem-focused coping efforts aimed at changing the situation (e.g. direct action, support seeking) or one's view of the situation (e.g. positive reappraisal). Avoidant strategies on the other hand generally involve efforts not to think about the situation or otherwise avoid it (e.g. denial, substance abuse) and tend not to have positive outcomes (Scarpa et al., 2006).

Collins (2007) also found that behavioural disengagement involves reducing one's efforts to deal with a stressor, even giving up trying to attain goals with which the stressor is interfering. Such disengagement is identified as helplessness. Mental disengagement on the other hand occurs when conditions prevent behavioural disengagement. It involves distancing oneself by the use of a wide variety of escape avoidance activities, distracting the person from thinking about the required behavioural responses, such as excessive drinking, drug use, wishful thinking, day dreaming and inappropriate sleeping. Denial is another coping strategy that is seen as controversial (Collins, 2007). It is sometimes seen as helpful in minimising distress and facilitating coping, or as put by Collins "it can be argued that it creates additional problems, unless the stressor can be profitably ignored" (2007, p.1178). Another view regarding denial is that it is useful in the early stages of a stressful event or interaction, but can impede effective coping later on (Collins, 2007). It can be seen as the opposite of acceptance as it tends to involve a refusal to believe that a stressor exists and in a person trying to act as if the stressor is not real.

Aranda, Castaneda, Lee and Sobel (2001) also contend that coping methods have been found to moderate the relationship between stressful events and depression in a variety of populations. Citing research findings, they add that people who rely more on approach coping and less on

avoidance coping tend to adapt better to stressors and experience better psychological outcomes, such as reduced depressive outcomes.

A study by Collins (2007) *rational-emotive therapy* as a form of coping in that it involves avoiding 'awfulising' and 'catastrophising' about demanding events and making positive reappraisals. The author adds acceptance as another important aspect of coping, in that a person who accepts the reality of a stressful situation will be willing to be engaged in an attempt to resolve it.

Schabracq, Winnbust and Cooper (2003) also mention *'monitoring'* and *'blunting'* which are coping tendencies that tend to seek or avoid information concerning the stressful aspects of the situation. The same authors cite studies that refer to this kind of coping as 'approach and avoidance'.

Aldridge and Scott (2008, p.342), in their study of intra-ethnic variation in coping with daily stressors among Mexican adolescents, found that "a blend of approach coping, and to a lesser extent avoidant coping, has been observed to promote psychological and physical health. Mexican American adolescents who used positive reappraisal, instrumental social support, active coping, focusing on emotions, venting problems, problem solving, cognitive restructuring, religious coping, restraint, emotional support, acceptance, planning and distancing as forms of coping, tended to show positive psychological and physical health".

3.8 STRESS, TRAUMA, COPING AND THE CARE GIVING PROFESSIONS

A lot of studies have focused on how stress and trauma impact on the care giving professions. The care giving professions from literature reviewed include all emergency service employees as previously described as well as volunteer non-professional helpers. Shalvi and Luzzatto (2006, p.282) in their study of emotional difficulties and coping among clinicians treating traumatised patients within a terrorised society argue that no person is immune when subjected to severe enough traumatic exposure. A growing number of studies have shown that providing mental help to traumatised patients brings about emotional cognitive and physical reactions in mental health professionals, which resemble post-traumatic stress symptoms (Cohen, Gagin & Peled-Avram, 2006, p.293).

In their study of emotional difficulties and coping among clinicians treating patients within a terrorised society, Shalvi and Luzzatto (2006, p.284) referred to "the concept of 'shared reality' according to which a meaningful subjective reality is continually constructed and reshaped both within the individual and through social interactions. Shared meanings are created through these

social interactions, and these shared meanings constitute social reality". In addition, Shalvi and Luzzatto (2006, p.284) relied on authoritative literature dealing with emotional reactions and coping of caregivers treating trauma victims, especially the works of Herman (1992) and Figley (2002). Herman as cited in Shalvi and Luzatto (2006, p.284) gave the following possible emotional reactions for a caregiver treating posttraumatic patients:

- "Feelings of helplessness that challenge the therapist's basic faith
- Identification with the victim's rage at the perpetrator, at bystanders, at colleagues and society at large
- Taking the role of the rescuer
- Unharmed bystander guilt
- Intense need for an ongoing support system"

Figley as cited in Cohen, Gagin and Peled-Avram (2006, p.293 argued that the concept of compassion fatigue included two dimensions, namely, secondary trauma and job burnout. Cohen et al. (2006) who studied compassion fatigue in Israeli social workers, state that Figley suggested that secondary trauma and burnout syndrome have each unique psychological manifestations and a unique effect on a professional's well-being. According to the authors (Cohen et al., 2006, p. 293), "secondary trauma displays symptoms similar to those of PTSD; re-experiencing, avoidance, numbing and arousal. It is often an acute reaction that may emerge suddenly, without warning. Job burnout in workers in the helping professions may result from their experiencing cumulative ongoing work stressors and strains over time. Cohen et al. (2006, p.294) cite several authors who maintain that "burnout is state of physical, emotional and mental exhaustion and is defined as a process that after starting gradually worsens and is especially exhibited in fatigue and emotional and physical symptoms".

Figley as cited in Shalvi and Luzatto (2006, p.284) presented a model containing the variables that predict *compassion fatigue*, which is defined as "the stress of caring too much, often affecting caregiving professionals as well as advocates who deal with other people's trauma". These variables include empathetic ability, empathetic concern, exposure to the client, empathetic response and compassion stress. "Other variables playing a role in increasing compassion fatigue are prolonged exposure (for which routine breaks between session and vacations are important), traumatic recollections (this refers to the therapists memories and life experiences that trigger the PTSD symptoms) and life disruptions (like unexpected changes in schedule, routine, etc). Variables that may help that may help in coping with compassion fatigue include a sense of achievement, satisfaction from work, disengagement from the ongoing misery of the client, managing the exposure dosage, as well as assessing and enhancing social support" .

Fox as cited in Cohen, Gagin and Peled-Avram (2006, p.294) states that "working with victims of terror attacks arouses a range of highly intense emotions in the helpers: compassion, grief, sadness, helplessness, frustration, and fear" Figley as cited in Cohen et al. (2006) also maintains that the emotional intensity wanes over time, but may still cause a state of compassion fatigue. In

their study, Cohen et al. (2006, p.295) having looked at a small number of studies that had assessed secondary traumatic stress or compassion fatigue in professionals working with patients suffering trauma or illness, “had found a moderate to high prevalence of secondary traumatisation or compassion fatigue amongst oncology social workers, child welfare workers, sexual assault and domestic violence counsellors and nurses working with children with chronic conditions”.

Cohen et al. (2006, p.295) go on to argue that “existing empirical data suggest that compassion fatigue develops more commonly in workers with a personality history of trauma or negative life events or who lack social support”. Mac-Ian as cited in Cohen et al. (2006) found that therapists with a personal trauma experience reported greater traumatisation than those who without one. In addition, professionals with higher education and more experience with traumatised patients were at lower risk for secondary traumatisation or burnout.

3.9 EMERGENCY WORKERS AND COPING

From literature reviewed emergency workers include ambulance attendants, firefighters and paramedics. Locally all these employees are referred to as emergency management technicians (Radzilani, 2008). Due to the fact that emergency workers often come across traumatic events, including fatal injury, traumatic amputations, disembowelment, severe burns and extreme victim distress, they tend to end up being traumatised themselves (Briere & Scott, 2006; Gibson & Iwaneic, 2003; Hyman, 2004). Ursano and McCarroll in Ursano, McCaughey and Fullerton (1994), regardless of profession or past experience, exposure to violent death can create additional victims in those who assist after disaster. These occupational demands have been found to persistent and are potentially cumulative over time (Beaton, Murphy, Johnson, Pike & Corneil, 1999). Clohessy and Ehlers as cited in Luce, Firth-Cozens, Midgely and Burger (2002) stated that there is evidence from ambulance workers that even everyday traumas in emergency work take their toll, with a significant number showing above average PTSD. That is why a lot of literature refers to work in emergency services as high risk occupations (Hyman, 2004; Naudé, 2003; Nkosi, 2002). Figley as cited in Nkosi (2002) stated that secondary traumatic stress is an occupational risk for emergency workers who respond to catastrophic events. Literature has also suggested that emergency service workers tend to be overlooked as people who may need help, by both researchers as well as their employees, regardless of their stress ridden occupation (Hodgkinson & Stewart 1998). With the presence of employee wellness programmes in many organisations, even within South Africa this attitude seems to have changed (Long, 2002). Perhaps what can be looked at is the appropriateness and the adequacy of the intervention efforts being made by the various organisations.

3.9.1 Challenges in Studying Coping amongst Emergency Service Employees.

Beaton, Murphy, Johnson, Pike and Corneil (1999, p.294) cite Lazarus and Folkman's theory of coping which suggests that "coping is a highly contextual process involving the cognitive appraisal and re-appraisal of threat, and whether anything can be done to change the situation". Their model supposes that coping strategies may change from one stage of a complex stressful encounter to another, making measurement difficult. In addition, "an individual's coping responses may depend mainly on the type of stressor or stressor dimensions potentially existing in different types of extreme events" (Beaton et al., 1999, p.).

McCammon, Durham, Allison and Williamson in Beaton et al. (1999) found quite a few inherent methodological and theoretical challenges in studying coping strategies of emergency workers. Firstly, their occupational demands are unusual, and any measure of their coping has to reflect their duty-related tasks and exposures to trauma as well as their rescue roles. Secondly, Mitchell and Bray in Beaton et al. (1999) contend that emergency workers are a self-selected occupational group and may not be representative of the general population in terms of their personalities or their coping strategies. Most prior coping research on emergency workers has been based on specific events such as disastrous tornados, earthquakes or avalanches. Other researchers in addition, have argued that coping processes may at least be partly unconscious, inaccessible and/or unknown to the self – and for these reasons difficult to measure with self-report instruments (Beaton et al., 1999). Implications for the present study are that the same challenges must be taken into cognisance as the researcher is also using a self-report instrument, namely, the questionnaire.

3.9.2 Nature of the Stressor

The nature of the stressor was a significant factor in assessing its effect on emergency workers and rescuers, including pathologists, hospital personnel, mental health consultants, volunteer body handlers and mortuary workers; from studies of storm casualties, air crashes etc. (Benight & Harper, 2002; Briere & Scott, 2006; Hyman, 2004; Ursano & McCarroll in Ursano, McCaughey & Fullerton, 1994) found 'that "exposure to mass death as well as individual dead bodies is a disturbing and sometimes frightening event" (Ursano & McCarroll in Ursano, McCaughey & Fullerton, 1994, p.46). The task of body recovery, identification, transport and burial may require prolonged as well acute contact with mass death. They add that victims, onlookers and rescue workers are the traumatised by the experience or the anticipation of confronting death in disaster situations. Ursano and McCarroll found that regardless of profession or past experience, exposure to violent death can create additional victims in those who assist after a disaster

(Ursano, et al., 1994). Agaibi and Wilson (2005) have referred to the nature of the stressor as one of the categories in vulnerability. Others would include age, developmental level, personality, etc. The authors add that vulnerability is seen as a response to a stressor, whilst risk behaviours are seen as responses to trauma.

In discussing the nature of the stressor further, the following are some of the stressors identified by Ursano and McCarroll in Ursano, McCaughey and Fullerton (1994, p.51): (a) "*Disturbing Bodies* which include *children's bodies* were reported to be 'difficult' because they 'appeared innocent', were perceived as 'complete victims' and their deaths were untimely, *natural looking bodies* and *ones with no apparent cause of death* were also reported as disturbing, whilst *bodies that were still fully clothed and not obviously injured* were described as 'eerie'.

(b) *Sensory Stimulation*: The *smell of bodies* was another significant stressor even though the bodies had been frozen and had no smell. Rescue and emergency workers tended to have a strong need to 'wash the smell away' or even wonder if they were imagining the sensation. Ekurhuleni Emergency Services employees (Manti, December 2009; Skhosana, December 2009) also seemed to confirm this when one of them in a personal interview stated that, the smell of a dead person is like no other in its horridness. He was supported by his colleagues when added that, even a dead dog's smell is better, its goes off faster. To deal with this they would smoke cigars, use fragrances such peppermint and orange oil. The sight of a *large numbers of bodies* was also experienced as overwhelming, regardless of previous experience with traumatic death either in emergency work or in the police service". As put by Hyman (2004), exposure to severe mutilation and large-scale atrocities, as well as lack of emotional rewards for saving lives renders body handling particularly stressful. Nel, a South African emergency service worker with Netcare 911 (The Star, 9 October 2007), stated that after seeing body parts strewn all over the road when he was intervening at an accident scene on the N17 near Devon which is east of Johannesburg, where a tanker full of methanol had collided with a car, he had never seen anything as horrific all over the world in all his 26 years of service in this job.

(c) Perceived Non-Serious Reported Ailments According to Beaton, Murphy, Johnson, Pike and Corneil (1999) to continue to successfully function as emergency workers, professional firefighters and paramedics must invariably cope with duty related stressors, including their ongoing exposures to traumatic incidents. In this regard Pino, Gardey and Haden (2008, p.164) state that "there is a disproportionate and rising demand on emergency services because of the increasing presence of users who do not really need emergency care or even medical care of any sort". An Ekurhuleni emergency service employee (29 October 2009) alluded to this during a personal discussion, when he shared that sometimes there will be a call for an ambulance and on

arrival the emergency workers are likely to find the supposed patient not at the address given for being picked. On enquiry the patient will be fetched from neighbours, indicating that the reason for the call was a headache. As put by one of the emergency employees, if the headache is a real emergency there is no problem. However if a patient can still walk around and even go to neighbours, then the call is unfair as it puts their limited resources under strain in that they may be losing time for a more critical patient.

Other major problems create stress amongst emergency service employees are: "the *increasing cost of health care*, a *substantial rise in the population aged 65* and over as well as *the appearance of diseases like AIDS*, *cancer and chronic illness" (*Pino, Gardey & Haden, 2008, p.164), "including legal threats and their implications that the emergency service staff is continually facing" (Pino et al., 2008, p.182).

3.9.3 Secondary Traumatic Stress or Burnout

Emergency service employees have been found to be in situations where they have to deal with extraordinary demands that highly stressful. "Ambulance personnel are amongst the highest risk group of health care staff for *stress and burnout"* Young and Cooper as cited in Firth-Cozens and Payne (1999, p.119). The authors cite Association of Chief Ambulance Officers that concluded that, the high levels of ill-health retirements and death observed in the service were attributable to stress. Quite a few studies have found that responding to incidents that were difficult, dangerous, potentially life threatening to themselves and their co-workers, injuries and deaths of children and infants, gruesome incidents, body handling, completed suicides and under public scrutiny and potential threat from hostility and verbal abuse was intrinsically stressful to ambulance personnel (Beaton, Murphy, Johnson & Corneil, 1999; Naudé, 2003; Nkosi, 2002; Young & Cooper, 1999).

According to Young and Cooper (1999) it is the responsibility for human health and life which influences the high levels of stress which impact on the health and well-being of paramedic staff'.

3.9.4 Trauma and Social support

Thompson, Murphy and Stradling's as cited in Collins (2007, p.1180) define social support as a "resource that helps people cope with job stress through supportive relations with others". It has also been referred to as "those social interactions or relationships that provide individuals with actual assistance or that embed individuals within a social system believed to provide love, caring or a sense of attachment to a valued social group" (Scarpa, Haden & Hurley, 2006). In his study of stress, job satisfaction, coping social support and individual differences amongst statutory

social workers, Collins (2007) adds that social support can be divided into two categories, namely formal and informal. Formal support would include line management, supervision and appraisal systems, whilst informal support includes support from inside and outside the social work profession, and gives as examples for the latter family and friends.

From his study Collins found that the primary support for a significant number of social workers tended to be from their own organisation and slightly less from other professional organisations. In the same study very few respondents indicated the need for support from family and friends. Collins also cites a study of hospital social workers in Hertfordshire where a significant amount of support was received from colleagues. In general social support is associated with better psychological outcomes, and perceived rather than actual social support seems particularly predictive of better psychological health in times of stress (Scarpa et al., 2006).

The severity of secondary traumatic stress can be softened by factors like availability of and satisfaction from *social support* (Hyman, 2004). With regard to spousal support, some emergency respondents in studies have reported a lack of relationship between it and secondary traumatic stress symptoms (Hyman, 2004). Ursano and McCarroll in Ursano et al. (1994, p.65) noted that "spouses of body handlers were frequently unwilling to hear about the workers' experiences, other times the workers themselves decided not to talk to their spouses about their disasters". One man reported man reported that his wife required him to take his clothes off and shower after any contact with remains, whilst others described their first and sometimes only attempt at telling their spouses how they felt about their work and reported that they were unlikely to repeat the experience.

Further, even if there are high levels of availability and satisfaction from social support, coping was not perceived to be related to social support in a sample by McCarroll, Ursano, Wright and Fullerton (Hyman, 2004). North et al. (2002, p.174) in their study of coping, functioning and adjustment of rescue workers from a sample of 181 firefighters Oklahoma City volunteers after the Oklahoma City bombing found that, "one of the most prevalent coping strategy was seeking interpersonal support. However, an aspect of interpersonal support functioning that manifested significant problems, was marital disruption. In fact the ascent of divorce had been established to have actually begun well before the study was undertaken".

3.9.5 Trauma and Organisational Support

In their study of occupational stress, personality traits, coping strategies and suicide ideation in the South African Police Service, Pienaar, Rothmann and van der Vijver (2007, p.248) found that

"the wellness of police officers was more strongly associated with organisational experiences than operational ones". The authors cite studies by Alexander and Klein and those by Cocotos and Ortlepp that have shown that employees who experience difficult work circumstances beyond their control often withdraw mentally or escape reality.

Collins (2007) noted that organisations also have a responsibility to ensure that staff have appropriate appraisal and staff development opportunities, such as opportunities to build upon and expand special interests, to change work roles if necessary, after a prolonged period in a post, to regularly review career development in order to consider the changing needs of the individual social worker. Stokols as cited in Pienaar et al. (2007, p.255) points out that "confinement to degraded and impoverished environments for extended periods may foster helplessness and despair".

Further, Collins argues in his study that when changes are being planned at a wider level within the organisation, then collaboration on change with social workers is essential in order that 'grass roots' ownership is maintained from within, rather than a feeling that change has been imposed from the outside and/or from above. The relevance of this study for emergency workers is that, there is a likelihood that they tend to get most of their support from their colleagues and seniors, and that their working environment must also be sensitive to their individual needs with regard to support and professional growth.

Moran (1998), in referring to organisational functioning, argues that culture does not only refer to ethnicity, but to the ethos of the emergency organisation, which can influence reactions to trauma and stressful incidents. Humor for instance is a coping strategy often found in extreme environments, but one which frequently depends on the acceptance of coworkers. Rosenberg (1991) as cited in Moran (1998) found that humour was passed on from experienced to in experienced paramedics through observational learning. With regards to professional methods of coping, according to Hogkinson and Stewart (1998) almost all workers in their study used sharing with colleagues, peer support and peer supervision.

3.9.6 Cultural Background, Ethnicity and Gender

Moran (1998) maintains that *cultural background* may also influence coping and reactions to incidents in emergency workers. However, when she looked at Australian emergency workers who were found to be mainly of either Anglo-Celtic origin or second generation Australians, she found that there seemed to be no major differences reported. Aranda, Castaneda, Lee and Sobel (2001) in their study of social support variables as predictors of psychological stress among 171

Mexican American men and women, argue that socio-cultural differences such as those dependent on gender and ethnicity have come out as important sources of differences in the link among stress, coping and social support. They cite studies in gender differences that have documented that women have higher rates of depression and depressive symptoms. In addition, there is the suggestion that women and men follow different pathways to depression, with family, marital, and other interpersonal factors serving as the primary bases for these differences.

Inexperienced females tend to have higher anticipated stress scores than inexperienced males Ursano and McCarroll in Ursano, McCaughey & Fullerton (1994)). In addition inexperienced females were found to have higher anticipated stress scores than inexperienced males. The latter study did not find any relationship between anticipated stress scores and age, race or education. Relevance of this study to emergency services is that there may be *gender* and *ethnicity differences* in how individual employees deal with work-related stress.

3.9.7 Anticipation and Previous Experience

Ursano and McCarroll as cited in Ursano, McCaughey and Fullerton (1994, p.47) argue that *anticipation and previous experience* maintain that, 'the stress of anticipation can be debilitating, affecting performance, behaviour and health'. Even though the period prior to exposure has rarely been examined, a study by Ersland, Weisaeth and Sund as cited in Ursano, McCaughey and Fullerton, (1994) found that the waiting time was a frequently reported stressor amongst professional firefighters. The disaster worker anticipates the stress of upcoming work before it actually begins and may already begin work with a substantial work burden. The authors citing studies by others researchers, go on to state, 'that previous experience with a stressful event has been shown to reduce the effects of the stressor. Inexperienced persons generally report higher levels of fear and anxiety than do experienced persons'. Firefighters experienced in mass disasters have been found to have lower stress responses after the event than did non-professional firefighters (Ursano & McCarroll in Ursano, et al. 1994). Weisaeth's (1989) results of his study of disaster behaviour among survivors of an industrial explosion suggested that, training and experience were very significant variables in predicting health outcomes (Ursano & McCarroll, in Ursano et al., 1994).

Murgatroyd and Woolfe (1982) see *skills training* as part of anticipatory coping strategy. According to them this would include amongst others; transcendental meditation and relaxation techniques and assertiveness training.

3.9.8 Avoidance and Self-Control

Avoidant coping strategies or styles (e.g. denial, alcohol abuse) generally involve efforts not to think about or otherwise avoid the situation, and related more to psychological stress and higher mental health problems (Scarpa, Haden & Hurley, 2006). In their study of coping, functioning and adjustment of rescue workers after the Oklahoma bombings, North, et al., (2002), were quite concerned with what they termed *alcohol use disorder* of which 50% of their population were lifetime users, and 25% current users. From their study North et al (2002, p.174) found that "alcohol was the second most frequent coping method, after the seeking of interpersonal support. Drinking to cope and post disaster alcohol use were significantly associated with indicators of poorer functioning". These authors have however noted that, the tendency of fire fighters to project 'macho' images of themselves may have contribute to *minimisation* or *denial* of problems during the research, thereby reducing detection of adjustment problems amongst the volunteer sample of fire fighters in the Oklahoma City bombings. In addition, despite administrative provision of free treatment outside of the department with reassurances of preservation of confidentiality for those seeking treatment, a general perception that was held was that supervisors would learn of their treatment and the information would be used adversely against their employment.

Studies by Young and Cooper as cited in Firth-Cozens and Payne (1999) show that ambulance personnel and to a lesser extent, firefighters adopt strategies of *avoidance and self-control*; fail to get involved with the issues causing pressure; focus outside the work environment and more importantly, fail to mobilise social support. According to these researchers, this suggests dealing with work pressure by disengaging rather than confronting the sources of pressure. The latter may have a negative impact on their experience of stress. In this regard Lindy and others as cited in Moran (1998) have used the term 'trauma membrane' to summarise the way emergency workers shield themselves from the horrors around them and continue with activities as though they are unaffected.

Moran (1998) adds that in some cases this is seen as psychic defense, which is useful at the scene but which should be shed soon afterwards. Many researchers and clinicians have encountered workers who have denied feelings and reactions after the incident, only to have them emerge later as more severe symptoms. Moran (1998) argues that, we cannot then make the general assumption that denial is always bad. Further, she adds that it would simplistic to say emergency workers deny their reactions due to the machismo ethos of emergency organisations. This may be the case for some, but others may deny the feelings because of other personal characteristics such as religious or cultural background, or they have successfully coped using

this strategy in the past. Moran (1998) adds that working within the organisation may help change those with an unrealistic macho image of themselves or an unhealthy reliance on denial, and exposure to group discussion in formal organisational debriefing sessions may be the best way to achieve this change.

3.9.9 Experience and Training

Training may be formal or informal as found by Moran (1998) who found that, one of the more influential sources of observational learning is the informal debriefing sessions which occur during clean up at the station or depot after and incident. Moran and Colless's study as cited by Moran (1998) established that debriefing sessions were more likely to be rated as useful when respondents had past experience with traumatic incidents.

Weisaeth (1989) in Ursano, McCaughey and Fullerton (1994) from his studies concluded that optimal disaster behaviour appears to be strongly related to an individual's level of disaster training and experience in handling physically dangerous situations. In addition, Ursano and McCarroll in Ursano, et al., (1994) point out that inexperienced persons also generally report higher levels of fear than do experienced persons. Ursano and McCarroll as cited in Ursano et al., (1994) found that youth, inexperience, lower rank and greater exposure to the dead were associated with higher levels of emotional distress. Ursano and McCarroll (1994) add that firefighters experienced in mass disasters had lower stress responses after the event than did non-professionals. The authors found no relationship between anticipated stress scores and age, race or education in the populations they studied.

Hytten and Hasle as cited in Beaton, Murphy, Johnson, Pike and Corneil (1999) reported that 'seasoned' volunteer and professional fire fighters with more experience were evidently 'better able to cope' with a multi-casualty, multi-fatality apartment fire based on self-reported post-trauma symptomalogy. The authors add that these investigators argued that years of service, training and exposure to previous traumatic incidents made it easier for these 'seasoned' volunteer fire fighters to 'digest' the presumably traumatic apartment fire event. Corneil as cited in Beaton et al., (1999), however reported a positive relationship between years of service and rates of PTSD in a sample of Canadian urban fire fighters. The latter suggests that years of service do not necessarily mitigate against the negative effects of prolonged exposure to stressful and traumatic events.

This finding is supported by Moran and Britton (1994) in Moran (1998) who also reported that the length of emergency service as a volunteer was positively associated with both the severity and

chronicity of their adverse emotional reaction to their recollected 'worst duty-related traumatic incident' (Beaton et al., 1999). However, Beaton et al. (1999, p.296) point out that, both the Hytten and Hasle (1989) and Moran and Britton (1994) samples were "partly or entirely made up of volunteers who probably had neither the degree of preparatory training nor the frequency of traumatic incident exposures of professional United States professional urban fire fighters/paramedics as those participating in their study".

Erasmus (n.d.) an emergency personnel member of the City of Tshwane, citing research conducted by Hoboll that found that soldiers who believed in their training abilities suffered much less severe losses, maintains that the same can be argued about emergency personnel. In their study of the coping, functioning and adjustment of rescue workers after the Oklahoma City bombing North, et al. (2002, p.171) argue that "because psychiatric problems may arise in proportion to the severity of traumatic events, the firefighters who served as rescue workers in the aftermath of the bombing might be expected to exhibit unparalleled psychological responses to this extreme event. However, posttraumatic stress disorder was diagnosed in only 13% of those firefighters, especially new symptoms". "The overall good adjustment of the firefighters was indicated by relatively little reported interference with daily functioning, high work satisfaction and self-assessed performance, and few lasting disturbances in interpersonal relationships" (North et al, 2002, p.174). To the authors, the bombing allowed the firefighters to do the work they were selected and trained to do (North et al., 2002, p175).

Training and stress inoculation, critical incident stress and debriefing have been incorporated as topics in training and in-service education of many emergency organisations (Moran, 1998). Moran (1998) cites NSW Fire Brigades peer support members who participated in formal class sessions with recruits, where they discuss types of traumatic incidents they may encounter, and who within the organisation can help. Many writers suggest that emergency services teach recruits techniques to anticipate and deal with stress. From a study by Moran (1998) it was established that many emergency workers reported that they learn how to deal with stressful incidents and traumatic exposure through working with experienced workers. Station officers, for example, may show the new emergency workers their first dead body in a deliberate but controlled manner, rather than let the new emergency worker face this alone. Implications of the foregoing are that, training and experience do enhance the coping capacity of emergency services personnel.

3.9.10 Resiliency

There is evidence in literature that individuals who have been exposed to long-term stress or trauma end up not being affected by it as badly, in other words they develop resilience (Bonnano & Mancini, 2008; Collins, 2007). According to Agaibi and Wilson (2005, p.196) resiliency "connotes strength, flexibility, a capacity for mastery and resumption for normal functioning after excessive stress that challenges individual coping skills". It also refers to an ability to overcome high loads of stressful events like trauma, death, economic loss, disaster political upheaval and cultural changes. Hardiness is another concept that is sometimes used interchangeably with resilience. It is defined as "a constellation of personality characteristics that function as a resistance resource in the encounter with stressful events" (Colllins, 2007, p.1185).

"the focus on resilient behaviour is a way of evaluating resilience by outcome: How is good performance maintained in the face of adversity, overwhelming disadvantage, or impediments to highly effective adaptation and performance as defined by variables like mental health, school performance, absence of ill-health or pathology, etc. Klohen as cited in Collins (2007, p.1186) in his study of resilience amongst social workers, describes ***emotional resilience*** as "the general capacity for flexibility and resourceful adaptation to external and internal stressors". It refers to effective coping and adaptation when faced with hardship and adversity, and has been characterised by an ability to experience and bounce back from negative emotional experiences by adaptation, in order to check the changing demands of stressful experiences. Agaibi and Wilson (2005, p.198) add that, "resiliency enquiry focused on the paradigm shift from looking at the risk factors that led to psychosocial problems to the identification of an individual's strengths, and it is not gender specific".

Bonanno and Mancini (2008) cite recent research that has consistently shown that across different types of potentially traumatic events, including bereavement, serious illness, a terrorist attack - more than 50% of people have been found to display resilience. Amongst factors that may promote resilience the authors include person-centred variables like a person's temperament, personality, coping strategies, demographic variables e.g. gender, age, education, socio-contextual factors which include supportive relations and community resources (Bonanno & Mancini, 2008). In addition, (Agaibi & Wilson, 2005, p.198) "resilience has been conceptually linked to curiosity and intellectual mastery as well as the ability to detach and conceptualise problems, it has also been postulated to include strong extroverted personality characteristics like hardiness, ego resilience, self-esteem, assertiveness and locus of control". It reflects a pattern of competence and self-efficacy in the presents of extraordinary difficult events and is related to the capacity to mobilise resources.

North et al. (2002) when studying coping, functioning and adjustment of rescue workers in the aftermath of the Oklahoma City bombing, observed that the apparent resilience to PTSD of fire fighters after the bombing could have been due to self-selection and selection by their employees for this particular work, as well as the effects of habituation or toughening by experience on the job. Alternatively, this could reflect the error of under-representation of those most disturbed in the volunteer sample of fire fighters. North et al. (2002) cite studies that have reported general resiliency and well-being among rescue workers following disasters, indicating 80-90% rates of coping and getting along well, being relatively unaffected and comparable to non-exposed individuals and even deriving positive gains from the experience. According to the authors, the overall good adjustment of the fire fighters was indicated by relatively low reported interference with daily functioning, high work satisfaction and self-assessed performance, as well as few disturbances in interpersonal relationships. The only aspect of interpersonal functioning that was found to be problematic after the bombing was marital functioning. The authors report an ascent of the divorce rate amongst these workers well before the year of the bombing. Implications here are that engaging in emergency service work might have negative effects on spousal relationships.

With regard to the above, Moran (1998) looked at emergency worker characteristics and argued that there was a *stereotype of the resilient worker* who was impervious to stress. She adds that the evaluation of emergency worker characteristics usually relies on studies performed on workers with some years of experience. Her findings were that there is nothing like the right kind of person for the job. Moran (1998) cites other studies which noted that emergency workers are not necessarily hardier that most people, although some individuals may score high on this dimension. Luce, Firth-Cozen, Midgely and Burger (2002) cite Bamber (1994) who had observed that staff who deal with distressing situations in their everyday work are perhaps expected not to react emotionally to traumatic events. Bamber (1994) in Luce et al. (2002) also highlighted the popular idea that professional helpers are seen as immune from those suffering from the same kind of distress as those they are helping. Luce,et al.'s (2002) findings also concur with those of Moran's in that, it is not so.

In addition, Collins (2007) from his study found that with regard to resilience and hardiness, age differences seem to play a part in hardiness amongst social workers, suggesting that hardiness was associated with being older and the more experiences of working life one has, the hardier one becomes. What also came out from these studies was that single social workers tended to be more prone to stress and burnout on account of being preoccupied with their work, idealistic expectations of the work and excessive emotional involvement in it, along with weaker networks

and less competent coping strategies. Collin's (2007) study points out to the danger of asking social workers to cope with excessive workloads and limited resources, due to being perceived as resilient, good and professional copers. Collin's however, warns against emphasising individual resilience and hardiness over the *organisational context* in which the social workers are employed. In this regard Agaibi and Wilson (2005, p.199) from their study established that "organisaional or institutional settings that promote self-esteem and problem-solving behaviour increase the likelihood of competence, resilience and mastery of situations that challenge coping". Implications of Collin's findings for emergency service workers are that they could be similarly affected as they work in a specialised highly demanding field of service, with which they can be highly involved emotionally, as well as have idealistic expectations whilst being expected to do more with limited resources. So looking at the organizational context from which they function will assist in assessing their perceived resilience more realistically.

North et al. (2002), in their study have however found rescuers to be more symptomatic than an unexposed comparison group, and even as symptomatic as direct victims. Relevance and implications for this study are that some emergency employees will develop resilience over time, whilst others will not, or will even get worse. As established by North et al. (2002) in the past psychosocial adjustment, functioning and coping had not been considered among rescue and recovery workers in the context of psychiatric disorders. It is now possible with systematic assessment of PTSD, including a collection of detailed data pertaining to psychosocial adjustment, functioning and coping. They conclude by maintaining that stress inoculation training has the likely benefit of enhancing the well-being of emergency workers who have a high probability of being exposed to traumatic incidents.

Beaton, Murphy, Johnson, Pike and Corneil (1999) established that there are ***conflicting findings*** regarding the coping responses of emergency workers. Some researchers have even questioned the notion that emergency workers possess any extraordinary coping capabilities at all. The authors cite Moran and Britton who from their study found that emergency workers were no 'hardier' than most, nor possessed any particular coping styles, and that the coping and personality measures they used were not statistically significant predictors of their sample's reactions to traumatic stress. Further, other researchers believe that coping responses of emergency workers are based on experience and years of service. The authors cite Hytten and Hasle as cited in Beaton et al. (1999), whose findings suggested that experienced emergency workers possessed more effective cognitive and behavioral coping strategies.

3.9.11 Debriefing

According to Moran (1998), the term 'debriefing' is broadly used to refer to various stages of support in a traumatic or critical incident context, including on site formal support, defusing (discussion of feelings shortly after coming off a shift) and formal debriefing (some hours after the incident, in a large group setting, with mental health teams or peer support personnel as leaders). According to D'Andrea, Abney, Swinney & Ganyon (2004, p.179) Jeffrey Mitchell developed Critical Incident Stress Debriefing (CSID) and defusing of emergency personnel after critical incidents in 1983, based on his experiences as a firefighter. Critical incident stress debriefing is a structured process that is based on crisis intervention research related to the benefits of verbal expression, ventilation of feelings, peer group support, health education and follow-up assessment (D'Andrea et al., 2004; Moran, 1998).

Most emergency organisations now have special debriefing procedures and teams in place (Moran, 1998). According to D'Andrea et al. (2004, p.179):

> Critical Incident Stress Management (CISM) teams usually consist of one or more trained peers and a trained licensed mental health professional The role of the team is to guide participants through a structured seven-stage process that leads the group from a cognitive account of the incident (facts) to a more effective account (feelings) then back to the cognitive level in the final stages of the debriefing process

CISD is a widely used model applied after the incident has ended (Cohen, Gagin & Peled-Avram, 2006). Some studies that have assessed the effects of debriefing in different types of traumatic incidents, have shown its beneficial effects (Cohen et al., 2006). As an intervention measure, debriefing has been researched and found to have positive outcomes. It can give an opportunity to ventilate feelings, provide social support, expedite cognitive reframing as well minimise subsequent post-trauma symptoms (Moran, 1998). Positive results of debriefing with rescue teams were reported, as compared with non-debriefed personnel (Cohen, Gagin & Peled-Avram, 2006). Statements of appreciation and recognition made with rescue workers after exposure, aid recovery (Ursano & MCarroll, in Ursano, McCaughey & Fullerton, 1994, p.67) have found to be beneficial. Family and organisational support is central during the transition period. When sensitivity and caring are shown by both family and the primary work group, the participants are more likely to verbalise their feelings regarding what has been seen and done. Many rescue workers however, do not share everything with people who were not present with them through the ordeal.

The various aims of debriefing, however, make it difficult to assess its effectives (Moran, 1998). Debriefing is seen to work for those who believe that it provides social support and emotional

assistance, and this conclusion is supported by ratings from emergency responders indicating that they value the intervention. If on the other hand the aim of debriefing is to reduce post-trauma symptomatology, particularly those related to post traumatic stress disorder, the benefits of debriefing are debatable, implying that debriefing may not always be beneficial. Other studies have also found no positive effects after debriefing (Cohen et al., 2006). Other studies indicate that debriefing can actually lead to poorer adaptation to trauma than no debriefing at all (Moran, 1998).

According to Cohen et al. (2006, p.295) the diversity in outcomes of debriefing can be ascribed to the complexity of traumatic events and of professional reactions, as well as to the diversity in the debriefing approaches examined and the paucity of related studies. In addition Moran (1998) points out that, due the variability of its aims and its reputed processes, it is easy to either overstate or understate its value, depending on what one means by debriefing.

3.10 STRESS, TRAUMA AND COPING

Many researchers cite the work of Lazarus & Folkman (Rice, 1999; Collins (2007) who suggested three appraisals that provide meaning and influence the coping process. These are: the primary appraisal process involving the initial evaluation of the situation and perception of threat to the self; the secondary appraisal process involving thinking about a potential response to the threat and will involve judging the match between coping skills and the situational demands; and thirdly, reappraisal which is based on feedback from transactions that occur after the first two appraisals coping as the process of executing that response.

According to Collins (2007) moderators of stress include a wide variety of protectors which help reduce it. He mentions coping skills, social support as well as individual differences such as good self-esteem, resilience, hardiness and personal control, along with physiological release mechanisms such as exercise.

Rice looked at the relationship between self-esteem, stress and coping. According to him, “many researchers have been trying to determine those specific aspects of self-esteem that are more closely related to coping failure and success (Rice, 1999, p.123). When people with a low self-esteem are put in a threatening situation, they tend to show both poorer overall coping and lower overall competency. Rosen, Terry and Leventhal as cited in Rice (1999) found that the difficulty with coping in low-esteem people can be traced to two basic negative self-perceptions. Firstly, low-esteem people have higher levels of fear under threat than do high-esteem people. Secondly, low-esteem people perceive themselves as having inadequate skills to deal with threat. They are

less interested in taking preventive steps and seem to have more fatalistic beliefs that they cannot do anything to prevent bad things from happening.

3.11 COPING AMONGST EMERGENCY SERVICE EMPLOYEES

Hodgkinson and Stewart (1998) in discussing coping strategies adopted by disaster workers mention that they include both personal and professional measures. Among personal strategies were hobbies, sport, sharing the experience, cutting oneself off from the experience, socialising as well as religious or spiritual beliefs. North, et al. (2002, p.174), in their study coping, functioning and adjustment of rescue workers after the Oklahoma City Bombing found that, "the most common coping method was turning to friends or relatives", in other words social support.

Coping is also seen as a dynamic process which changes in response to the demands of life and personal appraisal (Scarpa, Haden & Hurley, 2006; Moran, 1998). One function of coping (other authors refer to this as categories, Rice, 1999, p.289) is to solve the problem that is creating the stress and thus change the situation (Scarpa, et al. 2006, p.448). "A distinction has been made between approach and avoidant coping strategies" (Scarpa, et al. 2006, p.449). Approach strategies generally involve problem-focused coping efforts aimed at changing the situation (e.g. direct action, support seeking). Avoidant strategies on the other hand generally involve efforts to not think about or otherwise avoid the situation (e.g. denial, substance abuse)'. With regards to ***problem-focused*** versus ***emotion-focused*** coping, Moran (1998) cites Moran and Britton (1994) who observed that emergency workers may be more prone to use problem-focused than emotion-focused coping. 'In general, approach strategies seem to have a positive influence on mental health and to moderate the adverse effects of negative life events and trauma on psychological adjustment, whereas avoidant strategies are not.

Another characteristic of emergency workers that is related to stress and coping was found to be optimism or hopefulness. Emergency workers tend to rate their chances of being impaired following stressors as lower than average, something which some authors believe enhance well-being (Young & Cooper in Firth-Cozen & Payne 1999).

3.12 COPING IN THE SOUTH AFRICAN CONTEXT

Studies on occupational stress emergency service employees in South Africa have included the following professions: paramedics, ambulance attendants, emergency technicians, firefighters, rescue workers, law enforcement, nurses and counselors, as well as non-professional trauma workers (Georgiou, 1997; MacRitchie & Leibowitz, 2010; Naudé, 2003). Whilst the South African

Police Service focus on crime, other emergency service employees are exposed to severe mutilations and large scale atrocities in their daily work, which could be a result of domestic violence in the community, motor vehicle accidents and natural disasters. As a result a lot of studies refer to these professions as high risk occupations and have established a high prevalence of PTSD amongst these professionals.

Studies also seem to suggest that the nature of the stressor does have a direct impact on the coping responses of local emergency employees. For instance South Africa has been established as one of the countries that have some of the highest crime rates globally, creating further stress amongst employees of the South African Police Service (Pienaar, Rothmann & van der Vijver**,** p.247, 2007). Pienaar et al.'s (2007, p.247) study found that poor coping skills appeared to be a significant predictor of stress in police work whilst dead children as in literature also had a negative impact on the paramedics, including when the emergency situation involved a colleague (Naudé, 2003).

Georgiou (1997) studied a sample drawn from the Johannesburg Emergency Management Services, found that 17% of the respondents were suffering from PTSD. However, Georgiou (1997, p.70) points out that the measure of PTSD used in the study is restrictive and reflects the percentage of individuals who were found to be suffering from intrusion and avoidance symptoms. In addition, the finding that only 17% of the emergency technicians were traumatised, supports the argument that there are individual differences in responses to traumatic events, and that many social and personal factors are integral to the development of PTSD.

Literature reviewed seems to suggest that the following coping resources and strategies tend to be prevalent amongst emergency service employees in South Africa, when individuals make efforts at addressing occupational stress:

Approach coping strategies versus avoidant coping strategies: local studies have established that when active coping strategies (where an active attempt is made at minimising, removing or avoiding the source of stress) are used, there positive outcomes. For instance, an approach strategy to addressing burnout was found to minimise it significantly (Moster & Joubert, 2005). Whereas, when avoidant coping strategies were used outcomes tended to be negative.

Personality traits: in their study of suicide ideation amongst members of the South African Police Service Pienaar, Rothmann & Vijver (2007) also found that personality traits played a role in coping. The authors cite studies that have consistently indicate that neurotic behaviour is positively related to suicidal thinking.

Social support: Support from family and partners amongst working mothers was found to be significant (Maclean, 2002, Mostert & Joubert, 2005), including emotional support. Mostert and Jouber (2005) also refer to emotional support as opposed to social sup[port when they discuss people using family, friends and colleagues as support as coping strategies. In addition, it has been found that the higher the level of perceived social support amongst trauma workers, the lower the risk of PTSD.

Sense of coherence: Antonovsky (1987) as cited in van der Colff and Rothmann (2009, p.2) defines sense of coherence as a "relatively stable dispositional orientation". Employees with a strong sense of coherence tend to understand stressors and regard them as manageable and meaningful. A few studies that addressed this found that employees that employees with a sense of coherence were found to cope better with stress due to lack of organisational support.

Cultural differences: Naude (2003, p.119) in his study of occupational stress, coping, burnout and work engagement of emergency workers in Gauteng found that research suggests that it would seem that there are differences in coping strategies for different language groups. Pienaar as cited in Naude (2003, p.119) in a sample of 1 431 in the South African Police Service reported when compared to other language groups, the Pedi, the Zulu and the Sotho language groups demonstrated higher avoiding coping strategies, whilst higher levels of seeking emotional support was found for the Sotho, Venda, Zulu and Pedi groups.

Religion: when a person turns to religious expression to understand and deal with stress they may for instance find comfort and peace in their relationship with God (Mostert & Joubert, 2005). This was also found to have a positive outcome with regard to addressing stress in the workplace amongst members of the police. In addition, Ken Gaydos (van Zyl, 2002, p.19) a United States television a reporter who founded the Chaplains Ministry a need in his country, also identified a need to provide counselling services to emergency services staff there. Gaydos visited South Africa in 1990 and promoted the same concept locally, and six years later Emergency Services Chaplaincy (ESC) South Africa was born. The service started in Ekurhuleni Metropolitan Council, and is made up of chaplains who are volunteer ministers, pastors and christian workers who give of their free time on honorary basis. Ekurhuleni has the biggest number of chaplains in the country. They are called individually at any time, night or day, and they respond in their own cars. Their services include "acting as confidant and friend to the emergency service employees, provide emotional support at major accident scenes and lead debriefings afterwards" (van Zyl, 2002, p.19).

Resilience: Studies have globally established that emergency workers who have a significant amount of experience tended not to be affected by the traumatic events that they are exposed to. In South Africa Georgiou, (1997) in her study of the Johannesburg Emergency Management Services employees found that emergency technicians who did not feel affected by traumatic events they had been exposed to, had reported that they managed to cope with the trauma as they were used to it, and did not allow themselves to be emotionally involved, because they felt that if they did - they would definitely be affected. These same emergency technicians also indicated that although work-related trauma did not affect them, if the trauma was however personally significant to them, it did affect them.

On the hand from his study Naudé (2003) found the opposite, namely that 12% of his sample continued exposure to critical incidents did not enhance the coping ability of emergency workers. In addition, 10% indicated that exposure to stressful situations helped initially, but subsequent exposure made it difficult for the emergency workers to cope. 60% respondents felt that it was helpful to think about outside interests, in Naudé's words "mentally escaping the reality". 59% of the respondents reported that they did not find that keeping their thoughts to themselves helped them (2003, p.118). Although Naudé's study alludes to emergency workers in the United Kingdom, it is worth mentioning in this study – so that it should not be taken for granted that being exposed to traumatic experiences on extended periods invariably contributes to resilience.

Organisational approaches: Quite a few studies refer to organisational issues that also contribrute to stress amongst employees. Most authors (Mostert & Joubert, 2005; Pienaar & Rothmann, 2006; Rothmann & Coetzee, 2005) have noted that organisational interventions are required to address these issues. Mostert and Joubert (2005) for instance recommend that the assessment of coping strategies be incorporated into personnel selection procedures and add that individual stress coping training might be beneficial. The latter has implications for occupational social work intervention. As put by Netting, Kettner and Murtry (1998, p.192):

> in organisations other than the workplace, individuals usually have a consumer-provider relationship, and they are free to turn to alternative organisations if the relationship is unsatisfactory, the place of work, however, represents a different type of relationship that is not as easily terminated, and the need for a paycheck may force the individual to maintain a far-from-satisfactory relationship with the organisation

Carroll (1996, p.1) in discussing workplace counselling points pout that the modern workplace seems to demand more from the employee in terms of time, whilst resources with which to do the work are fewer and more employees suffer from what he termed " presenteeism" i.e. needing to be seen at work while overstressed doing the job. Carroll (1996) adds that as employees struggle

to cope, an increasing number of employers and health experts are struggling to find new ways of managing workplace stress and its inevitable implications.

3.13 CONCLUSION

There evidence that exposure to stressful and traumatic events has a negative impact on the lives of those who have to deal with such situations, especially individuals in high risk professions. There is also evidence that those exposed to such conditions, do have some ways of coping that they use regardless of whether they are effective or not. In addition, coping is either a process, and as such differentiation between the process of coping and its outcome a goal or an outcome is important. Coping aims at reducing, changing or completely eliminating the problem, by either managing the situation or our reactions to the situation, it may be conscious or unconscious, it can be functional or dysfunctional, it can be anticipated, it can also be preventive or combative.

Coping can be divided mainly into problem-focused which actively seeks solutions to problems, or emotion-focused or approach-avoidance which seeks to manage the problem situation, especially when helplessness is the outcome. Problem-focused coping more likely to be used emergency service workers. In addition, training and experience are critical but training in particular depends on the degree of training received to buffer stress or posttraumatic stress symptomalogy. The ethos or culture of the emergency organisation can also influence reactions to trauma and stress. Socio-cultural factors and gender differences should also be considered in the prevalence of stress and coping strategies, as well as the meaning the individual experiencing the stress attaches to it after appraising the event.

Occupational social work intervention does have an important role to play with regards assisting employees to cope. The following chapter will discuss research design and methodology.

CHAPTER 4

RESEARCH DESIGN AND METHODOLOGY

4.1 INTRODUCTION

With reference to the two previous chapters, there is evidence from literature that the stress and trauma that people in high risk occupations like emergency service employees have adverse effects on the health of individuals engaged in these professions. Most of the South African literature reviewed on causes of stress. This research method will seek to establish the coping strategies of the Ekurhuleni Emergency Services employees in a qualitative paradigm, using self-administered questionnaire.

4.2 RESEARCH DESIGN

The strategy that was used was descriptive qualitative research design which simply "describes, records and reports phenomenon and is not primarily concerned with causes" (Marlow & Boone, 2005, p.32). Through the descriptive design, the researcher hoped to be able to establish the main coping strategies used by the Ekurhuleni Emergency Services employees through seeking their subjective experiences. With reference to the previous chapters, the researcher hopes to add to available information on the subject, as similar studies on, for instance job stress amongst emergency employees in some parts of the country have been conducted including Gauteng. However, from literature reviewed, the studies have not been conducted on the topic in the present study amongst the Ekurhuleni Emergency Service employees. The qualitative approach assisted the researcher to conduct the study in the respondents' natural setting and helped in contextualising the findings (Creswell, 1998), as well as tapping and understanding the deeper meanings assigned to coping strategies by the respondents (Rubin & Babbie, 2005).

4.3 METHODOLOGY

4.3.1 Population and Sampling

A sample of 50 was drawn from a total population of 985 Ekurhuleni Emergency Services employees, spread over a relatively wide area within the Ekurhuleni Emergency Services area of operation, after the researcher had secured permission from the organisation's Chief Executive Officer. Non-probability availability sampling was conducted, using the first available appropriate sampling units (Rubin & Babbie, 2005)This research method is common in social work research

and is used because it is usually less expensive than the other methods. Although referred to as risky as when used in a survey and stopping possible participants in the street. The researcher was of the opinion that in her situation this kind of risk factor was contained by the fact that the study was on a special population of participants, namely emergency service employees who have similar characteristics due to the kind of work they do.

4.3.2 Research Tool

For the study current the researcher developed a questionnaire, basing it on authoritative literature on stress, trauma and coping strategies. To accommodate the cultural diversity of our country, level of education, experience and specific qualification in emergency service work, biographical information was included and this was section 1 of the questionnaire. Section 2 of the study was formulated in the form of open-ended questions addressing coping resources and strategies. Variables to be responded to included; peers (colleagues in particular), family resource utilisation, counselling at the workplace, counselling resources outside the workplace as well as personal coping strategies.

Non-directional open-ended questions were formulated with sub-questions, which addressed the major concerns and perplexities to be resolved around coping strategies (Creswell, 1998). These sub-questions assisted where possible, respondents observe (in the researcher's case reflect) tease out the problems of the case, the conflictual outpourings, as well as the complex backgrounds of human concern. Respondents were therefore free to formulate their own responses (Marlow & Boone, 2005). There was also a portion provided for the inclusion of coping strategies which may not have been part of the study, to be included. This section will form the qualitative of the study, with the variables mentioned forming the thematic narrative (Marlow & Boone, 2005) for the qualitative analysis.

4.3.3 Pilot Study

The tool was piloted at three fire stations based at Alberton in Ekurhuleni, on a smaller number of persons having the same characteristics similar to those of the target group of respondents, i.e. emergency service workers, to ensure that errors of whatever nature can be rectified immediately at little cost, before utilising the tool in the main investigation (De Vos, 2002). The concern was not with the participants' answers but rather with the difficulties that respondents may encounter in answering the questions for clarity of questions.

Feedback from this pilot study was that the tool was consumer friendly in that questions were easily understood and no ambiguity was experienced. Feedback was obtained through asking for comments, if the questions were easy to understand especially seeing that English was a second language for most of the participants, after participants in the pilot had completed the questionnaires. One of the respondents however, recommended interviewing as a method of data collection as she feared that if the questionnaires were to be left behind for later collection, the response rate would be nil or very poor. As the sampling is non-probability and was on dependent on available subjects (Rubin & Babbie, 2005), as well as the fact that to address the fears of lack response by prospective participants, the Regional Manager of the Alberton area recommended that the researcher must wait to collect the questionnaires after administering, instead of returning at a later date. In addition the researcher hoped to generate more insights into the nature of the issue under study and develop questions to be investigated by more extensive studies (Marlow & Boone, 2005), e.g. ethnographic enquiries, she decided to continue using the tool. There were recommendations to add other questions especially on the meaning of coping for participants, as well as identifying which coping strategies were found most effective and which were found not to be. The researcher complied. This sample used in the pilot study was not included in the sample for the final study (Grinell, 1988).

4.3.4 Research Procedures

4.3.4.1. Gaining permission to enter the field

As a point of entry, the researcher was referred to the Director of Ekurhuleni Emergency Services, who subsequently referred the former to the organisation's Chief Executive Officer. The researcher treated these organisation leaders with respect and warmth thereby smoothing her further entry into the organisation (Strydom in De Vos, 2002). The result was that the researcher was then invited to a meeting by the Chief Executive Officer during which she was introduced to the respective Regional Managers of the Ekurhuleni Emergency Services. During this meeting the Chief Executive Officer gave permission to the respective Regional Managers to allow the researcher to conduct the study in their areas of operation. From this meeting it became clear that management was quite interested in the study, and recommended that outlying areas like Nigel that lead travellers to the main national routes where the worst accidents occur, as well in townships like Tembisa where crime has been experienced as atrocious be included, as the resultant trauma experienced by the emergency workers was perceived to have high negative impacts on them (meeting with Masibi, Du Preez & Cilliers, 07 August 2009). The Regional Managers then introduced the researcher to the individual stations through the organisations communications systems. Out of a total of 24 fire stations in Ekurhuleni, the researcher managed

to visit 9 fire stations, namely, Wadeville, Hlahatsi, Vosloorus, Kempton Park, Tembisa, Olifantsfontein, Nigel, Duduza and Springs which covered the areas of concern in the three demarcated regions of the Ekurhuleni Emergency Services.

4.3.4.2 Data Collection

The researcher then visited the individual stations, introduced herself to the respective station managers, explained the purpose of the study based on the letter of introduction. The latter subsequently introduced the researcher to the prospective participants who were available at the given time, as the study was a non-probability with sampling dependent on the availability of respondents at the station. The researcher then discussed the contents of the letter which had already been circulated to the stations prior to the actual study, ethical issues were also addressed and as a result, informed consent was therefore obtained from the respondents.

In most instances the questionnaires were then handed out to the participants, and the researcher was available in case problems were experienced and limited her contribution to clarification of questions only (Delport in De Vos, 2002). The researcher then waited to collect the completed questionnaires. At one station a willing participant who had been in the service for more than 30 years, due to educational level and poor understanding of English, requested that the researcher to translate all the questions so that he could respond. The researcher obliged, ensured that he understood the requirements whilst keeping her contribution to giving examples only. The participant came up with his own responses, according to his own experiences. In a few other instances the researcher was requested to come back after two days or so to collect the completed questionnaires. Generally, when a researcher either delivers or picks up questionnaires, the completion rates tend to be higher (Rubin & Babbie, 2005; Delport in De Vos, 2002).

In cases where the researcher had followed the recommendation that she await the questionnaires and collect them immediately after completion, the response rate was higher than when she had left the questionnaires for collection later (Leotlela, 2008). In some instances the response rate was 100%, in others it was less than expected, in others still the were no responses at all in that the questionnaires were not completed, especially where arrangements had been made to collect them later at an agreed upon date to ensure that participants respond at their own convenience and that ethical issues were not violated. In the latter situation, regardless of repeated follow ups and visits, no responses were secured. As questionnaires are collected the researcher monitored the participants' response rate Rubin & Babbie, 2005).

4.3.4.3 Data Processing and Analysis

For data processing, the researcher did a vertical analysis by reading all the participants' responses individually in to under the main coping strategies and resources of individual participants. The researcher then made a horizontal analysis of the data by comparing responses by participants to similar categories which were already part of the questionnaire. For instance in the category of defining the term coping" families of the word "talk" included the words "talk, share, discuss and speak". Made notes across questions as the researcher went along in order to make sense of some the responses, as well as (Marlow & Boone, 2005).

The researcher then read the data as arranged in its entirety in order to get a feel, including specific quotes that may be used (De Vos, 2002) to substantiate the findings. Focused attention was also given to the data, the researcher observe emerging salient themes, recurring ideas or language, and patterns of belief that linked participants and settings together were then identified (Creswell, 1998; De Vos, 2002; Marlow & Boone, 2005). This forms the classifying part of qualitative analysis.

4.3.4.4 Data interpretation

Interpretation involves making sense of the data (Creswell, 1998). For the biographic part of the questionnaire simple descriptive statistics were used, whilst for qualitative data the researcher used thematic analysis. The latter process involved studying all the responses, establishing common patterns, behaviours, words, etc and trying to find meanings in them. The researcher relied on hunches, insights as well as intuition (Creswell, 1998). Finally, the data was reduced to a small manageable set of themes in order to the final narrative report (Creswell, 1998).

4. 4 ESTABLISHING TRUSTWORTHINESS

Social work research, particularly qualitative research has been criticised for being atheoretical or lacking rigour, for promoting a diluted form of ethnography and for generally being methodologically weak (Shaw & Gould, 2001). There are four criteria for ensuring trustworthiness in a quqlitative approach, namely:credibility, transferability, dependability, objectivity and confirmability

4.4.1 Credibility: This construct is the alternative to internal validity, in which the goal is to demonstrate that the inquiry was conducted in a manner that ensured that the topic was accurately identified and described (Ross, 2010, p.33). In other words it refers to confidence in

the truth regarding the data. In order to enhance credibility, the qualitative researcher should describe the setting, population and theoretical framework, thereby placing boundaries around the study. In the present study the researcher tried to described the setting where the study would be conducted, namely Ekurhuleni Emergency Services, which also included the population from which the sample was drawn, and the concept 'coping strategies' is properly described and understood through literature review.

4.4.2 Transferability: This construct is the alternative to internal validity (Ross, 2010, p.33). Internal validity can be defined as 'the approximate validity with which we infer that a causal relationship can be generalised to and across alternate measures of the cause and effect, and across different types of persons, settings and times' (Lincoln & Guba, 1985, p. 291). Triangulation can enhance a study's generalisability. Triangulation involves designing a study in such a way that multiple studies, multiple informants, multiple data gathering methods, and more than one person to analyse the data, are used to corroborate or elaborate the research in question (Ross, 2010, p.33). The qualitative researcher's responsibility therefore, is to provide data base that makes transferability judgements possible on the part of potential appliers, and not to provide an index of transferability (Lincoln & Guba, 1985, p.316).

Firstly, due to the fact that in this study of the coping strategies the sample was non-probability sampling based on availability of the respondents, and secondly triangulation was not done because the study was mainly descriptive, the findings can therefore not be generalised as mentioned above.

4.4.3 Dependability: This construct is the alternative to reliability (Ross, 2010, p.34). Reliability is taken to be synonymous with 'dependability'. Simply put dependability refers to the degree to which the reader can be convinced that the findings were indeed what the researcher claims. According Skhosana and Peu (2009) it is the researcher's responsibility to provide enough information to allow another researcher reading the study to come to similar conclusions.

Dependability can be established through the following four techniques: (a) dependability Lincoln & Guba (1985, p.316) argue that there can be no validity without reliability, and thus no credibility without dependability. A demonstration of the former is sufficient to establish the latter. (b) "overlap methods" which are a kind of triangulation. (c) "stepwise replication" a concept that is considered as the means for establishing reliability. Lastly is the (d) inquiry audit which is based on the principles of the fiscal audit in terms of process and product examination.he findings of the study can be said to be fairly dependable, to the extent that the study was actually conducted. In addition, with regard to the steps recommended by Lincoln & Guba (1985) of establishing

dependability, credibility was ensured as far as possible and the study can be audited, with regard to process as well as product. However as put by Lincoln & Guba (1985) one of the threats to reliability can be ambiguity of various sorts. In the present study, researcher is of the opinion that enough information was provided in the form of theoretical background to the topic under study. The research tool was also designed in such a way that it elicits as much as possible regarding the coping strategies of the participants in the study. Due to this the researcher is of the opinion that another researcher is likely to arrive at similar findings as in the present study.

4.4.4 Confirmability: The major technique of establishing confirmability is the 'confirmability audit' (Lincoln & Guba, 1985, p.318). Triangulation is again suggested As well as the keeping of a reflexive journal **'**If multiple observers can agree on a phenomenon, then their collective judgement can be said to be objective' (Lincoln & Guba, 1985, p.292). Triangulation was not done in the present study, however as the research was designed from literature reviewed by the researcher, it was approved by the researcher's supervisor after a few additions and corrections. A pilot study was also conducted and by comparing the results of the pilot and the present study the results can be deemed to be fairly objective in that, in many ways responses to similar questions by the different were very similar although sometimes worded slightly differently.

4.4.5 Saturation: "Saturation refers to a researcher becoming fully immersed in the phenomenon being studied in order to know and comprehend it as fully as possible (Ross, 2010, p.34). It implies that the researcher has performed what is sometimes called 'deep', 'dense' or 'thick' description in an exhaustive effort to extract as much meaning from the data as possible until no more can be said or told about the topic". Using the questionnaire as a guideline to analyse the participants' responses, the researcher tried to meet this criteria a much as possible through descriptive statistics and thematic analysis, whereby all variables were studied and analysed in such a manner that no other themes could emerge beyond what was established.

4.5 STRENGTHS AND LIMITATIONS

4.5.1 Strengths

Ethical issues were observed. Respondents were coerced not or misled about the study, they participated out of their own free will. That the researcher was available when the respondents answered the questionnaire, any doubts about what the study was about, who it meant for were clarified. This encouraged quite a few to participate in the study, as from the discussions the purpose of the study was perceived to be addressing a need that seemed not to be receiving as

much attention as it deserved. In addition, there was an element of trust, seeing that the researcher was an outsider. Somehow respondents perceived that recommendations from the study by an outsider in particular, might assist senior manager as well as employees to address their coping needs.

The advantage of this method of data collection in researcher's opinion is that the emergency services employees were generally accorded the opportunity to complete the questionnaires at their own convenience, given the nature of their work. Further, questionnaires are relatively neutral, as interviewer bias is absent (Marlow & Boone, 2005).

4.5.2 Limitations

1. Communication tended to be problematic from the point of entry and throughout the process. The organisation's computers were for the larger part of the time during the study out of order, sometimes breaking communication altogether between the researcher and management. As a result the researcher ended up sometimes going to the stations unannounced to introduce herself. In addition, even when this had been done, that there shifts and station managers with whom the researcher had made arrangements would not be available when the study would be conducted, resulted sometimes in information about the study not being passed on to the next shift manager. This partly contributed to the poor response rate. This was an exacting task which largely depended on the researcher's imagination and interpersonal skills (Strydom in De Vos, 2002).

2. Due to the fact that the sample was a non-probability one, based on the availability of the respondents, 'taking information back to informants as a verification step' was not done (Creswell, 1998, p.140). In addition, as confidentiality which was enhanced by the anonymity of the questionnaire, it would have been unethical for the researcher to request participants to identify their questionnaires to clarify certain responses. Due to this, unclear responses were left to the researcher's interpretation after reading the whole of each questionnaire in order to contextualise them. The researcher also experienced problems in deciphering respondents' handwritings. Some of the responses were not specific, resulting in the researcher having to make assumptions about intended responses. All these factors could result in the researcher's perceptions influencing the study.

3. Respondents who exercised their rights not to participate in the study – something which might also be linked to reluctance to complete the questionnaires due to the fact that, some of the employees reported that they have participated in many similar studies before and have neither

been given feedback nor have they seen anything being done resulting from such studies. This greatly compromised the response rate.

4. The findings of this study cannot be generalised to a similar population in a different region due to the subjective reporting by respondents of their experiences. For instance, a station manager and a shift manager, not based at the same station, individually commented that they used to work for a different Metropolitan Local Council, which was much better resourced than Ekurhuleni. In addition, their designations were different in that local government.

4.6 ETHICAL CONSIDERATIONS

With due regard to ethical considerations, an invitation letter was handed out with the questionnaires, where the following ethical issues were addressed:

4.6.1 ***Harm to respondents:*** As the research conducted the study at the respondents' workplace, the respondents were assured that permission had been granted by the organisation's most senior management. Due to communication problems caused in particular by the organisation's faulty computer systems (Miles, 2009), where confirmation was needed station managers were encouraged to do so with their Regional Managers. The researcher also explained to the respondents that the arrangement had been that she will wait for completed questionnaires, instead of leaving them with someone at their various stations to avoid access to perhaps information that may be sensitive with regard to the workplace (Rubin & Babbie, 1993;Creswell, 1998; De Vos, 2002; Marlow & Boone, 2005), in the questionnaires.

4.6.2 ***Informed Consent:*** This was obtained in that the questionnaires were distributed with the invitation letter which clearly indicated the following: who the researcher was, that the research was being done under the guidance of the University of the Witwatersrand, the goal of the investigation, procedures that would be followed, how the information would be used, that respondents had the right not to participate in the study, or not to complete questions that they might be uncomfortable with, or even withdraw from participating in the study at any point during the process (Rubin & Babbie, 1993;De Vos, 2002; Marlow & Boone, 2005). The researcher did indicate to the respondents that nothing will be held against them and no action will be taken against them should they decide not to participate. Respondents were also given opportunities to ask questions. Due to this information stations, some respondents exercised this right and did not complete the questionnaires.

4.6.3 ***Deception of Respondents***: The researcher did not hold back any information from the prospective respondents, or mislead them in any way regarding the purpose and ultimate outcome of the study (Rubin & Babbie, 2005; Creswell, 1998; De Vos, 2002). All questions were clarified as honestly as possible.

4.6.4 ***Violation of Privacy, Anonymity and Confidentiality***: As indicated in the invitation letter, reaffirmed the confidentiality of the responses. The questionnaires did not have any identifying particulars, and in addition, the researcher herself took responsibility for collecting the questionnaires immediately after they had been completed. Although at most stations the respondents were given common, where there was enough sitting places for the respondents' comfort, they were given free reign to sit anywhere they pleased so that their privacy as individuals was not violated (Rubin & Babbie, 2005; Creswell, 1998; De Vos, 2002; Marlow & Boone, 2005).

4.6.5 ***Researcher's Actions and Competency***: The invitation clearly stated who the researcher was and the fact that she was conducting the study under the guidance of the University of the Witwatersrand. The researcher also tried to maintain objectivity and acted with restraint as much as possible (De Vos, 2002). In addition, the respondent's cultural diversity was taken into cognisance with due regard to race and possible sub-cultures within the various ethnic groupings.

4.6.6 ***Release of Findings***: The Respondents were informed that the findings would be released as a dissertation presented to the University of the Witwatersrand in pursuance of Masters Degree by the researcher. Based on the responses given, the report will be as objective as possible so as to depict the normative coping skills as given by the respondents, and as truthfully as possible depicting both positive and negative findings (Rubin & Babbie, 2005; De Vos, 2002). In addition, the researcher would make a copy available for the organisation's Chief Executive Officer who was very supportive of the study, with the University's approval after it has been accepted by the latter. The motivation for this was that, the Chief Executive Officer, being partly aware of the trauma his staff were encountering, was very keen to learn about the outcome so that, where possible the necessary support and intervention may be given to the Ekurhuleni Emergency Services employees.

4.7 CONCLUSION

The questionnaire had four main categories of questions, namely, biographical information, coping resources and strategies, counselling and personal strategies, as well as sub-questions in the main categories. The sub-questions were designed to elicit more information from

respondents, to enable them to elaborate on the main questions. In addition, there were questions where respondents could comment about the most effective and least effective strategies, and also make put in additional information.

50 participants who are employees of the Ekurhuleni Emergency Services, completed the questionnaires about their understanding of what coping is and the kind of resources and strategies that they used to cope, whether or not workplace resources were perceived as available or not. The reports were subjective, based on the individual experiences of the emergency workers. Some sections of the questionnaires were not completed. Reasons for the latter could not be established as the researcher only visited the various stations for the sole purpose of collecting the data, and did not go back to verify information collected (Creswell, 1998)

CHAPTER 5

DATA ANALYSIS AND INTERPRETATION

5.1 INTRODUCTION

The coping strategies of the Ekurhuleni Emergency Services employees were explored using a questionnaire developed by the researcher based on available literature. Biographic information included race, gender, age, marital status, years of experience in emergency work, educational qualifications and specific qualification in emergency work. The rest of the questionnaire was a qualitative study comprising of ten categories of open-ended questions with sub-questions focusing on the understanding of coping by the participants, followed by coping resources and strategies. The latter included the use of peers or colleagues, family, workplace counselling, counselling outside the workplace, as well as personal strategies. The responses were subjective, based on the participants understanding of the term 'coping' and their own personal experiences in their efforts to cope.

To analyse the data for the qualitative part of the study, the researcher read the questionnaires individually to get a sense of the responses in context (Creswell, 1998). Then responses falling under the same question from the various participants were then grouped together, read several times so as identify common words and phrases (Creswell, 1998; Marlow & Boone, 2005). From the various grouping words, phrases, that seemed to belong together were put together to form families (Creswell, 1998). Salient emergent themes were then identified. Extra information was then sifted to end with eight themes. Quotes from the various responses were used to validate the information given. The analysis in both strategies was manual.

5.2 BIOGRAPHICAL INFORMATION

This part formed of the quantitative part of the analysis. Graphs, tables ***as well as descriptive statistics*** were used to analyse and present the data. This information was included in the study so that the impact of cultural, gender, age, marital status, years of experience and educational level including specific training in emergency work, could be identified, seeing that the sample was somewhat diverse.

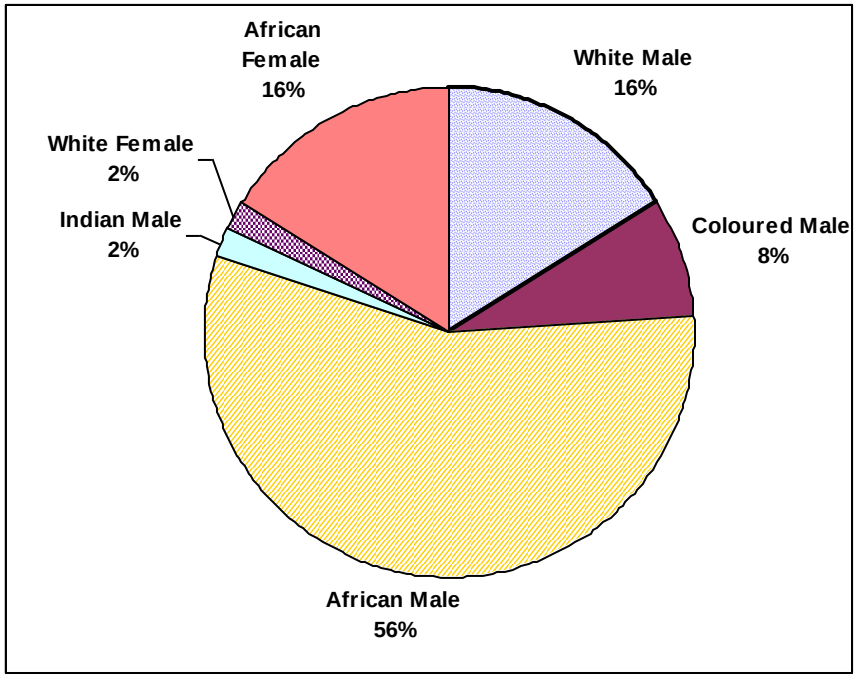


Figure 5.1 Race and gender distribution of participants in the study (N=50)

In sample under study, with regard to race 24 participants were African, five participants were Whites, four were Coloured and one was Indian. Where gender is concerned, there were in total 39 men and 11 women. In breaking down the gender distribution according to race, there were no Coloured and Indian women, whilst there were 10 African women and 1 White woman. Men were represented through all the race groups as follows: African 30; White 4; Coloured 4 and Indian 1.

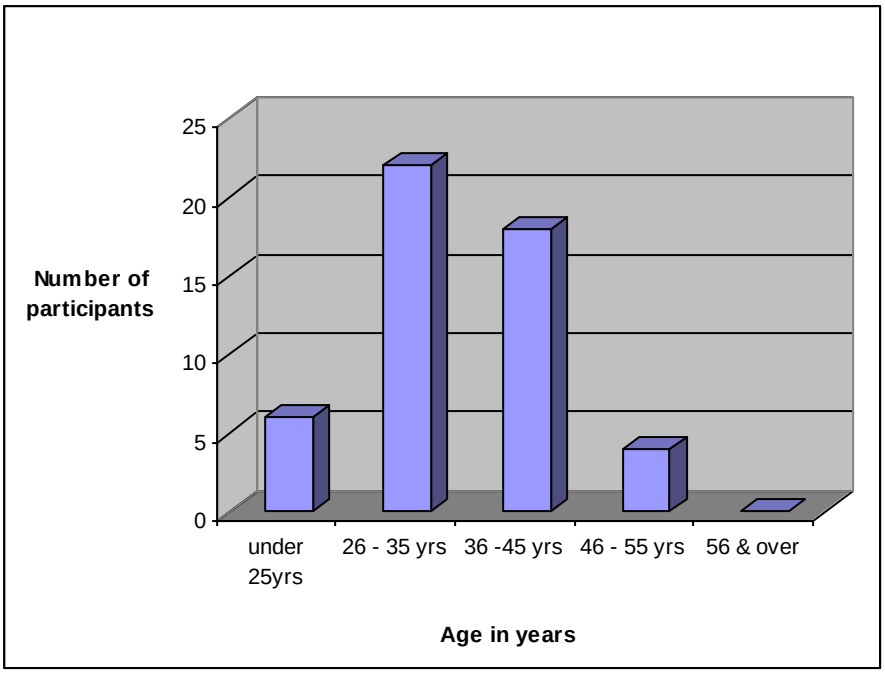


Figure 5.2 Age distribution of participants in the study (N=50)

The highest number of participants (20) in the study fell within the age range of 26 - 35 years, followed by 36 - 45 age range (19 participants), then by the under 25 age range (7 participants), and lastly the 46 – 55 category (4 participants). There was no one over the age of 56 years.

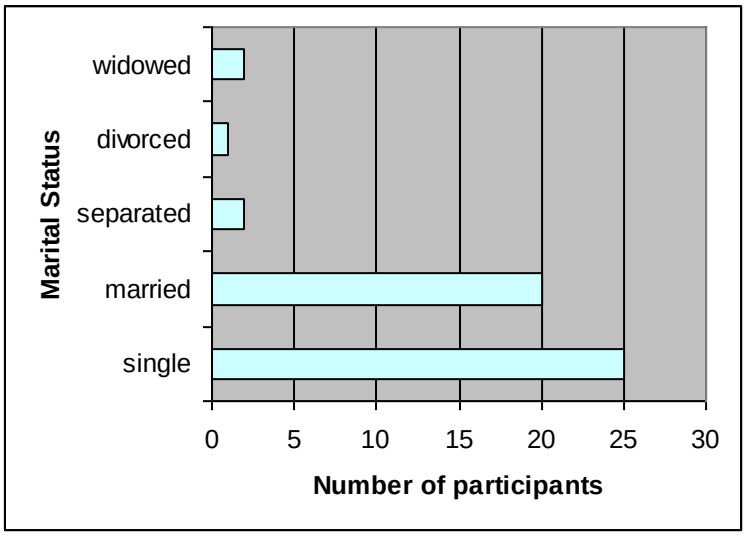


Figure 5.3 Marital status of participants in the study (N=50)

As can be seen from the above graph, almost half of the participants were single (24), the next highest number were married (20), followed by separated with 4 and lastly divorced 1 and widowed 1. These categories were classified as nominal variables where a subject can only belong to one category at any given time (De Vos, 2002, p.224). The variables are also discrete in that they can only take fixed isolated values.

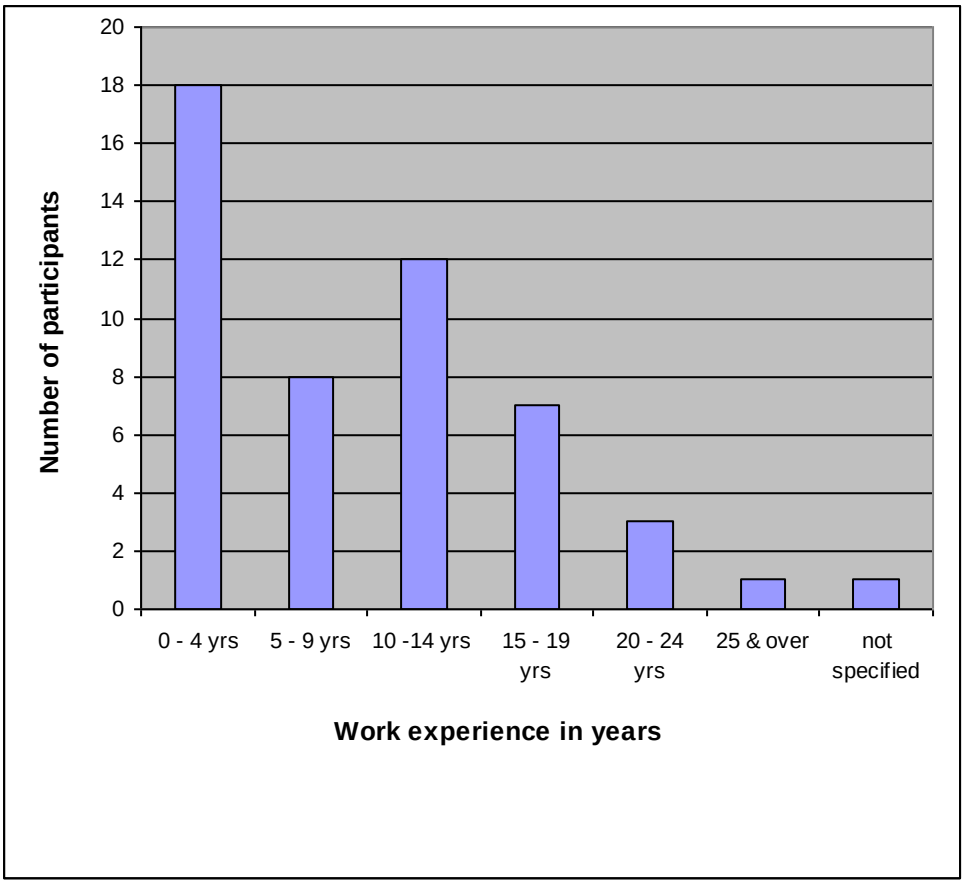


Figure 5.4 Distribution of Emergency Work Experience in Years (N=50)

With reference to the above graph, the highest number of employees fell within the 0 - 4 category in years of experience, which includes 13 of the sample, indicating that many employees still have relatively a few years experience in this field. The next highest category is that of 10 - 14 years which comprises 13 of the sample. The third highest category is that belonging to the 5 - 9 years category. The least in number are 15 -19 years in experience 5 and 20 - 24 years 3.

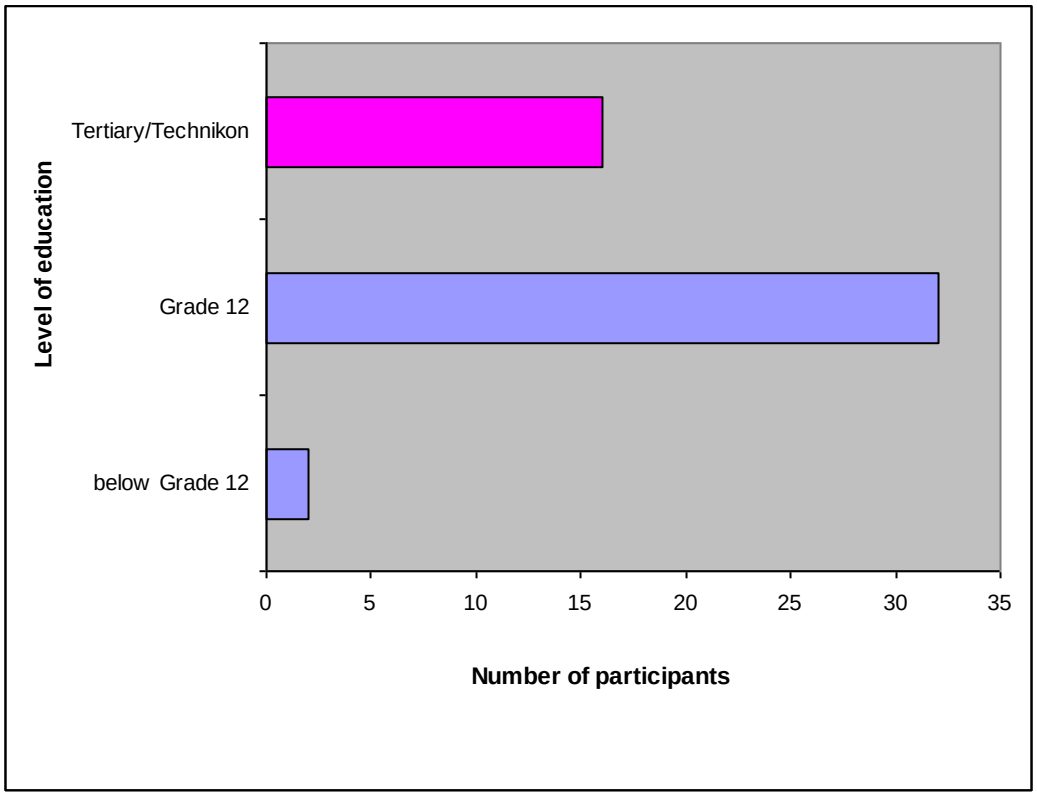


Figure 5.5 Level of Education of participants in the study (N=50)

More than half of the participants (n = 29) have Grade 12 as their basic education level. Those who have Grade 9 and below, are part of the staff that has been in the service for quite a long time (personal interview with Mmola, February 2010). In the past, the basic training of emergency service employees was not different from that of the police and people serving in the military and employees were mainly males (Malatji, February 2010). Due to this, one of the courses was "Criminal Procedure". As far as Malatji is aware, it is only around 1979 that the new refined and advanced qualifications were implemented. The rest of the other participants (n = 21) have received either a technikon or tertiary education specifically in emergency service related courses.

Table 5.1 Specific emergency work training of participants in the study (N=50)

Specific emergency work training	Frequency
Basic Ambulance Assistant	26
Advanced Emergency Assistant	9
Critical Care Assistant	4
Fire Fighter I	28
Fire Fighter II	28
Hazmat (Hazardous Material) Awareness I	29
Hazmat (Hazardous Material) Operation II	29
Urban Search & Rescue	7
Rescue Technician	3
Fire Investigation	1
Fire Technology	3
Advanced Fire Prevention	1
National Diploma - Fire	4
National Diploma – Emergency Management Services	2
Bachelor of Technology	1

With reference to the above table, most emergency services employees in the study have the multiple qualifications that are a basic requirement in various combinations as illustrated by the following examples:

One participant has hazmat I & II, fire fighter I & II, intermediate life support and rescue technician and is studying further; another basic life support, hazmat I & II basic ambulance assistant, intermediate life support rescue technician and still another basic life support, hazmat I & II, rescue technician and urban search and rescue.

Additional training in the same field included immediate vehicle rescue, instruction course, assessor and moderator qualification (n = 1); Safety, Health & Environmental Management Training Course (SAMTRAC) (n = 1), qualified estate agent (n = 1), driver pump operator (n = 1), industrial fire, rescue & extrication, and high pressure system (n = 1).

5.3 COPING STRATEGIES AND RESOURCES

5.3.1 How Participants Cope

The following is a thematic analysis of the categories as responded to in the questionnaire by the participants. Quotes will be used to substantiate the analysis. It must however be noted that for most participants English is a second language, as a result some of the quotes may have some

grammatical errors. The researcher tried to correct only the spelling and left the participants' responses in their original form as much as possible.

Category 1: Understanding the term 'coping'

Participants were requested to explain what coping meant to them.

Table 5.2 Definition of coping by participants in the study (N = 50)

Themes	***Quotes of coping by participants***	***Total***
Theme 1: Coping means to be in control To be able to handle or deal with, stand for, able to manage, to maintain, to be in charge,	"It means to be able to handle the situation you have". "Coping means to be able to deal with circumstances or situation whether difficult or the other way without being affected". "coping is to maintain in that situation, or to handle in that particular case". "able to manage the work that you do".	*20*
Theme 2: Coping means to adapt to To adapt, to accept, get used to something, how to live with something on your mind, to understand something	"adapt with situation" "to accept and ….with the nature of jobs or calls that we get on the road". "coping is when you get used to something even if it is good or bad". "how to live with something on your mind or work".	*7*
Theme 3: Coping means to feel better	" …..and feel comfortable with ….. "to feel better after you have been traumatised". "to feel better after traumatic emergency".	*4*
Theme 4: Coping means to persevere Doing daily duties, following, how to get through daily work	"how I get through my daily work". "it means following up to what I'm doing". "daily duties that we are doing daily".	*3*

Other responses included the following quotes:

"to be able to keep a level and understanding head, after the call or traumatic situation". (n = 1)

"is to work without stress and enjoying your work (n = 1)

"not affected" (n = 1)

"it means that I am able to think free, dream free, live free in any other given situation". (n = 1)

"talk to" (n = 1)

"I'm coping because most of the time I share the problem with my ambulance crew". (n = 1)

"Do I cope with job I am doing"? (n = 1)

"it means managing your stress level, continue with life, keep your marriage working, keep away from getting sick" (n = 1).

Four participants who did not answer

The Concise Oxford Dictionary (1990, p.254) defines coping as '1. To deal effectively or contend with a person or task', 2. Manage successfully; deal with a situation or problem successfully'. "dealing with" means 'taking measures concerning a problem, person, etc. (1990, p.296), whilst the term 'handle' is defined as 'manage or deal with, treat in a particular or correct way' (Concise The Oxford Dictionary, 1990, p.535). From the above it would appear as if the majority of the subjects under study had a fair understanding of what coping is. Coping is usually seen by authors as a way of engaging in behaviour and cognitive efforts to deal with environmental and internal demands and with conflicts between the two (Rice, 1999) and it can assist individual maintain psychosocial adaptation in the face of stress (Scarpa, Haden & Hurley, 2006, p.448 a factor. n = 20 saw it as 'dealing with a situation', 'handling a situation, managing or taking charge of a situation. Handling, dealing, managing and taking charge were perceived by the researcher as belonging to the same family in terms of meaning and therefore having the same theme (Creswell, 1998). 'Working under pressure or stress' and 'feeling better after a traumatic call' were far behind at each. Although put simply, participants' responses are indicative of some understanding of what coping means.

Category 2: Coping resources and strategies usually used by the participants

The participants gave the coping resources and strategies that they usually use. The following are quotes illustrate coping resources and strategies usually used by participants:

Theme 1: Talking speak, share with, discuss with/to (n = 25)

"not good at all, but we try to talk about every scene as workers to avoid nightmares and to keep it from your mind".

"speak to your partner if it was a bad ambulance call or rescue".

"I usually discuss the situation or incident with colleagues".

"I usually share the problem with colleagues".

Theme 2: Leisure (n = 4)

"relax and cool down".

"stress – go away for a few days, relax, ..".

"go home and enjoy my family's company".

Theme 3: Drink alcoholic beverages (n = 3)

"at first when we started working we usually drink alcohol during our off days to let stress go".

"I just drink alcohol"

"I buy two beers after that I'm OK".

Theme 4: Engage in sports or gym (n = 3)

"I play soccer or any sports".

"I go to the recreational and sports centre".

Theme 5: Religion (n = 3)

"we usually come back and request for the chaplain on call"

"speak to …. and chaplains in service"

"I usually pray and ask God to help throughout the traumatic situation".

Theme 6: Resilience (n = 3)

"I do not have much stress as I'm used to the conditions we work under"

"I do tell myself that I am at work. Stress is there, let me not nurse (focus/dwell on) them".

"I've been in the service for over 30 years and I'm used to the work".

Some participants use a combination of strategies and resources as indicated below:

"talk to other co-workers about that specific call

"talk about it to friends and family, just don't keep it and quiet'

"relax, go to the gym, interact with friends or family

The most salient coping resource was *talking* or *speaking*. Almost everyone in the study responded in this way. The Concise Oxford Dictionary (1990. p.1244) defines the word 'talk' as **1**. converse or communicate ideas by spoken words, **3(a)** have a subject discussion**, (b)** as an emphatic statement. Talking is a social skill, the latter being 'the ability to navigate the troubled waters of interpersonal exchange in a mutually satisfying way (Rice, 1999, p.298). We may talk too much, listen too little and hear even less. We may seek positive evaluations to bolster our self –esteem, then fail to respond positively to the efforts of someone trying desperately to please us'. Speaking is defined in The Concise Oxford Dictionary (1990, p.1167) as **1**. 'making articulate verbal utterances in an ordinary (not a singing voice), **2 a** utter (words) **b.** make known or communicate (one's opinion, the truth, etc.).

Certain kinds of coping styles or strategies seem to be more beneficial in psychosocial adaptation than others (Scarpa, Haden & Hurley, 2006). From the above analysis 'talking' seems to be most salient resource used and seems benefit those who use it. Half of the participants relied a lot on

talking as compared to other resources and strategies. Interestingly one participant did not differentiate between debriefing and talking, and it is not clear whether the participant saw debriefing as intervention in a counselling sense or merely as some kind of talking as illustrated by the following quote:

Participant 35: *'after attending to a call we debrief talk about the incident'*

As indicated earlier the researcher only administered the questionnaire once to all subjects. She did not go back to verify the information for the sake of clarity due to the anonymity of the tool for confidentiality purposes (De Vos, 2002).

With reference to table 3, the next salient commonly used coping resources and strategies were: play sports, soccer, recreational activities (n = 4); drinking alcohol (n = 3); which had the same number of participants as religion (n = 3) and resilience (n = 3). Some of the participants' responded as follows without a theme necessarily emerging:

"*I do not have much stress*",
"*have enough sleep"*
"*go home and enjoy my family's company"*
"make jokes"

Some participants either seemed not to understand the question or the question was ambiguous or were not specific e.g."

"*fine but sometimes I am affected"*
"*our duty is to help and to do our duty perfectly"* .

5.3.2 Peers and family as coping resources

5.3.2.1 Peers as a Coping Resource

"Co-workers are not only a vital part of the social environment at work, they can literally define it" (Chiaburu & Harrison, 2008, p.1082).

(i) Category 1: Experiences usually shared with peers

Participants tended to share to a high degree ideas and decisions especially regarding life threatening situations with their colleagues. In this way they also used this sharing as an

opportunity to transfer knowledge and skills. To a much lesser degrees they discussed patients' various illnesses as well as public response to their services.

Quotes by participants to illustrate topics usually shared with colleagues

Theme 1: Experiences shared include exchange of ideas/decisions, (n = 14)

" …working together, sharing ideas and experience, it helps to uplift out skills".

Theme 2: Experiences shared include life threatening and traumatic calls (n = 12)

"life threatening calls like a bad accident, or fire"

"a traumatic scene so that I won't be psychologically disturbed or decide to to bunk work creating unnecessary sick leave".

" normally we share about accident, PVA (pedestrian vehicle accidents) calls. Me feels better when we discuss about these kind of calls because after sharing something like that, me feel free about relief stress".

"when a person is burnt in fire scene and you find that he/she is 90% burnt and I have to help that person, this is an experience I always share with my colleagues".

Theme 3: Experiences shared include training/skills transfer (n = 11)

"firefighting course, most of out colleagues do not have fire qualifications, so you have to show them how things are done in order to cut the work burden on us.

"motor vehicle rescue, fire fighting equipment awareness, I'm in instructing".

"good, bad and new work experiences. As an older worker I encourage and motivate others. We use this as training and to build us up'

Theme 4: Experiences shared include patients encountered and the general public (n = 6)

"situation of an HIV and teenage pregnancy, …abortion".

"treating different patients ……we share about to treat certain patients with different problems or sickness"

"…like paramedic where you see scary things like when you are giving a person maternity " (delivery a baby).

"medical patients transported daily, the public does not understand".

Theme 6: Experiences shared include building team work or spirit (n = 4)

"I normally share my work experience by comparing what I once meet with on other call and also, and it help reassure, then it also works for team building or team work.

usually we work as a team, I try and make sure I am not make someone angry so that always we work peacefully….".

: " in Fire Department we work as one team (team spirit). Anything in work relation we are sharing".

"we almost share everything related to our work. We have to work as a team in order to make our job easily".

Theme 5: Experiences shared involve debriefing (n = 2)

"*we try to debrief, play again the scene by trying to correct mistakes from the scene and take note".*

"…briefing after a call, talk about the call and give them experience".

With regards to how helpful colleagues have been, participants' responses were varied, ranging from very helpful n = 3, helpful n = 6, sometimes helpful n = 1. Amongst those subjects who used peers as a resource, the following of types of helpful experiences were usually shared:

(ii) Category 2: Helpfulness of peers

The following are quotes illustrating the helpfulness of peers:

Theme 1: Peers are helpful in training/skills and knowledge transference (n = 11)

"it helps teach one to handle calls and situations".

"to know the Acts (legislation) that covers".

"when other people discuss scenes they attended I also learn from their experiences".

"colleagues gain more skills and knowledge from me"

Theme 2: Peers are helpful in providing social and emotional support (n= 6)

" to be there for each other until we finish".

"helpful because they are good listeners…".

"some you find crying … and you actually in big pains".

"it gives the notion that we are in this together …".

Theme 3: Peers are helpful in motivating and encouraging improved service delivery (n = 6)

"some are eager to learn and it helps to complete tasks easier".

"it's less stress and work efficiency … ".

"they are so helpful to provide a better service".

Theme 4: Peers are helpful in serving a corrective function (n = 3)

"very good because it helps to avoid mistakes

"most of the time discussing what we happen to be failed with outside help and prepare them for any situations and give them for any situations and give them reassurance"

Theme 5: Peers are helpful in blocking out (traumatic events) (n = 3)

"you don't think too much about what you saw".

"it helps me because I don't want to think about it".

"(it helps) to the extent that I forget what has happened"

The study suggests that n **=** 29 of the participants have not experienced disappointment from having work related experiences with their peers. Some quotes illustrating emergent themes in this regard are as follows:

Theme 1: Social Support

: *"no, we are always there for each other and if you work alone you die alone".*

"no, the more I share, the more I get healed. I never get disappointed".

"my colleagues are my sisters and brothers. If I'm in the work premises, I know that I am safe. Whatever problem I've got, they are my advisers".

"*no because my colleagues understand each and everything I share with them".*

Theme 2: Skills Transference

"I usually take points which will benefit me or us when we discuss issues, as I respect any thoughts of my colleagues".

(iii) Category 3: Disappointment after sharing with peers

"no because of wrong decision and something, other people are very negative. Some colleagues have got no sense of humour".

"sometimes, the colleagues are not impressed with my decision".

Studies seem to suggest that relationships at work are very important in the workplace. Good relationships amongst co-workers tend to influence employees' well-being and job-satisfaction (Yang, Che & Spector, 2008). Individuals in every type of organisation have co-workers who are partners in social and task interactions (Chiaburu & Harrison, 2008). As put by Yang et al. (p.570, 2008)

> Basically one of the critical needs of an employee is to maintain harmonious relationships with others in the workplace High quality relationships also make it possible for workers to gain more social support and social resources from supervisors or co-workers to accomplish tasks and cope with negative emotions. Good relationships at work can be conserved as long-term resource to benefit employees' attitudes and well-being, and it may also help them get enough resources to fulfill other needs at work

In addition, other studies suggest that co-workers exchanges are based on reciprocation, and because of their greater presence relative to leaders in almost any organisation, employees are likely to interact more frequently with their co-workers (Chiaburu & Harrison, 2008, p.1084). The storage of emotional and behavioural resources from co-workers is thus larger and easier to draw from than the leadership one.

With reference to the biographical information, there were no significant differences between males and females with regard to the use of peer and family support after traumatic calls. Most females, participants 08, 16, 23 42 responded that they share traumatic calls, difficult patients, etc. as some of the males have indicated. However from the responses the males tended to also focus on technical knowledge participants 02 mentioned the importance of knowing the Acts that impact emergency service employees, whilst participant 32 has his focus on the importance of knowing how to operate equipment and lastly participant 34 mentions basic life support and from the experiences of others. Both males and females have found this helpful. In addition some males and females have experienced sharing with colleagues negatively as with participant 20 who is male and has responded that "*colleagues sometimes don't want to listen*", whilst a female participant 08 for instance stated that she has been disappointed "*because everybody in emergencies act as if they are tough without feelings*".

There were also no significant differences with regard to race. For instance participant 03 who is African and "shares work experiences by comparing previous calls with them and this reassures the participant. Put differently by participant 33 who is White and found it helpful to share by "*talking about scenes attended to in past to help improve the skills of colleagues*".

5.3.2.2 The Family as a Coping Resource

(i) Category 1: Family member mostly shared with:

Almost all participants in the study forty two acknowledged reliance on family as a coping resource. Five relied on their spouses, fiancé, girlfriends, five on their mothers, twelve on their siblings, another five on extended family like cousins and aunts, three also included their children mainly for educational purposes, two also included friends as part of their families. Most

participants did not give any reasons for choosing the specific family members and two main themes emerged from their responses.

The following quotes illustrating reliance on family for coping:

Theme 1: social and emotional support (n = 9)

"yes wife. She is the one who always helps me to deal with stress levels at home from workplace":

"yes, sisters because when I'm sharing with them afterward I feel better that when I'm not telling them".

"yes, after a serious incident I usually share with my girlfriend".

"yes, wife,. She was very suirprised at the job I'm doing".

Theme 2: knowledge or information dissemination (n = 2)

"yes, they don't live with me. I try to tell to drive safely with the accidents I always see on the road".

"yes, person very close to me. I just want to show them the circumstances which we meet outside".

(ii) Category 2: Selectivity in sharing with family members:

Most participants found dissimilarities in family versus peer support. A significant number (n = 31) were selective in sharing their work experiences with family members, n = 6 shared everything, n = 3 responded with "sometimes", n = 3 responded negatively, n = 1 gave "N/A" as a response.

The following are quotes illustrating participants' selectivity in sharing:

Theme 1: Participants are selective in order to protect their families (n = 13)

"yes, 'cause of the things they won't take like me".

"selective because some issues are very bad and can make her feel uncomfortable with our kind of job".

"yes, because some of them they are traumatic, it can scare them".

"yes, out of experience I found it is better to leave work issues at work and concentrate on issues at home when I am there".

Theme 2: Participants are selective for professional or ethical reasons (n = 3)

"you must select because some of the things are not supposed to be shared with anyone".

"I'm selective. There are some confidential matters that you can't even share wit your next of kin".

"selective, e.g. I don't disclose, invade patients' privacy".

Theme 3: Participants are selective in order to avoid negative family reactions (n = 2)

"my family taught me not to tell them all because they tend not to be interested in some other traumatic experiences".

"yes, I don't feel comfortable to share anything with my family, because mostly when I started sharing something at home, my family immediately started saying I mustn't say anything about my traumatic work".

Some of those participants who were selective simply replied "yes" (n = 8).

Other participants did not share for various individual reasons as follows:

For one participant it is self-protection: *"yes selective, I don't want them to say in future when I do something wrong that it is because I am traumatised by what I'm seeing at work or that I am beginning to lose my mind".*

Other participants shared everything with their spouses or other members of their families because they were in the same profession as indicated below. They however are relatively few in number as compared to those who are selective. Where everything is shared, the spousal partner especially the wife, is usually the listener and/or is in the same profession as the respondent i.e. fire fighting (n = 4), or is/has been in a similar profession, e.g. nurse (n = 1):

"anything and everything because she was a fire fighter.

"I am comfortable to share anything with my wife. She sometimes has no solution to my trauma but she gives attention and tries to console me"

"very comfortable to share whatever" (this participant responded under category 3 of this section that her husband is a fire fighter too.

(iii) Category 3: Helpfulness of family as a coping resource

A significantly high number (n = 35) of participants experienced family as a helpful coping resource, with the main emergent theme being social support, n = 4 found them sometimes helpful, three found family not helpful and five did not respond to the question.

The following quotes illustrate the helpfulness of family in coping:

Theme 1: Family is helpful in providing social and emotional support (29)

"it helps to be relieved but not to forget".

"yes, I do because they now understand why sometimes I'm so careful in all I do 'cause of those things I see".

"yes, 'cause if it was too traumatic I can show my emotions and they won't laugh".

yes sometimes family members try to understand your situation and in most cases do give valuable advice as well ".

yes. It makes me feel better afterwards".

There other varied responses for participants who experience family as helpful:

For two participants there was a need for outside intervention as well. For instance, one participant *"sometimes yes and sometimes no. the point here is that a professional counsellor is needed to remedy or deal with the situation".* Another participant put is as follows*: "yes it does, but you cannot be fully consoled. I think we also need external people to help you. I also use the church as another place to deal with stress. I also use friends to help on the other hand".*

(iv) Category 4: Similarity between sharing with family and peers

For most participants (n = 15) experiences are not the same when they share with colleagues as compared with family, specifically when they had to respond to whether or not their experiences were the same when they shared with family as when they shared with peers. For most, colleagues tend to be more supportive and understanding because they share the same experiences in the type of work exposure.

A significant number of participants (n = 20) responded negatively to this question - they found it better to share with colleagues than with family; eleven did not respond at all, whilst five seem to have misunderstood the question.

Table 5.3 Negative responses when sharing with family (N =50)

Themes	Quotes illustrating negative responses in sharing with family	Number of participants
Theme 1: Protecting family	"no colleagues understand better" "no because when I share with colleagues I can talk about everything, but with family members I can choose not to say everything because some of tem are too sensitive like my mother". "no, colleagues have met some of the trauma before and have exact ways or way forward". "although responded with a yes the main response is "because my colleagues experience most of the trauma that I experience, so we encourage each other because we both know what we are dealing with". "no colleagues do not behave like my family".	11

The following quotations illustrate negative experiences when sharing with colleagues:
"no because colleagues do not behave themselves". When a vertical analysis is done on this participant regarding when sharing experiences with family, it the participant's seemingly better comfort in sharing with family.
"no sometimes one cannot understand colleagues or they just do not want to assist".

For another participant it is not the same due to ethical considerations : "*No, when sharing with your family you have to be careful in terms mentioning names, but with colleagues we share everything, even mentioning names because we all know our DUTY AND CONFIDENTIALITY"* (capitals are the participant's).

According to Frone (2000, p.888) who studied "work-family interface and health outcomes, work can interfere with family life (work-to-family conflict) and family can interfere with work (family-to-work conflict)". He cites the identity theory which posits that people devote considerable time and energy to constructing and maintaining desired identities and that people are threatened when their self-images are damaged by impediments to self-identifying activities. In addition Frone (2000) argues that there is a general implicit expectation that work-family conflict might be more detrimental for employed women, because they have primary responsibility for family roles. This seems to be supported by Mclean's (2002) study of stress, depression and role conflict in working mothers in South Africa. According Mclean (2002), although other studies suggested that married individuals tended to have a lower prevalence of depression as compared to divorced, cohabiting and single subjects, in her sample married subjects still reported a high prevalence of depression.

Some workplaces have become more congenial, with the development of work teams and other deliberate efforts to listen to and recognise the contributions of lower-level employees and management (Hochchild in Dahlin, Kelly & Moen, 2008, p.720). At the same, the demands of family life have become more challenging, given the growing number of dual-earner families and single parents. Dahlin et al. (2008) add that home can be a stressful place – given domestic parenting and spousal demands and obligations along with the absence of a full-time homemaker, that some workers are spending more time at work in order to avoid stressful interaction on the home front.

In the present study the foregoing does not seem applicable as, although the participants have reported different experiences when sharing their work issues with family as compared to when sharing with their colleagues, to a large extent family is still experienced as a pleasant and supportive environment. With specific reference to biographical information, again no significant differences were found regardless of race, gender, age, marital status, educational level and experience. Almost all participants relied on family support as illustrated by the following examples:

A participant who is a married shares work experiences with his spouse whom he has experienced as understanding, but is selective because some of the issues are very bad and can make his wife uncomfortable. Another participant who is married also shares with her spouse who is in a similar profession, but only shares if both have had similar experiences.

Social support refers to the perceived availability of emotional and instrumental support from various agents in one's social network believed to provide love, caring or a sense of attachment to a valued social group, validation and listening (Gates & Wolverton, 2002; Scarpa, Haden & Hurley, 2006). Peers and family in this study can be viewed as a social support as they seem to be having characteristics similar to those of the social networks as defined above. Scarla et al. (2006) also point out that social support is not always helpful as sometimes supportes can unintentionally give responses that include, for instance distraction, disbelief, as experience by some of the participants.

5.3.3 Counselling Services

5.3.3.1: Workplace counselling services

(i) Category 1: Awareness of workplace counseling services

Regarding awareness of the availability of counselling services at the workplace two thirds of participants (n = 33) responded with a “yes”, twelve with a “no”, n = 4 did not respond, n = 1 gave “sometimes” as the response. In addition n = 15 participants found them to be easily accessible, whilst n = 16 found them not easily accessible, n = 7 did not respond to the question.

The following are some quotes illustrating the accessibility of counselling services at the workplace:

“yes, … I don’t think people know about the EAP in the workplace”.
”just a phone call away”.
“yes they are accessible because I’ve been to a session one or twice”.
“they are easily accessible”

(ii) Category 2: Counselling services not easily accessible

The following quotations illustrate counselling services “not easily accessible”
“but they don’t provide them at that early stage. It will take a week before you get professional help”.
“not easily .. our complaints take on a process”.
“there is a chaplain who deals with counseling of employees in traumatic situations and he is easily accessible because I don’t know his office and when to get hold of him e.g. like in what trauma situation”.

(iii) Category 3: Use of workplace counselling services by participants

Although a significant number of participants were aware of the availability of counseling services at the workplace, two thirds of the participants (n = 30) were not using these. Of these a little below half (n = 22) mostly responded with only “no” or “N/A” without any further explanations as answers, whilst nine participants did not answer. There are nine participants who do make use of workplace counselling services who have responded with a “yes”, of whom four were not satisfied with the service, whilst only three were satisfied.

Quotes illustrating satisfaction with workplace counselling services:

"yes, you inform your supervisor that you have problems and you need rehabilitation and they will select a few phone numbers of (employee) well being (practitioners) and give it to you. Or they will phone if you give them permission".
"yes, after the session I feel better".
"yes "some yes, because some of them is just a minor thing,

Quotes illustrating lack of satisfaction with workplace counselling services:

"I attended two sessions with the outcome I wasn't satisfied".
"I did once get a call of a patient, after delivering tha patient at the hospital we told the supervisor that. He was going to get us some pills, we waited for 3 hours for the pills and there was nothing".
"no because the outcome is very bad to me".
"but some not, some is more critical where I cannot even be able to sleep at night because of nightmares".

Of the participants who responded "no", various reasons were given for not making use of workplace counselling services – e.g. either the services were not functioning, participants had never heard of them or self-reliance based on socialisation practices as a child. The following are quotes illustrating why participants do not:

"I can't say yes because I never heard or got about them before".
"no, as I did say, they are not well functional. Mostly I do believe in the way I have been raised as a child".
" … because since I started working here I never saw anyone counselling. We become used in this environment".
"no because we don't have on our stations. if they are there they are not accessible to us".
"no one has ever explained about counselling to us".
"N/A. I've never been referred as I've never needed the service".

The present study seems to confirm the findings of the study by Luce, Firth-Cozens, Midgley and Burges (2002) of posttraumatic stress disorder after the Omagh bombing. This study found that, although two thirds of those rescue workers who were involved in the disaster did seek some form of formal or informal help, and that those with the highest symptoms were more likely to

receive professional help – professional help was sought by very few, despite the exceptionally high availability of professional help after the bombing.

(iv) Category 4: How readily available workplace counselling services are.

To this question the participants' responses were varied: two thirds of the participants responded with a "yes"; eleven participants responded with a "no" or "N/A"'; seven participants did not answer. The table below illustrates this:

Table 5.4 Availability of workplace counselling services (N = 50)

Themes	Quotes illustrating how readily available workplace counselling services are	Number of participants
Theme 1: immediately	"immediately, you can book personally or your supervisor can assist you". "immediately because the job is too much for us. Accident, house fire, PVA accident "I think they respond as soon as possible, depending on how your supervisor takes you serious".	11
Theme 2: protracted process	"one has to book in advance". "one has to work by chain of command, e.g. through your supervisor". "you have to make an appointment".	13
Theme 3: uncertain	"I suppose immediately". "yes, I personally have never tried to use them, so I'm not in a position to say".	5
Theme 4: don't know	"don't know, never went to the programme". "I don't know". "no I don't know how the services of a chaplain are made to be available".	6

(PVA: Pedestrian Vehicle Accident)

Other participants however, knew that services were available but were not easily accessible, or they did not relate the availability of these services to provision by the workplace. The above has implications for improving awareness (marketing) of the service, or with due regard to budgetary constraints restructuring the available ones so that they are more accessible.

Category 6: Perceived adequacy of workplace counselling services

Regarding the adequacy of counselling service at the workplace, fifteen participants did not answer the question, another equal number of participants (n = 16) found services to be

inadequate, one participant responded with N/A, three participants have never gone for work place counselling, two participants were not certain, the responses of two other participants seemed to refer more to the evaluation of their own service to the public than to counselling services at the workplace and five participants experienced these services as adequate.

Table 5.5 Adequacy of workplace counselling services (N = 50)

Themes	**Quotes illustrating inadequacy of counselling services at the workplace**:	**Number of participants**
Theme 1: not available at stations	"I think there is no inadequacy of the counseling services because I have seen some of my colleagues in stressful conditions and they were never counselled, to the extent that they were supposed (meant "chose") to resign". "it must be available at stations like during day shift worker and have their facilities on our stations. It must be communicated to all employees, it must be free of charge, it must be confidential". "to give all colleagues who are working in emergency services (counselling)". "if someone/patient is deceased, we are supposed to get a chaplain on site for both the deceased's family and us (employees)" – it would seem the chaplain is summoned for the bereaved family only in this instance. "not adequate, they are supposed to be placed at every district or accessible place closer to fire fighters".	16
Theme 2: management issues	"that the moment a person are promoted he steps on the ground floor" "this is poor services because our management make discussion at top and tell us what the service has to change with immediate effect" "in as far as management is concerned one has to book or make an appointment first". "our service is very poor because there's no one who wants to take the responsibility for the fire fighters".	4
Theme 3: marketing	everybody should be aware of any (services)… it must be a daily thing, I mean to say – their door must always be open for us anytime".	1

Two participants (39 and 42) seem to refer more to how management styles impact on services to the public.

Quotes illustrating adequacy of workplace counselling services:

"excellent".

"it is very good especially if you have problems".
"it is good for those people who need it because it is not good to come to work if you don't cope with the work load/stress".

In addition the following participant also points out to the employees' avoidance of using the services where available and adequate due to personal reasons:

One participant *"it is good although sometimes people are too proud to use this service".*

In the study of coping, functioning and adjustment of rescue worker after the Oklahoma City bombing North et al. (2002) found that despite administrative provision of free treatment outside of the department with assurances that confidentiality of those who sought treatment would be preserved, there was a general perception held that supervisors would learn of the rescuers' treatment and the information would be used adversely against their employment. This might well be the case with the Ekurhuleni Emergency Services where although the services of chaplains are provided by management, some employees within the organisation do not use them, perhaps for fear of future victimization too. In addition, one participant responded that the tendency sometimes was that when these chaplains were summoned to accident scenes by management, they were summoned specifically for families of the victims and not for the employees.

Another participant stated that *"the service is needed to relieve stress because others resort to alcohol".*

The three participants' responses referred to their services to the public and not to counselling services at the workplace, particularly the last two participants on whom a vertical analysis was made regarding their responses to the previous question:

"my opinion is we have to work as a team to avoid misunderstanding in operational, then when it comes to adequacy it can be well".
"the service is very bad because we are running short of staff but the job is too much. We are under man power from fire side to ambulance. Ambulance is too busy because many people are sick e.g. HIV, TB, swine flu, etc".
"it's fine. I don't see any problem with it".

With regard to perceived required changes and recommendations almost half the number of participants (n = 22) made suggestions about changes they perceived necessary, n = 14 did not answer the question and five required no changes made. The table below illustrates quotes by those who perceive the need for changes in the provision of workplace counseling services:

Table 5.6 Perceived required changes in workplace counselling services (N = 50)

Themes	Quotes illustrating perceived required changes	Number of participants
Theme 1: services to be placed at every station for better accessibility	I think every fire station must have an *EAP cousellor or chaplain". I wish for each and every call that traumatises, they must come for counselling". "the counseling service chaplain must be placed at relevant stations so as to be accessible. We only see their vehicles on the road but not their service". " put them closer to the people that need them".	5
Theme 2: regular visits to the stations	"if they visit us at our places of work and arrange with us". "come to the station and make yourself visible and stop pumping us with your pamphlets". "maybe the workplace must be visited by the service on a regular basis …". "counselling must done more frequently and more regularly". "they must visit each and every station once a week to hear our concerns".	10
Theme 3: communicate with employees	"…and interact more with employees". "top management should lay an ear to the ground". "they must employ more staff and hear our voice when we talk". "…… visit our stations … to hear our concerns".	5

*EAP (Employee Assistant Programme)

Three participants seemed to be referring to their service to the public instead of workplace counselling services as illustrated below:

One participant "*someone needs to be notified of a serious situation by the control so that the person can utilise without being requested by people. I don't feel to contact for someone*". This participant seems to have also suffered from some abuse from the service recipients.

Another participant "*our job is needed and more manpower and more emergency vehicles to render the service".*

A third participant was of the opinion that: "*(management) they must also have experience or go out to bad calls".*

Category 7: Not making use of services where available

Half of the participants (n = 25) did not answer this question, fourteen others do not need or have never needed the services for various reasons, another perceived the situation as being up to the employees to choose whether they use the service or not, six others did need the service but did not use it for various reasons. The following table illustrates quotes indicating this:

Table 5.7 Why workplace counselling services are not used (N = 50)

Themes	Quotes illustrating why workplace counseling service are not used	Number of participants
Theme 1: situations always manageable	"I have never been in a traumatic and stressful situation". "I'm coping with my work". "I've never been desperately traumatised in a way that I need counseling". "I don't think I have come across any problem beyond my control". "I have never actually felt the need to use them".	14
Theme 2: resilience developed	I don't think I need help. I'm used to the calls. They don't stress me anymore". I am so many years in the service and have adopted a way of just cutting bad images out, so it will not affect me, " .. I do not use this service, I'm used to coping on my own". : "I do not need them"	4
Theme 3: using family as a resource	… "Sometimes we talk to each other or our families".	1

In addition to the above other participants had the following responses:

"*taking leave regularly".*

"*don't feel like going through the effort after a scene* … ", response seemed incomplete.

"*tried once and no one attended to him".*

"*there are no counseling in the EMS, the only counseling is to abuse alcohol".*

"Because on communication. Make it easy for employees to be free to use them, let it be around the station".

"they are not properly advertised or known to us as fire fighters".
"service not available when I need help immediately".

From the above it is clear that a need for improved workplace counselling services for the employees.

When discussing the need for workplace counselling Carroll (1996) argues that more employers are increasingly becoming aware of the fact that illness and productivity do not go together – instead a healthy workplace is productive, In addition Carroll (1996, p.3) identified three responsibilities that employers have towards their employees and these include "(i) a duty to take, which is normally arises in the work situation, (ii) a breach of that duty and (iii) foreseeable injury". Several studies suggest that the working environment of emergency employees does tend to expose them to life threatening situations that may impact them negatively both psychologically and emotionally. As put by Beaton, Murphy, Johnson, Pike & Corneil, (1999, p.293) "emergency workers such as firefighters and paramedics, must cope with extraordinary and persistent occupational demands that are potentially cumulative. The include threats to their own and their co-workers safety, dangerous fire suppression incidents, injuries and deaths of children and infants". From the above responses by participants it is clear that there is a need for improved workplace counselling service rendering for the Ekurhuleni Emergency Services employees, or the restructuring of avaiable services.

With reference to biographical information again there were no significant differences with regard to how participants experienced workplace counselling services, regardless of race, gender, age, marital status, educational level, etc. Instead the researcher noticed an interesting development in that, when the questionnaires where collected they were packed in batches according to the stations from which they were collected. Some participants whose questionnaires chronologically followed one another in numbering tended to respond similarly, with either positive experiences of workplace counselling services or negative experiences. From this tendency the researcher concluded that availability of services and how they are accessed by the Ekurhuleni emergency employees either differs from region to region and/or from station to station for various reasons as indicated by the following examples:

Four participants whose questionnaires chronologically followed one another responded that the services were "excellent". Four others whose questionnaires came one after the other responded with a "no" to whether workplace counselling services were easily accessible. One participant went further to add that there were no counselling services and they were not easily accessible. In addition these participants, for obvious reasons did not make use of workplace counselling

services. Amongst these participants, one for instance responded that "*no, as I did say they are not well functional. Mostly I believe in the way I have been raised as a child".*

The deduction here would either be managers are not the same and therefore their management styles would also differ, or that the distribution of counselling resources is not equitable across the three main regions of Ekurhuleni Emergency Services. Adequate marketing of the services could be another factor as illustrated by the following quotes:

"*come to the stations and make yourselves visible and stop pumping us with your pamphlets".*

"it should be preached always and all over emergency services".

5.3.3.2 Counselling resources outside the workplace

(i) Category 1: Participants who do not use counselling service outside the workplace

Regarding resources outside the workplace a significant number of participants were not relying on any counseling resources outside the workplace; just below half (n = 21) answered no and gave no reasons, four responded with a no but gave reasons, thirteen do use counseling resources outside the workplace, one responded with N/A, or five did not even answer at all.

The four participants that do not use workplace counselling had the following to say:

"no, because some need money and our kind of salary can't afford to pay for extra resource for help".
"I never see myself in that deeply situation whereby counseling resources will be needed".
"for me there's no reason to use one of these resources. I feel OK. So far I don't come across such problem whereby I should consult anyone about resources".
"no, you just need to talk about your stressors".

(ii) Category 2: Participants who do use counselling resources outside the workplace

The few that admitted to using resources outside the workplace, the following professionals came up most often: social worker, psychologist, priest or chaplains, consulting the family doctor going to church, and least of these three resorted to traditional healers. The reasons for using these professionals varied from: being given advice, emotional and spiritual support to cleansing oneself.

Theme 1: emotional and spiritual support

"social worker, priest and a psychologist. Social worker will tell me how to behave amongst the community, the priest will comfort me spiritually and the psychologist will assess my mind not lose direction".

"yes, priest is always there for me and my traditional healer always consoles me, he always advises me, what steps to take, priest giving me counseling through the bible".

"priest, psychologist, social worker sometimes when you are depressed you can consult them".

The following participant saw traditional intervention as a cleansing process for healing:

"traditional, as Africans we have to cleanse ourselves of traumatic experiences".

"*social worker, it helps you forget about what you saw that time".*

There following differences were observed with regard to race, amongst those participants who used counseling services outside the workplace. Africans and Whites tended go for counselling services outside the workplace. Amongst Africans a significant number did not respond to this question, Africans resorted to a variety of outside resources which include social workers, psychologists, traditional healers, priests as well as chaplains regardless of their age, educational level and marital status. Chaplains are however part of the workplace counselling services offered by the employer and perhaps some employees are not aware of this, a perception that may be caused by an experience similar to the one cited above, where chaplains were summoned to attend to victims' families only. The other racial groups in the study responded that there was no need for such services as they seemed to rely on the social support family and peers.

5.3.4 Personal Strategies

5.3.4.1 Stress monitoring as a coping strategy

This refers to being aware of increasing tension in the muscles (Rice, 1999). Slightly more than a third of the participants (n = 18) generally acknowledged awareness of bodily reactions, which one respondent has referred to as bodily dysfunction, especially emotions – mood swings, anxiety, aggression, crying, tension, tension headaches, back pain, nausea, becoming hard of hearing, adrenalin rush, disturbed sleeping patterns, severely lowered body temperatures, shivering, impatience with significant others especially family members after traumatic calls. A respondent reported tiredness as an issue for most staff which they have tried to address

unsuccessfully. An equal number of participants (n = 18) responded with a “no/none” and gave no explanation, a further four participants replied that they were not affected.

Category 1: Awareness of bodily reactions by participants during a call

The following are quotes from participants illustrating awareness of bodily reactions during a call:

Theme 1: tension headaches, muscular tensions and body temperature changes (n = 8)
“sometimes I develop some headaches”.
“I am aware that if I … attend to a serious call, I find that I am not able to hear very well especially when someone makes a lot of noise”.
“yes, tension, don’t want to work…”.
“my body becomes so cold and my muscles tense and shivering”.
“yes, tension in muscles”.

Themes 2: anxiety and feelings of hopelessness, moodiness (n = 2)
“yes, in most cases I become … and moody and aggressive”
”yes isolating myself, crying and moody all the time”

Theme 3: tiredness and fatigue (n = 4)
“ during a call I have a huge adrenalin rush, then a few hours after I feel very tired”.

Theme 4: sleep disturbances (n = 2)
“not sleeping well at night, have some nightmares”.
“…don’t sleep well at night …”

Theme 5: nausea and /or vomiting (n = 3)
“ …feeling nauseas”.
“sometimes I feel nauseas”.
“yes, I feel nauseas and I vomit”.

The above seem to fit the description of stress symptoms as identified by Rice (1999) as follows: psychological symptoms which may include anxiety, tension, alienation, depression, feelings of frustration, anger, resentment, emotional hypersensitivity, etc. (Rice, p.195); physical symptoms may include increased secretion of stress hormones, gastro-intestinal disorders, sleep disturbances, headaches, low back pain and muscular tension, etc. (Rice, 1999, p. 194) and

lastly behavioural symptoms which may include procrastination, work avoidance and absenteeism, increased alcohol drug use and abuse, etc (Rice, 1999, p.197).

One participant experienced the *"world not (being) the same"*. The same participant has also mentioned *"not feeling like talking to anybody, as well as not accommodating family well in ones life"*. This seems like what Janoff-Bulman, as cited in Gibson and Iwaneic (2003) when discussing shattered assumptions. According to the author, we all live with the assurance of three basic assumptions that tend to be shattered by trauma namely, (i) a belief in personal invulnerability, (ii) the perception of the world as a meaningful and comprehensible and lastly the ability to view ourselves in a positive light. The same participant deals with these bodily reactions partly by avoiding work even though other strategies like consulting a medical doctor and/or priest maybe used. Another participant, although generally resilient due to being older and with more than twenty five years experience, also does suffer bodily reactions as illustrated by this quote *"no, I'm brave, but sometimes my body becomes painful".*

Only four participants do not experience any bodily reactions as illustrated by the following quotes:

"yes my reaction is very well during or after a call and I feel relaxed when I go to a call or after a call".
"yes, so far I didn't experience such tension. Since I've been in the service I don't have a problem when it comes to work".
"no, I'm used to suffering".

The last unaffected participant, experiences an increase in adrenalin which improves his ability to perform, unlike another participant whose experience of *"huge adrenalin rush"* results in tiredness after a few hours – *"yes, at calls the adrenalin in increased and one has the ability to perform more efficiently"*. As suggested by various studies some individuals react positively to adrenalin surge and there are individual differences in people's coping strategies even though there may have similar experiences (Bonanno & Mancini, 2008; Moran, 1998; Ursano, Fullerton & McCaughey, 1994). Rice (1999, p.299) mentions two schools of thought with regard to stress awareness:

> One school maintains that being oblivious to stress is desirable. The other maintains that being aware of stress is of importance to survival" The argument for stress monitoring depends on the idea that awareness of stress is necessary to identify sources of stress in events and people. It is a view that is consistent with control theory, if we can identify stress-inducing events and people, then presumably we can engage in problem-solving behaviour that will reduce, if not eliminate, stress from these sources. If we cannot, then dis-organisation may occur, resulting in even more stress.

With reference to the participants' responses as well as literature cited, it would seem as if there are those participants who ignore symptoms of stress or do not monitor their stress at all as indicated by those who participants who responded with *"no"* or *"none*". A significant number however does monitor stress experienced. Stress monitoring includes awareness of increasing tension in muscles, as well as awareness of one's optimal range of stimulation (Rice, 1999). Matheny, Aycock, Pugh, Curlette and Silva-Cannella (1985) as cited by Rice (1999) found that stress monitoring could sensitise people to the existence of stress with negative effects on coping efforts. Matheny et al. (1985) also found that when monitoring focuses on threat, it increases distress. However, when it focuses on sensory information, it does not – something that needs to be noted by emergency service employees. With reference to responses of participants in the study it would seem as if the focus is sensory information with regard to monitoring stress. As the tool used in the study was a questionnaire, the researcher could not probe whether or not monitoring of the stress by participants also focused on threats within their work experiences.

In addition, with reference to the biographical variables of those who monitored their stress, there seemed to be no significant differences with regard to race, marital status, gender and educational level. However, a significant phenomenon that emerged was that the younger participants between the age ranges of 18 – 25 years and 26 – 35 years most responded negatively to stress monitoring as compared to the older participants with more years of experience. This seems to suggest that due to having been relatively minimally exposed to the stress and trauma within their work situation these participants are still resilient, a finding that is consistent with literature. Alternatively, they are lacking in self-awareness skills or symptoms of stress due to lack of experience.

These findings seem to be in line with those of Luce, Firth-Cozens, Midgley and Burgess (2002) who in their study of posttraumatic stress in health service staff found that, earlier trauma tended to have effects negative on symptoms, with individuals and professionals who had suffered prior similar trauma having significantly raised scores. Briere and Scott (2006) refer to the latter as variables specific to the affected person and in addition to previous history of trauma exposure, these authors also include previous psychological dysfunction or disorder and less functional coping styles that may impact on how an individual responds to stressful or traumatic events.

Earlier literature on this specific issue however suggests differently, namely that the more experienced fire-fighters for instance are they tend to have low stress responses after an event as compared to non-professionals (Ursano & McCarroll in Ursano, Fullerton & McCaughey, 1994, Moran, 1998). The latter seems to be indicative of the value of training as compared to

experience. The educational level of the younger participants who responded with a “no” was on the contrary mainly grade 12, with only one participant having tertiary education.

Category 2: How bodily reactions are usually addressed

Almost half of the participants (n = 23) did not respond to this question or put N/A as their response, just over two-fifths (n = 21) gave a variety of efforts made to address their bodily reactions to calls, only n = 1 participant 43 responded that “*no, I don’t need any treatment as my body becomes normal after a few minutes”.*

Theme 1: addressing bodily reactions through relaxing, taking some time off to address bodily reactions

“taking a few days off work just for refreshment”.

“absenteeism”.

“slow down and take a breather”.

”try and stay relaxed, try and stay calm”.

” …meet friends ands drink, leisure, … enjoying friends”.

“I deal with the reactions by … or feeling relaxed”.

Theme 2: using social support to address bodily reactions

“I always talk to my shift manager, my neighbor about what is bothering me “

“ to me talking is the way to deal with stress”.

“I deal with the reactions by talking to my colleagues …”.

Theme 3: using religious resources to address bodily reactions

“is to pray and ask God to help you”.

“by calling a priest, …”.

“I cry thereafter I pray”

Theme 4: consulting a medical doctor to address bodily reactions

“ …sometimes I go to see a doctor”.

“consult medical doctor”.

“I deal with the reaction because I go and consult me family doctor because at work no one takes care of us”. This latter response also indicates feelings of being neglected by management or superiors.

Theme 5: self control, ignoring (the incident) to address bodily reactions

"no ways, until I knock off".

"just control yourself".

"let it go by itself, try to control emotions, try to think of something else".

One participant does go for counselling: *"I deal with it by talking to the social worker or my sister",* whilst another participant seems to be concerned about tiredness that is being addressed without any success "*we have been addressing the issue of tiredness, but there is no help".* Although only a few participants have noted tiredness as one of their bodily reactions after traumatic calls, from this response it would seem as if it is a pervasive problem because the respondent seems to be referring to more colleagues within his station. This could be an indicator of compassion fatigue or burnout, which has been identified by many researchers as physical and emotional exhaustion as a result of exposure to highly stressful work over prolonged periods. With reference to biographical information there no significant differences in how participants addressed their bodily reactions to stress.

5.3.4.2 Changing perceptions as a coping strategy

Changing perceptions is a term coined by Rice (1999, p.296) and it simply refers to cognitive restructuring. The most used strategies mentioned by the participants were controlling emotions (n = 25); eliminating bad thoughts (n = 20); humour (n = 17); stop thinking (n = 7) and/or positive thinking. These strategies are part of cognitive restructuring or changing perceptions, which help to change the meaning of an event or change perceptions of the personal adequacy to handle a situation (Rice, 1999). Some participants only cited one strategy as in the following illustrations:

"control emotions"

"humour".

Other participants did not use these strategies were not in isolation, but usually tended to pair them with anyone of the others indicated in the questionnaire. As a whole they included: humour, eliminate bad thoughts, stop thinking and control emotions. The following are a few illustrations of this:

"eliminate bad thoughts, stop thinking, control emotions"

"humour, eliminate bad thoughts, stop thinking, control emotions"

"humour, eliminate bad thoughts, control emotions"

Seven participants did not respond to this question at all, whilst sixteen responded but did not give any explanations at all.

The following are quotes illustrate outcomes when participants use changing perceptions as a coping strategy:

Theme 1: improved emotional state (n = 11)
"helps to give me a better day"
"I always feel better, I feel like a new person".
"the outcome is excellent, and I find work friendly".

Amongst those who gave reasons for using the above strategies, it would seem as if it did not matter whether a participant only used one or a combinations of changing perception strategies, the outcome seems to be positive most of the time.

One participant however only mentioned eliminating bad thoughts and has a negative outcome from his effort: "*it's very bad for me, because I'm not coping*", whilst another participant also responded similarly but gave the following explanation: "*positive thinking is the key to success and helps eliminate stress".*

Category 1: Controlling emotions as a coping strategy

In discussing emotional intelligence, Morrison (2007, p.250) states that it describes as "a form of social intelligence that involves the ability to monitor one's own and other's feelings and emotions, to discriminate among them and to use this information to guide one's thinking and action":\. Controlling emotions was not used in isolation, but in combination with stopping to think or blocking out as a strategy: *if you stop thinking too much …. You know how to control your own emotions'.* In addition stopping to think was also not used in isolation but in combination with eliminating bad thoughts

Category 2: Humour

This is another salient coping strategy that was resorted to. Humour may be a means of restructuring perceptions of stressful events. The Concise Oxford Dictionary (1990, p.575) defines humour as **1(a)** "the condition of being amusing or (less intellectual and more sympathetic than wit), **2** (in full sense humour) the ability to perceive or express humour or take a joke". These above definitions seem to fit the description of humour as expressed by the participants in the

study, as well as the reasons for resorting to it as a coping strategy. Allport as cited by Rice (1999, p.297) argued that “people can reformulate ordinary problems and misfortunes through humour, thereby gaining a new perspective. It also moderates the relation between negative life events and mood disturbances”.

Humour can play a role as an emotion-focused coping response and can moderate the effects of stressful experiences (Lefcourt in Snyder 2001). Allport as cited in Snyder (2001) stated that “the neurotic who learns to laugh at himself may be on the way to self-management, perhaps to cure”. Victor Frankel also cited in Rice (1999) asserted that “to detach oneself from even the worst conditions is a uniquely human capability” and that this distancing of oneself from aversive situations derives “not only through heroism but also through humour”. That a significantly high number of participants (n = 17) use humour as a coping strategy augers well for emergency services as it good to see funny side of things even in the worst of circumstances.

With specific reference to emergency workers, Moran (1998) points out that although humour is a coping strategy often found in extreme environments, it frequently depends on the acceptance of coworkers. The author adds that humour was passed from the experienced to the inexperienced emergency paramedics through observational learning and that a novice learner may also learn through observation not to joke under certain circumstances. Such kinds of responses are usually influenced by the culture of the emergency organisation.

Category 3: Category 4: Stop thinking and eliminating bad thoughts

According to Rice (1999, p. 295) “when we try to completely eliminate a stressor we are using the strategy of *attacking the stressor*, and this involves problem-solving skills, being assertive or using social skills – whatever is applicable to an individual at any given time”. Cognitive restructuring is one method of attacking stressors whereby one examines ones negative self-defeating and self-limiting thought patterns. This method usually needs an outside helper. Stop thinking and eliminating bad thoughts can also be seen as strategies that attack stressors in that they seem to be addressing the negative thoughts that impact individuals negatively. Even though participants have not mentioned receiving outside help in doing this, the researcher assumed that based on their responses they could have or have engaged in these behaviours on their own and seemed to achieve positive results by so doing.

5.3.4.3 Problem-solving as a coping strategy

Problem-solving is the type of adaptation that deals with predicted stresses on a proactive basis (Khanya College, undated). Closely related to problem solving is goal setting especially with regards to choosing an alternative. “Goal setting is an important aspect of every activity (Gates & Wolverton, 2002, p.51). Goals direct people’s attention, help them to monitor their actions and assess periodically whether they are still moving in the intended direction”. Most respondents “*identified the problem”* n = 27 only and then, either combined it with ‘*generate possible outcomes’* n = 14 or ‘*decide on an option’* n = 17 or *“act on the option of choice”* n = 13 and lastly evaluate outcome n = 9. Although a significant number (n = 40) responded to the question, fifteen did not give any reasons for their choice of strategy. Problem identification is part of the *problem-solving strategy*, which is a sequential process whose five steps include: problem identification, generating possible solutions, deciding on an option, acting on the option of choice and lastly evaluating the outcome. Respondents however, tended to tick only one or two or even three of its parts and not necessarily in a sequential order. Regardless of whether participants indicated that they use the whole problem solving process or part of it, most participants who did seemed to have a positive outcome from engaging in the process.

The following are quotes illustrating positive outcomes when participants implement the problem solving process:

Theme 1: better emotional state (n = 17)
“I feel better after that”
“happy like something has been removed”
“feeling of relief”
“ I feel relieved when I have a problem and I identify the problem to anyone I trust”.

Theme 2: neutral reactions (n = 2)
“no solid outcome yet, but trying (?better) in periods, if you know what I mean”.
“good or bad”.

One participant having identified the problem and decided on an option tends to be *“more in control”,* a similar response from another participant is that “*you know what to do and do it in an organised manner”*. Five participants who marked all stages of the process seemed to indicate an understanding of the strategy as a process. Of these one seemed to be in a leadership position, perhaps a shift manager responsible for his crew judging from his response: “*try to share workload and duties between crew, try to take away negative exposure”.*

According to Rice, when we can solve a problem readily, we either experience just a little stress or we experience only challenging stress (1999). “When the solution to the problem eludes us or involves competencies that we do not possess, considerable stress is likely to occur” (Rice, 1999, p.298). Bandura as cited in Rice (1999) suggested that people who believe in their problem-solving ability remain more effective analytic thinkers in difficult situations. Consequently, success in problem solving may feed back to increase self-efficacy. Problem solving can be learnt as a general strategy or it might be specific for specific issues or situations. Kirkham, Schilling, Norelius & Schinke’s problem solving model as cited in Rice (1999) is a step-by-step process. One has to first identify the problem, then list or generate all the possible options, decide on an option, act on the option of choice and lastly evaluate the outcome.

5.3.4.4 Hobbies and Recreational Activities as Coping Strategies

Participants in the study who acknowledged engaging in hobbies as coping strategies mentioned responded as follows: exactly half of them (n = 25) relied on ‘*having a good time with friends’*; slightly below half (n = 22) *“watching movies or DVDs”*; jus over a third (n = 15) mentioned *“running or engaging in a sports game”*, whilst others below a third (n = 13) “*watching sports live”* was their way of coping with stress, and *for twelve participants “reading”* was experienced as helpful. *Playing soccer, playing golf, cycling, listening to music* were other strategies that were specified as activities that are engaged in. Some participants used only one of the hobbies or recreational activity as a coping strategy, whilst others used a combination two and others still used more than two. Only one participant responded as having no hobbies at all. The following quotes illustrate outcomes of engaging in hobbies or recreational activities:

Theme 1: Having hobbies and recreational activities results in positive emotional states (n = 11)

“it gives relieve to me”

“if I go to the gym everything that makes day not to be good, my mind starts to be relieved of all the problems I was facing that day”.

“it is where I get relieved and meet other people”.

Theme 2: Having hobbies and recreational activities help one forget what happened (n = 9)

“helps to keep stress out of things because you focus more on that” (hobbies, etc.)

“well my choices take my mind off things”.

“when I’m watching DVD, let’s say it’s comedy, I will forget every bad thing”.

Theme 3: Having hobbies and recreational activities provides learning opportunities

" …when you're watching movies you see different things and others are coping with the situation".

" .. "I learn different things every time gain experience on the new things that I did not understand"

Other participants had different responses like this unusual one where the participant *"wants to feel the pain" (vertical)*

Another participant sees having hobbies and engaging in recreational activities as simply "entertainment" participants

Whilst another participant engage in recreational activities to "keep fit" participants

For another participant engaging in recreational activities "helps with focus at work"

The term "hobby" is defined by The Oxford Concise Dictionary (1990, p.560) as **1** a favourite leisure-time activities or occupation. Iwasaki, Mannell, Smale & Butcher (2005, p.80) in their study of contributions of leisure participation in predicting stress, coping and health among police and emergency response service workers, state that "leisure can be defined according to what people do (i.e. leisure behaviour) and what people think and feel (leisure experience). When leisure is defined as behaviour, the focus is on the type of activity in which they participate (e.g. sport, social, cultural) or the quantity of participation (e.g. frequency of participation, time and duration)". The definition of leisure as behaviour is also based on the setting or environment in which leisure activities take place (e.g. fitness gyms, wilderness). This form of leisure is concerned with immediate conscious experiences accompanying leisure participation such as enjoyment, emotions and moods.

On the other hand, when leisure is defined as an experience, researchers have focused on (a) mental experiences, and (b) psychological functions, mechanisms or meanings. This form of leisure includes attitudes, beliefs and symbolic meanings associated with leisure. Iwasaki et al (2005) cite Iso-Ahola (1997) according to whom an active leisure style as opposed to a passive one, operates as a buffer against the negative impact of stress to maintain physical and mental health.

With reference to the responses by the participants in the study as well as the emergent themes, leisure can be seen as the behavoiur that they engage in and it includes their thoughts and feelings as well in that for instance resulted in positive emotional states as well as given them learning opportunities, thus enhancing their coping behaviours. When looking at hobbies and recreational activities as coping strategies against the participants' biographical information,

generally no significant differences were found with regard to how the different racial groups engaged in these regardless of age, marital status, years of experience in emergency work and educational level. However, the women who make almost a fifth of the sample were found to have a tendency to choose more sedentary coping strategies like reading, watching DVDs or movies and live sports. Only three were found to engage in active sports, one was young (18 – 25 age range) whilst the other two were older (36 – 45 age range).

5.3.4.5 Tension reduction strategies

This is the most commonly used skill (Rice, 1999). As put by the author tension is a physical warning that that something is wrong, either an event in the environment or someone may be experiencing unresolved internal conflict. Under such conditions tension can prolong stress even after it has been removed and if not addressed, can be eventually harmful. The following are participants' responses regarding tension reduction strategies: almost a third of the participants (n = 13) did not respond to the question; three participants gave "no" as a response; more than half of the participants (n = 29) used prayer for tension reduction; a significantly low number (n = 3) used meditation; three participants ticked "any other similar activity", of whom one participant gave going to the gym to reduce body tension. The latter strategy belongs more to "hobbies and recreational activities" even though it serves to reduce tension for this specific participant.

(i) Category 1: Praying as a coping strategy**:** Praying was the most used personal strategy when looked at as part of the *tension* reducing strategies. Meditation, progressive relaxation and autogenics are other tension reducing strategies as identified by Rice (1999). Tension is a physical warning that something is wrong, meaning that an event in the environment or an unresolved internal conflict has increased physiological arousal to uncomfortable, if not harmful levels. The following quotes illustrating the use of prayer as coping strategy:

Theme 1: feel better or relief or restored (n = 10)

"I always attend night prayer where I speak to God himself. After praying I feel uplifted and different".

"I feel like a new person again, delivered all my burdens to someone else".

"you put your burden on someone else".

"I believe I will feel better".

Theme 2: trust in and help from God (n = 3)

"I pray to myself God will help me one day".

"for anything happening on earth I believe it happens for a reason. For anything beyond my control, God will take control".

"only God knows everything about our lives than anyone else in the world".

One participant seems to get social support by praying with others*: "engaging with churchgoers helps because they open their Bibles and help to pray with you"*. Another participant prays for the enjoyment of the activity *"I'm praying, singing because I'm enjoying going to church*", whilst a third participant simply prays "*as a way of life".* Other participants (n = 2) pray to relax or calm themselves. For instance, another participant prays *"to calm the mind and keep positive"*

Wink & Dillon in Plante & Sherman (2001, p.88) found that "overall, there is strong and compelling evidence that people who have higher levels of religiosity have higher levels of well-being and life satisfaction". Wink & Dillon add that "coping is clearly intertwined with personality differences and social circumstances, yet it is also the case that, trust in God, or openness to spiritual growth experiences can enhance an individual's ability to manage traumatic events" (Plante & Sherman, 2001, p.88). Worthington, Berry & Parrott in Plante & Sherman (2001, p.107) also state that "researchers have begun to describe in context the different reasons why religion might be expected to produce better mental or physical health than might non-religion". These authors give the following three reasons are thought to mediate the connection between religion and health. First, religion promotes a pro-virtue constellation of personality traits which affects health. Second, the social support that comes about through organised religion affects health. Third, religion equips a person to cope more effectively with stress (Plante & Sherman, 2001).

"A spiritual approach can be helpful in restoring hope and acquiring a more balanced view about justice and injustice, safety and danger, good and evil" (Connor, Davidson & Lee, 2003, p.487); and in addition promote positive acts or be restrictive, reducing the likelihood of engaging in high risk behaviours (e.g. promiscuous sex, addictive drugs or smoking) in order to 'keep God's temple pure' (Rice, 1999). The following spiritual beliefs have been identified: (1) the existence of a spiritual being or God (2) the importance of spiritual forces influencing earthly events (3) the existence of a spiritual part of the self after death (4) life having a purpose (5) life having a destiny and (6) the helpfulness of prayer (Connor et al., 2003, p.489) and it has been observed that stronger religious beliefs can lead to greater sense of control, meaning and deeper intimacy (Rice, 1999; Connor et al., 2003, p.487). Religious beliefs also seem to provide a strong, durable sense of personal identity that is not shaken by traumatic events (Rice, 1999).

Connor et al. (2003, p.491) also point out that "the nature of the relationship between religious faith and negative events can be complex: for come individuals religious faith may enhance the ability to cope with negative life events, while for others, negative life events may result in greater religious faith".

(ii) Category 2: Meditation used a tension reduction strategy

Of the three participants who use meditation as a coping strategy, one combines or uses it interchangeably with prayer. The following quotes illustrate the use of meditation as a coping strategy:

" meditation, praying – I feel relaxed and I can find myself".
"meditation – it enables me to get rid of bad thoughts".

Although meditation has its roots in ancient Hindu society (Rice, 1999), the above quotes were made by participants of African origin, showing the diversity of the South African communities as well as the acculturation that has taken place due to this. It is a practice that is seen to lead to spiritual enlightenment, a concentrative method for withdrawing from the world and can help us connect with our inner self. As put by Zohar and Marshall (2004, p.44) meditation is seen as helping us go beyond the level of our "ego awareness where motivations dwell, and tends to put the mind more in touch with the deeper level of values that underlie motivations". In addition the age ranges of the participants was from 18 years right up to 45, their educational level also included grade 12 as well as tertiary level.

5.3.4.6 Structuring as a coping strategy

This refers to "ways in which we assemble and or organise coping resources, then use these resources in anticipation of a stressful event" (Rice, 1999, p.301). just over a third of the participants (n = 19) did not respond to this question, almost half (n = 23) gave "no" as a response. Just over a fifth (n = 7) participants responded to this question giving a variety of what they perceived to be structuring as follows:

One participant relies on organisational resources: *"we have to use back up station, we have specialised personnel to come to help us, we have a good leader".* Another participant actively seeks movies that focus on stress management: *"there are international movies of firemen which are really educational on how to deal with stress".* A different participant seems to rely on family

support: *"buying stuff with the family".* Still another participant engages in a hobby: *"I collect music CDs and listen to music two to three times. It does help a lot".*

Stress inoculation is a way of structuring which is perceived as helpful in preparing for dealing with a stressful situation (Rice, 1999). As it involves receiving small doses of psychosocial threat combined with skills to deal with the threat, it helps in developing resistance to effects of stress to those who are subjected to it. The above quotation about emergency work-related movies seems very appropriate in this instance.

5.3.4.7 Defense mechanisms as coping strategies

Control procedures that usually seek to eliminate unpleasant emotions are referred to as defense mechanisms (Sheppard, 2005). Just under a third of the participants (n = 15) used 'denial or suppression of thoughts' as a defense mechanism. Of those who gave "denial or suppression and avoidance or withdrawal n = 13 did not to give reasons for their choice of strategy. Amongst those who gave reasons, the emergent theme was that of "relief". The following quotes illustrate this:

Two participants simply stated *"relief"* as their responses without giving further explanations. Another participant responded with *"relieved because when I have to think about it, it has already passed in my mind".*

A person may escape mentally through denial or suppression or disengagement (Rice, 1999, p.300, Sheppard, 2005). Denial ignores the stressor and suppression pushes the event deeper into the unconscious. Denial, suppression and disengagement are defenses that constitute a refusal to accept reality for what it is, pretending that the problems had not occurred, avoiding thinking about them, or giving up trying to deal with them (Sheppard, 2005, p.752). Although they are avoidance strategies, they are however cognitive escape routes that can be helpful during life threatening events (Rice, 1999).

The next highest used was intellectualisation n = 10, and lastly n = 9 used 'avoidance or withdrawal', Rice (1999) refers to intellectualisation as an intrapsychic defense which translates feelings into thoughts. It is considered more mature defense mechanism than denial. Feelings that we do not want to deal with immediately are blocked. However if individuals resort to intellectualisation too much, they tend to end up being unable to express their emotions. This then suggests that this defense mechanism is only helpful when used with caution. Avoidance or withdrawal is another coping strategy used to protect against unwanted emotions (Rice, 1999, p.300). It is a strategy that seeks to eliminate stress by physically or mentally leaving the scene.

When used to the extreme it can have negative effects like interfering with effective stress management, or result in lowered self-esteem.

Half of the participants (n = 25) did not answer this section of the questionnaire at all.

Only one participant indicated more in control when using this strategy.

5.3.4.8 Self-medication as a coping strategy

This refers to using alcohol, tranquilisers and other drugs to reduce the arousal or blunt the effects of stress (Rice, 1999, p.301). Just over two thirds n = 34 of the participants responded with 'no' to this question, suggesting that a good number of participants do not self-medicate to cope. Almost a third of participants (n = 12) use of alcohol as a self-medication as compared to the use of tranquilisers by two participants. None of the participants responded to using drugs. Participants who admitted to using alcohol also acknowledged that it only helped in the short-term, even though it would seem they still continued to rely on it as a coping strategy:

(i) Category 1: The use of alcohol by participants as a coping strategy

The following are quotes illustrating the use of alcohol (n = 12)

Theme 1: offers temporary relief
"alcohol, it relieves stress temporarily".
"drinking only helps - then after everything comes back as if you have created more problems than you had before"
"alcohol, relieves for time being"
"alcohol …. nothing changed because I still have that picture"
"alcohol, it relieves for that moment"

Only one respondent mentioned using tranquilisers but did allude to the need for alcohol: *'tranquilisers, some of the stressful jobs we do, you feel as if you can take alcohol or drug'*

Scurfield, Viola, Platoni and Colon (2003) warn against self-medication with alcohol or other substances, regardless of whether they are they illicit, recreational or prescriptive as they can become a dangerous and risky avenue for the temporary relief of symptoms. Rice (1999, p.117) seems to concur with the previous authors when he states that "drinking is related to a variety of stress-reduction and escape behaviours that are indicative of ineffective coping skills. Drinking also tends to increase or decrease relative to the amount of stress experienced". In a study of

coping functioning and adjustment of rescue workers after the Oklahoma City bombing, there was concern when drinking was found to be the second most frequently used coping strategy (North et al., 2002). Several authors are in agreement that reliance on alcohol as a coping strategy can be addictive (Oosthuizen, 2004; Rice, 1999). In the present study, the similarity is that alcohol is also relied upon as a coping strategy by quite a significant number of participants (n = 12). Although it may be helpful initially, it is seen as a negative coping effort (Rice, 1999). As established by North et al. (2002) drinking to cope and using alcohol post-disaster were significantly associated with indicators of poorer functioning.

5.3.4.9 Perceived most Effective and Least Effective Coping Strategies,

(i) Perceived Most Effective Coping Strategies

The following table illustrates the most effective coping strategies as perceived by the participants:

Table 5.8 Perceived most effective coping strategies (N = 50)

Themes	Quotes illustrating perceived most effective strategies	Number of participants
Theme 1: social and emotional support	"hanging around people and have a good time, talking about that trauma to friends" " I communicate with my colleagues". " sharing your experience". "asking for help so that you can talk about what will make you feel better". "speak to someone you love and trust, "talking to friends .." " talk to friends, talk to colleagues …"	16
Theme 2: hobbies and recreational activities	"…play sport". "going to the gym, listening to music" "watching movies, sports, gym, playing games". " watching DVDs, running, …"	11
Theme 3: Spiritual and religious activities	" ….going to church…" "praying, God helps a lot to answer your problem". "…speak to a priest or pastor, DON'T COMMIT SUICIDE!". : " …read the Bible makes me relax .." "…going to church".	7
Theme 4: alcohol and/or tranquilisers	" ..a few drinks". "alcohol, it gives enjoyment, tranqilisers suppress the mind or nerves". " … alcohol"	5

Theme 5: do not think about the trauma	"just forget about everything…" "don't think about the scene too much" "ignore, ….. forget"	4

Regarding the most effective coping strategies just over a third (n = 18) participants did not respond to the question, sixteen seemed to rely on social support, just over a fifth (n = 7) saw religious practices as effective strategies and jus over two fifths (n = 11) resorted to hobbies and recreational activities.

(ii) Perceived least effective coping strategies

Almost two thirds of the participants (n = 29) did not respond to the question. Of those who responded, most simply gave one-worded responses as e.g. alcohol, without any further explanation. Some participants had negative experiences with activities that are traditionally found to be helpful as illustrated by the following quotes:

"*going to counselling, I find it useless …"*
"*sharing with colleagues"*
"church

To understand this phenomenon it would have been necessary to probe further. This was however not possible due to the nature of the tool used, namely the questionnaire.

For two participants it is "*watching TV or movies, sports, gym, playing soccer"*

Six participants cited alcohol and drugs, as follows:

"*drinking alcohol, taking drugs doesn't solve problems".*
"alcohol and drugs"
"drinking"

Lack of emotional control was experienced as unhelpful by three participants:
"to be aggressive, to be unpleasant"
"crying, …"

as being ineffective. These findings confirm those of previous studies. In addition, keeping silent, sharing with colleagues, expressing negative emotions like aggression were also experienced as unhelpful coping strategies by some participants.

5.3.4.10 Additional comments

Half of he participants did not offer any additional comments on the subject under study. Of those who responded most indicated (i) the role of management, (ii) inadequate counselling services (iii) the need for the employer to provide employee wellness resources and (iv) the need for more resources (human and physical).

There were recommendations related to management issues, as support from supervisors and station managers was perceived to be poor by n = 10 participants. Participants' perceptions of "being abandoned, not being cared for or listened to" by senior management came out very strongly. By not communicating with staff on the ground, management was also perceived as not understanding the kind of work emergency service workers do.

Theme 1: Management not in touch with issues on the ground (n = 10)
"we wish our employer will look after their employees and start have a feeling of what we get on the road to help us"

"I wish our management can understand that our job is very important. No matter many people take our job for granted, even though we lay a complaint to them, they also take it for granted"

"management to take what junior (staff) are complaining about and adhere to it, as the people on the ground are the ones who experience outside (events) problems"

"PERSONALLY (capital's are respondent's) in the field that I am in, I found the TOP management don't know how to run/manage…… Management must get the feeling of the ground floor people that are doing the Ekurhuleni name"

…Ekurhuleni so selfish. Ekurhuleni doesn't care about the fire fighters".

The above quotes illustrate the perceptions participants have of their management officials, which seem to suggest that there is no communication between top management and staff. If there is communication, it appears not to be effective in that it is not conveying the messages that need to be heard by both parties. Alternatively, it could be from experiences of some participants who at the scene of the accident found focus being given to families of victims and not to the employees. This is an unfortunate situation as from the telephonic consultations the researcher had with meeting organisation's Director, as well as a meeting with its Chief Executive Officer and Regional Managers management's concern for the workplace challenges faced by their

employees came out very strongly. Emerging from these discussions for the researcher was also the sense that management fully understood the nature of those challenges and were compassionate towards the employees.

The legacy of apartheid has not been forgotten by one of the participants as illustrated by the following quote:

" …..I feel like apartheid in reverse and position …"

Those participants who perceived need for more counselling services put it as follows:

Theme 2: Counselling services not adequate and/or visible enough (n = 8)

"I think psychiatric professionals should visit the stations every after two or three months, so that people can relate with them and know that they are out there"

'we need counselling after traumatic incidents, we need chaplains"

"*I would prefer that counselling should be available and be accessible"*

"counsellors are very important as some of the colleagues especially ladies are deeply stressed with tragic incidents"

"*please help them so that they can cope with work stress because they are very important people to the community's safety and community life".*

"sometimes it is not easy to feel stressed and the need for interventions as people in the service because we tend to develop an 'immune' system that shuts out from the reality. It may sometimes take an outsider to notice that something is not right. It might therefore help if the service could have non-emergency services personnel constantly monitoring so that they pick up abnormalities which we ourselves may tend to regard as normal"

There was a strong perception by some participants that management must play a more active or prominent role in looking after its staff's emotional and psychological needs especially after experiencing traumatic calls. The following quotes illustrate participants' expectations of management's role:

Theme 3: Management has to provide employee wellness resources (n = 7)

"Ekurhuleni must give (provide) traditional healers"

"I think there must be some medication or drugs that might be used by paramedics often when they are reporting for duty to take away the pain that can be caused by traumatic situations"

"after the trauma call our management must organise chaplains to do praying or counseling sessions

"management should be responsible for personnel especially when it comes to people who can assist personnel, because we are not the same"

"…if like other metros you send us chaplains one a week, add more ambulances especially in the townships where there are possibilities of shacks (informal settlements) mushrooming, counseling must be compulsory"

"the management of Ekurhuleni must give most of or every resource we need"

"Ekurhuleni must take care of the fire fighters because they also work in the community

There was an expectation that management should take more responsibility for its employees in view of the importance of the work they do.

Theme 4: Provide resources adequate (human or physical) for the job (n = 4)

" …add more ambulances, especially in the townships where informal settlements tend to mushroom"

"please employ more qualified experienced people who feel to do the job for what it is and not for the money"

"the city of Ekurhuleni must give most of every resource we need".

"management must supply us with adequate resources to be able to cope with the difficult job we are doing".

Studies in South Africa two broad categories of occupational stressors identified in policing, first involve organisational aspects of police work, such as lack of confidence in the management and

lack of internal communication by (Pienaar Rothmann & van de Vijver, 2007, p.248). Secondly, the nature of police work such as physical threat, force, exposure to danger, facing the unknown and shift work. In addition, financial pressure, working conditions, lack of support systems were other organisational factors that contributed to stress in the South African Police Service. With reference to the above quotes, Pienaar et al.'s (2007) findings are significant in this study as the results seem to suggest that to a certain extent the Ekurhuleni emergency service employees are also exposed to similar circumstances in that (i) they perceive their resources as inadequate which (ii) inadvertently impacts negatively on their working conditions and that (iii) management is not being adequately supportive.

Another significant issue is that of the past apartheid era, even though mentioned by one participant in the present study. Apartheid was experienced very negatively by most South Africans in almost all spheres of their lives. With special reference to policing in South Africa, Pienaar, et al.'s (2007, p.247) state that

> since the dissolution of apartheid in 1994, most state departments and state-funded organisations, including the police, have undergone major transformation. These changes often involve the implementation of the employment equity policy and organisational restructuring have affected the internal solidarity of employees; former political enemies may have become work colleagues

5.3.5 Resiliency and posttraumatic growth

Responses indicating some kind of resilience tended to come under the categories of "how participants usually cope", "workplace counselling services" in particular, and sometimes when participants had to explain their "understanding of the term coping". For instance the following quotes illustrate participants' understanding of the term "coping":

"I do not have much stress as I'm used to the conditions we work under"

"I do tell myself that I am at work. Stress is there, let me not nurse it"

"I've been in the service for more than 30 years and I'm used to the work. When I started I thought that EMS employees had some injection"

For one of the above participants "coping" means *"dealing with circumstances or a situation whether difficult or not without being affected.* To cope the participant usually "needs to talk about it or tell somebody *"If I talk for me it's to let go".*

"Resilience is usually used to describe individuals who adapt to extraordinary circumstances, achieving positive and unexpected outcomes in the face of adversity" (Fraser, Richman & Galinsky, 1999, p.136). It refers to an ability to overcome high loads of stressful events (Agaibi & Wilson, 2005, p.197). Children who grow up under adverse environmental conditions like: poverty, conditions of cultural deprivation, malfunctioning families seem to have a self=righting capacity, an ability to respond with resourcefulness and tenacity when confronted with untoward challenges. Calhoun and Tedeschi (2000) as cited in Butler et al. (2005, p.247) noted that 'traumatic events confront us with challenges that require us to come to terms with what happened, make the experience manageable and comprehensible, as well as find meaning in the tragedy so that we can be helped to assimilate the experience into our personal narratives'.

Calhoun & Tedeschi (2000) in Butler et al. (2005, p.248) have gone beyond resilience to find 'positive change that an individual experiences as a result of the struggle with a traumatic event which they have termed *posttraumatic growth*. As compared to resilience, in which the individual returns to baseline functioning following highly stressful or traumatic experience, posttraumatic growth is characterised by post-event adaptation that exceeds pre-event levels'.

Reading these in the context of each individual response, one get tends to a sense of the development of resilience as none of the participants, regardless of their frustrations at times has mentioned considering or wanting to leave the job at any point. Instead many have joked and said one must be out of their mind to stay in such a job, and even expressed pride in doing what they are. This finding seems to suggest issues of work engagement which refers to a positive, fulfilling work-related state of mind that is characterised by vigour, dedication and absortion (van der Colff & Rothmann, 2009). In another study Rothmann cites studies that found that even when exposed to high job demands and working long hours, some individuals do not show symptoms of disengagement.

5.4 CONCLUSION

From the biographical information there were varied age groups, marital statuses, educational levels, experience in emergency work, as well as varied qualification in specific emergency work training. Respondents were mostly male and African. The responses were quite varied ranging from those who seemed to be coping relatively well and perceived personal and workplace resources to be adequate, to those who found coping very challenging. Informal resources tended to be the relied on the most and were found to be effective, whilst the workplace was generally perceived as lacking resources. A few responses were ambiguous, indicating either a lack of understanding of the question or its lack of clarity for the individual participant.

Management was perceived as not taking enough responsibility for its workers. Relatively very few participants relied on resources outside the workplace. Those that did, relied on their medical or family doctors, social workers, psychologists, priests, and only one participant mentioned reliance on a traditional healer. Most salient themes that emerged as coping resources and strategies that emerged, especially from words and phrase, were social support from peers and family with whom participants talked and shared; as well as personal strategies some of which included praying, the use of defence mechanism, engaging in recreational activities and hobbies.

As the study was descriptive from the findings there is opportunity for more in-depth using relevant methodologies like ethnography or triangulation, that can elicit more knowledge on this topic.

The following chapter will discuss the main findings regarding the coping strategies and resources used by the participants in the study, as well make recommendations for practice and research.

CHAPTER 6

SUMMARY OF THE MAIN FINDINGS AND RECOMMENDATIONS

6.1 SUMMARY OF THE STUDY

The study focused on the main formal and informal coping strategies of emergency service employees. The Ekurhuleni Emergency Services employees were specifically chosen as the population from which sampling would be done for this purpose. The findings of the study support those of previous studies that 'emergency workers, such as firefighters and critical care assistants must cope with extraordinary and persistent occupational demands that are potentially cumulative' (Beaton, Murphy, Johnson, Pike & Corneil, 1999, p.293), as well as on individual differences in coping resources and strategies that may be used.

This chapter will discuss the main findings, secondary objectives and conclusions that emanate from the research, and how they relate to the literature reviewed. Further more recommendations will be with made with regard to practice and research.

6.2 MAIN FINDINGS

The overall purpose of the study was to explore Ekurhuleni Emergency Services employees' perceptions of coping strategies that work best for them and those that do not. The main findings will be presented in term of the primary aim of the study which was to describe the Ekurhuleni Emergency Services employees' perception of their coping strategies, broken into its secondary objectives and will be answered in terms of the secondary objectives, which are:

(i) To gain an understanding of the nature of coping strategies used by the Ekurhuleni Emergency Services employees

(ii) To establish the extent to which these coping strategies are used by the Ekurhuleni Emergency Services employees

(iii) T o describe the outcomes, effective or not of these coping resources and strategies.

In addition, the findings regarding the first and second objectives will be integrated into the discussion instead of being addressed separately.

Several coping resources and strategies emerged regarding the coping strategies used by the participants before during and after attending to a traumatic call or incident. These can be divided in to two main themes: (a) the reliance on peers and family and (b) personal strategies which include prayer and religious activities, hobbies and recreational activities, changing perceptions or cognitive restructuring, problem-solving and defense mechanisms. Reliance on peers and family is a form of social support that is informal, whilst personal strategies are coping behaviours that may be external or internal. Prayers and hobbies although classified as personal strategies mainly rely on social interaction and will there de discussed under social support. These findings relate to the nature of the coping answers the first secondary objective.

6.2.1 Social Support

In many studies social support has emerged as a major resource for effective coping, especially if it is used in combination with other coping efforts. In the present study peers refer to colleagues of the employees of the Ekurhuleni Emergency Services. A significantly high number of participants relied very highly on both peers and family for social and emotional support and have experienced them as helpful. Talking was main way of coping, through which various kinds of work experiences were shared, especially traumatic calls like pedestrian vehicle accidents, bad fire accidents, etc. The participants did not share equally with both parties. With peers participants tended to share much more than they do with family for various reasons, including comfort with peers because they have been exposed to the same events or incidents and be in a better position to understand. For instance when one participant witnessed birthing for the first time the experience was quite traumatic, in the participants words "*scary*". The participant shared this experience with colleagues and not with family as it could have been embarrassing. As put by one participant: *"It gives one the notion that, we are in this together as mostly its similar experiences"*

The benefits of social and emotional support received from peers were in the form of training, skills and knowledge transference, decision-making. Participants could amongst other things block out memories of traumatic events, correct mistakes, and were motivated to the extent that their service delivery was enhanced. Knowledge gained empowered participants to disseminate information gained further within their colleagues as well as their own families. What has also been consistent with the above finding of high the social support experienced by some participants, is that slightly more than half of the participants also reported that they have never been disappointed when they shared their experiences with their colleagues. They actually treat one another as family as illustrated by the following quote:

"my colleagues are my brothers and sisters. If I'm at the work premises I know that I am safe. Whatever problems I've got they are my advisors"

Social support from family members was utilised to varying degrees most participants in the study. About a third of the participants depended heavily on one family member especially spousal partners for emotional support as evidenced by this quote "*my wife, she really understands the situation and understands how hard our kind of job is".* In addition, quite a significantly high number depended on two or more family members for social and emotional support. For instance one participant depended on his wife, mother, father, brother and sister, whilst two participants who have been long in the job also included their children as support systems. As indicated above, although reliance on family was also high, participants were selective to varying degrees in what they shared with the different members of their family members, particularly to protect them from experiencing tertiary trauma as some of the trauma participants have been exposed to has been perceived as too horrific to share with anyone outside the emergency services profession, as well as for professional reasons. Some of the quotes that illustrate this are as follows:

"no, because when I share with colleagues I can talk about everything, but with family members I can choose not to say everything because some of them are too sensitive like my mother"

When children in particular were included in the discussions, as well as mothers, brothers and sisters, the purpose was usually to disseminate information on life's lessons, so that they should not take life for granted, as illustrated by the following quote:

"only interesting and dangerous incidents so they can learn something"

These findings supports findings in previous studies where family and organisational support were found to be central in normalising rescuers and emergency workers after experiencing traumatic events (Ursano, Fullerton & McCaughey, 1994). When sensitivity and caring are shown by both the family and the primary work group, emergency workers are more likely to verbalise their feelings regarding what they have seen and done. It must be noted however that peer and family support were negatively experienced by some participants. Previous studies have also found that in some instances spousal support is not always experienced positively (Ursano et al., 1994), with some disasters workers being required by their spouses to take off their clothes before entering the common home, to the extent that some emergency service personnel have altogether stopped sharing any of their work experiences with their spouses. In the present study this is illustrated by the following quote:

"yes, I don't want them to say in future when I do something wrong, that it is because I am traumatised by what I'm seeing at work or that I'm beginning to lose my mind"

Just less than a third of the participants perceived support received from colleagues as being similar to that experienced with family. In fact one participant perceives colleagues as family members as illustrated by this quote:

"yes both environments are equally supportive"

Prayer and *religious activities* are tension reduction personal strategies that according to literature can also be classified as part of social support. Although individuals tend to go to church to pray as a group, there are those individuals who have developed their praying habits or spirituality to the extent they pray on their own on a regular basis. For some participants it has been a way of life, how they have been socialised. With one participant in particular this comes out very strongly, especially when does a vertical analysis of his responses. This participant seems to rely to a large extent on social support in that the participant needs to talk about stressful and traumatic incidents with colleagues and family in order to be relieved of the effects of the stressor or trauma, does not use formal counselling services because the participant does not believe in them but in the self and when stressed or traumatised he just goes to church or sometimes follow the way he was brought up as a child. This helps the participant because has been doing it for a long time.

Hobbies and *recreational activities* seem to be the next most used personal coping strategies used. Half of the participants responded to "having a good time with friends" and this rated as the highest with regard to number of participants. Spending time with friends is another form of social involvement and can also be seen as a form of social support. This was followed by closely by watching moving and then watching live sports. Leisure activities have been to be very beneficial in relieving stress and help to keep people fit. One can engage in leisure activities as an individual but also in a group with other similarly inclined people. In the present study findings included: going to the gym, running or engaging in a sports game, reading, having a good time with friends, watching movies and DVDs and watching live sports.

Benefits of engaging in sports included: finding relief from problems, keep stress out, making them forget or not to think too much about every bad thing, helps in putting ones own problems and challenges in perspective, supports mind growth, etc. Leisure is therefore engaged in as an activity and in terms of thoughts and feelings participants in the study. A significant finding

amongst participants in the present study was that women tended to engage more in sedentary recreational activities like reading, watching movies and DVDs, whilst theme engaged in more active activities like running, playing soccer, going to the gym, etc.

An interesting response from one participant was *"wanting to feel the pain and enjoying the fresh air".* This participant runs and engages in a sports game. As the questionnaire was the only tool used for obtaining responses, the researcher could not probe this response further to explore how feeling the pain when engaging in these hobbies after a stressful or traumatic event affect this particular participant.

6.2.2 Personal Strategies

The following were personal coping styles and strategies that emerged as those being used quite often by participants: prayer and religious activities, hobbies and recreational activities, cognitive restructuring (changing perception), defense mechanisms, problem-solving and stress monitoring.

6.2.2.1 ***Cognitive restructuring/changing perceptions:*** This is another highly used personal strategy. Half of the participants tended to control their emotions, whilst two thirds resort to eliminating bad thoughts and just a third use humour to manage distressing thoughts. This strategy includes humour, eliminating bad thoughts, controlling emotions or not thinking at all. It also involves re-interpreting a stressful situation more positively and in literature it is classified as a kind of emotion focused-coping which is aimed at managing distressing emotions rather than deal with the stressor itself (Collins, 2007). Benefits of this for participants have been to cope with the day ahead, a clear mind, feeling better and restored. A quote from one participant illustrates this as follows: *"I always feel better, I feel like a new person"* after eliminating bad thoughts. This may be interpreted as Morrison's (2007) argument about emotional intelligence which the authors sees as the ability to monitor one's and other's emotions so as to evaluate these and use resultant information to guide one's thinking and actions.

Given the nature of their work, previous studies have also found this to be the typical behaviour so that the challenges being faced at any moment can be professionally handled. With reference to other caring professions like social work, it is a requirement that those professionals restrain from emotional involvement with the clients they are attending to. This response unfortunately seems counter productive when participants apply it to their colleagues as they feel shut and perceive this as individuals trying to be brave, especially when they seek support through the need to discuss traumatic events. There was no significant differences with regard to how the

participants of different ages, gender, marital status, educational level and experience in emergency work. In addition, some participants only used behaviours mentioned like humour or eliminating bad thoughts, whilst others used a combination of the behaviours like eliminating bad thoughts, stop thinking and controlling emotions in order to avoid flashbacks.

6.2.2.2 ***Defense mechanisms:*** These include denial or suppression, intellectualisation (i.e. translating feelings into thoughts), and avoidance and withdrawal. Almost a third of the participants use denial and suppression to deal with stressful or traumatic events. Denial and suppression as well as avoidance and withdrawal have been found to be beneficial if not used extensively. As put by one participant who seems to focus at the situation at hand and uses this strategy *"it is work, you have to carry on, carry others"*. Although helpful at times, denial may be self-defeating, as well as prevent healthy coping in that it tends to ignore the stressor. In one study (Moran, 1998) the researcher, however points out that if emergency workers are not focusing on the horror of training a situation, this does not necessarily mean they are using denial. This could just be another way of putting information out of one's mind and may involve conscious or unconscious mental processes. Suppression on the other hand tends to push the stressful even further into the unconscious. This strategy too although in some studies it was found to be dysfunctional, other studies have perceived it as healthy and conscious defensive style. Intellectualisation is process that translates feelings into thoughts and tends to block out those feelings we do not want to deal with immediately. Two fifths of the participants used this strategy of coping. Avoidance and withdrawal were resorted to just under a fifth of the participants. This strategy is used when people want to avoid dealing with unwanted emotions or stressful situations. An individual may leave stressful scene physical or mentally and this may be beneficial in the short term only. One participant who uses this strategy responded that *"I deal with it at home",* suggesting that he merely postpones addressing the stressor.

6.2.2.3 ***Problem-solving:*** This strategy is made up of five sequential stages. Participants however tended to choose an aspect or two or three even four of the stages, instead of all. Only five participants chose all the stages. For instance for those who chose *"identify the problem"* only (n = 10), some have experienced a feeling of relief – *"feel happy like something has been removed"* - having just done that. One cannot fathom how these participants end up feeling relieved without having done anything about the identified problem. Others have for instance only *"decided on an option"* (n = 5). Again here one cannot decide on an option without being confronted with choices from which to choose that option from. These choices then seem to suggest that participants do not have a theoretical background about the strategy, but tend to use it anyway. The researcher is the opinion that if participants and their colleagues would be made consciously aware of the sequential stages of this strategy, and the fact that they are

implementing its stages unconsciously, they would feel more in control in their coping efforts, because the last stage of this strategy entails evaluating the outcome.

6.2.2.4 ***Stress monitoring:*** a significant number of the participants, almost two fifths, is aware of their bodily reactions before, during and after emergency calls. In addition these participants do have ways of addressing their bodily reactions stress by consciously engaging in behaviours or strategies like talking, praying, being with friends, not going to work, consulting a doctor, etc, - with positive outcomes for the users as illustrated by the following quotes: *"taking a few days off work just for refreshment"* or *"absenteeism".*

This strategy has a lot to do with self-awareness which can be very helpful in empowering individuals to take responsibility for issues affecting them directly in their total life experiences including stress. Self-awareness tends to be taken for granted as people go through their everyday life experiences, alternatively behaviours and or strategies that have been helpful were engaged in unconsciously.

The following are personal coping strategies that were used to a lesser extent included: stress monitoring, self-medication and structuring.

6.2.2.5 ***Self-medication:*** Alcohol and tranquilisers have been identified as a self-medication measures, as well as coping strategies by participants in the present study. That some participants also used alcohol as a way of coping is a cause for concern as a lot of studies have established the ill effects of alcohol use and abuse and have identified it as a dysfunctional coping strategy that is resorted to by emergency service personnel in concerningly high numbers (Ursano, McCaughey & Fullerton, 1994; North et al., 2002). Further, some studies have also found that prescriptive drugs are also overused or abused, to the detriment of the user. What has been positive however about the participants who self-medicate with alcohol in particular was that, they were very much aware of its short-term anaesthetic effect which brought temporary relief and the fact that it was not serving their best interests. In addition, relative to the total participants in study, their number of those who resort to alcohol (twelve) and only those who use tranquilsers (two) although not insignificant, is small.

6.2.2.6 ***Structuring:*** Only just above a fifth (n = 7) of the participants responded with a *"yes"* to this part of the questionnaire, otherwise almost half of the participants (n = 22) responded with a "no" and gave no reasons whilst nineteen did not respond at all. This strategy includes ways in which we assemble or organise coping resources and then use them in anticipation of a stressful event. Stress inoculation whereby individuals are subjected to low doses of stress so that they

may develop some form of resilience when confronted with a similar situation is one such method. Given the fact that most of the participants have received a fair amount of training specifically in emergency service work, the researcher assumes that they do know about structuring or stress inoculation. If used the researcher is of the opinion that this strategy could very useful in managing stress levels of these emergency service employees.

6.2.3 Counselling services

These are part of formal social support resources and include the use of professionals like psychologists, social workers, priests, medical or family doctors. They may be part of the working environment of employees or be as independent agents in the communities. These professionals were the least resorted to by only a fifth of the participants, who also experienced them as helpful.

The findings of the study were that although about two thirds (n = 30) of the participants were aware of the existence of ***workplace counselling*** services, only just less than a fifth (n = 9) made use of workplace resources. In addition, the researcher realised after receiving the completed questionnaires in batches from the various stations that, some batches that followed one another chronologically tended to have similar responses with regard to the availability of workplace resources be they negative or positive. From this tendency the researcher assumed that those questionnaires with similar responses could have been from the same station. This observation seems to suggest that some stations were either better resourced or organised than others, or that station managers had management different styles.

Almost a third of the participants (n = 14) used ***counselling services outside the workplace***. These participants consulted various practitioners including traditional healers, social workers, psychologists, priests, chaplains and medical doctors. Although this is a number, it is still significantly less when the whole sample is considered.

The above findings seem to suggest that although there are individual differences in responses, in the use of informal and formal social support strategies, formal resources are used to a very minimal extent by participants in the study. This in line with findings in prior research focusing in similar studies (North et al., 2002) where emergency service employees avoided using formal resources, even when they were provided outside the working environment for confidentiality purposes.

6.2.4 Helpful and unhelpful coping strategies and resources.

6.2.4.1 ***Participants' perceived helpful coping resources and strategies*****:** From participants' responses social and emotional support still comes out very strongly as the strategy found to be most beneficial, with family and colleagues being experienced as the most effective coping strategies. These findings are in line with findings in the present study and also confirm findings in previous ones.

6.2.4.2 ***Participants' perceived dysfunctional coping resources and strategies:*** Although alcohol and tranquilisers were also perceived as helpful, those participants who used it were also aware of its negative effects. Thinking about the incident and flashbacks was also found not helpful. This seems to highlight the benefits of cognitive restructuring. Loss of emotional control through being aggressive and unpleasant to others was also identified as dysfunctional. These findings again confirm findings in previous studies where emotional control does help in getting the job done and perhaps in self-awareness as well.

It was also interesting to note that some participants have identified some strategies that are traditionally found to be helpful like: counselling, sports, gym, playing soccer, sleeping and watching movies as dysfunctional coping strategies, whilst literature and a significantly high number of participants in the study have these strategies beneficial. This finding suggests that a combination of strategies may be more beneficial to these participants. However it would be important to assess the each individual participant in order to accommodate individu8la differences in the use and effectiveness of coping strategies.

6.2.5 Organisational Issues

Almost half of the participants (n = 24) who responded to aspect of comments in the questionnaire, themes that emerged mainly tended to address issues to related to perceived management functions.

6.2.5.1 ***Management not in touch with issues on the ground*** in that participants were of the opinion that their employer was not looking after its employees, did not take them seriously or took their job for granted whilst they perceived it as very important, did not have an insight into what their job entails, complaints from junior employees are not addressed.

"PERSONALLY (capital's are respondent's) in the field that I am in, I found the TOP management don't know how to run/manage. I feel like apartheid that is in reverse appearance and position. Management must get the feeling of the ground floor people that are doing the Ekurhuleni name"

The above quote illustrates the perceptions participants have of their management officials, which seem to suggest that there is no communication between top management and staff. This is an unfortunate situation as, from the telephonic consultations the researcher had with meeting organisation's Director as well as its Chief Executive Officer and Regional Managers respectively, the researcher got the sense that there was an in-depth understanding of the challenges as well as resultant stress and trauma related disorders that their employees were faced with, and there was a genuine intention to address these as these employees were perceived as highly valuable and committed to their work.

6.2.5.2 ***Inadequate resources (personal and work-related)*****:** A need for the provision of resources (human or physical) as well as counselling services, including traditional healers for those who use this resource was expressed. Although the Ekurhuleni Emergency Services does provide the service of Chaplaincy to render emotional and spiritual counselling to the employees, it would seem as if this is not perceived as a provision by the employer as some participants have mentioned it as a counselling resource that was outside the workplace. Those who are aware that it is the employer's provision have experienced it as inadequate.

"…if like other metros you send us chaplains one a week, add more ambulances especially in the townships where there are possibilities of shacks (informal settlements) mushrooming, counselling must be compulsory"

Other participants expressed a need for the provision of medication or drugs *"that might be used by paramedics often when they are reporting for duty to take away the pain that can be caused by traumatic situations"*

The above findings confirm findings in previous studies where causes of stress amongst emergency service employees included organisational issues (human and physical resources), management styles, ineffective communication and personal coping styles (Du Toit,1997; Naudé, 2002; Nkosi, 2002; Pienaar, Rothmann & van der Vijver, 2007).

6.3 CONCLUSION

The findings from the present study have confirmed what has been established by other researchers with regard to coping in general, and coping with specific reference to emergency service employees. In essence the participants in the study used a variety of coping resources and strategies, and there were individual differences in the use of coping strategies and resources. However, social support from family and colleagues was used to a very great extent by more than fifty percent of the participants, to the extent that some participants the workplace can be perceived as a second home in that, colleagues are experienced as family. In addition, personal strategies like cognitive restructuring, problem-solving, defense mechanisms, that used to a significantly great extent by participants in the study.

The strategies used by participants as a whole can be categorised into problem-focused and emotion-focused. Participants' problem-focused strategies were included in their social support networks a lot as talking to both family and colleagues, learning different skills and the use of equipment from other colleagues, etc. emotion-focused strategies included defense mechanisms, humour, and hobbies and recreational activities. Problem-focused strategies were the ones that were prominently used as opposed to emotion-focused strategies. The latter is also confirmed by previous studies in that emergency workers, especially fire fighters tended to use more problem-focused strategies (Moran, 1998). From the foregoing discussion, the researcher would like to conclude that the majority of participants rely more on informal resources.

With due regard to personal variables of the participants as those described under biographical information, the finding was that there were no significant differences in how men and women coped with special reference to their racial groupings, age, gender, marital status. Years of experience in emergency work, educational levels and specific emergency work training tended to impact positively on the participants' coping strategies, with dysfunctional strategies being used to a lesser extent as opposed to functional strategies as confirmed by previous studies.

6.4 RECOMMENDATIONS

6.4.1 For Practice

(a) As a significant number of participants from the Ekurhuleni Emergency Services were either not aware of available services, available but awareness low, more promotion or marketing of the services should be done.

(b) Leave benefits where possible to be structured in such a way that employees are not tempted to resort to absenteeism, especially if their intentions are good as when they want to address their stress levels. Although beneficial to the individual short term, absenteeism tends to have a negative connotation in that it tends to imply that an employee will absent him/herself without reporting to anyone and may inconvenience the working arranging through staff shortage and thus earn the employee a negative record at work.

(c) Restructure available employee wellness resources to ensure equal distribution of Employee Assistance prorammes at all fire stations, alternatively, ensuring that station and shift managers are equally trained and resourced in order to be in a position to look after their better. In addition, where chaplains are assigned to an accident scene, they should be requested to make a concerted effort to enquire about the psychological and emotional states of individuals in the emergency response team at the scene of the incident at any given time.

(d) An annual review of workplace resources in terms of equipment, especially ambulances to be done in a transparent way. Employees could be invited to make an input in this regard so that they can understand how resources are allocated as well as budgetary constraints related to such allocations if any.

(e) As employees tended to perceive their wellness as the employer's responsibility, a life skills programme should be introduced where individual employees can be empowered to take personal responsibility for their own wellness at minimal cost to themselves, seeing that the issue of affording the costs of professionals has been expressed as a challenge for some employees. That, for instance, a coping strategy as *"not talking*" has been identified as dysfunctional by the emergency workers themselves, training in life skills like assertiveness for instance, can assist employees to be self-aware when they become at risk for depression and suicide and implement preventative measures themselves before it is too late.

(f) It would be helpful if training emergency services employees could include topics on clinical disorders and related symptoms, as this training can also help them recognise any similar symptoms and their implications in themselves, as well as address these timeously.

6.4.2 For Research

Literature has indicated that family and work do have an impact on each other, either as family-work conflict or work-family conflict even amongst emergency service employees (Du Toit, 2002; Frone, 2002; Ursano, Fullerton & McCaughey, 1994). Although in the present study, most

participants reported positively about their perception of family as a support system, there were some participants who did not experience family similarly, to the extent that they avoid talking about their work issues with their families. With specific reference to the Ekurhuleni Emergency Services employees implications of family-work interface could be explored.

6.5 CONCLUDING COMMENTS

A lot of studies have given focus to the negative impact of stress and trauma that emergency service employees are usually exposed to in their day to day work. The overall purpose of the study was to describe the coping strategies of the Ekurhuleni Emergency Services employees, which would addressed in terms of the study's secondary objectives. The first objective was to gain an understanding of the nature of the coping strategies used by the Ekurhuleni Emergency Service employees. Results of the study confirmed a lot of previous findings about coping strategies in general and those coping strategies used by emergency service employees specifically social support from peers and family members in particular, especially colleagues and spousal partners was a very significant coping strategy amongst the participants. In addition personal strategies like cognitive restructuring – i.e. changing the meaning of the stressor, tension reduction strategies like praying and meditating, problem-solving were also used and engaging in hobbies and recreational activities.

The second objective in the study sought to establish the extent to which the coping strategies were being used by the participants in the study. The strategies mentioned were used to a significantly high extent, e.g. social support by almost all participants in the study. This also true for personal strategies especially prayer, hobbies and recreational activities and problem solving. The third objective sought to establish the outcomes, effective or not, when participants used their chosen strategies. The above results suggest that social support and the personal strategies used were highly beneficial to the participants as opposed to those they did not use. Literature has also confirmed the positive benefits of these strategies. Some of the least strategies were in fact not functional like self-medication.

Although organisational issues were not part of the present study, they also came out as burning issues, especially human and physical resources, availability and accessibility of counselling services, communication and the perception of not being understood and therefore neglected by management.

"Instead of seeing the rug being pulled from under us, we must learn to dance on a shifting carpet" – Thomas Crum"

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8. APPENDICES

APPENDIX 8.1 QUESTIONNAIRE ON THE COPING STRATEGIES USED BY THE EKURHULENI EMERGENCY SERVICE EMPLOYEES.

1. Biographical Information

1.1 Race

African	
Coloured	
Indian	
White	

1.2 Gender

Female	
Male	

1.3 Age Group

18 - 25	
26 - 35	
36 - 45	
46 - 55	
56 & over	

1.4 Marital Status

Single	
Married	
Separated	
Divorced	
Widowed	

1.5 Emergency Work Experience

0 - 4 years	
5 - 9	
10 - 14	
15 - 19	
20 - 24	
25 & over	

1.6 Level of Education

Grade 9 & below	
Grade 10 - 11	
Grade 12	
Tertiary/technikon	
Any other	

Specify in case of any other:

_____

_____

1.7 Specific Emergency Work Training

(Tick where applicable)

Basic Life Support		Hazmat (Hazardous Material) Awareness (level I)	
Intermediate Life Support		Hazmat Operation (level II)	
Advanced Life Support		Rescue Technician	
Paramedics		Urban Search and Rescue	
Fire Fighter I		National Diploma Fire	
Fire Fighter II		National Diploma Emergency Management Services	
Fire Investigation		Bachelor of Technology	
Fire Technology			
Advanced Fire Prevention		Any Other Further Training	

Specify in case of any other further training:

_____
_____
_____

2. Coping Resources and Strategies

2.1 Coping

What does the term 'coping' mean to you?

_____
_____
_____
_____
_____
_____

How do you usually cope when you are under a lot of stress or have responded to a traumatic call?

_____
_____
_____
_____
_____
_____

2.2 Peers (Colleagues)

Please specify the kind of work experiences you usually share your work experiences with colleagues and why?

_____
_____
_____
_____
_____
_____

How helpful have you found them to be? Please explain :

_____
_____

_____
_____
_____
_____

Have you ever been disappointed after trying to share your story with a colleague? Yes/No

Please explain:

_____
_____
_____
_____
_____
_____
_____

2.2 Family resource utilisation

Do you ever share your workplace experiences with any of your family members, direct or extended family? Yes/No

If yes, specify who it is (e.g. wife, cousin, sister, aunt, etc.) even if it is more than one, and indicate whether he/she lives with you:

_____
_____
_____

Are you selective at all in what you share with family or are you comfortable to share just anything regarding your traumatic work experiences?

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Do you find this helpful? Please explain:

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Would your experience above be similar to as when you share with colleagues? Please explain:

_____
_____

2.3 Counselling

2.3.1 Workplace

Are you aware of the availability of counselling services at your workplace? Yes/No.

If yes, are these easily accessible? Please explain:

Do you make use of them? If yes, give frequency and explain the outcomes.

How readily available are the services when needed? (e.g. immediately or one has to book in advance, personally or via the Human Resource Department).

What is your opinion about the adequacy of the above services? Please explain your answer.

_____
_____
_____
_____

If you are of the opinion that any changes are required, please suggest recommendations.

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

If you do not make use of these services, please give reasons:

_____
_____
_____
_____
_____
_____
_____

2.3.2 Counselling resources outside the workplace

Do you make use of personal resources outside those at your workplace? If yes, specify the kind of resource preferred (e.g. priest, social worker, psychologist, traditional healer, etc) as well as give reasons for your preference.

_____
_____
_____
_____
_____
_____
_____

2.4 Personal Strategies

2.4.1 Stress monitoring

Are you aware of any bodily reaction/s in yourself before, during or after a call (e.g of the development of tension in your muscles, rising anxiety, etc.)? If yes, specify your reaction/s.

_____
_____
_____
_____
_____
_____
_____

If the answer to the above is yes, please explain how you usually address or deal with these reaction/s:

_____
_____

_____
_____
_____
_____
_____

2..4.2 Changing Perceptions as a coping strategy

Do you engage in any or a combination of the following as part of your coping strategy? Tick where applicable.

Humour	
Eliminate bad thoughts	
Stop thinking	
Control emotions	
Other (specify)	

Please explain the outcome:

_____
_____
_____
_____
_____
_____

2.4.3 Problem Solving as a coping strategy

Do you engage in the above process partially or procedurally as indicated below:
Tick where applicable.

Identify the problem	
Generate possible solutions	
Decide on an option	
Act on the option of choice	
Evaluate outcome	

Explain outcome (e.g. feeling of relief, more in control, etc.):

_____
_____
_____
_____
_____

2.4.4 Hobbies and Recreational Activities as Coping Strategies

Which of the following hobbies do you engage in, in order to relieve work related stress?

Going to the gym	
Running or engaging in a sports game	
Reading	
Having a “good time” with friends	
Watching movies, DVDs	
Watching sports live	
Any other hobbies (specify)	

Give reasons for your choice of hobby:

_____
_____
_____
_____
_____

2. 4.5 Tension reduction strategies:

Do you engage in any of the following to reduce tension in your body?

Meditation	
Praying	
Any other similar activity	

If yes, explain outcome of any such activity (please explain for any other):

_____
_____
_____
_____
_____
_____

2.4.6 Structuring

Do you collect and use available resources to deal with potentially stressful or traumatic events? If yes, specify the kind of resources you would collect, and what the outcome of your efforts have been:

_____
_____
_____
_____
_____
_____

2.4.7 Defense mechanisms

Do you engage in any of the following defense mechanisms after a highly stressful or traumatic call?

Denial or suppression of your thoughts (i.e. eliminating the unpleasant situation).	
Intellectualisation (i.e. translating your feelings into thoughts). This helps to block out what we do not want to deal with immediately.	
Avoidance or withdrawal (i.e. leaving the scene either physically or mentally, being absent)	

If yes, explain the outcome (e.g. relief, more in control, etc.) of the above:

_____
_____
_____
_____
_____
_____

2.5 Self-medication as a coping strategy

Do you ever take any or a combination of the following items after a highly stressful or traumatic call?

Tranquilisers,	
Alcohol	
Drugs	

If yes, please explain outcome of the above:

_____
_____
_____
_____
_____
_____

6. Most effective and least effective coping resources/strategies

6.1 List three coping strategies that you have found the most effective - starting with the most effective. Please give reasons for your ranking.

_____
_____
_____
_____
_____
_____

6.2 List the three least effective coping strategies – starting with least effective. Please give reasons for you ranking.

_____
_____
_____
_____
_____

7. Any additional comments

_____
_____
_____
_____
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Thank you for participating in this study.

APPENDIX 8.2 INFORMATION SHEET

November 2008

Dear Sir/Madam

INVITATION TO PARTICIPATE IN A RESEARCH STUDY

I am currently studying for my Masters Degree at the University of the Witwatersrand. I would like to conduct research on "An exploration of the formal and informal coping strategies used by the Ekurhuleni Emergency Management Services employees''.

Although the research is done for academic purposes, it is hoped that its outcome will also benefit the Ekurhuleni Emergency Management Services, in that gaps might be identified and recommendations from the study will benefit the relevant unit or department if considered. Your participation will involve responding to a questionnaire with several key questions related to your work situation. Your identity will be kept confidential as you will not have to write your name or any identifying particulars, anywhere on the response sheets. The questionnaires will be destroyed immediately the study has been completed. Further, no identifying information will appear in the final research report.

I therefore invite you to assist me by participating in the research. Your involvement will require that you respond to questions in the questionnaire as honestly as possible. Completing the questionnaire will take approximately 15 minutes, at a time convenient to you. You will be given a time frame within which to respond, and a box will be put at a convenient location where you can put your questionnaire after completing it.

Please take note that you have the right to refuse to participate or withdraw your participation at any stage of the process, or not to answer any questions you might be uncomfortable with. Should you need any counselling due to your participation in the study, your need will be addressed in line with your request. Further, there will be no rewards for participating and no negative repercussions for not participating.

Thank you.

Yours faithfully,

DMA Mashigo (Maud)

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